

Hella Electrics:

Relays, Horns and Switches



Horns have a long tradition at Hella. Hella has been developing and manufacturing acoustic signal units on the highest technical level for almost 100 years.

A distinction is made between signal horns, Supertone horns, electric two-tone fanfares and compressor or pneumatic fanfares.

Signal horns make a relative hard sound which is radiated mainly focused forwards. This achieves good penetration of the traffic noise over a great distance. The sound pattern is best as a set with one high and one low tone.

Supertone horns are particularly suitable for extreme conditions since they have a greater penetration force on account of their size and more powerful electrical drive.

Electric two-tone fanfares have a full, harmonic sound. The broad sound radiation cannot be overheard even at junctions.

Compressor fanfares have an energetic double or triple sound achieved by a maintenance-free compressor.

Pneumatic fanfares are characterized by a penetrating, voluminous sound. This is generated via the vehicle pneumatic brake system.

Quality is extremely important at Hella. Safety products such as horns and fanfares demand top precision and reliability. Hella products not only comply with the strict legal regulations but also with the much more demanding requirements made by vehicle manufacturers and the aftermarket.



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Disclaimer

All information in this catalog is provided for reference use only and is subject to change without notice. Hella is not responsible for the end use of the products, and care should be taken to ensure products are suitable for the application.

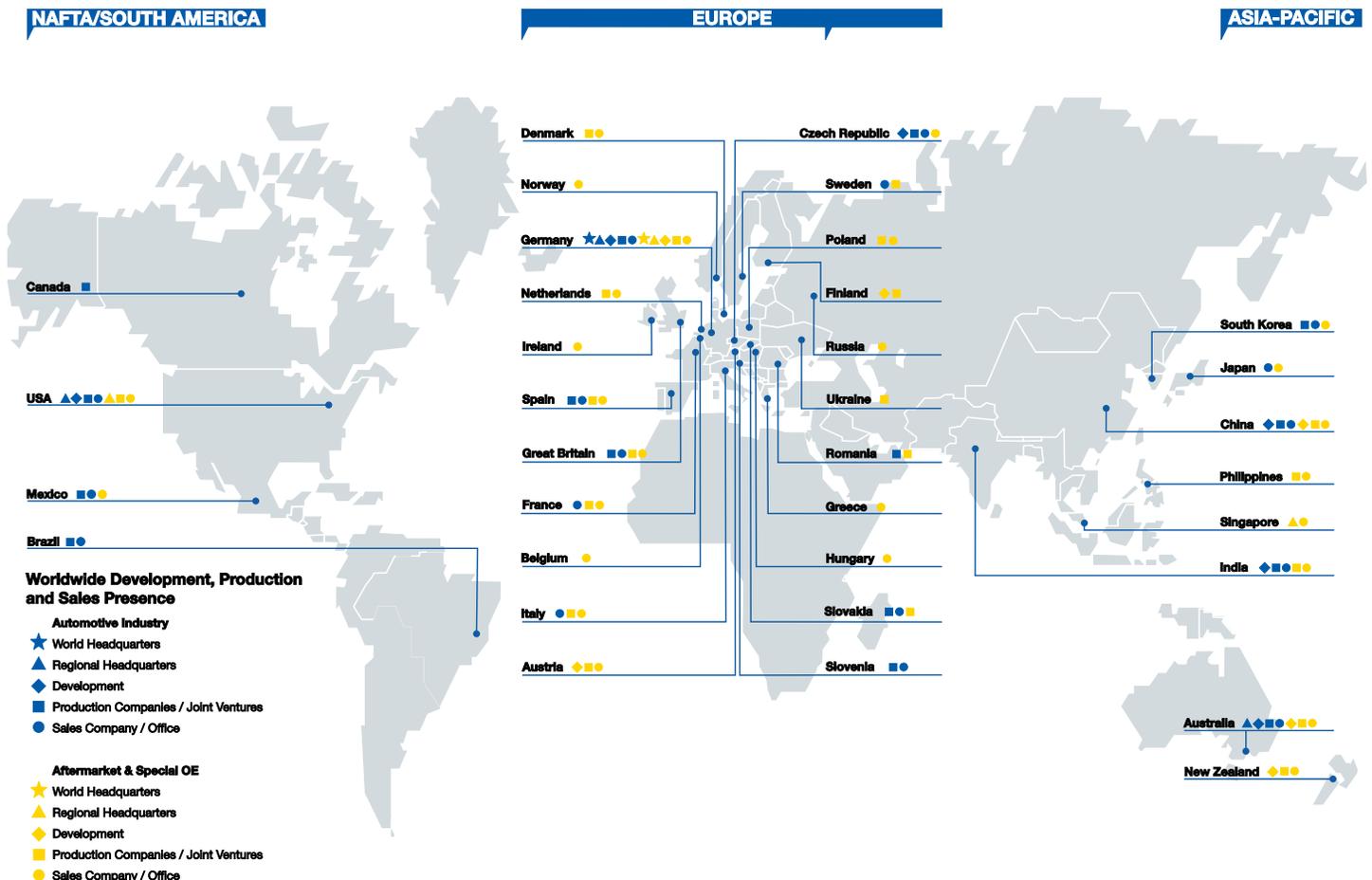
Hella Worldwide

Hella is a globally positioned, independent family-owned company with 23,000 employees at 70 locations in more than 30 countries. The Hella Group develops and manufactures lighting and electronic components and systems for the automotive industry, and still has one of the world's largest trade organizations for automotive parts, accessories, diagnosis and services. Complete vehicle modules, air-conditioning systems and vehicle electrical systems are produced in joint venture companies. With more than 3,200 people working in research and development, Hella is one of the most important innovation drivers in the market. In addition, with sales of 3.3 billion Euros in fiscal year 2008/09, the Hella Group is one of the Top 50 automotive parts suppliers in the world and one of the 100 largest German industrial companies.

Ideas today for the cars of tomorrow

Hella exploits synergies to the advantage of vehicle manufacturers, thanks to Hella's expertise in the fields of lighting and electronics and thanks to intelligent network partnerships with strategic suppliers. This offers customers the benefits of a flexible, medium-sized company and comprehensive technological solutions.

Thanks to an intelligent network strategy with suppliers, Hella is creating added value for vehicle manufacturers. It therefore offers vehicle manufacturers an attractive alternative to mega suppliers in terms of innovative ability and global presence.



Hella Automotive Electronics

Hella Automotive Electronics is Hella's world class relay manufacturing facility located in Xiamen, China. Opened in 2003 and 100% Hella owned since January 2009, Hella Automotive Electronics is Hella's global central resource for the design and production of electromechanical relays including some of our most popular products:



Hella Automotive Electronics
Xiamen, China

Hella, Inc. is the Hella sales and distribution company serving the USA, Canada, and the Caribbean. We are a world-class supplier to the automotive aftermarket, marine, and heavy-duty accounts. Hella, Inc. is also the primary marketing arm of Hella and Behr Hella Service in the USA and Canada. Marketing activities include print media, online support, trade shows, and motorsports activities. With experience as an original equipment supplier and knowledge in the European aftermarket, Hella's sales force is able to offer a service of excellence in the NAFTA region. For over 25 years Hella, Inc. has been offering German engineering with American pride to the U.S.A.

www.hellausa.com

Actuation time:

Time between switching on the power until the contacts are closed with certainty. This includes the chatter time.

Armature return force:

Force with which the contacts are pulled apart when opening measured at the center of the contact surface.

Contact force:

Force with which the closed contacts are pressed against another measured at the center of the contact surface.

Contact gap:

Air space between open contacts.

Continuous current:

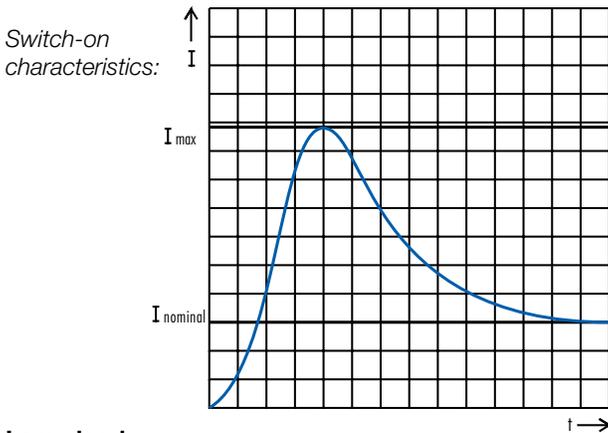
Current load through the relay which can flow continuously without damaging the relay.

Erosion margin:

Excess travel is the distance the armature moves after closing the contacts before making contact with the solenoid core measured at the contacts.

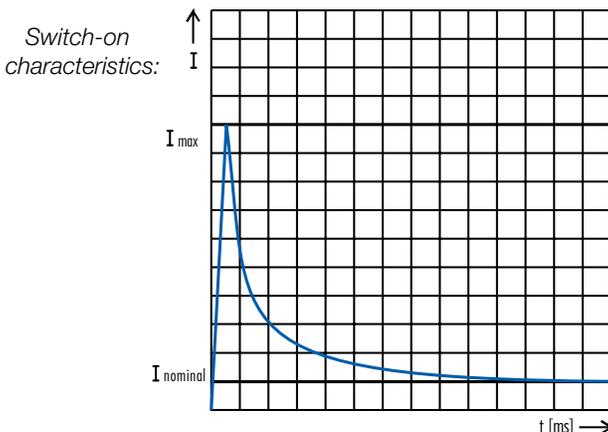
Inductive load (motor):

The switch-on current increases rapidly up to a multiple of the rated current and then flattens out to the rated current (e.g. when fan motor starts running). When switched off a voltage of up to several thousand volts can be induced leading to an arc between the relay contacts as they begin to open.



Lamp load:

The switch-on current can be up to 10 times the rated current when the lamps are cold (e.g. headlamps, glow plugs).



Mechanical service life:

Service life of relay without electrical load on contacts, the coil is actuated with 10 rectangular pulses per second for testing.

Operating voltage:

Voltage range in which the relay operates reliably at the specified temperature.

Permissible ambient temperature:

Temperature range in which the relay fulfills the specified data and operates continuously without damage.

Protective system IP 5K4K:

Hella relays are protected against unintentional contact, are splash-proof and fulfill the requirements for protective system IP 5K4K to DIN 40 050 when installed upright with the flat plugs pointing down.

Pull-in voltage:

Voltage on the coil at which the relay moves from the non-actuated position to the operating position (operating contacts closed – armature pulls in).

Rated voltage:

Voltage of vehicle electrical system, 12V or 24V .

Release time:

Time between switching off the coil current until the contacts open with certainty. This includes the chatter time.

Release voltage:

Voltage on the coil at which the relay returns from the operating position to the non-actuated position (armature is released). See pull-in voltage.

Resistive load:

The current is approximately the same from the time it is switched on until it is switched off (e.g. rear window defroster or mirror defroster).

Storage temperature:

Temperature range in which the relay can be stored without damage.

Switch-on current (inrush):

Load current flowing through the relay contacts immediately after closing.

Test temperature:

Temperature at which the service life and environmental tests are performed.

Test voltage:

Voltage at which the service life and environmental tests are performed.

Voltage drop:

Voltage loss in relay with load current applied and contacts closed measured at a load current of 10A between flat plugs of load circuit.

Winding/contact test voltage:

Voltage maintained between excitation and load circuit and between open flat plugs in load circuit up to electrical separation.

What is a relay?

Briefly: a remote-control switch in which an electro-magnetically produced force operates the contacts through which the main power current flows.

Why use a relay?

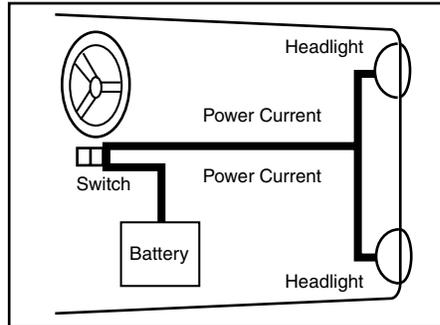
Leads are resistances. Resistances cause voltage drop, which means that consumer performance is reduced.

One of the basic rules of electricity states that the electrical resistance of a lead depends on its length and cross-sectional area. The longer and thinner it is, the greater the resistance will be. Higher resistance means less voltage at the far end of the lead, i.e. where the power user is. If the power user is a bulb, a little less voltage will mean a lot less light, as illustrated in the table below:

Operating voltage*		Luminous intensity
100%	=	100%
95%	=	83%
90%	=	67%
85%	=	53%
* 100% = 6.75 volts or 100% = 13.5 volts or 100% = 27 volts		

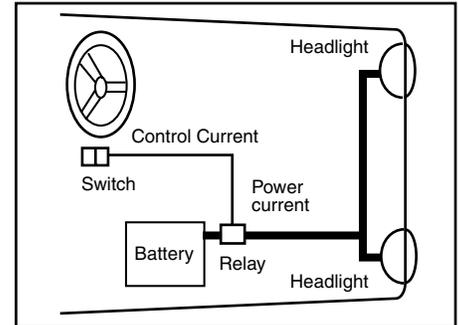
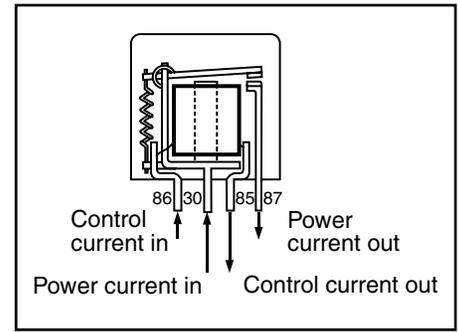
Important:

The importance of optimum operating current and the negative effect voltage drop can have, e.g. on the luminous intensity of a bulb, can be seen from the table above.



Not good:

Power current must travel from battery to headlamps - via the dashboard switch using large gauge cable. Result: voltage drop causing reduction in headlamp performance. Possible overloading of switch.

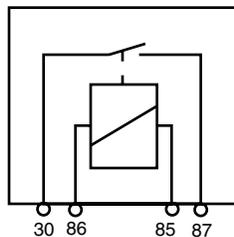


The best solution:

The power current is routed over the shortest distance between battery and headlamp via the relay. A control current lead of only 0.75 sq. mm (current consumption for this lead less than 150 mA!) is required between dashboard switch and relay. Result: practically the whole power current reaches the consumer.

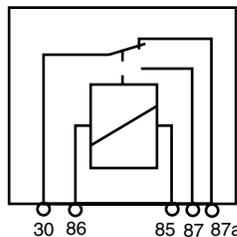
What sorts of relays are there?

1. The normally-open relay: 1 Form A (SPST-NO)



A normally-open relay closes an electrical circuit when current is passed through its coil. Normally-open relays are required for all types of vehicle lighting, horns, fanfares, heating circuits, fan motors and air-conditioning equipment.

2. The change-over relay: 1 Form C (SPDT)



A change-over relay switches current from one user to another. Change-over relays are used for switching from the horn to the fanfare, from forward to backward movement of the sliding roof, from opening to closing electrically operated windows and for two-stage users such as fans and some rear window heating systems.

Eliminating voltage spikes: Relays with resistor and diode coil suppression across terminal 85 and 86.

Voltage spikes from 300V to 500V can occur momentarily when a relay is switched off. Sensitive electronic equipment can be damaged or malfunctions can occur if these spikes reach the vehicle electrical network without suppression. A relay with a resistor reduces these voltage spikes to less than 100V. A relay with a diode eliminates them completely. The correct polarity of the connections is marked on the diode protected relay.

		007813011	H41813007	007814017	H41524021	931524027	933364027	965400001	965400007	965400031	933332101	933332107	933332111	007791011	007791017	007957001	007957007	007791021	007791027	007957011	007957017	
Package	Micro ISO	●	●	●	●	●	●															
	Mini ISO							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Mini 280																					
	Heavy Duty ISO																					
Rated Load	20 Amp	●	●	●	●	●	●						●			●	●				●	●
	30 Amp							●	●	●												
	40 Amp										●	●			●	●			●	●		
	50 Amp																					
	60 Amp																					
Voltage	12V	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	24V																					
Contact Arrangement	SPST / Form A	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	SPST / Dual Output (87)																					
	SPDT / Form C			●	●	●																
Cover Features	Dust Cover	●	●	●	●	●	●				●	●	●	●	●	●	●					
	Mounting Bracket							●	●	●									●	●	●	●
	Weatherproof Shroud																					
	Sealed																					
Coil Suppression	Coil Suppression Resistor	●	●	●	●	●								●	●	●	●	●	●	●	●	●
	Coil Suppression Diode																					
Special	Alternate Footprint with Fuse							●	●	●												
	Latching																					
	Solid State																					
Quantity	Single	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Bulk		●	●		●			●			●			●		●		●	●		●
Catalog Page		10	11	12	13	14	15	16	17	18	19	20	21									

		933332151	933332157	933791081	933791061	933791067	933791091	933332051	933332057	933332071	933332011	933332017	933332061	933332291	933332297	007794021	007794027	007794041	007794047	931680011	931680017	007903001	007903007	
Package	Micro ISO																							
	Mini ISO	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Mini 280																							
	Heavy Duty ISO																							
Rated Load	20 Amp			●						●			●										●	●
	30 Amp																							
	40 Amp	●	●		●	●	●	●	●		●	●		●	●	●	●	●	●	●	●	●	●	
	50 Amp																							
	60 Amp																							
Voltage	12V	●	●		●	●	●	●	●		●	●		●	●	●	●	●	●	●	●	●	●	
	24V			●						●			●										●	●
Contact Arrangement	SPST / Form A	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	SPST / Dual Output (87)							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	SPDT / Form C																							
Cover Features	Dust Cover	●	●	●				●	●	●			●	●	●	●	●	●	●	●				
	Mounting Bracket				●	●	●				●	●									●	●	●	●
	Weatherproof Shroud																							
	Sealed																					●	●	●
Coil Suppression	Coil Suppression Resistor						●							●	●	●	●			●	●	●	●	
	Coil Suppression Diode																	●	●			●	●	
Special	Alternate Footprint with Fuse																							
	Latching																							
	Solid State																							
Quantity	Single	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Bulk		●	●		●			●			●			●		●		●	●		●	●	
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		007903021	007903027	933332181	933332187	007794031	007794037	933332161	933332167	007903011	007903017	933332081	003530001 ⁽¹⁾	003530007 ⁽¹⁾	003530041 ⁽²⁾	H41773001	931773987	007794321	007794327	007794301	007794307	933332201	933332207	
Package	Micro ISO Mini ISO Mini 280 Heavy Duty ISO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Rated Load	20 Amp 30 Amp 40 Amp 50 Amp 60 Amp	•	•					•	•	•	•	•	•	•		•	•						•	•
Voltage	12V 24V	•	•			•	•			•	•		•	•	•	•	•	•	•	•	•		•	•
Contact Arrangement	SPST / Form A SPST / Dual Output (87) SPDT / Form C												•	•	•	•	•							
Cover Features	Dust Cover Mounting Bracket Weatherproof Shroud Sealed	•	•																					
Coil Suppression	Coil Suppression Resistor Coil Suppression Diode	•	•			•	•	•	•	•	•							•	•	•	•	•	•	•
Special	Alternate Footprint with Fuse Latching Solid State												•	•	•									
Quantity	Single Bulk	•		•		•		•		•		•		•		•		•		•		•		•
Catalog Page		35	36	37	38	39	40	41	42	43	44	45	46											

⁽¹⁾ Fused at 15 Amps

⁽²⁾ Fused at 25 Amps

		007793031	007793037	007793041	007793047	H41410051	931410057	H41410081	931410087	003437081	003437087	003437101	H41437091	003437097										
Package	Micro ISO Mini ISO Mini 280 Heavy Duty ISO		•	•	•																			
Rated Load	20 Amp 30 Amp 40 Amp 50 Amp 60 Amp																							
Voltage	12V 24V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Contact Arrangement	SPST / Form A SPST / Dual Output (87) SPDT / Form C	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Cover Features	Dust Cover Mounting Bracket Weatherproof Shroud Sealed	•	•																					
Coil Suppression	Coil Suppression Resistor Coil Suppression Diode	•	•	•	•	•	•	•	•															
Special	Alternate Footprint with Fuse Latching Solid State																							
Quantity	Single Bulk	•		•		•		•		•		•		•		•		•		•		•		•
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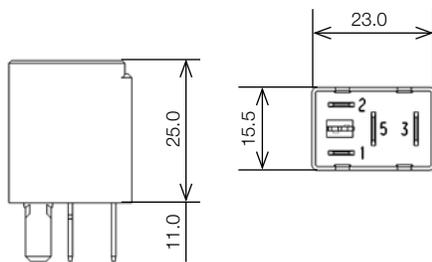


Part No.

007813011 - Single - Min Order Qty: 1
H41813007 - Bulk- Min Order Qty: 350



Dimension Drawing



Technical Data

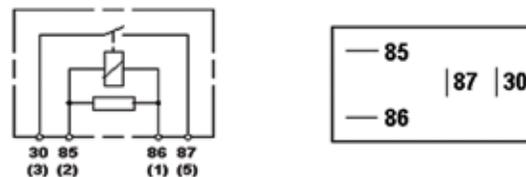
Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	120A resistive load
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	20A , 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	15A, 150,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	80A inrush / 16A steady, 150,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	92 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 470 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 4.8 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Micro ISO Relay

- 12 Volt
- SPST / Form A
- 20 Amp Continuous
- Resistor Coil Suppression

Diagram



Accessories

- H84700001** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84700007** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- U84700007** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 3000
- H84702001** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 1
- H84702007** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 50
- U84702007** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 2,250
- H84988011** RELAY BOX 7 WAY MICRO KIT, Qty: 1
- H84991117** TERMINAL 4.8MM x 0.8MM W/ CATCH, Qty: 100
- 172611007** TERMINAL 4.8MM X 0.8MM W/ CATCH, Qty: 7000 /SPOOL
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Cross Reference

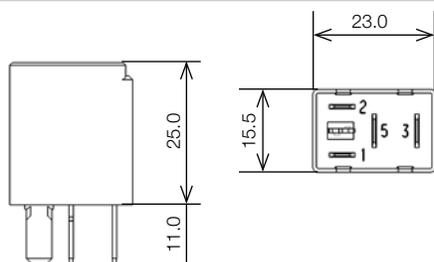
Bosch	Song Chuan
0 332 011 007	871-1A-D-R1-12V
0 332 017 300	871-1A-C-R1-12V
0 986 332 010	
0 986 332 052	Tyco
0 986 332 061	VFM-11F41-S01
0 986 332 070	V23074-A1001-A402

Part No.

007814011 - Single - Min Order Qty: 1
007814017 - Bulk - Min Order Qty: 350



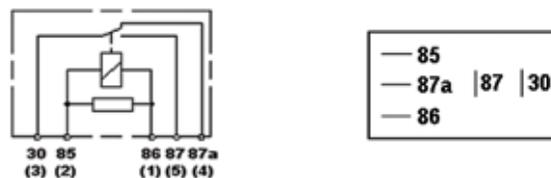
Dimension Drawing



Micro ISO Relay

- 12 Volt
- SPDT / Form C
- 20 Amp Continuous
- Resistor Coil Suppression

Diagram



Accessories

- H84700001** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84700007** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- U84700007** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 3000
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- H84988011** RELAY BOX 7 WAY MICRO KIT, Qty: 1
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- 172611007** TERMINAL 4.8MM X 0.8MM W/ CATCH, Qty: 7000 /SPOOL
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	120A resistive load
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A N/C 10A , 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 20A N/C 10A , 30,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 80A inrush / 20A steady 100,000 cycles N/C 20A inrush / 10A steady
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	92 Ohm ± 10% ((excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 470 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 4.8 x 0.8, CuZn, gal Sn 87A: ISO 8092 4.8 x 0.8, E-Cu, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

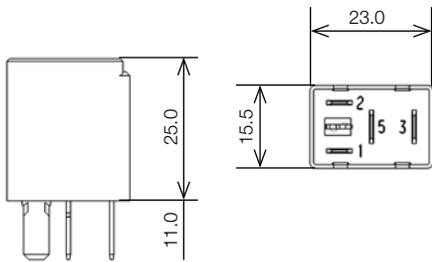
- | | |
|-------------------|-------------------|
| Bosch | Tyco |
| 0 332 201 107 | VFM-15F41-S01 |
| 0 332 207 307 | V23074-A1001-A403 |
| 0 986 332 060 | |
| Song Chuan | |
| 871-1C-D-R1-12V | |
| 871-1C-C-R1-12V | |

Part No.

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931524027 - Bulk - Min Order Qty: 693



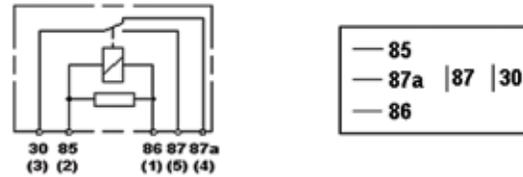
Dimension Drawing



Micro ISO Relay

- 12 Volt
- SPDT / Form C
- 20 Amp Continuous
- Resistor Coil Suppression

Diagram



Accessories

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- U84700007** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 3000
- H84702001** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 1
- H84702007** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 50
- U84702007** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 2,250
- H84988011** RELAY BOX 7 WAY MICRO KIT, Qty: 1
- H84991117** TERMINAL 4.8MM x 0.8MM W/ CATCH, Qty: 100
- 172611007** TERMINAL 4.8MM X 0.8MM W/ CATCH, Qty: 7000 /SPOOL
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	120A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A N/C 10A , 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 20A N/C 10A , 30,000 cycles
Operating / Drop out Voltage	≤ 9.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 80A inrush / 20A steady, 100,000 cycles N/C 20A inrush / 10A steady
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	92 Ohm ± 10% ((excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 4.8 x 0.8, CuZn, gal Sn 87A: ISO 8092 4.8 x 0.8, E-Cu gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

- | | |
|-------------------|-------------------|
| Bosch | Tyco |
| 0 332 201 107 | VFM-15F41-S01 |
| 0 332 207 307 | V23074-A1001-A403 |
| 0 986 332 060 | |
| Song Chuan | |
| 871-1C-D-R1-12V | |
| 871-1C-C-R1-12V | |

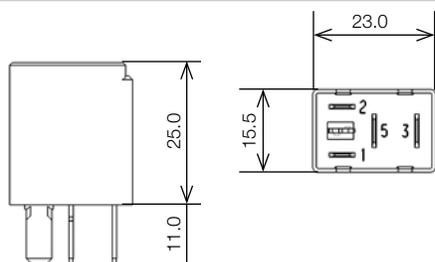


Part No.

933364027 - Bulk - Min Order Qty: 1



Dimension Drawing



Technical Data

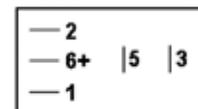
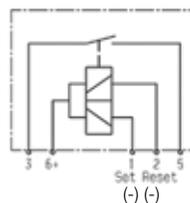
Nominal Voltage	12V	Operating / Releasing Time	Minimum on-time SET-/RESET-coil 10 ms Maximum on-time SET-/RESET-coil 1 s Pull-in delay SET-coil < 5 ms Pull-in delay RESET-coil < 5 ms
Rated Continuous Load	N/O 30A at 85°C	Dielectric Strength	≥ 800 VDC
Ambient Temperature	-40°C... +85°C	Max. Inrush Load	100A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	20A , 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	70A inrush / 20A (0.25 mH), 100,000 cycles
Operating / Drop out Voltage	≤ 6V (Operating Voltage SET) ≤ 6V (Operating Voltage RESET)	Lamp Load (capacitive) / Switching Cycles	100A inrush / 20A (300 mF), 100,000 cycles
Max.Coil Voltage	16V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	2 x 75 Ohm ± 10%	Mechanical Shock	DIN ISO 16750-3 (300m/s ² , 6ms)
Suppression	---	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	Terminals 1, 2, 6 (+): Blade Terminals ISO 8092 4.8 x 0.8 E-Cu, tin plated Terminals 3, 5: Blade Terminals ISO 8092 6.3 x 0.8 E-Cu, tin plated

Notes

Micro ISO Relay

- 12 Volt
- SPST / Form A
- 30 Amp Continuous
- Bistable / Magnetic Latching

Diagram



Accessories

- H84700001** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84700007** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- U84700007** RELAY SOCKET MICRO 5 TERM PRINTED CIRCUIT BOARD, Qty: 3000
- H84702001** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 1
- H84702007** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 50
- U84702007** RELAY SOCKET MICRO 5 TERM W/ BRACKET, Qty: 2,250
- H84988011** RELAY BOX 7 WAY MICRO KIT, Qty: 1
- H84991117** TERMINAL 4.8MM x 0.8MM W/ CATCH, Qty: 100
- 172611007** TERMINAL 4.8MM X 0.8MM W/ CATCH, Qty: 7000 /SPOOL
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

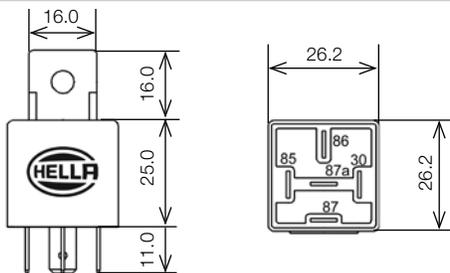
*All measurements are in Millimeters.

Part No.

965400001 - Single - Min Order Qty: 1
965400007 - Bulk - Min Order Qty: 200



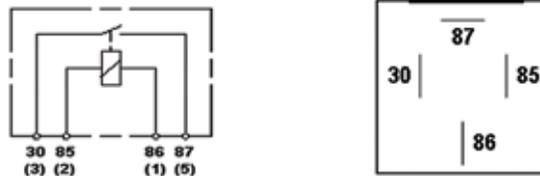
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPST / Form A
- Alternate Footprint
- 30 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 7 ms
Rated Continuous Load	30A at 85°C	Dielectric Strength	≥ 1000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	30A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	30A, 100,000 cycles
Operating / Drop out Voltage	≤ 7.2V / ≥ 1.2V	Lamp Load (capacitive) / Switching Cycles	16A, 100,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	90 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	30, 85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 87: ISO 8092 6.3 x 0.8, CuZn

Notes

Cross Reference

Song Chuan

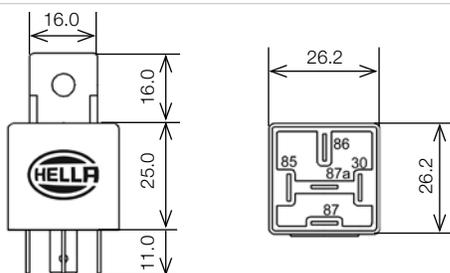
- 896H-1AH-C1-12V
- 896H-1AH-D1-12V
- 896H-1AH-C1S-12V
- 896H-1AH-D1S-12V

Part No.

965400031 - Single - Min Order Qty: 1



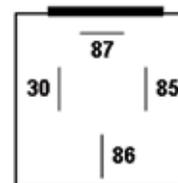
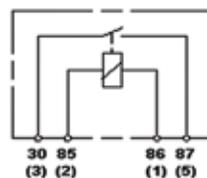
Dimension Drawing



Mini ISO Relay

- 24 Volt
- SPST / Form A
- Alternate Footprint
- 30 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	30A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	30A, 250,000 cycles
Contact Material	AgSnO ₂	Inductive load / Switching Cycles	16A, 100,000 cycles
Operating / Drop out Voltage	≤ 16.0V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	16A, 250,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	360 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	30, 85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 87: ISO 8092 6.3 x 0.8, CuZn

Notes

Cross Reference

Song Chuan

- 896H-1AH-C1-24V
- 896H-1AH-D1-24V
- 896H-1AH-C1S-24V
- 896H-1AH-D1S-24V

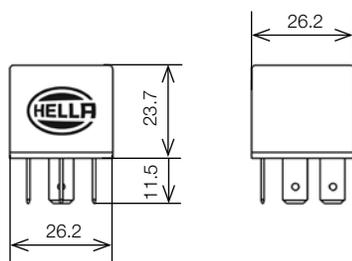


Part No.

933332101 - Single - Min Order Qty: 1
933332107 - Bulk - Min Order Qty: 200



Dimension Drawing



Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 5 ms
Rated Continuous Load	N/O 40A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	30A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	30A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Mini ISO Relay

- 12 Volt
- 40 Amp Continuous
- SPST / Form A
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Cross Reference

Song Chuan

896H-1AH-C-12V
896H-1AH-D-12V

Tyco

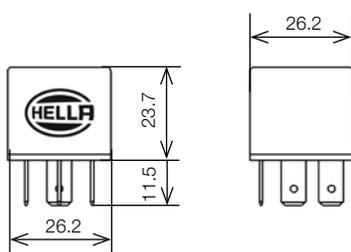
VF4-11F11
V23134-B0052-C642

Part No.

933332111 - Single - Min Order Qty: 1



Dimension Drawing



Technical Data

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120 A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	20A, 250,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	16A, 100,000 cycles
Operating / Drop out Voltage	≤ 15.6V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	16A, 250,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	350 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Mini ISO Relay

- 24 Volt
- SPST / Form A
- 20 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Notes

Cross Reference

Song Chuan

896H-1AH-C-24V
896H-1AH-D-24V

Tyco

VF4-11H11
V23134-B0053-C642

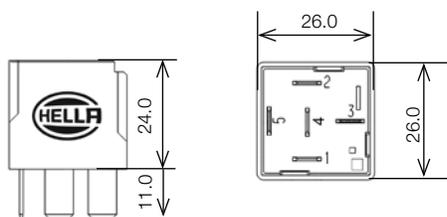


Part No.

007791011 - Single - Min Order Qty: 1
007791017 - Bulk - Min Order Qty: 200



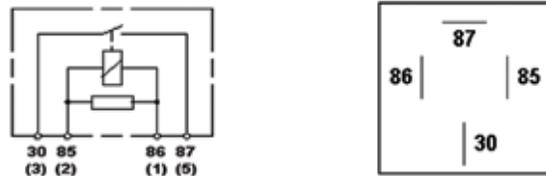
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPST / Form A
- Resistor Coil Suppression
- 40 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	35A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	30A, 100,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch	Song Chuan
0 332 019 103	896H-1AH-C-R1-12V
0 986 332 003	896H-1AH-D-R1-12V
0 986 332 040	
0 986 332 071	Tyco
0 986 332 072	VF4-11F11-S01
Cole Hersee	VF4-11F21-S01
RA-400012-DS	V23134-B0052-C642

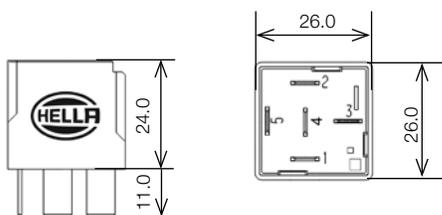


Part No.

007957001 - Single - Min Order Qty: 1
007957007 - Bulk - Min Order Qty: 200



Dimension Drawing



Mini ISO Relay

- 24 Volt
- SPST / Form A
- Resistor Coil Suppression
- 20 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	20A, 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	16A, 100,000 cycles
Operating / Drop out Voltage	≤ 17.0V / ≥ 3.5V	Lamp Load (capacitive) / Switching Cycles	15A, 135,000 cycles
Max.Coil Voltage	36V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	305 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 1200 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Cole Hersee

RA-200024-DS

Song Chuan

896H-1AH-C-R1-24V
896H-1AH-D-R1-24V

Tyco

VF4-11H11-S08
VF4-11H21-S08

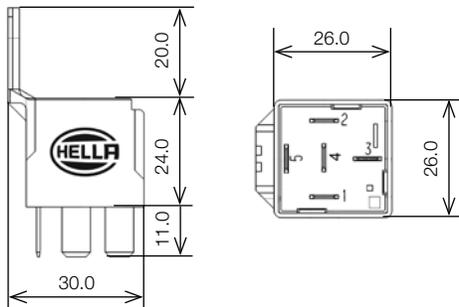


Part No.

007791021 - Single - Min Order Qty: 1
007791027 - Bulk - Min Order Qty: 200



Dimension Drawing

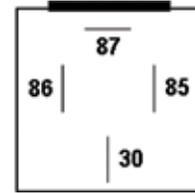
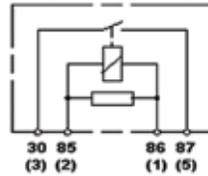


Technical Data

Mini ISO Relay

- 12 Volt
- SPST / Form A
- Resistor Coil Suppression
- 40 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	35A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	30A, 100,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch	Song Chuan
0 332 019 110	896H-1AH-C1-R1-12V
	896H-1AH-D1-R1-12V
Cole Hersee	896H-1AH-C1S-R1-12V
	896H-1AH-D1S-R1-12V
RA-400112-NN	
RA-400112-RN	
RA-400112-DN	

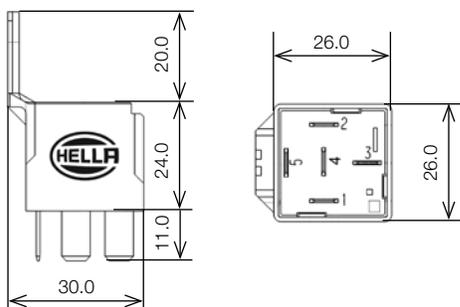


Part No.

007957011 - Single - Min Order Qty: 1
007957017 - Bulk - Min Order Qty: 200



Dimension Drawing



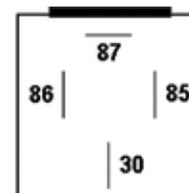
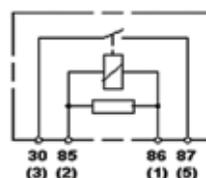
Technical Data

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	20A, 150,000 cycles
Contact Material	AgSnO ₂	Inductive load / Switching Cycles	16A, 100,000 cycles
Operating / Drop out Voltage	≤ 17.0V / ≥ 3.5V	Lamp Load (capacitive) / Switching Cycles	15A, 135,000 cycles
Max.Coil Voltage	36V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	305 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 1,200 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Mini ISO Relay

- 24 Volt
- SPST / Form A
- Resistor Coil Suppression
- 20 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Notes

Cross Reference

Cole Hersee

RA-200124-NN
 RA-200124-RN
 RA-200124-DN

Song Chuan

896H-1AH-C1-R1-24V
 896H-1AH-D1-R1-24V
 896H-1AH-C1S-R1-24V
 896H-1AH-D1S-R1-24V

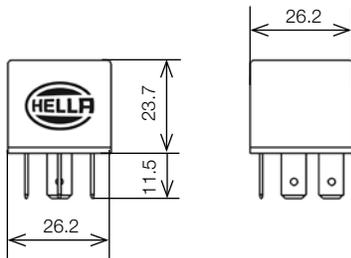


Part No.

933332151 - Single - Min Order Qty: 1
933332157 - Bulk - Min Order Qty: 200



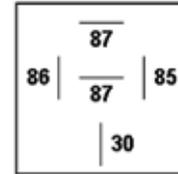
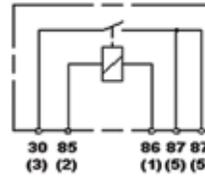
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPST / Form A
- Dual Output (2 x Terminal 87)
- 40 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 5 ms
Rated Continuous Load	40A at 85°C	Dielectric Strength	≥ 1000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form A / SPST N/O (2 x Terminal 87)	Resistive Load / Switching Cycles	40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	30A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	30A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	30, 85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 87: ISO 8092 6.3 x 0.8, CuZn

Notes

Cross Reference

Bosch

0 332 019 151

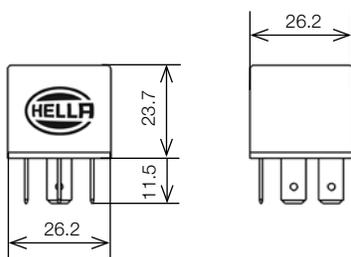
Song Chuan

896H-2AH-C-12V
896H-2AH-D-12V

Tyco

V23134-C0052-C642

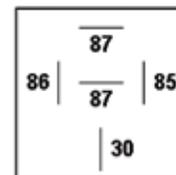
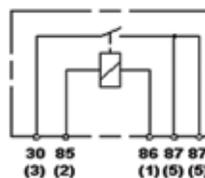


Part No.**933791081 - Single - Min Order Qty: 1****Dimension Drawing****Technical Data**

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	20A at 85°C	Dielectric Strength	≥ 1000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120A
Contact Form	1 Form A / SPST N/O (2x Terminal 87)	Resistive Load / Switching Cycles	20A, 250,000 cycles
Contact Material	AgSnO ₂	Inductive load / Switching Cycles	16A, 100,000 cycles
Operating / Drop out Voltage	≤ 15.6V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	16A, 250,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	350 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	30, 85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 87: ISO 8092 6.3 x 0.8, CuZn

Mini ISO Relay

- 24 Volt
- SPST / Form A
- Dual Output (2x Terminal 87)
- 20 Amp Continuous
- Dust Cover

Diagram**Accessories**

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Notes**Cross Reference****Bosch**

0 332 019 213

Song Chuan896H-2AH-C-24V
896H-2AH-D-24V**Tyco**

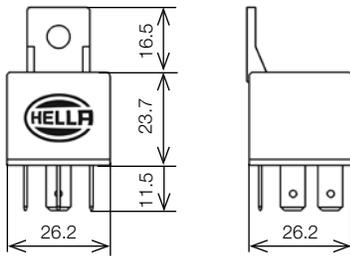
V23134-C0053-C642

Part No.

933791061 - Single - Min Order Qty: 1
933791067 - Bulk - Min Order Qty: 200



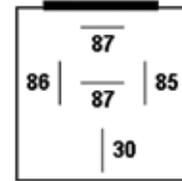
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPST / Form A
- Dual Output (2 x Terminal 87)
- 40 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 5 ms
Rated Continuous Load	40A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form A / SPST N/O (2 x Terminal 87)	Resistive Load / Switching Cycles	40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	30A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	30A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	30, 85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 87: ISO 8092 6.3 x 0.8, CuZn

Notes

Cross Reference

Bosch	Tyco
0 332 019 150	V23134-C1052-C642

Song Chuan
 896H-2AH-C1-12V
 896H-2AH-D1-12V
 896H-2AH-C1S-12V
 896H-2AH-D1S-12V

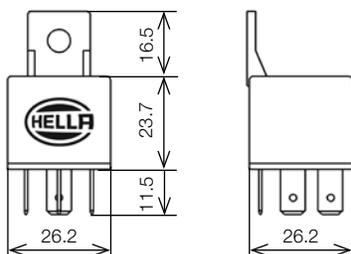


Part No.

933791091 - Single - Min Order Qty: 1



Dimension Drawing



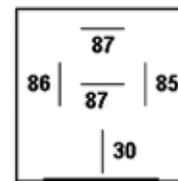
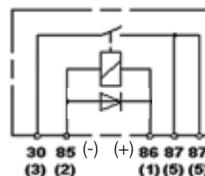
Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 15 ms
Rated Continuous Load	N/O 40A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form A / SPST N/O (2 x Terminal 87)	Resistive Load / Switching Cycles	40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	40A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	30A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	Diode	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Mini ISO Relay

- 12 Volt
- SPST / Form A
- Dual Output (2 x Terminal 87)
- 40 Amp Continuous
- Mounting Bracket
- Diode Coil Suppression

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Notes

Cross Reference

Bosch

0 332 019 155
0 332 019 213

Song Chuan

896H-2AH-C1-002-12V
896H-2AH-D1-002-12V
896H-2AH-C1S-002-12V
896H-2AH-D1S-002-12V

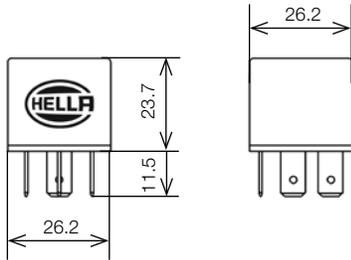


Part No.

933332051 - Single - Min Order Qty: 1
933332057 - Bulk - Min Order Qty: 200



Dimension Drawing



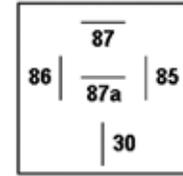
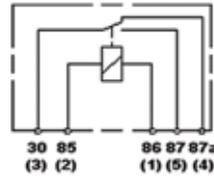
Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 5 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 40A N/C 20A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 20A, 100,000 cycles N/C 6A, 60,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 20A N/C 10A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, tin plated 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, tin plated

Mini ISO Relay

- 12 Volt
- SPDT / Form C
- 40 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Notes

Cross Reference

Bosch	Tyco
0 986 332 022	VF4-15F11
0 332 209 151	V23134-A0052-C643
Song Chuan	
896H-1CH-C-12V	
896H-1CH-D-12V	

Part No.

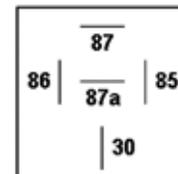
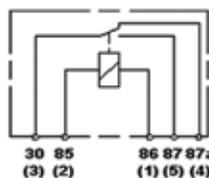
933332071 - Single - Min Order Qty: 1



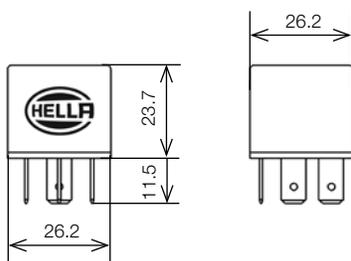
Mini ISO Relay

- 24 Volt
- SPDT / Form C
- 20 Amp Continuous
- Dust Cover

Diagram



Dimension Drawing



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Technical Data

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 100,000 cycles N/C 10A, 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles N/C 8A, 100,000 cycles
Operating / Drop out Voltage	≤ 15.6V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles N/C 5A, 135,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	350 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

- | | |
|----------------------------------|--------------------------------|
| Bosch | Tyco |
| 0 332 209 211 | VF4-15H11
V23134-A0053-C643 |
| Song Chuan | |
| 896H-1CH-C-24V
896H-1CH-D-24V | |

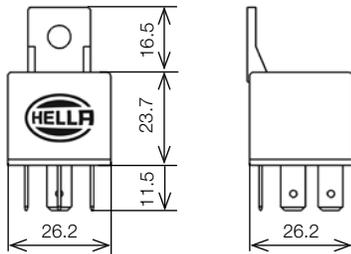


Part No.

933332011 - Single - Min Order Qty: 1
933332017 - Bulk - Min Order Qty: 200



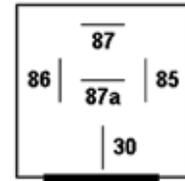
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPDT / Form C
- 40 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 5 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 40A, N/C 20A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 20A, 100,000 cycles N/C 6A, 60,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 20A N/C 10A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, tin plated 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, tin plated

Notes

Cross Reference

Bosch

0 332 209 150

Cole Hersee

RC-400112-NN

Song Chuan

896H-1CH-C1-12V
 896H-1CH-D1-12V
 896H-1CH-C1S-12V
 896H-1CH-D1S-12V

Tyco

VF4-45F11
 VF4-45F21
 V23134-A1052-C643

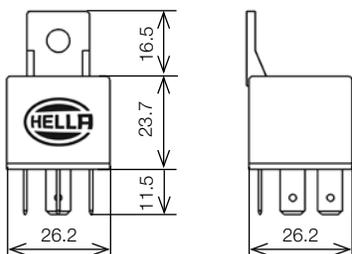


Part No.

933332061 - Bulk - Min Order Qty: 1



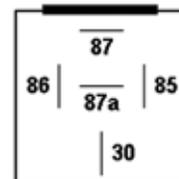
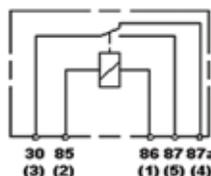
Dimension Drawing



Mini ISO Relay

- 24 Volt
- SPDT / Form C
- 20 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 100,000 cycles N/C 10A, 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles N/C 8A, 100,000 cycles
Operating / Drop out Voltage	≤ 15.6V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles N/C 5A, 135,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	350 Ohm ± 10%	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch	Song Chuan
0 332 209 203	896H-1CH-C1-24V 896H-1CH-D1-24V
Cole Hersee	896H-1CH-C1S-24V 896H-1CH-D1S-24V
RC-200124-NN	

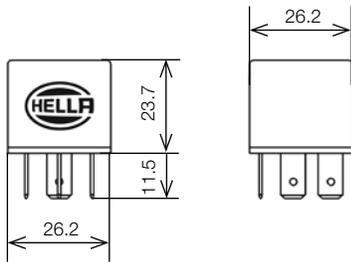


Part No.

933332291 - Single - Min Order Qty: 1
933332297 - Bulk - Min Order Qty: 200



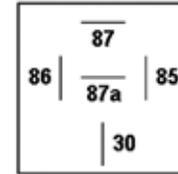
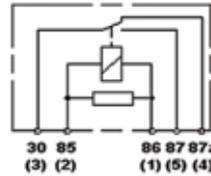
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 40A, N/C 20A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 20A, 100,000 cycles N/C 6A, 60,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 20A N/C 10A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	73.8 Ohm ± 10% (incl. suppression component)	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	Resistor, 560 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, tin plated 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, tin plated

Notes

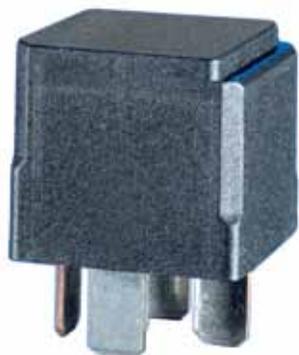
Cross Reference

Bosch	Tyco
0 332 209 137	VF4-15F11-S01
0 332 209 159	VF4-15F21-S01
0 986 332 041	
0 986 332 053	
0 986 332 073	
Song Chuan	
896H-1CH-C-R1-12V	
896H-1CH-D-R1-12V	

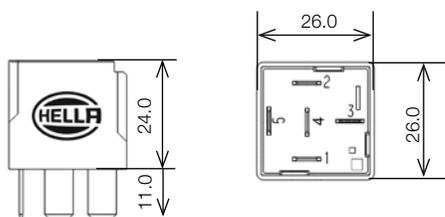


Part No.

007794021 - Single - Min Order Qty: 1
007794027 - Bulk - Min Order Qty: 200



Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 30A N/C 20A, 150,000 cycles N/O 40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 35A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 30A, 100,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch	Tyco
0 332 209 137	VF4-15F11-S01
0 332 209 159	VF4-15F21-S01
0 986 332 041	V23134-A0052-C643
0 986 332 053	V23134-J1052-D642

Song Chuan

896H-1CH-C-R1-12V
 896H-1CH-D-R1-12V

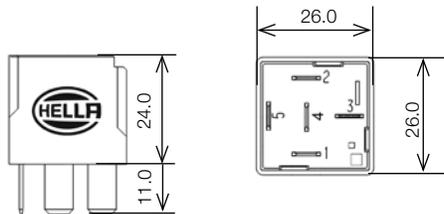


Part No.

007794041 - Single - Min Order Qty: 1
007794047 - Bulk - Min Order Qty: 200



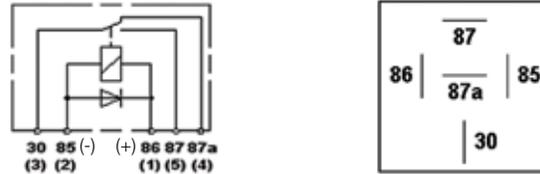
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Diode Coil Suppression
- 40 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 30A N/C 20A, 150,000 cycles N/O 40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 35A, 100,000 cycle
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 30A, 100,000 cycle
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1000 times
Suppression	Diode	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

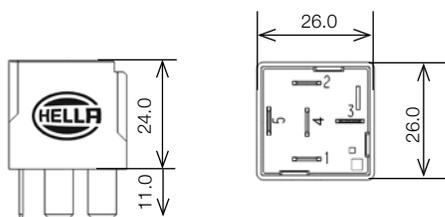
Bosch	Tyco
0 332 209 135	VF4-15F11-S05
0 332 209 152	VF4-15F21-S05
Song Chuan	
896H-1CH-C-002-12V	
896H-1CH-D-002-12V	

Part No.

931680011 - Single - Min Order Qty: 1
931680017 - Bulk - Min Order Qty: 360



Dimension Drawing



Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 30A N/C 20A , 150,000 cycles N/O 40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 35A,100,000 cycle
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 30A, 100,000 cycle
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	Relay is sealed
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Sealed Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Notes

Cross Reference

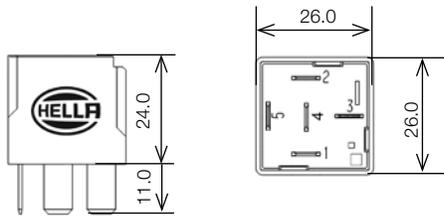
Bosch	Song Chuan
0 332 209 137 0 332 209 159	896H-1CH-S-R1-12V
Cole Hersee	Tyco
RC-400012-DS	VF4-15F11-C01 VF4-15F21-C01 V23134-A0052-C643

Part No.

007903001 - Single - Min Order Qty: 1
007903007 - Bulk - Min Order Qty: 200



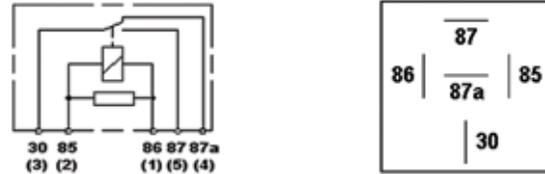
Dimension Drawing



Mini ISO Relay

- 24 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 20 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Technical Data

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles
Operating / Drop out Voltage	≤ 17.0V / ≥ 3.5V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles
Max.Coil Voltage	36V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	305 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 1,200 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch	Tyco
0 332 209 206	VF4-15H11-S08 VF4-15H21-S08
Song Chuan	
896H-1CH-C-R1-24V 896H-1CH-D-R1-24V	

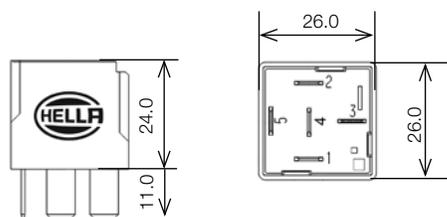


Part No.

007903021 - Single - Min Order Qty: 1
007903027 - Bulk - Min Order Qty: 200



Dimension Drawing



Mini ISO Relay

- 24 Volt
- SPDT / Form C
- Diode Coil Suppression
- 20 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 150,000 cycles
Contact Material	AgSnO ₂	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles
Operating / Drop out Voltage	≤ 17.0V / ≥ 3.5V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles
Max.Coil Voltage	36V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	305 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	diode	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch	Tyco
0 332 209 204	VF4-15H11-S05 VF4-15H21-S05
Cole Hersee	
RC-200024-DS	
Song Chuan	
896H-1CH-C-002-24V 896H-1CH-D-002-24V	

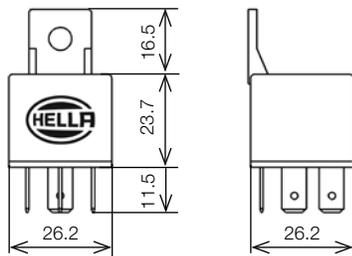


Part No.

933332181 - Single - Min Order Qty: 1
933332187 - Bulk - Min Order Qty: 200



Dimension Drawing

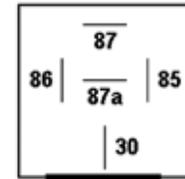
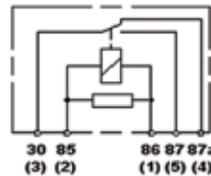


Technical Data

Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	150A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 40A, N/C 20A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 20A, 100,000 cycles N/C 6A, 60,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 20A N/C 10A, 100,000 cycles
Max.Coil Voltage	20V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	73.8 Ohm ± 10% (incl. sup- pression component)	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	Resistor, 560 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, tin plated 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, tin plated

Notes

Cross Reference

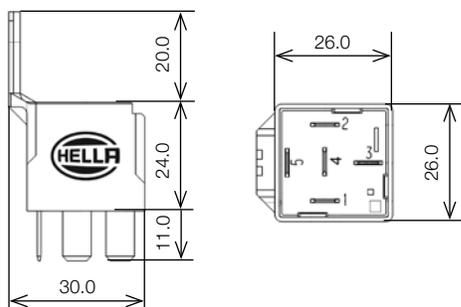
Bosch	Song Chuan
0 332 209 161	896H-1CH-C1-R1-12V 896H-1CH-D1-R1-12V
Cole Hersee	896H-1CH-C1S-R1-12V 896H-1CH-D1S-R1-12V
RC-400112-RN RC-400112-DN	Tyco
	VF4-45F11-S01 VF4-45F21-S01

Part No.

007794031 - Single - Min Order Qty: 1
007794037 - Bulk - Min Order Qty: 200



Dimension Drawing



Technical Data

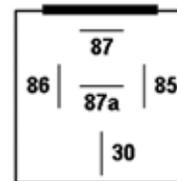
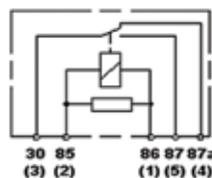
Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 30A N/C 20A , 150,000 cycles N/O 40A, 100,000 cycles
Contact Material	AgSnO ₂	Inductive load / Switching Cycles	N/O 35A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 30A, 100,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Cross Reference

Bosch

0 332 209 138

Song Chuan

896H-1CH-C1-R1-12V
 896H-1CH-D1-R1-12V
 896H-1CH-C1S-R1-12V
 896H-1CH-D1S-R1-12V

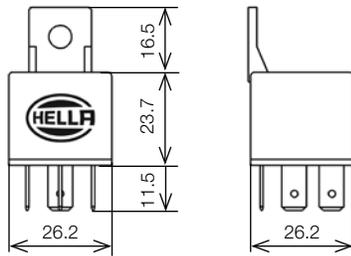


Part No.

933332161 - Single - Min Order Qty: 1
933332167 - Bulk - Min Order Qty: 200



Dimension Drawing

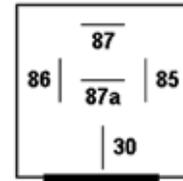
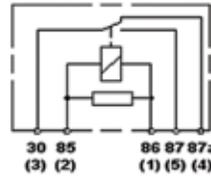


Technical Data

Mini ISO Relay

- 24 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 20 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 100,000 cycles N/C 10A, 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles N/C 8A, 100,000 cycles
Operating / Drop out Voltage	≤ 15.6V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles N/C 5A, 135,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	271 Ohm ± 10% (incl. suppression component)	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	Resistor, 1200 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, tin plated 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, tin plated

Notes

Cross Reference

Bosch	Song Chuan
0 332 209 207	896H-1CH-C1-R1-24V 896H-1CH-D1-R1-24V 896H-1CH-C1S-R1-24V 896H-1CH-D1S-R1-24V
Cole Hersee	
RC-200124-RN	Tyco
	VF4-45H11-S08 VF4-45H21-S08

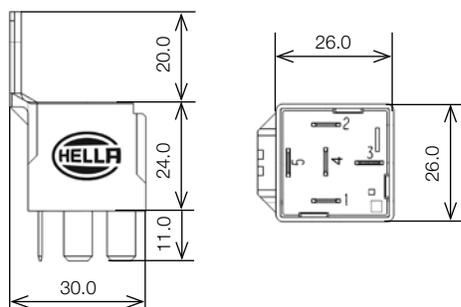


Part No.

007903011 - Single - Min Order Qty: 1
007903017 - Bulk - Min Order Qty: 200



Dimension Drawing



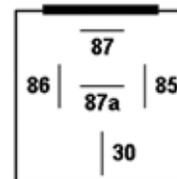
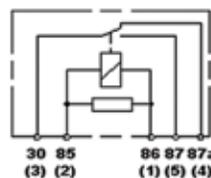
Technical Data

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 150,000 cycles
Contact Material	AgSnO ₂	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles
Operating / Drop out Voltage	≤ 17.0V / ≥ 3.5V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles
Max.Coil Voltage	36V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	305 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 1,200 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Mini ISO Relay

- 24 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 20 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Notes

Cross Reference

Bosch

0 332 209 207

Song Chuan

896H-1CH-C1-R1-24V
 896H-1CH-D1-R1-24V
 896H-1CH-C1S-R1-24V
 896H-1CH-D1S-R1-24V

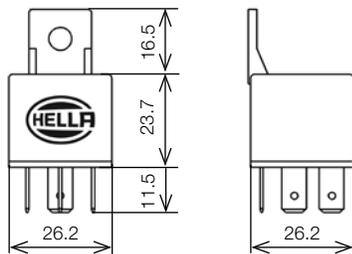


Part No.

933332081 - Single - Min Order Qty: 1



Dimension Drawing

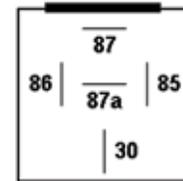
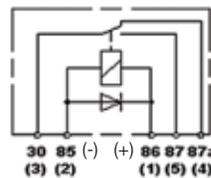


Technical Data

Mini ISO Relay

- 24 Volt
- SPDT / Form C
- Diode Coil Suppression
- 20 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 80
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 15 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 100,000 cycles N/C 10A, 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles N/C 8A, 100,000 cycles
Operating / Drop out Voltage	≤ 15.6V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles N/C 5A, 135,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	350 Ohm ± 10% (including suppression component)	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	Diode	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Cole Hersee

RC-200124-DN

Song Chuan

896H-1CH-C1-002-24V
896H-1CH-D1-002-24V
896H-1CH-C1S-002-24V
896H-1CH-D1S-002-24V

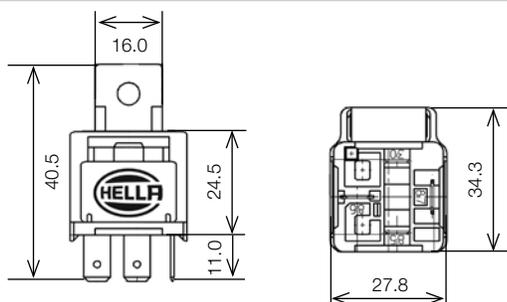


Part No.

003530001 - Single - Min Order Qty: 1
003530007 - Bulk - Min Order Qty: 112



Dimension Drawing



Technical Data

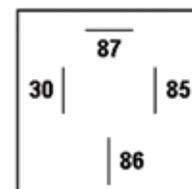
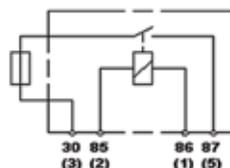
Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 15A at 23°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	---
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	N/O 15A, 100,000 cycles
Contact Material	AgNi	Inductive load / Switching Cycles	---
Operating / Drop out Voltage	≤ 9.0V / ≥ 1.3V	Lamp Load (capacitive) / Switching Cycles	---
Max.Coil Voltage	24V	Vibration	20 – 200 Hz, 50 m/s ² 6 h per axis
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Fuse	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, St3, gal Sn 30: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 87: ISO 8092 6.3 x 0.8, E-Cu

Notes

Mini ISO Relay with 15A Fuse

- 12 Volt
- SPST / Form A
- With Built-in 15 Amp Fuse
- 15 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

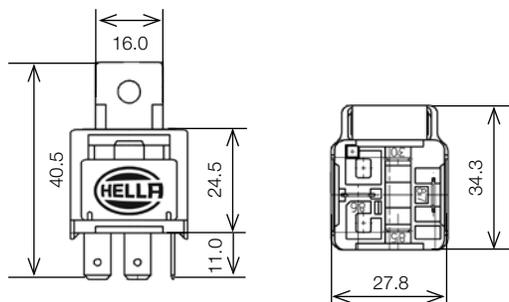
*All measurements are in Millimeters.

Part No.

003530041 - Single - Min Order Qty: 1



Dimension Drawing

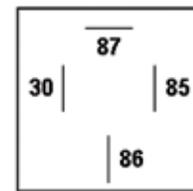
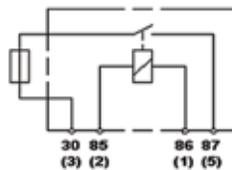


Technical Data

Mini ISO Relay with 25A Fuse

- 12 Volt
- SPST / Form A
- With Built-in 25 Amp Fuse
- 25 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 25A at 23°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	---
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	N/O 25A, 100,000 cycles
Contact Material	AgNi	Inductive load / Switching Cycles	---
Operating / Drop out Voltage	≤ 9.0V / ≥ 1.3V	Lamp Load (capacitive) / Switching Cycles	---
Max.Coil Voltage	24V	Vibration	20 – 200 Hz, 50 m/s ² 6 h per axis
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Fuse	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, St3, gal Sn 30: ISO 8092 6.3 x 0.8, E-Cu, gal Sn 87: ISO 8092 6.3 x 0.8, E-Cu

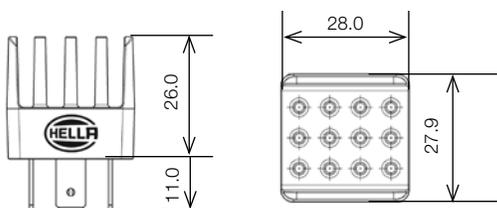
Notes

Part No.

H41773001 - Single - Min Order Qty: 1
931773987 - Bulk - Min Order Qty: 324



Dimension Drawing



Technical Data

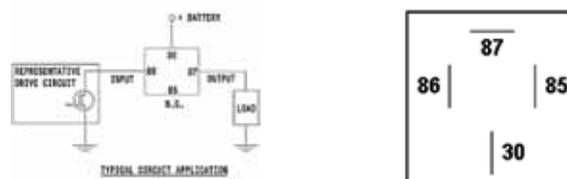
Nominal Voltage	12V	Operating / Releasing Time	100 μs / 75μs (typical)
Rated Continuous Load	N/O 20A at 85°C	Dielectric Strength	
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	overload protected at 80A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	30A at 25°C
Contact Material	Solid State	Inductive load / Switching Cycles	
Operating / Drop out Voltage	on voltage < 9.0V off voltage > 11.5V	Lamp Load (capacitive) / Switching Cycles	
Max.Coil Voltage	16V	Vibration	10 Hz to 2 kHz, 0.06 inch, 6 G, 7 inch / second, 4 hours
Switching Frequency	0 Hz...1000 Hz	Mechanical Shock	30 G peak half - sine wave, 11 mSec, 8 (4 shocks per axis, + and - directions)
Duty Cycles	10%...90% On	IP Rating	IP 67 DIN 40050
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Mini ISO Solid State Relay

- 12 Volt
- SPST / Form A
- Solid State Switch
- 20 Amp Continuous
- Sealed Cover

Diagram



Accessories

- H84989031** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 1
- H84989037** RELAY SOCKET MINI 5 TERM PRINTED CIRCUIT BOARD, Qty: 50
- H84989011** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1
- H84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 50
- U84989017** RELAY SOCKET MINI 5 TERM W/ BRACKET, Qty: 1,000
- H84526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1
- 003526002** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 50
- 003526001** RELAY SOCKET MINI 5/9 TERM W/ BRACKET, Qty: 1,000
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

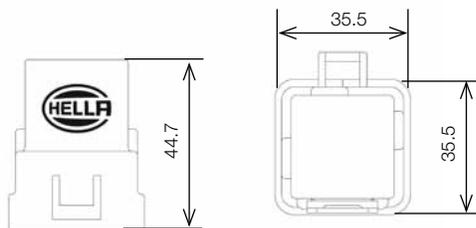


Part No.

007794321 - Single - Min Order Qty: 1
007794327 - Bulk - Min Order Qty: 150



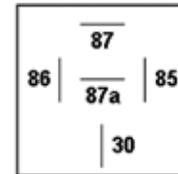
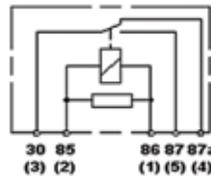
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Weatherproof Cover

Diagram



Accessories

- H84709001** RELAY CONN F/ ISO WEATHERPROOF TYPE W/ 12" LEADS, Qty: 5
- H84709011** ISO MINI WEATHERPROOF RELAY CONNECTOR KIT Qty: 1
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- U84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 3000
- 701235033** TERMINAL 6.3MM X 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM X 0.8MM W/ CATCH, Qty: 1000
- H84975001** RELAY METAL BRACKET F/WEATHERPROOF HOUSING, Qty: 10
- 960975001** RELAY METAL BRACKET F/WEATHERPROOF HOUSING, Qty: 100

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 30A N/C 20A , 150,000 cycles N/O 40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 35A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 30A, 100,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch

0 332 204 185

Tyco

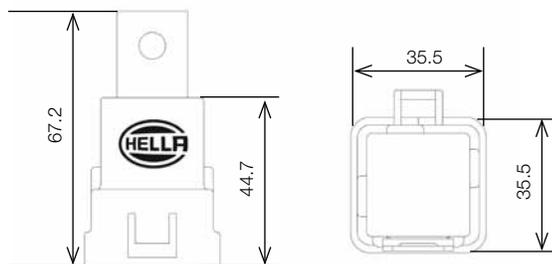
VF4-35F11-S01
VF4-35F21-S01

Part No.

007794301 - Single - Min Order Qty: 1
007794307 - Bulk - Min Order Qty: 150



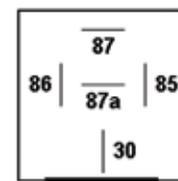
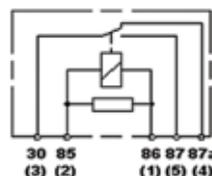
Dimension Drawing



Mini ISO Relay

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Weatherproof Cover
- Mounting Bracket

Diagram



Accessories

- H84709001** RELAY CONN F/ ISO WEATHERPROOF TYPE W/12" LEADS, Qty: 5
- H84709011** ISO MINI WEATHERPROOF RELAY CONNECTOR KIT Qty: 1
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- U84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 3000
- 701235033** TERMINAL 6.3MM X 0.8 W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM X 0.8 W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 30A N/C 20A , 150,000 cycles N/O 40A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 35A, 100,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 30A, 100,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87, 87A: ISO 8092 6.3 x 0.8, E-Cu, gal Sn

Notes

Cross Reference

Bosch

0 332 204 184

Song Chuan

896H-1CH-D1SW-R1-12V

Tyco

VF4-65F11-S01

VF4-65F21-S01



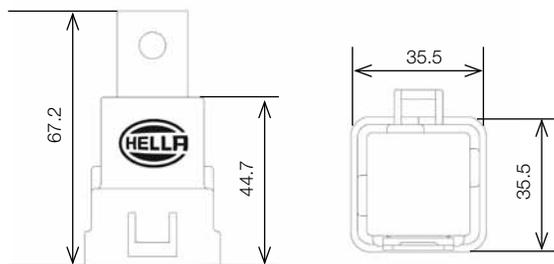
Part No.

933332201 - Single - Min Order Qty: 1

933332207 - Bulk - Min Order Qty: 80



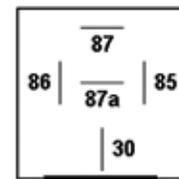
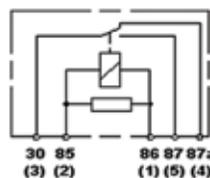
Dimension Drawing



Mini ISO Relay

- 24 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 20 Amp Continuous
- Weatherproof Cover
- Mounting Bracket

Diagram



Accessories

- H84709001** RELAY CONN F/ ISO WEATHERPROOF TYPE W/ 12" LEADS, Qty: 5
- H84709011** ISO MINI WEATHERPROOF RELAY CONNECTOR KIT Qty: 1
- H84989021** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 1
- H84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 50
- U84989027** RELAY SOCKET MINI 5 TERM F/HARNESS, Qty: 3,000
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 20A N/C 10A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	120A
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 20A, 100,000 cycles N/C 10A, 150,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 16A, 100,000 cycles N/C 8A, 100,000 cycles
Operating / Drop out Voltage	≤ 14.4V / ≥ 2.4V	Lamp Load (capacitive) / Switching Cycles	N/O 15A, 135,000 cycles N/C 5A, 135,000 cycles
Max.Coil Voltage	40V	Vibration	20 – 200 Hz, 5 g; no contact openings > 10 μs
Coil Resistance	277 Ohm ± 10% (incl. suppression component)	Mechanical Shock	Min. 10 g, 11 ms; no contact openings > 10 μs
Suppression	Resistor, 1200 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, E-Cu, tin plated 30, 87, 87a: ISO 8092 6.3 x 0.8, E-Cu, tin plated

Notes

Cross Reference

Song Chuan

896H-1CH-D1SW-R1-24V

Tyco

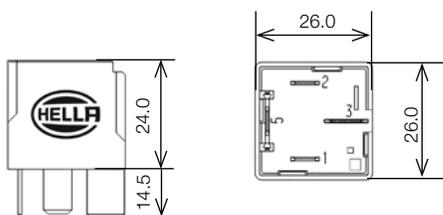
VF4-65H11-S08
VF4-65H21-S08

Part No.

007793031 - Single - Min Order Qty: 1
007793037 - Bulk - Min Order Qty: 360



Dimension Drawing



Mini ISO Power Relay

- 12 Volt
- SPST / Form A
- Resistor Coil Suppression
- 50 Amp Continuous
- Dust Cover

Diagram



Accessories

- H84703001** RELAY SOCKET 50A 4 TERM, Qty: 1
- H84703007** RELAY SOCKET 50A 4 TERM, Qty: 50
- U84703007** RELAY SOCKET 50A 4 TERM, Qty: 2,100
- H84991151** TERMINAL 9.5MM x 1.2MM W/ CATCH 4.0-6.0mm2, Qty: 50
- 172615007** TERMINAL 9.5MM x 1.2MM W/ CATCH 4.0-6.0mm2, Qty: 2,000 /Spool
- H84991141** TERMINAL 9.5MM x 1.2MM W/ CATCH 6.0-10.0mm2, Qty: 50
- 172616007** TERMINAL 9.5MM x 1.2MM W/ CATCH 6.0-10.0mm2, Qty: 1,800 /Spool
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

Technical Data

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 50A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	200A lamp / 150A motor
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	50 A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	150A inrush / 50A steady, 150,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.3V	Lamp Load (capacitive) / Switching Cycles	200A inrush / 40A steady, 150,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppressive component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 9.5 x 1.2, E-Cu, gal Sn

Notes

Cross Reference

Bosch

- 0 986 332 001
- 0 986 332 002
- 0 986 332 023
- 0 986 332 050

Tyco

VF7-11F11-S01

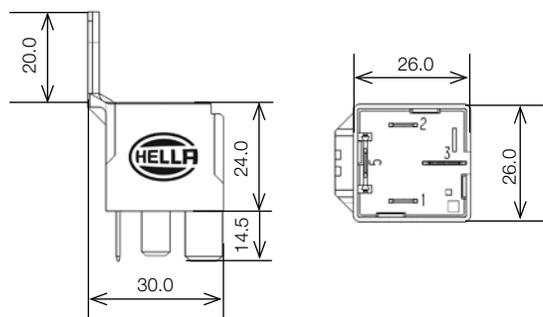


Part No.

007793041 - Single - Min Order Qty: 1
007793047 - Bulk - Min Order Qty: 175



Dimension Drawing



Technical Data

Mini ISO Power Relay

- 12 Volt
- SPST / Form A
- Resistor Coil Suppression
- 50 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84703001** RELAY SOCKET 50A 4 TERM, Qty: 1
- H84703007** RELAY SOCKET 50A 4 TERM, Qty: 50
- U84703007** RELAY SOCKET 50A 4 TERM, Qty: 2,100
- H84991151** TERMINAL 9.5MM x 1.2MM W/ CATCH 4.0-6.0mm2, Qty: 50
- 172615007** TERMINAL 9.5MM x 1.2MM W/ CATCH 4.0-6.0mm2, Qty: 2,000 /Spool
- H84991141** TERMINAL 9.5MM x 1.2MM W/ CATCH 6.0-10.0mm2, Qty: 50
- 172616007** TERMINAL 9.5MM x 1.2MM W/ CATCH 6.0-10.0mm2, Qty: 1,800 /Spool
- 701235033** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3MM x 0.8MM W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 50A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	200A lamp / 150A motor
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	50A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	150A inrush / 50A steady, 150,000cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.3V	Lamp Load (capacitive) / Switching Cycles	200A inrush / 40A steady, 150,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	100 Ohm ± 10% (excluding suppressive component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn, gal Sn 30, 87: ISO 8092 9.5 x 1.2, E-Cu, gal Sn

Notes

Cross Reference

- Bosch**
0 332 002 192
- Cole Hersee**
RA-700112-RN
- Tyco**
VF7-41F11-S01

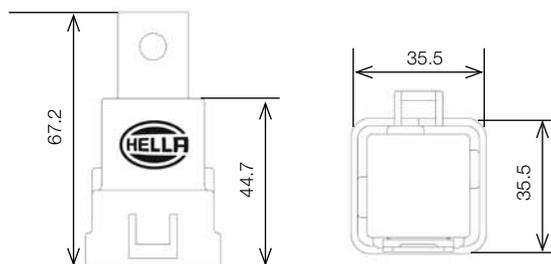


Part No.

H41410081 - Single - Min Order Qty: 1
931410087 - Bulk - Min Order Qty: 240
 (With Bracket)



Dimension Drawing



Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 40A N/C 20A at 85°C	Dielectric Strength	≥ 900 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	150A lamp / 166A motor
Contact Form	1 Form C / SPDT	Resistive Load / Switching Cycles	N/O 40A N/C 20A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	N/O 80A inrush / 33A steady, 300,000 cycles
Operating / Drop out Voltage	≤ 8.0V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	N/O 150A inrush / 30A steady, 300,000 cycles
Max.Coil Voltage	18V	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	88 Ohm ± 10% (excluding suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Resistor, 680 Ohm	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: 2.8 x 0.82, CuZn 30, 87, 87A: 2.8 x 0.82, E-Cu / CuZn

Notes

Mini 280 Relay

H41410051 - Single - Min Order Qty: 1
931410057 - Bulk - Min Order Qty: 240
 (Without Bracket)

Features

- 12 Volt
- SPDT / Form C
- Resistor Coil Suppression
- 40 Amp Continuous
- Weatherproof Cover

Diagram



Accessories

- H84708001** RELAY CONN F/ 280 WEATHERPROOF TYPE W/ 12" LEADS, Qty: 1
- H84489001** RELAY METAL BRACKET F/ WEATHERPROOF HOUSING, Qty: 10
- 931489001** RELAY METAL BRACKET F/ WEATHERPROOF HOUSING, Qty: 100
- H84991101** TERMINAL 2.8MM x 0.8MM W/ CATCH, Qty: 50
- 172609007** TERMINAL 2.8MM x 0.8MM W/ CATCH, Qty: 5000

*All measurements are in Millimeters.

Cross Reference

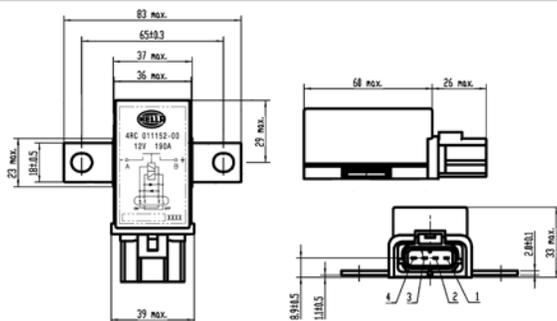
- Song Chuan**
898H-1CH-D1SW-R1-12V
- Tyco**
VF28-65F14-S01

Part No.

011152007 - Bulk - Min Order Qty: 8



Dimension Drawing



Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 20 ms / ≤ 20 ms
Rated Continuous Load	N/O 190A at 85°C	Dielectric Strength	≥ 500 VDC
Ambient Temperature	-40°C...+125°C	Max. Inrush Load	1500A (0.2 Sec at 70°C), 1000A (1 Sec) at 70°C
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	---
Contact Material	AgSnO2	Inductive load / Switching Cycles	100A, 50,000 cycles & 180A 15,000 cycles
Operating / Drop out Voltage	≤ 6.0V / ≥ 7.0V	Lamp Load (capacitive) / Switching Cycles	---
Max.Coil Voltage	28V	Vibration	22 – 500 Hz, 98 m/s ²
Coil Resistance	5 Ohm ± 10%	Mechanical Shock	392 m/s ²
Suppression	Diode	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	200,000	Connections	Coil: 4 Pole Connector (Amp 0.070 series) See Accessories Load: M8 threaded bolts

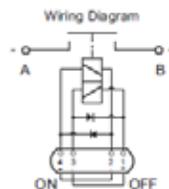
Notes

Operation: Apply a 50 ms to 100 ms impulse voltage across coil terminals so that contacts switch.

Battery Disconnect Relay

- 12 Volt
- SPST / Form A
- Diode Coil Suppression
- 190 Amp Continuous
- Bi-Stable (Latching)

Diagram



Coil terminal	Function
4	Set Coil (+)
3	Reset Coil (-)
2	Set Coil (-)
1	Reset Coil (+)
A	Load terminal
B	Load terminal

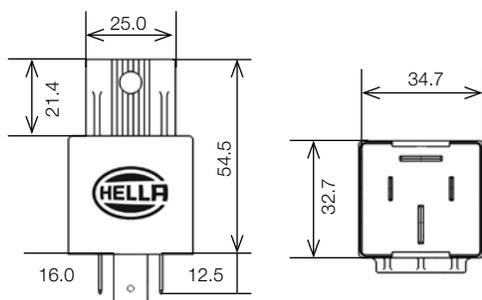
Accessories

188577001 4 Pole AMP 0.070 Series Kit



*All measurements are in Millimeters.

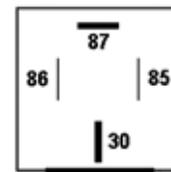
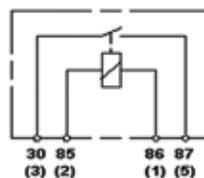
Cross Reference

Part No.**003437081 - Single - Min Order Qty: 1****003437087 - Bulk- Min Order Qty: 120****Dimension Drawing****Technical Data**

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 20 ms
Rated Continuous Load	N/O 60A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	200A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	60A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	---
Operating / Drop out Voltage	≤ 7.5V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	---
Max.Coil Voltage	---	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	85 Ohm ± 10%	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn 30: ISO 8092 9.5 x 1.2, E-Cu, gal Sn 87: ISO 8092 9.5 x 1.2, E-Cu

Notes**Mini ISO Heavy Duty Relay**

- 12 Volt
- 60 Amp Continuous
- SPST / Form A
- Mounting Bracket

Diagram**Accessories**

- H84703001** RELAY SOCKET 70A 4 TERM, Qty: 1
- H84703007** RELAY SOCKET 70A 4 TERM, Qty: 50
- U84703007** RELAY SOCKET 70A 4 TERM, Qty: 2,100
- H84991151** TERMINAL 9.5 x 1.2 W/ CATCH 4.0-6.0mm2, Qty: 50
- 172615007** TERMINAL 9.5 x 1.2 W/ CATCH 4.0-6.0mm2, Qty: 2,000 /Spool
- H84991141** TERMINAL 9.5 x 1.2 W/ CATCH 6.0-10.0mm2, Qty: 50
- 172616007** TERM 9.5 x 1.2 W/ CATCH 6.0-10.0mm2, Qty: 1,800 /Spool
- 701235033** TERMINAL 6.3 x 0.8 W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3 x 0.8 W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Cross Reference**Cole Hersee**

RA-700112-NN

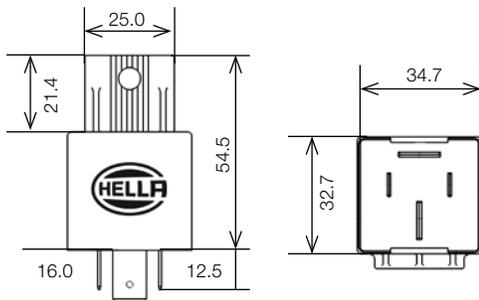
TycoVF7-41F11
V23134-J1052-D642

Part No.

003437101 - Single - Min Order Qty: 1



Dimension Drawing



Technical Data

Nominal Voltage	12V	Operating / Releasing Time	≤ 10 ms / ≤ 20 ms
Rated Continuous Load	N/O 60A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	200A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	60A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	---
Operating / Drop out Voltage	≤ 7.5V / ≥ 1.0V	Lamp Load (capacitive) / Switching Cycles	---
Max.Coil Voltage	---	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	85 Ohm ± 10% (excl. suppression component)	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	Diode 2x	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn 30: ISO 8092 9.5 x 1.2, E-Cu, gal Sn 87: ISO 8092 9.5 x 1.2, E-Cu

Notes

Mini ISO Heavy Duty Relay

- 12 Volt
- SPST / Form A
- Diode Coil Suppression
- 60 Amp Continuous
- Mounting Bracket

Diagram



Accessories

- H84703001** RELAY SOCKET 70A 4 TERM, Qty: 1
- H84703007** RELAY SOCKET 70A 4 TERM, Qty: 50
- U84703007** RELAY SOCKET 70A 4 TERM, Qty: 2,100
- H84991151** TERMINAL 9.5 x 1.2 W/ CATCH 4.0-6.0mm², Qty: 50
- 172615007** TERMINAL 9.5 x 1.2 W/ CATCH 4.0-6.0mm², Qty: 2,000 /Spool
- H84991141** TERMINAL 9.5 x 1.2 W/ CATCH 6.0-10.0mm², Qty: 50
- 172616007** TERM 9.5 x 1.2 W/ CATCH 6.0-10.0mm², Qty: 1,800 /Spool
- 701235033** TERMINAL 6.3 x 0.8 W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3 x 0.8 W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

Cross Reference

Cole Hersee

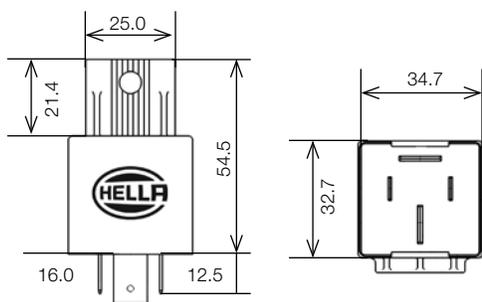
RA-700112-DN

Part No.

H41437091 - Single - Min Order Qty: 1
003437097 - Bulk- Min Order Qty: 120



Dimension Drawing



Technical Data

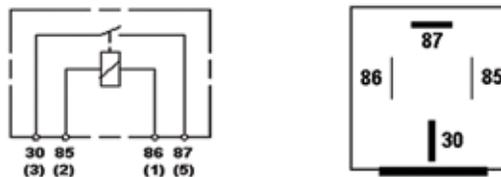
Nominal Voltage	24V	Operating / Releasing Time	≤ 10 ms / ≤ 10 ms
Rated Continuous Load	N/O 60A at 85°C	Dielectric Strength	≥ 1,000 VDC
Ambient Temperature	-40°C...+85°C	Max. Inrush Load	200A
Contact Form	1 Form A / SPST N/O	Resistive Load / Switching Cycles	60A, 100,000 cycles
Contact Material	AgSnO2	Inductive load / Switching Cycles	---
Operating / Drop out Voltage	≤ 17.0V / ≥ 5.0V	Lamp Load (capacitive) / Switching Cycles	---
Max.Coil Voltage	---	Vibration	20 – 200 Hz, 50 m/s ² , 6 h per axis
Coil Resistance	310 _ ± 10%	Mechanical Shock	500 m/s ² , 11 ms, period: 1 min, 1,000 times
Suppression	None	IP Rating	IP54 DIN IEC 60 529
Mechanical Cycles	10,000,000	Terminals	85, 86: ISO 8092 6.3 x 0.8, CuZn 30: ISO 8092 9.5 x 1.2, E-Cu, gal Sn 87: ISO 8092 9.5 x 1.2, E-Cu

Notes

Mini ISO Heavy Duty Relay

- 24 Volt
- 60 Amp Continuous
- SPST / Form A
- Mounting Bracket

Diagram



Accessories

- H84703001** RELAY SOCKET 70A 4 TERM, Qty: 1
- H84703007** RELAY SOCKET 70A 4 TERM, Qty: 50
- U84703007** RELAY SOCKET 70A 4 TERM, Qty: 2,100
- H84991151** TERMINAL 9.5 x 1.2 W/ CATCH 4.0-6.0mm², Qty: 50
- 172615007** TERMINAL 9.5 x 1.2 W/ CATCH 4.0-6.0mm², Qty: 2,000 /Spool
- H84991141** TERMINAL 9.5 x 1.2 W/ CATCH 6.0-10.0mm², Qty: 50
- 172616007** TERM 9.5 x 1.2 W/ CATCH 6.0-10.0mm², Qty: 1,800 /Spool
- 701235033** TERMINAL 6.3 x 0.8 W/ CATCH, Qty: 100
- 701235034** TERMINAL 6.3 x 0.8 W/ CATCH, Qty: 1,500

*All measurements are in Millimeters.

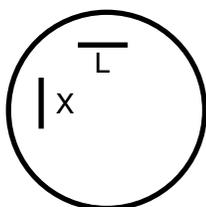
Cross Reference

Tyco
 VF7-41H11
 V23134-J1053-D642

Common Pin Designations

Terminal	Description
49/X	Flasher input (+)
49a/L	Flasher output (+) to lamps or indicator switch
30b	Flasher input (+) from hazard switch
31	Ground (-)
C/C1/CP/P	Vehicle pilot lamp output (+)
C2	1 st trailer pilot lamp output (+)
C3	2 nd trailer pilot lamp output (+)

Part No.



961553151	2 Pin Flasher Unit - 12V (Single)
961553157	2 Pin Flasher Unit - 12V (Bulk 50 Pieces)

High capacity flasher with 6 bulb maximum.
Suitable for hazard warning applications.

Max Load: 12 lamps / 25 Amps (Hazard)

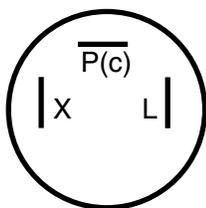
Bracket: H84677001

961553161	3 Pin Flasher Unit - 12V (Single)
961553167	3 Pin Flasher Unit - 12V (Bulk 50 Pieces)

High capacity flasher with 6 bulb maximum.
Suitable for hazard warning applications.

Max Load: 12 lamps / 25 Amps (Hazard)

Bracket: H84677001



961553171	3 Pin Flasher Unit - 24V (Single)
------------------	--

High capacity flasher with 5 bulb maximum.
Suitable for hazard warning applications.

Max Load: 10 lamps SAE # 1683 (Hazard)

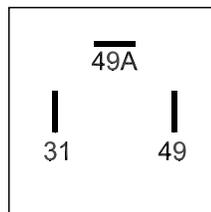
Bracket: H84677001

Part No.

H42675031	3 Pin Flasher Unit - 12V (Single)
931675037	3 Pin Flasher Unit - 12V (Bulk 320 Pieces)

High capacity flasher with 8 bulb maximum.
Suitable for hazard warning applications.

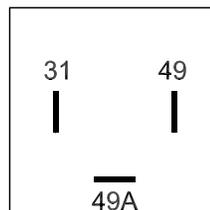
Max Load: 16 Bulbs (Hazard)



H42562061	3 Pin Flasher Unit - Sealed - 12V (Single)
931562067	3 Pin Flasher Unit - Sealed - 12V (Bulk 256 Pieces)

Sealed flasher that operates 2 bulbs on either side of vehicle.

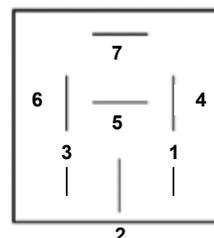
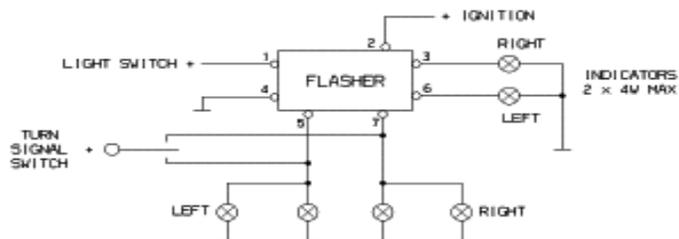
Max Load: 2 x 2.1 Amp Bulbs (Flasher)
4 x 2.1 Amp Bulbs (Hazard)



933825007	7 Pin Flasher Unit - Sealed - 12V (Bulk 387 Pieces)
------------------	--

Flasher unit that operates 2 bulbs on either side of vehicle
Separate outputs for left and right side along with left and right indicator outputs

Max Load: 4 Bulbs (Hazard)



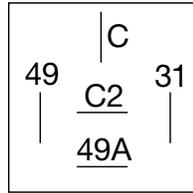
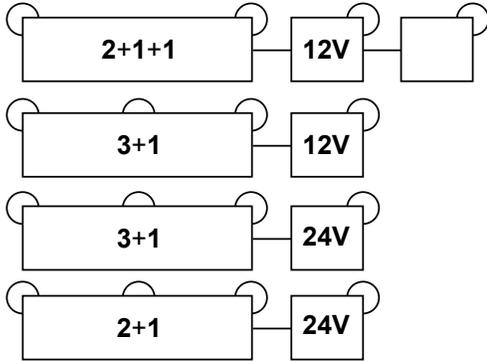


Part No.

009492101	LED Flasher Unit, 2+1+1 - 12V
009492111	LED Flasher Unit, 3+1 - 12V
009492001	LED Flasher Unit, 2+1 - 24V
009492011	LED Flasher Unit, 3+1 - 24V

Flasher units suitable for use with either bulb lamps or LED direction indicator lamps. The flasher units have two modes of warning while the indicators are operating.

- 1) Prime mover
 - Lamps will flash rapidly to indicate a failure.
- 2) Prime mover plus trailer
 - Separate pilot lamp will not illuminate to indicate a failure.



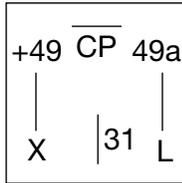
(Single)



003787071	4 Pin High Capacity Flasher Unit - 24V (Single)
-----------	---

Heavy duty flasher unit designed for loads totaling 200W.

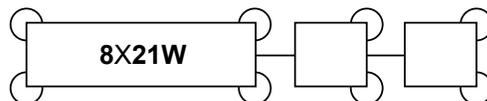
Max Load: 200W combined load



996173017	6 Pin Flasher Unit, 2+1+1 - 12V (Bulk 250 Pieces)
-----------	---

Flasher unit operates 2 bulbs on either side of towing vehicle plus an additional bulb on either side of two trailers.

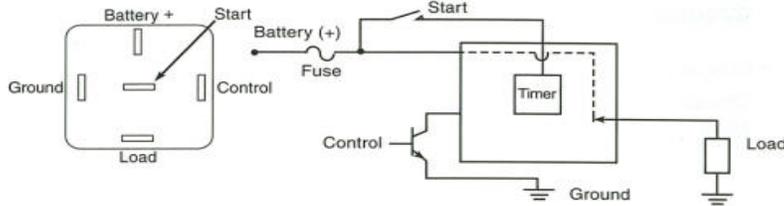
Max Load: 2 + 1 + 1(8) x 21W



Part No.

H43453011	4 Pin Time Delay Unit - 2 Second Delay on Release - 12V (Single)
931453017	4 Pin Time Delay Unit - 2 Second Delay on Release - 12V (Bulk 256 Pieces)

Fixed delay of 2 seconds
SPST relay output



H43430011	4 Pin Time Delay Unit - 5 Second Delay on Release - 12V (Single)
931430017	4 Pin Time Delay Unit - 5 Second Delay on Release - 12V (Bulk 256 Pieces)

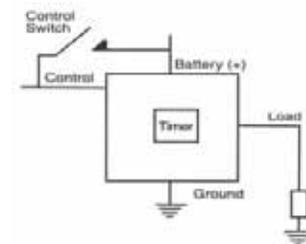
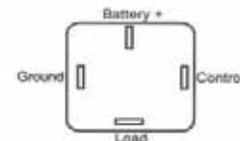
Fixed Timing
Meets All Applicable U.S. Safety Standards
Stable Electronic Timing
Fits into ISO Socket
Output SPST Relay

Max Load: 20A at 100,000 operations
Operating Voltage Range: 9 - 15V DC
Operating Temp. Range: -40°C to 60°C
Storage Temperature: -40°C to 125°C

Timing Mode

Mode: Delay on Release

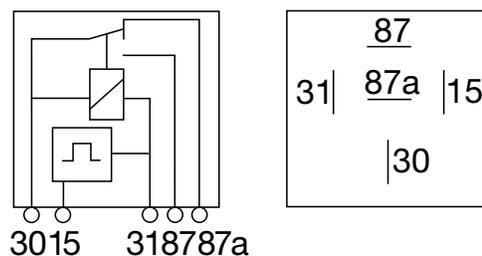
Operation Description: Input voltage must be applied continuously. The output is energized (relay is transferred) when control switch is closed. Timing starts when the control switch is opened. At the end of timing, relay will de-energize. The time may be reset to zero during timing by closing the control switch.



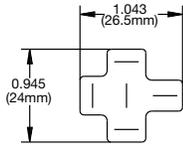
996152131	Adjustable Control Time Delay Unit - Delay on Release - 12V
996152141	Adjustable Control Time Delay Unit - Delay on Release - 24V
996152151	Adjustable Control Time Delay Unit - Delay on Operate - 12V
996152161	Adjustable Control Time Delay Unit - Delay on Operate - 24V

Designed for a wide range of applications requiring a time delayed switch on or off.
Time Delay Range: 0 to 900 seconds

(Single)



S1	S2	T(s)
off	off	110...900
on	on	14...110
on	off	2.5...14
off	on	0...2.5

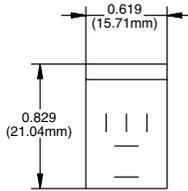


Part No.

Pack Qty.

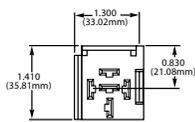
Relay Socket - Mini ISO Printed Circuit Board

H84989031.....	1
H84989037.....	50
U84989037.....	2500



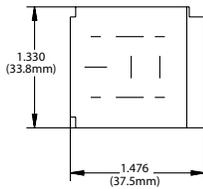
Relay Socket - Micro ISO Printed Circuit Board

H84700001.....	1
H84700007.....	50
U84700007.....	3000



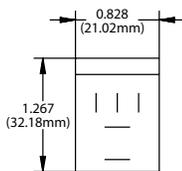
Relay Socket - Mini ISO, Bracket Mount, Connector Block

H84989011.....	1
H84989017.....	50
U84989017.....	1000



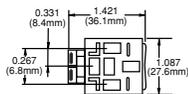
Relay Socket - Mini ISO, 5 to 9 Terminal, Bracket Mount, Connector Block

H84526001.....	5
003526002.....	50
003526001.....	250



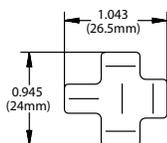
Relay Socket - Micro ISO, Bracket Mount, Connector Block

H84702001.....	1
H84702007.....	50
U84702007.....	2250



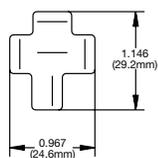
Relay Socket - Mini ISO Wire Harness Connector

H84704001.....	1
H84704007.....	50
U84704007.....	1500



Relay Socket - Mini ISO Wire Harness Connector

H84989021.....	1
H84989027.....	50
U84989027.....	3000



Relay Socket - Mini ISO, High Current (50A), Wire Harness Connector

H84703001.....	1
H84703007.....	50
U84703007.....	2100

Part No.

Pack Qty.

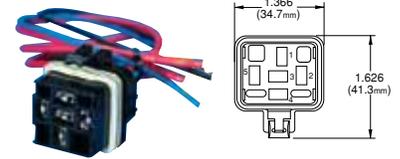
Relay Socket - Mini ISO, Weatherproof Relay Connector Kit

H84709011..... 1



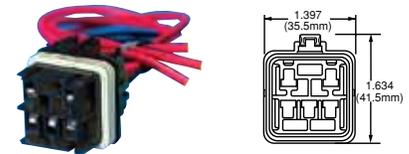
Relay Socket - Mini ISO, Weatherproof Relay Connector with 12" Leads

H84709001..... 5



Relay Socket - Mini 280, Weatherproof Relay Connector with 12" Leads

H84708001..... 1



Clip-On Mounting Bracket for Diode Blocks, Flashers, Buzzers, & Timers

H84235001..... 1

H84235007..... 100



Universal Mounting Bracket for Round Flasher Package

H84677001..... 1

961677001..... 100



Mounting Bracket for Relays (See relay pages for details)

H84489001..... 10

931489001..... 100



Mounting Bracket for Relays (See relay pages for details)

H84975001..... 10

960975001..... 100



Female Terminals with Catch

Part No.	AWG Wire	Blade Size	Package Quantity
H84991151	10 - 12	.375" (9.5mm)	50
172615007	10 - 12	.375" (9.5mm)	2000
H84991141	6 - 10	.375" (9.5mm)	50
172616007	6 - 10	.375" (9.5mm)	1800
701235033	14 - 16	.250" (6.3mm)	100
701235034	14 - 16	.250" (6.3mm)	1500
H84991117	18	.188" (4.8mm)	100
172611007	18	.188" (4.8mm)	7000
H84991101	14 - 20	.110" (2.8mm)	50
172609007	14 - 20	.110" (2.8mm)	7000

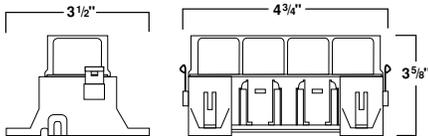


Part No.

H84988001

4-Gang Mini ISO Relay Box (Single)

- Splashproof Relay Box
- Snap-Fit Clear Plastic Cover
- O-ring Sealed
- Holds Four Plug-in Type Relays
- Removable Mounting Feet
- Multiple Boxes Can Be Snapped Together



H84988011

7-Gang Micro ISO Relay Box (Single)

- Splashproof Relay Box
- Snap-Fit Clear Plastic Cover
- O-ring Sealed
- Holds Seven Plug-in Type Relays
- Removable Mounting Feet
- Multiple Boxes Can Be Snapped Together

H84960061

4-Gang Fuse Box - Bottom Tab Connections

H84960081

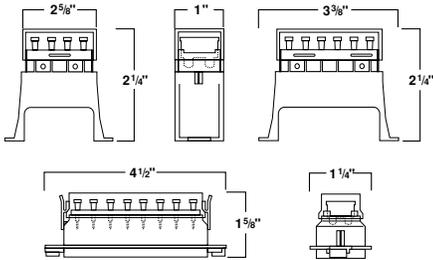
6-Gang Fuse Box - Bottom Tab Connections

H84960101

8-Gang Fuse Box - Bottom Tab Connections

- Splashproof Fuse Box
- Snap-Fit Clear Plastic Cover
- O-ring Sealed
- Max Load: 20A per circuit
- Fuses not included

(Single)



H84960071

4-Gang Fuse Box - Side Connections

H84960091

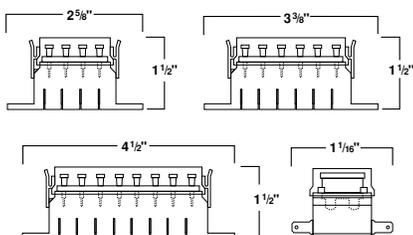
6-Gang Fuse Box - Side Connections

H84960111

8-Gang Fuse Box - Side Connections

- Splashproof Fuse Box
- Snap-Fit Clear Plastic Cover
- O-ring Sealed
- Max Load: 20A per circuit
- Fuses not included

(Single)

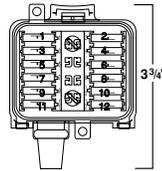
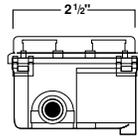
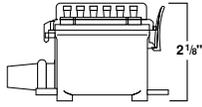


Part No.

005993131

12 Gang Fuse Box - Waterproof (Single)

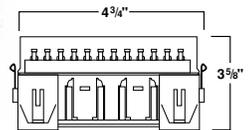
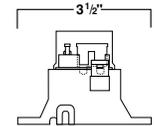
Clear Cover Holds Four Spares
Terminal Connections Included
Max Load: 20A per circuit
Fuses not included



H84960051

16 Gang Fuse Box - Bottom Tab Connections (Single)

Splashproof Fuse Box
Snap-Fit Clear Plastic Cover
O-ring Sealed
Removable Mounting Feet
Boxes Can Be Snapped Together for 32,48 Fuses etc.
Max Load: 20A per circuit
Fuses not included



002289001

Fuse Box with Screw Contacts - 2 Fuses (Bulk 10 Pieces)

H84294021

Fuse Box with Screw Contacts - 4 Fuses (Single)

002290001

Fuse Box with Screw Contacts - 8 Fuses (Bulk 5 Pieces)

With 8A fuses according to DIN 72 582 for cables up to 6 mm² with screw terminals



004258031

Junction Box - 16 Connections (Single)

Splash and Dustproof Housing
Nickel-plated Brass Contacts
Duroplast Housing
Resistant to High Temperature (max. 212°F)
For Circuits and Central Electrical Systems



704073003

Ceramic-Type Fuse: 5A Yellow

025889003

Ceramic-Type Fuse: 8A White

089015003

Ceramic-Type Fuse: 16A Red

091603003

Ceramic-Type Fuse: 25A Blue

713144003

Ceramic-Type Fuse: 40A Grey

(Bulk 100 Pieces)



003481803

Ceramic-Type Fuse Assortment (Single*)

For European Vehicles
Number of Fuses:

*(One of 2.5A, 5A, 25A, Four of 8A, Three of 16A)



Part No.



711683011	Blade-Type Fuse: 1A Black
711683021	Blade-Type Fuse: 2A Grey
711683002	Blade-Type Fuse: 3A Lilac
711683052	Blade-Type Fuse: 4A Pink
711684002	Blade-Type Fuse: 5A Beige
711685002	Blade-Type Fuse: 7.5A Brown
711686002	Blade-Type Fuse: 10A Red
711687002	Blade-Type Fuse: 15A Blue
711688002	Blade-Type Fuse: 20A Yellow
711689002	Blade-Type Fuse: 25A White
711690002	Blade-Type Fuse: 30A Green
711683042	Blade-Type Fuse: 35A Dark Blue
711683031	Blade-Type Fuse: 40A Orange

(Bulk 50 Pieces)

711683903 Blade-Type Fuse Assortment (Single)

For Latest Domestic Vehicles

Number of Fuses:

One of 2.5A, 5A, 7A ,15A, 25A, 30A, Two of 10A & 20A

004418004 Connector for Blade-Type Fuses (Bulk 10 Pieces)



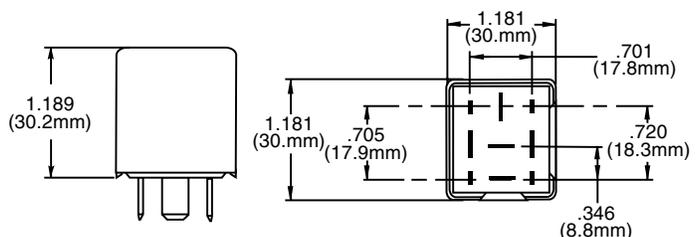
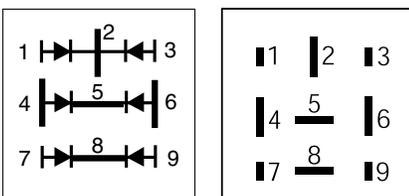
Suitable For All Blade-Type Fuses From 2-30A

High Impact Resistant Housing

H44452001 Custom Diode Module - 6 Diode Array (Single)

1N4005 Diodes

Forward Current: 1 Amp



Part No.

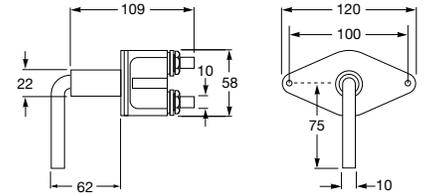
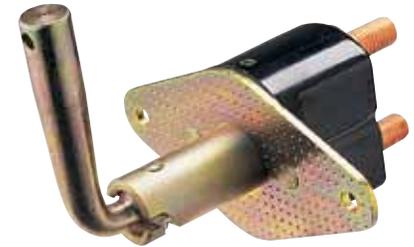
001559001	Battery Master Switch - 100 Amp Continuous Load
H62559001	Battery Master Switch - Twin Terminals (100 Amp)
008458011	Battery Master Switch - 250 Amp Continuous Load
042991001	Replacement Key

For battery main lead
 Connection to either positive or negative lead
 Switch key removable in "off" position only
 Current supply interrupted when key removed
 M10 screw contacts
 2 switch positions: 0 = off, 1 = on

Max Load: 2500A at 24V (10 sec.)

IP Rating: Key side IPX4
 Connection side IP53

(Single)

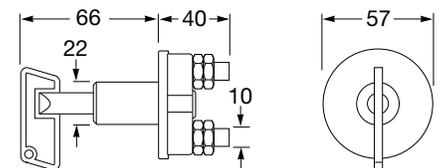


002843001	Battery Master Switch - 50 Amp Continuous Load (Single)
002843011	Battery Master Switch - 100 Amp Continuous Load (Single)
706729011	Replacement Key (Bulk 10 Pieces)

For battery main lead
 Connection to either positive or negative lead
 Switch key removable in "off" position only
 Current supply interrupted when key removed
 M10 screw contacts
 2 switch positions: 0 = off, 1 = on

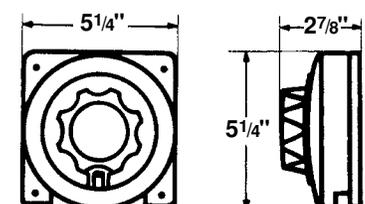
Max Load:
 1000A at 12V (10 sec.), 500A at 24V (10 sec.)

IP Rating: DIN 40 050 - IPX 2



005519001	Battery Master Switch (Single)
------------------	---------------------------------------

Rotary Switch for 6, 12, 24, and 32V Applications
 Enables Switching from Batter 1 to 2 or Both
 Seawater-Resistant
 Noncorroding Black Housing
 Max Load: 175A at 12V (10 Sec.)
 Max. Continuous Rating: 150A at 12V



Modular Rocker Switches

For particularly energy-efficient & maintenance-free interior applications in commercial vehicles, passenger cars, agricultural and construction machines, as well as special vehicles.

Energy efficiency:

The increase in control electronics components makes particular demands on a vehicle's energy system.

Since the power supply causes high costs, the trend is toward very low control currents that must be switched in a reliable manner.

The Hella solution:

frictional snap-in system as well as selected contact combinations.

The AgNi standard version makes reliable switching functions possible even in the mA range.

Likewise, particularly efficient power LED light sources help to reduce the power requirements as compared to previous switch ranges by up to 70% per switch.



Maintenance-free:

The user expects reliable and maintenance-free function over the entire vehicle life. In particular, the service life (cycles) of the contact system, as well as the service life of the light source are the influencing parameters.

Hella offers its customers the particularly wear-resistant "microswitch system". Thanks to the frictional snap-in system, wear and contamination of the contact surfaces are minimized with every switching operation.

The average service life of an LED is up to 100,000 hours.

An additional feature is the use of 4 light sources.

In this way, all switching conditions can be confirmed in the best possible way (2 location and 2 function lights).

Mounting frame:

A modular system with a new design makes all installation configurations possible.

Indicator lamps:

For safety-relevant or special applications, a reliable indicator lamp can be delivered that provides information about the switching condition in a non-local manner.

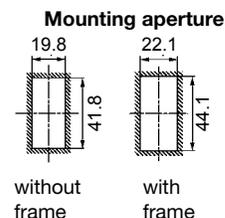
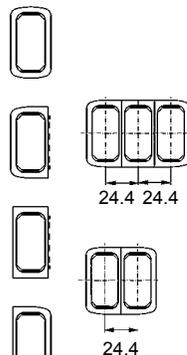
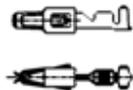
Cover plug



Socket housing



Junior Power Timer



Technical details:

Rocker material:	PC transparent, painted
Base material:	PA white, housing PA black
Connection contacts:	3.0 mm Junior Power Timer
Switch-contact coating:	AgNi
Flat receptacle:	2.8 mm Junior Power Timer, with AgNi coating
Light source:	Max. 4 LEDs: 2 x location lighting, green 2 x function lighting, red Laser-applied in accordance with catalog or customer-specifically in dxf format
Symbol type:	
Service life:	Mechanical / 500,000 cycles 5A/24V inductive/270,000 cycles 4A/24V bulb (75W)/90,000 cycles 10A/24V ohmic/80,000 cycles
Tightness:	IP 52
Operating temperature:	-40 °C ... + 85 °C
Storage temperature:	-40 °C ... +100 °C
Dash board thickness:	If the switch is installed directly: 2 mm
Accessories:	Single and series mounting frame, connector skirt available

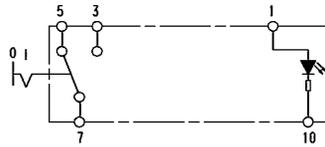
You can find further information, including ordering notes, at

www.hella.com/switchshop/index.jsp

Function 00

Change-over, locking, 1-pole, 1-stage.

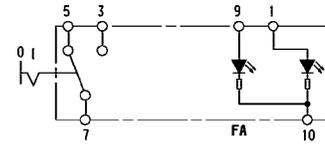
Symbol illumination:
1 x function indication



Function 08

Change-over, locking, 1-pole, 1-stage.

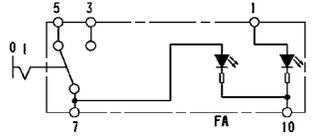
Symbol illumination:
1 x function indication
(1 x external)



Function 01

Change-over, locking, 1-pole, 1-stage.

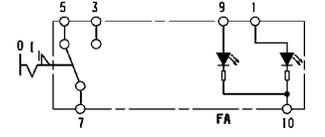
Symbol illumination:
1 x function indication
(1 x internal)



Function 09

Change-over, locking, locking function, 1-pole, 1-stage.

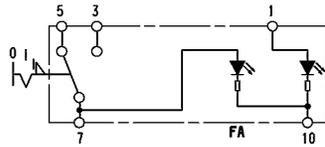
Symbol illumination:
1 x function indication
(1 x external)



Function 02

Change-over, locking, locking function, 1-pole, 1-stage.

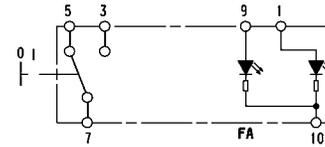
Symbol illumination:
1 x function indication
(1 x internal)



Function 10

Change-over, key, 1-pole, 1-stage.

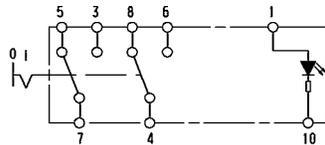
Symbol illumination:
1 x function indication
(1 x external)



Function 03

Change-over, locking, 2-pole, 1-stage.

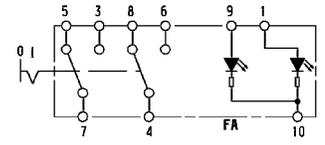
Symbol illumination:
1 x function indication



Function 11

Change-over, locking, 2-pole, 1-stage.

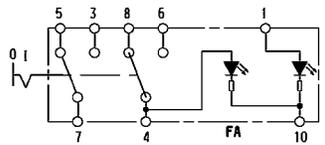
Symbol illumination:
1 x function indication
(1 x external)



Function 04

Change-over, locking, 2-pole, 1-stage.

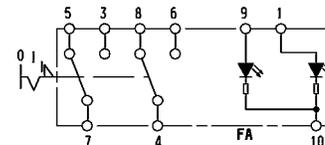
Symbol illumination:
1 x function indication
(1 x internal)



Function 12

Change-over, locking, locking function, 2-pole, 1-stage.

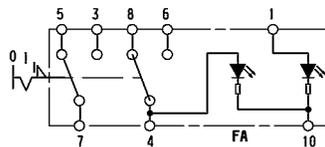
Symbol illumination:
1 x function indication
(1 x external)



Function 05

Change-over, locking, locking function, 2-pole, 1-stage.

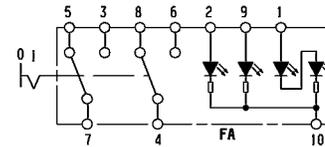
Symbol illumination:
1 x function indication
(1 x internal)



Function 13

Change-over, locking, 2-pole, 1-stage.

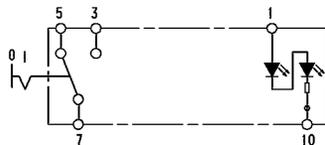
Symbol illumination:
2 x function indication
(2 x external)



Function 06

Change-over, locking, 1-pole, 1-stage.

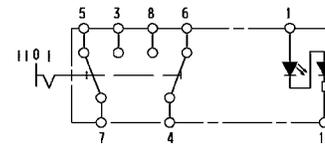
Symbol illumination:
2 x function indication



Function 14

Change-over, locking, 2 x 1-pole, 2-stage.

Symbol illumination:
2 x function indication



Function 07

Change-over, key, 1-pole, 1-stage.

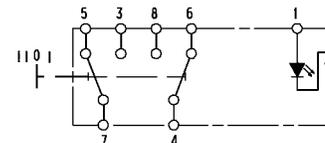
Symbol illumination:
1 x function indication



Function 15

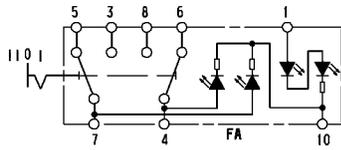
Change-over, key, 2 x 1-pole, 2-stage.

Symbol illumination:
2 x function indication



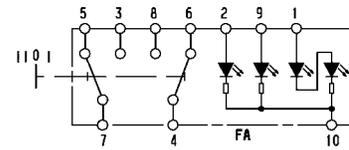
Function 16

**Change-over, locking,
2 x 1-pole, 2-stage.**
Symbol illumination:
2 x function indication
(2 x internal)



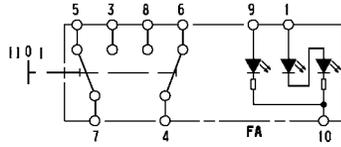
Function 22

**Change-over, key,
2 x 1-pole, 2-stage.**
Symbol illumination:
2 x function indication
(2 x external)



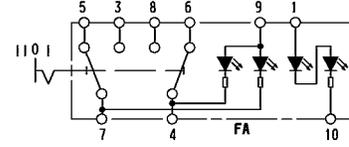
Function 17

**Change-over, key,
2 x 1-pole, 2-stage.**
Symbol illumination:
2 x function indication
(1 x external)



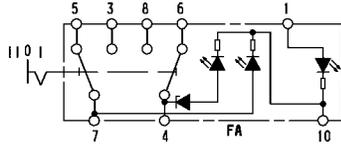
Function 23

**Change-over, locking,
2 x 1-pole, 2-stage.**
Symbol illumination:
2 x function indication
(2 x external)



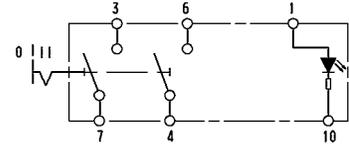
Function 18

**Change-over, locking,
2 x 1-pole, 2-stage.**
Symbol illumination:
1 x function indication
(2 x internal)
1 x preductive diode



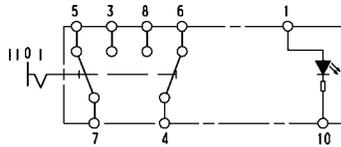
Function 24

**Normally open, locking,
2 x 1-pole, 2-stage.**
Symbol illumination:
1 x function indication



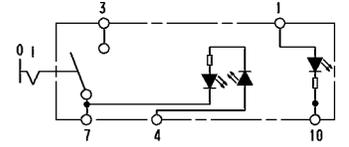
Function 19

**Change-over, locking,
2 x 1-pole, 2-stage.**
Symbol illumination:
1 x function indication



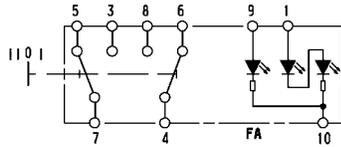
Function 25

**Hazard warning switch,
Normally open, locking,
1-pole, 1-stage.**
Symbol illumination:
1 x function indication
(1 x internal)



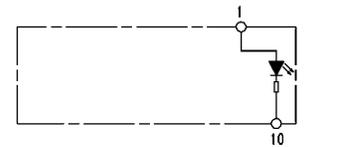
Function 20

**Change-over, key,
2 x 1-pole, 2-stage.**
Symbol illumination:
2 x function indication
(1 x external)



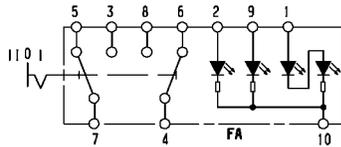
Function 78

**Indicator light for
illumination of symbol field 1**



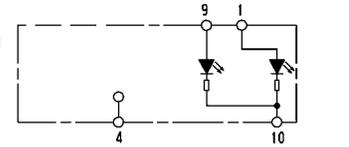
Function 21

**Change-over, locking,
2 x 1-pole, 2-stage.**
Symbol illumination:
2 x function indication
(2 x external)



Function 79

**Indicator light for
illumination of symbol fields 1
and 2**





Part no.	Pack Qty.	Accessories for switches in model range 004 100 (Special Order)
Modular mounting-panel system		
Black. 2 end pieces and 1 middle piece are needed to make a mounting panel. By adding middle pieces, this panel can be extended as required.		
168396002 168396007	10 200	Single frame
169208002 169208007	10 200	Middle piece
169209002 169209007	10 200	End piece, left
169210002 169210007	10 200	End piece, right
Cover plug		
Black. For closing empty switch apertures in mounting panel.		
172229002 172229007	10 52	Cover plug
Socket housing		
White.		
010076002 010076007	10 440	Socket housing, 10-pin
Terminal		
Cable section: 0.5 - 1.0 sq. mm. Size of blade terminal: 2.8 x 0.8 sq. mm.		
863934003	50	Blade receptacle CuSn/Sn
<hr/>		
Cable section: 1.0 - 2.5 mm ² . Size of blade terminal: 2.8 x 0.8 sq. mm.		
863934023 863934024	50 1000	Blade receptacle CuSn/Sn

Online Switch Configuration

Configure your switch online at www.hella.com/rockerswitch

Configurator

Switch Indicator lights

Configure your switch or your indicator light

Switching functions: Function 13

Change-over, maintained contact, 2-pole, 1-step, symbol illumination 2x, function indicator: 2x external

Operating voltage: 12V 24V

Symbols:

Symbol 1 (lower symbol):

Symbol 2 (upper symbol):

Quantity:

[Add to notes list](#)

Configurator

Switch Indicator lights Accessories Notes list Enquiry

Socket

Designation	Illustration	Quantity
Socket 8JD 010 076-002 (VP 10 pieces)		<input type="text"/>
Socket 8JD 010 076-007 (VP 440 pieces)		<input type="text"/>

Junior Power Timer

Designation	Illustration	Quantity
Flat plug socket Cu/Sn/Gn 863.934-003 (VP 50 pieces) Intersection mm* 0.5 - 1.0 Dimensions mm 2.8 x 0.8		<input type="text"/>
Flat plug socket Cu/Sn/Gn 863.934-023 (VP 50 pieces) Intersection mm* 1.0 - 2.5 Dimensions mm 2.8 x 0.8		<input type="text"/>
Flat plug socket Cu/Sn/Gn 863.934-024 (VP 1000 pieces) Intersection mm* 1.0 - 2.5 Dimensions mm 2.8 x 0.8		<input type="text"/>

Mounting frame

Designation	Illustration	Quantity
Single frame 9AR 158.396-002 (VP 10 pieces)		<input type="text"/>
Single frame 9AR 158.396-007 (VP 200 pieces)		<input type="text"/>

Configurator

Switch Indicator lights Accessories Notes list Enquiry

Switch

Quantity	Switching function	Symbol 1	Symbol 2
<input type="text" value="1"/>	Function 13 Operating voltage 12V		005 Fog light

[Enquire now](#)

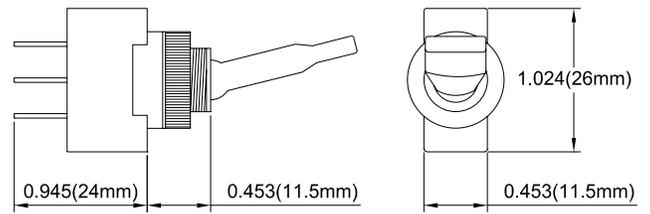
Part No.

H61903001	On/Off SPST Toggle Switch - Red
H61904001	On/Off SPST Toggle Switch - Amber
H61905001	On/Off SPST Toggle Switch - Green
H61906001	On/Off SPST Toggle Switch - Blue



Rectangular Switch with Round Aperture
 Toggle Illuminated in "On" Position
 Max Load: 10A at 12V
 Three 1/4" Blade Terminals

(Single)

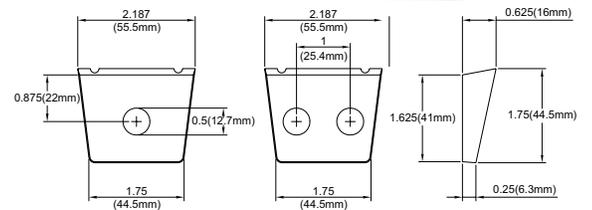


H84980011	Matching Mounting Panels - 1 Opening
H84980021	Matching Mounting Panels - 2 Opening



For Switches & Control Lamps (80146 - 80513)
 For Mounting Under Dashboard

(Single)

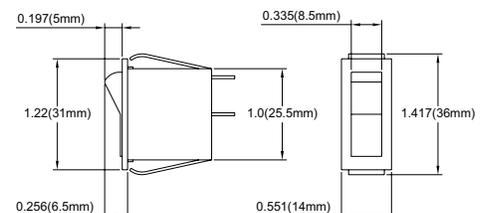


004406001	On/Off SPST Rocker Switch (Single)
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Black Button & Bezel

Max Load: 10A at 12V
 Two 1/4" Blade Terminals



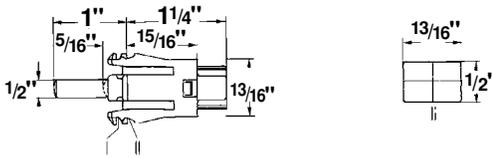
Part No.



004229011

Universal Contact Switch (Mercedes Benz) (Single)

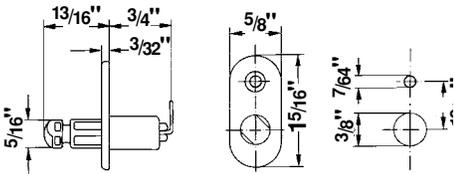
Pin Protrudes in "On" Position
Two Flat Plug Contacts
Max Load: 1.5A at 12V



004365001

Universal Contact Switch (BMW) (Bulk 10 Pieces)

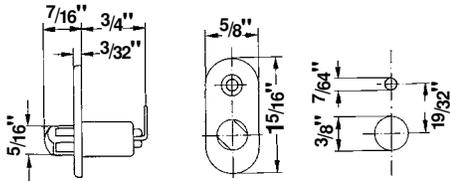
Pin Protrudes in "On" Position
One Flat Plug Contact
Max Load: 3.5A at 12V



004365011

Universal Contact Switch (BMW) (Bulk 10 Pieces)

Pin Protrudes in "On" Position
One Flat Plug Contact
Max Load: 3.5A at 12V



H61778001

On/Off SPST Push/Pull Switch with Control Lamp - Red

H61778011

On/Off SPST Push/Pull Switch with Control Lamp - Amber

H61778021

On/Off SPST Push/Pull Switch with Control Lamp - Green

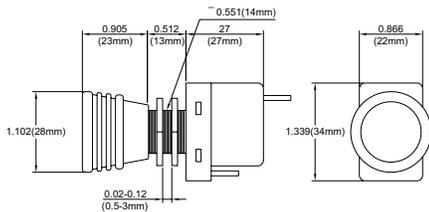
Illuminated in "On" Position
For Dashboards up to 1/8" Thick
Max Load: 10A at 12V
Three 1/4" Blade Terminals
Complete with 12V 1.2W Bulb
(Single)

004778001

On/Off SPST Push/Pull Switch with Control Lamp - Green (Single)

This Part Number Has Two Interchangeable Lenses (Red & Orange)

Replacement 12V 1.2W Bulb: **H83225001**

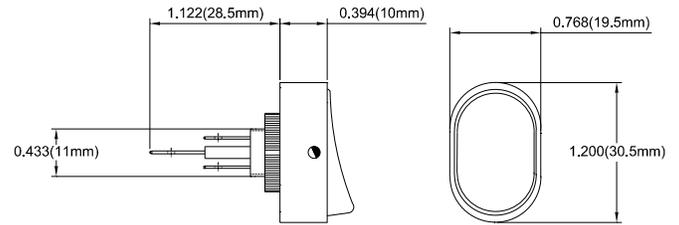


Part No.

H61919001	On/Off SPST Rocker Switch - Blue
H61920001	On/Off SPST Rocker Switch - Green
H61921001	On/Off SPST Rocker Switch - Red

Oval Switch with Round Aperture
 Illuminated in "On" Position
 Max Load: 20A at 12V
 Three 1/4" Blade Terminals

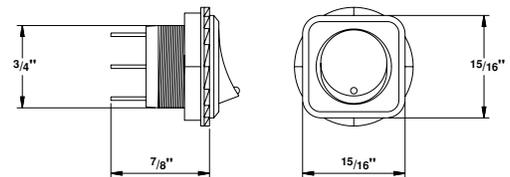
(Single)



H61922001	On/Off Flush Mount Rocker Switch - Amber LED
H61923001	On/Off Flush Mount Rocker Switch - Green LED
H61924001	On/Off Flush Mount Rocker Switch - Red LED

Round Mounting Hole
 Illuminated in "On" Position
 Max Load: 20A at 12V
 Three Terminal Connections Included

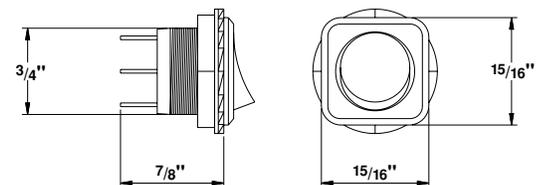
(Single)



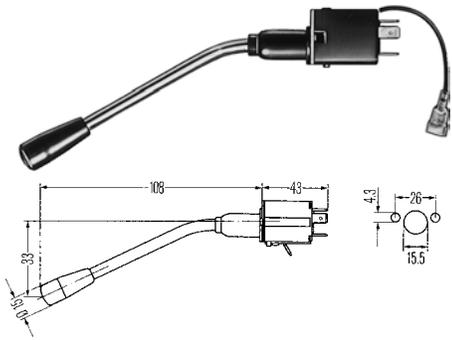
H61925001	On/Off Flush Mount Rocker Switch - Amber Incandescent
H61926001	On/Off Flush Mount Rocker Switch - Blue Incandescent
H61927001	On/Off Flush Mount Rocker Switch - Green Incandescent
H61928001	On/Off Flush Mount Rocker Switch - Red Incandescent

Round Mounting Hole
 Illuminated in "On" Position
 Max Load: 20A at 12V
 Three 3/16" Blade Terminals
 Three Terminal Connections Included

(Single)



Part No.



001539001

Steering Column Combination Switch (Single)

108 mm lever
 Lever contoured 26°
 60mm long lead with 6.3mm blade terminal contact for terminal 31b
 Functionality includes left, right, horn, and headlamp flasher

Max load at 12V: Turn Signal 8A
 Horn 10A
 Headlamp Flasher 2A



001539047

Steering Column Combination Switch (Single)

115 mm lever
 Straight lever
 Knob with symbols
 Part connected to a lead set
 Functionality includes left, right, horn, and headlamp flasher

Max load at 12V: Turn Signal 8A
 Horn 10A
 Headlamp Flasher 2A



008520047

Steering Column Combination Switch (Single)

195mm length
 Mounting strap for 38mm diameter steering column
 Black body and handle
 Functionality includes left, right, horn, and headlamp flasher

Max load at 12V: Turn Signal 7A
 Horn 15A
 Headlamp Flasher 12.5A



001545001

Turn Signal Toggle Switch (Bulk 10 Pieces)

Max load: 5A at 12V
 2A at 24V

Part No.

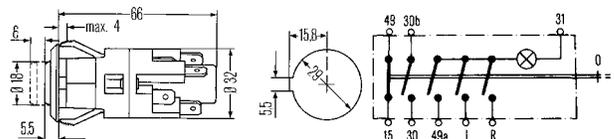
001579011 Hazard Flasher Switch (Bulk 5 Pieces)

001579071 Hazard Flasher Switch w/ Pre-fitted 24V Bulb (Bulk 10 Pieces)

Push button switch
Includes eight 6.3mm blade terminal contacts

Max load: at 12V
Terminals 49 - 15, 49a - L, 49a - R: 7A
30b - 30: 14A

Accessories
12V 2W Bulb: **002066121**
24V 3W Bulb: **002066241**
Socket housing: **001926001**



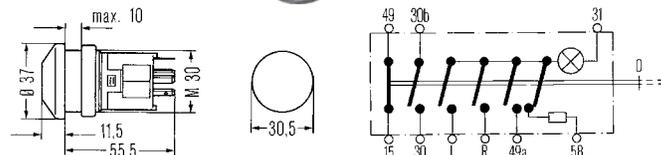
003916011 Hazard Flasher Switch with 12V Bulb (Single)

003916107 Hazard Flasher Switch with 24V Bulb (Bulk 50 Pieces)

Push button switch with red warning light
Splashproof (IP 66 A)

Max load: 14A at 12V

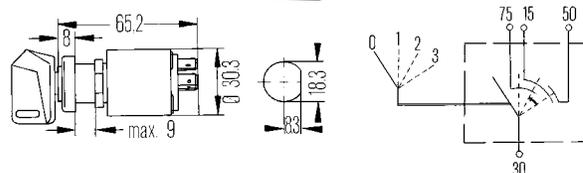
Accessories
12V version w/o contact 30b: **003916031**
12V 1.2W (5W/1.2) bulb: **002095121**
24V 1.2W (W5/1.2) bulb: **002095241**
Socket housing: **711375001**



007232001 Starter Switch with Pre-Heat (Single)

Includes 2 keys
4 switch positions include: 0 = off, 1 = special loads on
2 = ignition, 3 = start

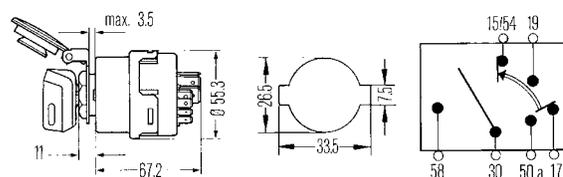
Max load:
Terminal 30 with 75: 20A
Terminal 30 with 15: 20A
Terminal 30 with 50: 50A / 12A



003959001 Starter Switch with Pre-Heat (Single)

Includes 2 keys (740558007)
5 switch positions Include: P = side light, 0 = off, 1 = driving position
2 = pre-heat, 3 = start, special loads off

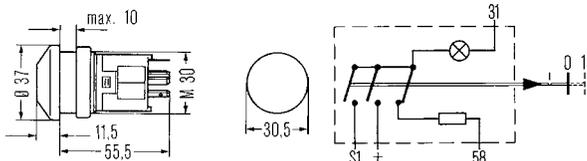
Max load:
Terminal 30 with 58: 8A (12V) 4A (24V)
Terminal 30 with 15/54: 35A 17.5A
Terminal 30 with 19: 60A 35A
Terminal 30 with 17: 60A 35A
Terminal 30 with 50a: 70A / 18A 40A / 5A



Accessories
4 pin socket housing: **735460001**
6 pin socket housing: **735461001**



Part No.



003916061

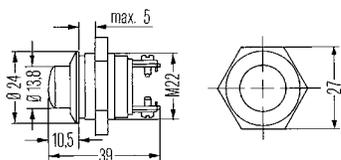
Push Button - On / Off Switch (Single)

Includes green warning light and pre-fitted 12V bulb
 Splashproof (IP 66 A)

Max load: 14A at 12V

Accessories

12V 1.2W (5W/1.2) bulb: **002095121**
 Socket housing: **711375001**



001571001

Push Button Switch - Two Screw Contacts

001571071

Push Button Switch - Two Screw Contacts & Damp Proof Cover

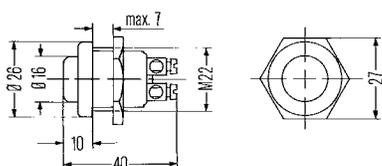
001571041

Push Button Switch - 6.3mm Blade Contacts & Damp Proof Cover

For mounting surfaces up to 5 mm thick

Intermittent Load: 20A at 12V
 15A at 24V

(Bulk 5 Pieces)

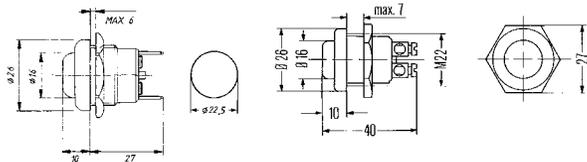


001571101

Push Button Switch - Two Screw Contacts (Bulk 10 Pieces)

For mounting surfaces up to 7mm thick

Intermittent Load: 12.5A at 12V
 6.25A at 24V



001571131

Push Button Switch - 6.3mm Blade Contacts

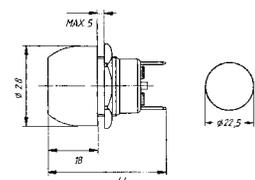
001571141

Push Button Switch - With Metal Ring & Two Screw Contacts

For mounting surfaces up to 6 mm thick

Intermittent Load: 16A at 12V
 8A at 24V

(Bulk 10 Pieces)



001571151

Push Button Switch - Two Screw Contacts & Damp Proof Cover

001571161

Push Button Switch - 6.3mm Blade Contacts & Damp Proof Cover

For mounting surfaces up to 5 mm thick

Intermittent Load: 16A at 12V
 8A at 24V

(Bulk 10 Pieces)

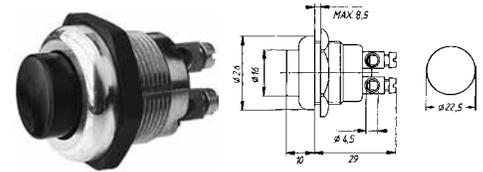
Part No.

001571171

Push Button Switch - Two Screw Contacts (Bulk 10 Pieces)

For mounting surfaces up to 8.5 mm thick

Intermittent Load: 16A at 12V
8A at 24V

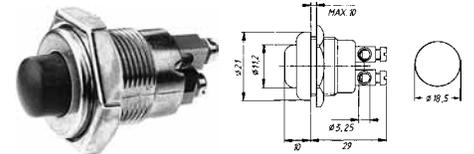


001571181

Push Button Switch - Two Screw Contacts (Bulk 10 Pieces)

For mounting surfaces up to 10 mm thick

Intermittent Load: 12A at 12V
5A at 24V

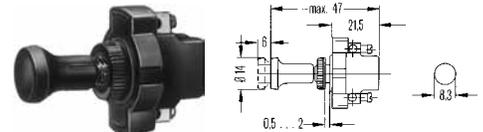


001563021

Push / Pull (On / Off) Switch - Two Screw Contacts (Bulk 10 Pieces)

For mounting surfaces up to 2mm thick

Max Load: 10A at 12V



001563001

Push / Pull (On / Off) Switch - Two Screw Contacts (Bulk 10 Pieces)

For mounting surfaces up to 12mm thick

Max Load: 10A at 12V

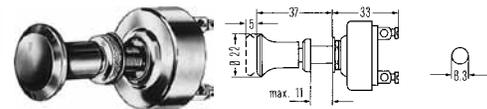


001564001

Push / Pull (On / Off) Switch - Two Screw Contacts (Bulk 10 Pieces)

For mounting surfaces up to 11mm thick

Max Load: 10A at 12V
5A at 24V



001565001

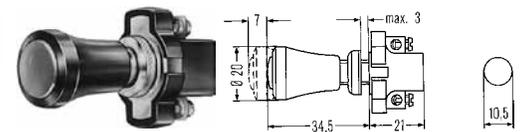
Push / Pull (On / Off) Switch - Two Screw Contacts (Bulk 10 Pieces)

For mounting surfaces up to 3 mm thick
Includes red warning light

Max Load: 5A at 12V

Accessories

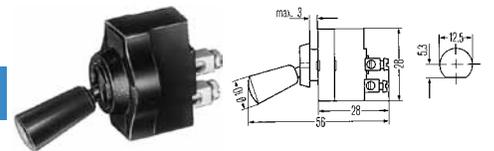
12V 2W (J) bulb: **002066121**



001567011

Toggle (On / Off) Switch - Two Screw Contacts (Single)

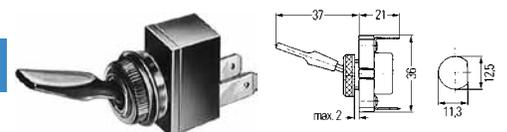
Max Load: 6A at 12V
3A at 24V



001567041

Toggle (On / Off) Switch - 6.3mm Blade Contacts (Single)

Max Load: 5A at 12V



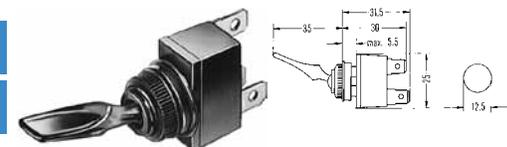
001567112

Toggle (On / Off) Switch - 6.3mm Blade Contacts (Green Warning Light)

001567122

Toggle (On / Off) Switch - 6.3mm Blade Contacts (Amber Warning Light)

Max Load: 10A at 12V
(Single)





Part No.

008021001	Universal Lighter - Illuminated - 12V
008021011	Universal Lighter - Illuminated - 24V
008022001	Universal Lighter - Not Illuminated - 12V
008022011	Universal Lighter - Not Illuminated - 24V

Compact flush-fit
 Rated for at least 10,000 activations
 Terminals: 6.3mm blade
 Dashboard thickness: up to 2.5mm
 Mounting aperture: 28mm diameter (008021001 and 008021011)
 23.5mm diameter (008022001 and 008022011)

Max Load: 10A at 12V
 5A at 24V

(Single)



008023011	Power Socket with Cover - Illuminated - 12V (Single)
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12V 1.2W Bulb: 007997011
 24V 1.0W Bulb: 007997021



008023001	Power Socket with Cover - Not Illuminated - 24V (Single)
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Compact flush-fit version for operation of auxiliary equipment in cars, trucks, campers and boats.
 Terminals: 6.3mm blade
 Dashboard thickness: up to 2.5mm
 Mounting aperture: 28mm diameter

Max Load: 15A at 24V



001946021	ISO 4165 Socket with Cover - 1 Screw Contact
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001946011	ISO 4165 Socket with Cover - 1 Blade 6.3mm Terminal
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001946051	ISO 4165 Socket with Cover - 2 Blade 6.3mm Terminals w/ Ground
------------------	---

Compact light alloy flush-fit socket.
 Grounded via housing
 Dashboard thickness: up to 7mm
 Mounting aperture: 18.5mm diameter

Max Load: 8A at 24V

(Bulk 10 Pieces)



Part No.

H84777011	ISO 4165 Socket with Cover - 2 Blade 6.3mm Terminals (Single)
004777001	ISO 4165 Socket with Cover - 2 Blade 6.3mm Terminals (Bulk 5 Pieces)
H84777001	ISO 4165 Socket with Cover - 2 Screw Contacts (Single)
004777011	ISO 4165 Socket with Cover - 2 Screw Contacts (Bulk 5 Pieces)

Compact plastic flush-fit socket.
 Dashboard thickness: up to 7mm
 Mounting aperture: 18.5mm diameter

Max Load: 8A at 24V



004123014	ISO 4165 Standard Socket - Plastic Surface Mount / Waterproof (Single)
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Max Load: 8A at 24V



007589021	ISO 4165 Universal Plug (Bulk 10 Pieces)
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Universal plug with screwed strain relief / without fuse
 2 screw contacts to 2.5 sq. mm.

Max Load: 16A at 24V



002252102	ISO 4165 Economy Universal Plug (5 x 3 mm Cable Opening) (Single)
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002252103	ISO 4165 Economy Universal Plug (5 x 3 mm Cable Opening) (Bulk 12 Pieces)
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001921102	ISO 4165 Economy Universal Plug (8 mm Diameter Cable Opening) (Bulk 12 Pieces)
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002262001	ISO 4165 Standard Plug (Bulk 10 Pieces)
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001915001	ISO 4165 Standard Plug with Strain Relief (Bulk 10 Pieces)
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2 screw contacts CuZn up to 2.5 sq. mm.
 9.2 mm Diameter Cable Opening

Max Load: 18A at 24V



Part No.



001943003

7 - Pole Socket – Plastic (Bulk 25 Pieces)



H84989041

7 - Pole Socket - Metal (Single)

Socket with lid
Removable contact set.

Max Load:
16A at 12V (lead size 1.5mm²)
25A at 12V (lead size 2.5mm²)



001918021

7 - Pole Plug - Metal

001918002

7 - Pole Plug - Metal



001930003

7 - Pole Plug - Plastic

With strain relief and grommet.

Max Load:
16A at 12V (lead size 1.5mm²)
25A at 12V (lead size 2.5mm²)

(Bulk 25 Pieces)



007645021

ABS/EBS 5/7-Pole Socket (ISO 7638-1) (Single)

Socket made of plastic with lid.
With rubber gaskets and nickel-plated contact pins.
Fiber-glass reinforced polyamide housing.
PG gland for cable exit.
Mounting aperture 54 mm diameter
For cable diameter 9 - 16 mm.
Contact pins: 5 each of 1.5 sq. mm + 2 each of
4 sq. mm + 2 each off 6 sq. mm and 2 dummy plugs.
Class of preduction IP54 in plugged condition.

Max Load:
16A at 24V (lead size 1.5mm²)
25A at 24V (lead size 2.5mm²)
30A at 24V (lead size 4.0 - 6.0mm²)

Part No.

007644041

ABS/EBS 5/7-Pole Socket (ISO 7638-1) (Single)

Plug made of plastic
 With rubber gaskets and nickel-plated contact pins
 Fiberglass reinforced polyamide housing
 Mechanical strain relief
 Secure arrest with non-rusting metal bail
 For cable diameter: 11 - 13 mm
 Contact sleeves: 5 each of 1.5 sq. mm + 2 each of 4 sq. mm + 2 each of 6 sq. mm and 2 dummy plugs
 Class of protection IP54 in plugged condition
 Crimp or solder connection

Max Load:

16A at 24V (lead size 1.5mm²)
 25A at 24V (lead size 2.5mm²)
 30A at 24V (lead size 4.0 - 6.0mm²)



003833001

7 - Pole Socket (ISO 1185) - Metal (Single)

008085001

7 - Pole Socket (ISO 1185) - Plastic (Single)

With rubber gasket in lid and cable protection grommet for cables with diameter of 8 - 11 mm and 16.5 - 19.5 mm.
 Mounting aperture: 50 mm diameter

Max Load:

15A at 24V (lead size min. 1.5 sq. mm)
 20A at 24V (lead size max. 2.5 sq. mm)



003831001

7 - Pole Plug (ISO 1185) - Metal (Single)

With screw-on strain relief and cable protection grommet for cables with diameter of 8 - 11 mm.

008084001

7 - Pole Plug (ISO 1185) - Plastic (Single)

With strain relief, union nut and rubber gasket.

Max. load:

15A at 24V (lead size min. 1.5 sq. mm)
 20A at 24V (lead size max. 2.5 sq. mm)



004797071

7 - Pole Connector Cable (ISO 1185) (Single)

Extremely resistant to high and low temperatures as well as weathering, maximum resistance to oils and chemicals. Very good fatigue strength against repeated bending. Excellent return characteristics.

Sheating: Polyurethan.

Lead size: 6 x 1.0 + 1 x 1.5 sq. mm.

Lead dia.: 8.8 mm. Outside dia. of coil: 48 mm.

Stretched length: 4.0 m.





Part No.

H81953011	Electric Vacuum Pump with Connector Interface (Single)
H81953021	Electric Vacuum Pump with Quick Connect Terminals (Single)

Applications:

Designed to supplement diesel engines in controlling heating and cooling functions, door locks, cruise controls, trunk release or any other functions controlled by vacuum.

Features:

- 12V DC
- Sealed motor (inlet port, outlet and pump end)
- Environmentally tested; humidity, salt, fog dust, air and water leakage
- Meets on (1) meter (3.28 feet) drop test
- Electrical Terminals: meet axial force (push/pull) of 40-45 pounds
- Vibration tested: eight (8) hours per plane; amplitude (peak to peak) 1.27 mm (0.05 in.)
- Electrical Stress Tested; Load Dump, Reverse Voltage, Short to Power Ground, non-disruptive transients and stall
- Meets standard corrosion test ASTM-B 117
- Temperature Range: -25°C to +96°C
- Weight: 13 grams (11 oz.)
- Chemical Resistant:
 - 50/50 water, ethylene glycol antifreeze
 - Dexcon II transmission fluid
 - Leaded or unleaded regular gasoline
 - Diesel fuel
 - Dot 3 hydraulic brake fluid
 - Ethanol, 25% methanol +5% liquid soap in water

Performance Specifications:

- Evacuate a 40 cubic inch (minimum) reservoir from atmosphere pressure to 15 inches of mercury vacuum in maximum of 20 seconds.
- Internam switch turns motor off when the vacuum reaches a maximum of 15 inches of mercury. When vacuum is reduced to a minimum of 11 +2 or -0 inches of mercury switch will reactivate motor to increase vacuum.
- Motor draws no more than .65 average amperages with 13.5V applied to pump terminals.

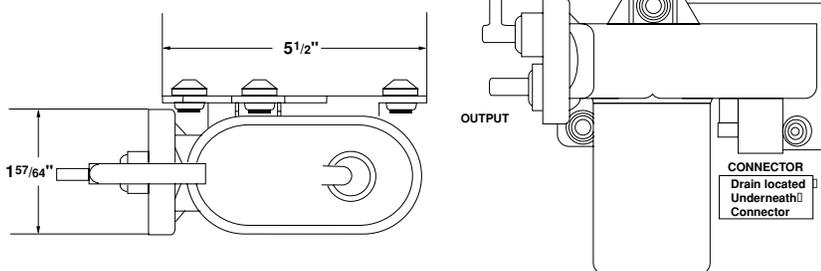
Type 1: Connector Interface

Electrical connector supplied through Packard.

Connector	12052641
Female Terminal 18-20 gauge	12048074
Cable Seals	12048086

Type 2: Quick Connect Terminals

6.3 mm (.250") female quick connect terminal
Hella part number 701235033 or 701235034 (order 2 per vacuum pump)



Part No.

009428081

UP28 Electric Vacuum Pump (Single)

Applications:

Designed to supplement diesel engines in controlling heating and cooling functions, door locks, cruise controls, trunk release or any other functions controlled by vacuum.

Technical Data:

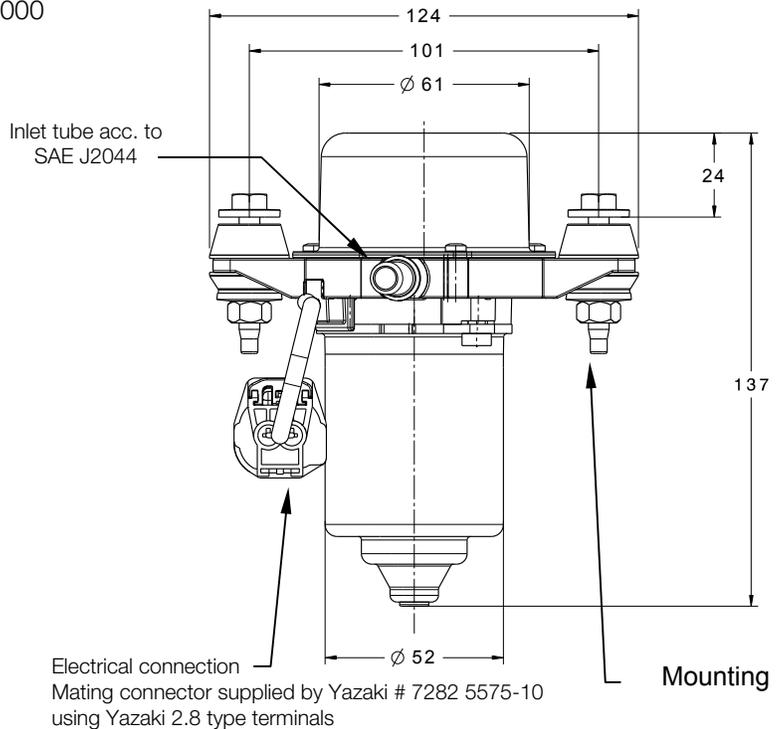
Operating Voltage: 9 V to 16 V
 Current Consumption: < 10 A at 13 V
 Operating Temperature: -40°C to +120°C
 Operating Altitude: 0 to 3000+ meters
 Maximum Vacuum Level: > 86%
 Vacuum Generation Rate: 500 mbar vac in ≤ 5 sec
 700 mbar vac in ≤ 10.5 sec
 Pneumatic Volume: 3.2 liter
 Operating Life: > 200 hours
 Operating Cycles: > 150,000
 Environmental Compatibility:
 water, ethylene-glycol solutions, transmission fluid,
 gasoline, diesel fuel, motor oil, DOT 3/4 brake
 fluid, solvents.
 Acoustic Noises: ≤ 75 dB(A)

Mode of Operation:

The Hella UP28 vacuum pump requires external control for operation. A pneumatic inlet is provided, while the outlet is integrated into the pump. An electrical connector is used to receive power and ground.

Advantages:

Utilizing multiple mounting options, both on-engine and off-engine, the UP28 vacuum pump from Hella is a flexible solution for providing high pneumatic-volume supplemental vacuum. The UP28 vacuum pump provides maintenance-free, high durability, and demand oriented operation.



Part No.

009286001

UP30 Electric Vacuum Pump (Single)

Applications:

Provides a primary vacuum source for high pneumatic-volume applications such as brake boosters in camless engines or hybrid electric vehicle applications.

Technical Data:

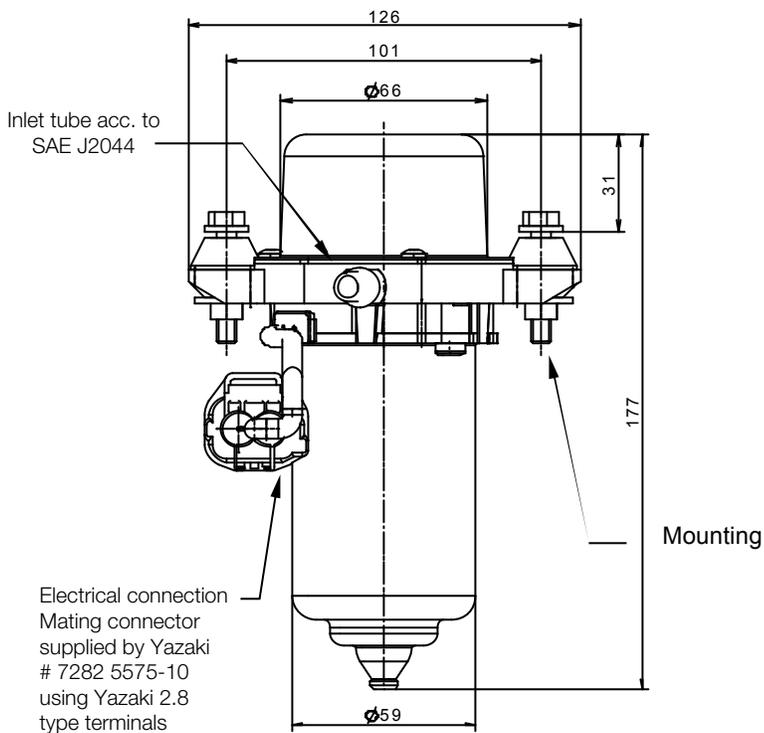
Operating Voltage: 9 V to 16 V
 Current Consumption: < 15 A at 13 V
 Operating Temperature: -40°C to +120°C
 Operating Altitude: 0 to 3000+ meters
 Maximum Vacuum Level: > 86%
 Vacuum Generation Rate: 500 mbar vac in 4 sec at 13V
 Pneumatic Volume: 5 liter
 Operating Life: > 1200 hours
 Operating Cycles: > 1,000,000
 Environmental Compatability:
 water, ethylene - glycol solutions, transmission fluid,
 gasoline, diesel fuel, motor oil, DOT 3/4 brake fluid,
 solvents.

Mode of Operation:

The Hella UP30 vacuum pump requires external control for operation. A pneumatic inlet is provided, while the outlet is integrated into the pump. An electrical connector is used to receive power and ground.

Advantages:

Utilizing multiple mounting options, both on-engine and off-engine, the UP30 vacuum pump from Hella is a flexible solution for providing a high pneumatic-volume primary vacuum source. The UP30 vacuum pump provides maintenance-free, high durability, and demand oriented operation.



Horn Applications

Selecting the right horn is now even easier using the simple and quick selection guide included in the new 2011 Hella Electrics Catalog. The selection guide provides the proper horn recommendations for applications ranging from small motorcycles to large buses. The guide spans Hella's wide array of horn products ranging from the compact M28 disc horn to the powerful compressed air triple horn.



	M28	S90	M26	M100	B36	DL50	B133	TE16	Twin Air	Triple Air
				●	●	●	●			
				●	●	●	●			
		●	●	●	●	●	●	●	●	
			●	●	●		●	●	●	●
		●	●	●			●	●	●	●
	●	●	●	●			●	●	●	●
	●	●						●		
	●									

Horn Retail Program

Hella's Horn Retail Program features our most popular acoustic products available in attractive display kits.

Clamshell Display Pack

- Suitable for hanging or free standing displays
- Customer can see and feel the actual product
- Dimensions of parts are visible
- Eye catching graphics



Twin Supertone Horn

Features:

- Sound Level: 118 dB
- Black Coated Metal with Red Protective Grille
- Frequency: 500 Hz High-tone/300 Hz Low-tone
- Current: 2 x 5.5 Amp

Kit includes:

One high-tone unit, one low-tone unit, relay, mounting brackets, and mounting instructions

Part No:

Supertone Kit High tone/Low tone, retail clamshell 003399803
 Supertone Kit High tone/Low tone, display box 003399801



Twin Trumpet Horn

Features:

- Sound Level: 110 dB
- Frequency: 500 Hz High-tone/400 Hz Low-tone
- Current: 2 x 6 Amp

Kit includes:

One high-tone trumpet unit, one low-tone trumpet unit, relay, mounting brackets, and mounting instructions

Part No:

Twin Trumpet Horn Kit, retail clamshell 007424804
 Twin Trumpet Horn Kit, display box 007424801



Universal Disc Horn

Features:

- OE replacement for various applications
- Black Diaphragm and Galvanized Metal
- Sound Level: 115 dB
- Frequency: 335 Hz Low-tone/400 Hz High-tone
- Current: 5.5 Amp

Kit includes:

One disc horn with bracket

Part No:

Universal Disc Low-Tone, retail clamshell 006958611
 Universal Disc High-Tone, retail clamshell 002952013



Retail Display Box

- Compact Size
- Free standing design
- Pictures and graphics illustrate the contents



Triple-Tone Air Horn

Features:

- Sound Level: 118 dB
- Standard: 880 Hz High-tone/820 Hz Middle-tone/780 Hz Low-tone
- Melodic: 860 Hz High-tone/780 Hz Middle-tone/580 Hz Low-tone
- Melodic Horn features change-over switch on compressor for selecting melodic or triple-tone sound

Kit includes:

One triple-horn unit with high performance compressor, relay, mounting brackets, and mounting instructions

Part No:

12V Triple-Tone Air Horn Kit with Compressor, retail clamshell 003001671

12V Triple-Tone Air Horn Kit with Compressor and Melodic Sound, retail clamshell 003001681

Twin-Tone Air Horn

Features:

- Sound Level: 118 dB
- Frequency: 840 Hz High-tone/780 Hz Low-tone

Kit includes:

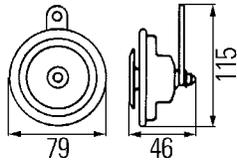
One high-tone unit and one low-tone unit with high performance compressor, relay, mounting brackets, and mounting instructions

Part No:

12V Twin-Tone Air Horn Kit with Compressor, retail clamshell 003001651

24V Twin-Tone Air Horn Kit with Compressor, retail clamshell 003001661





Part No.

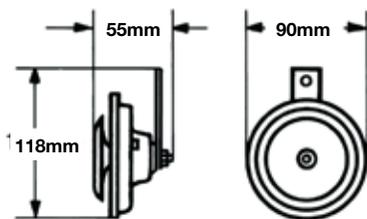
M28 Series - Disc Horn

- 79 mm diameter design
- Includes metal bracket for M10 mounting screw
- Blade type terminal contacts
- Protection from moisture
- Special black housing

007425427

Low - Tone Horn (Bulk 40 Pieces)

Voltage	12V
Frequency	335 Hz
Sound Level at 2 meters	110 dB
Power Consumption	72W



S90 Series - Disc Horn

- 90 mm diameter design
- Includes metal bracket for M8 mounting screw
- Blade type terminal contacts
- Black housing with special red membrane

922000951

Low - Tone Horn (Single)

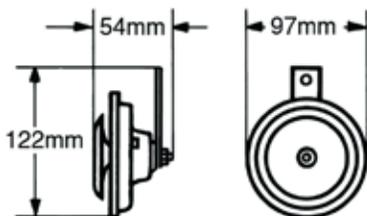
922000961

High - Tone Horn (Single)

922000971

Two Horn (High / Low Tone) Display Set (Single)

Voltage	12V
Low Tone Frequency	350 Hz
High Tone Frequency	415 Hz
Sound Level at 2 meters	113 dB
Power Consumption	42W



M26 Series - Disc Horn

- 97 mm diameter design
- Includes metal bracket for M8 mounting screw
- Blade type terminal contacts
- Teflon seal protects against moisture
- Special order options include alternate 6V, 12V and 24V designs and twin horn sets.

006958847

Low - Tone Horn ⁽¹⁾ (Single)

006958611

Low - Tone Clamshell Display Pack ⁽¹⁾ (Single)

002952811

High - Tone Horn ⁽²⁾ (Single)

002952013

High - Tone Clamshell Display Pack ⁽²⁾ (Single)

Voltage	12V
Low Tone Frequency	335 Hz
High Tone Frequency	400 Hz
Sound Level at 2 meters	115 dB
Power Consumption	66W

⁽¹⁾ Special black housing

⁽²⁾ Galvanized metal body with black diaphragm

Part No.

M100 Series - Disc Horn

100 mm diameter design
 Special black housing
 Includes metal bracket for M8 mounting screw
 Blade type terminal contacts

922100271 Low - Tone Horn (Single)

Voltage 12V
 Frequency 350 Hz
 Sound Level at 2 meters 113 dB
 Power Consumption 72W
 Terminal Position Measured from bracket 240°
 Center Line (Clockwise)

H31990081 Low - Tone Horn (Single)

Voltage 12V
 Frequency 350 Hz
 Sound Level at 2 meters 113 dB
 Power Consumption 72W
 Terminal Position Measured from bracket 90°
 Center Line (Clockwise)

H31986011 Low - Tone Horn (Single)

Voltage 24V
 Frequency 350 Hz
 Sound Level at 2 meters 113 dB
 Power Consumption 72W
 Terminal Position Measured from bracket 240°
 Center Line (Clockwise)

H31990061 Low - Tone Horn (Single)

Voltage 12V
 Frequency 350 Hz
 Sound Level at 2 meters 113 dB
 Power Consumption 72W
 Includes black protective grille.

B36 Series - Disc Horn

112 mm diameter design. Galvanized metal body with black diaphragm
 Includes metal bracket for M8 mounting screw
 Blade type terminal contacts. Teflon seal protects against moisture
 Special order options include 40V and 80V units, moisture resistant designs, and twin horn sets

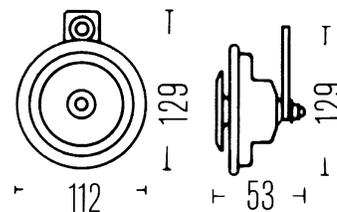
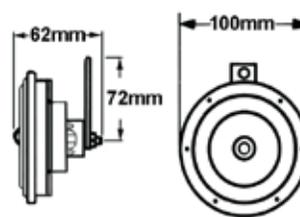
002768082 Low - Tone Horn - 12V (Single)

002768551 High - Tone Horn - 12V (Single)

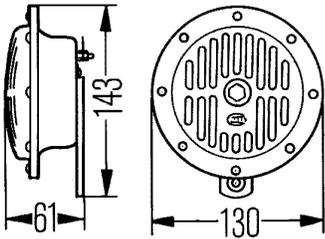
002768382 Low - Tone Horn - 24V (Single)

002768431 High - Tone Horn - 24V (Single)

Voltage 12V / 24V
 Low Tone Frequency 335 Hz
 High Tone Frequency 400 Hz
 Sound Level at 2 meters 116 dB
 Power Consumption 72W



Part No.



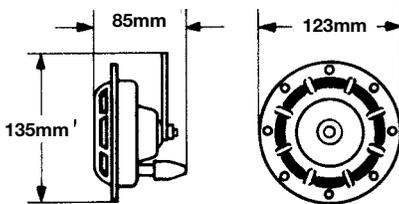
DL50 Series - Supertone Horn

130 mm diameter design
 Black metal housing with protective grill
 Includes metal bracket for M8 mounting screw
 Blade type terminal contacts

004811001	Low - Supertone Horn - 12V (Single)
004811011	High - Supertone Horn - 12V (Single)
004811021	Low - Supertone Horn - 24V (Single)
004811031	High - Supertone Horn - 24V (Single)
004811041	Two Horn (High / Low Tone) Set - 12V (Single)

Voltage	12V / 24V
Low Tone Frequency	310 Hz
High Tone Frequency	380 Hz
Sound Level at 2 meters	114 dB
Power Consumption	72W

B133 Series - Supertone Horn



123 mm diameter design
 Includes metal bracket for M8 mounting screw
 Blade type terminal contacts
 Teflon seal protects against moisture

005631007	Low - Supertone Horn (Bulk 32 pieces)
005631041	High - Supertone Horn (Single)
005631047	High - Supertone Horn (Bulk 32 pieces)
003399803	Clamshell Display Pack (Single)
003399801	Retail Display Box (Single)

Voltage	12V
Low Tone Frequency	300 Hz
High Tone Frequency	500 Hz
Sound Level at 2 meters	118 dB
Power Consumption	66W
Black metal housing with red protective grille	

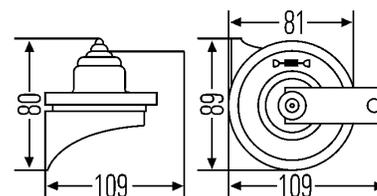
003399061	Low - Supertone Horn (Single)
003399071	High - Supertone Horn (Single)
003399101	Two Horn (High / Low Tone) Set (Single)

Voltage	24V
Low Tone Frequency	375 Hz
High Tone Frequency	500 Hz
Sound Level at 2 meters	115 dB
Power Consumption	84W
Black metal housing with black protective grille	

Part No.

TE16 Series - Electric Twin Tone Trumpets

81 mm diameter design
 Galvanized metal body featuring red trumpets
 Includes metal bracket for M8 mounting screw and 270° of rotation
 Blade type terminal contacts



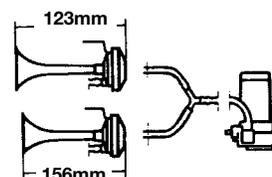
007424001	Low - Tone Trumpet (Single)
007424007	Low - Tone Trumpet (Bulk 8 pieces)
007424661	Low - Tone Trumpet ^{(1) (2)} (Single)
007424711	Low - Tone Trumpet ^{(1) (3)} (Single)
007424011	High - Tone Trumpet (Single)
007424017	High - Electric Twin Tone Trumpet (Bulk 8 pieces)
007424804	Clamshell Display Pack (Single)
007424801	Retail Display Box (Single)

Voltage 12V
 Low Tone Frequency 400 Hz
 High Tone Frequency 500 Hz
 Sound Level at 2 meters 110 dB
 Power Consumption 72W

⁽¹⁾ Special black housing without bracket
⁽²⁾ Two terminal contacts
⁽³⁾ Single terminal contact

Twin Tone Air Horns

For vehicles without compressed air brake systems
 Kits include: 2 red trumpet horns, compressor, tubing, relay, mounting brackets, and instructions

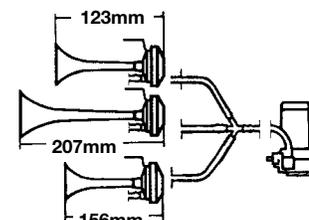


003001651	Twin Tone Air Horn - Clamshell Display Kit - 12V (Single)
003001661	Twin Tone Air Horn - Clamshell Display Kit - 24V (Single)

Voltage 12V / 24V
 Frequency 780 Hz
 840 Hz
 Sound Level at 2 meters 118 dB
 Power Consumption 180W (12V) 240W (24V)

Triple Tone Air Horns

For vehicles without compressed air brake systems
 Kits include: 3 red trumpet horns, compressor, tubing, relay, mounting brackets, and instructions



003001671	Triple Tone Air Horn - Clamshell Display Kit (Single)
003001681	Triple Tone Air Horn / Melodic Sound - Clamshell Display Kit (Single)

Voltage 12V
 Frequency 780Hz 580Hz (Melodic Low)
 820 Hz 780Hz (Melodic Mid)
 880 Hz 860Hz (Melodic High)
 Sound Level at 2 meters 118 dB
 Power Consumption 180W 240W (Melodic)



Part No.

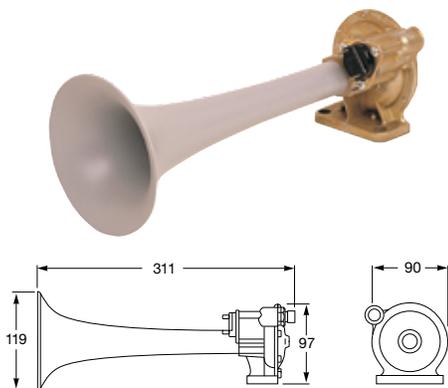
Compressed Air Horns

004206011

Compressed Air Horn (Single)

For vehicles with compressed air brake systems
Includes compressed air electrovalve
Suitable for 10mm diameter compressed air pipe
Tough die-cast housing with black plastic trumpet
2 holes for M10 fixing screws

Voltage	24V
Frequency	400 Hz
Sound Level at 2 meters	118 dB
Power Consumption	50W
Required Air Pressure	87 - 120 PSI

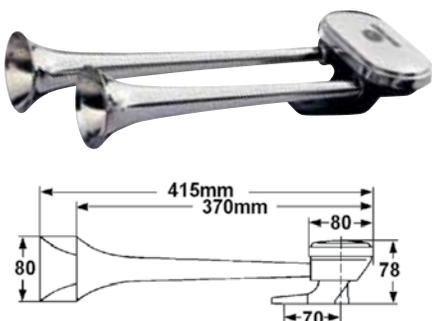


005411001

Twin Compressed Air Horn (Single)

For vehicles with compressed air brake systems
Rustproof chrome housing

Frequency	300 Hz
	320 Hz
Required Air Pressure	87 - 120 PSI
Rustproof chrome housing	



Twin Compressed Air Horn Accessories

715989001

Hand Operated Valve (Single)



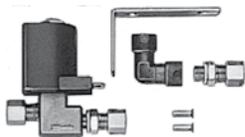
715990001

Floor Operated Valve (Single)



715991001

Electro Valve (24V, 20W) (Single)



Buzzers

H35394001

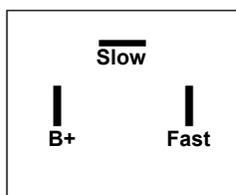
3 Pin Buzzer Unit - 12V (Single)

931394007

3 Pin Buzzer Unit - 12V (Bulk 224 Pieces)

Dual rate buzzer with slow and fast modes
Connection: Apply voltage to power terminal (B+) and apply ground to either slow terminal or fast terminal depending on desired buzzer rate.

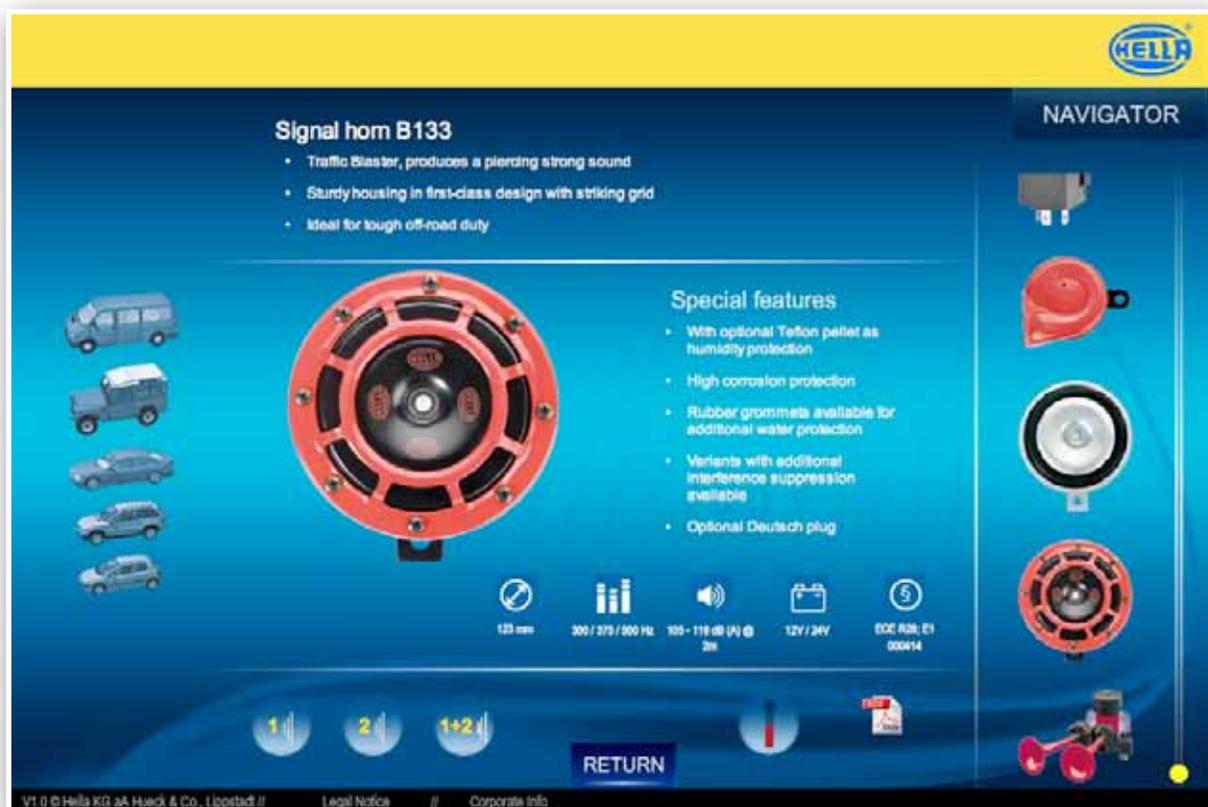
Sound Level:	90 dB at 1 foot
Sound Frequency:	4000 Hz +/- 20%
Slow Rate:	60 CPM +/- 20%
Fast Rate:	120 CPM +/- 20%



Online Horn Demo Site

Experience the sound of Hella horns using our unique demo tool. Sample both single and dual horn combinations along with realistic traffic sounds. Download product summary sheets for any of Hella's horn products.

www.hella.com/MicroSite/horns



Horn App

Introducing the first international HELLA app. This app is available in 10 languages and is suitable for smartphones with Apple iOS and Android operating systems. It is a mobile application for HELLA horns and fanfares. The horns and fanfares app provides an acoustic comparison. The app allows the option to listen to various kinds of sounds or switch on street noises, simply by tapping on your smartphone screen. Navigating the app feels very intuitive, and is a useful tool for selecting a product.



Scan this QR Code to download this app for free in the Apple iTunes Store™



Scan this QR Code to download this app for free in the Android Market™

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896H-1AH-D1S-24V	965400031	15
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896H-1AH-D-R1-24V	007957001	19
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Terminal Compatibility Chart

Supplier	Part No.	AWG	Blade Size		Relay Socket Part No.		
			Inches	mm			
Hella	H84991101	14 - 20	.110"	2.8mm	H84526001	003526002	003526001
	172609007	14 - 20	.110"	2.8mm			
Hella	H84991117	18	.187"	4.8mm	H84702001	H84702007	H84702007
	172611007	18	.187"	4.8mm			
Hella	701235033	14 - 16	.250"	6.3mm	H84989011	H84989017	U84989017
	701235034	14 - 16	.250"	6.3mm	H84526001	003526002	003526001
					H84702001	H84702007	U84702007
					H84989021	H84989027	U84989027
					H84703001	H84703007	U84703007
Hella	H84991151	10 - 12	.375"	9.5mm	H84703001	H84703007	U84703007
	172615007	10 - 12	.375"	9.5mm			
	H84991141	6 - 10	.375"	9.5mm			
	172616007	6 - 10	.375"	9.5mm			
Grote & Hartmann	23613213011	18	.187"	4.8mm	H84702001	H84702007	H84702007
Interlock Terminal Corporation	JW 1630-2	16 - 18	.250"	6.3mm	H84989011	H84989017	U84989017
	JW 1230-2	12 - 14	.250"	6.3mm	H84526001	003526002	003526001
					H84702001	H84702007	U84702007
					H84989021	H84989027	U84989027
					H84703001	H84703007	U84703007
Tyco / AMP	42100	14 - 18	.250"	6.3mm	H84989011	H84989017	U84989017
	42281	14 - 18	.250"	6.3mm	H84526001	003526002	003526001
	42904	12 - 16	.250"	6.3mm	H84702001	H84702007	U84702007
	60249	12 - 16	.250"	6.3mm	H84989021	H84989027	U84989027
					H84703001	H84703007	U84703007
Tyco / AMP	280756	10 - 12	.375"	9.5mm	H84703001	H84703007	U84703007
	280755	6 - 10	.375"	9.5mm			



Terminal Designations DIN 72552

Component	Terminal	Significance
Ignition and current supply	1	Coil, distributor - low voltage
	1a	To contact breaker I (distributor with 2 separate circuits)
	1b	To contact breaker II (distributor with 2 separate circuits)
	2	Shorting circuit - magneto ignition
	4	Coil, distributor - high voltage
	4a	From coil I (distributor with 2 separate circuits)
	4b	From coil II (distributor with 2 separate circuits)
	7	Ballast resistor terminal to/from distributor
	15	Switched + downstream of battery (output of ignition/driving switch)
	15a	Output at ballast resistor to coil and starter
	17	Glow plug and starter switch - Start
	19	Glow plug and starter switch - Preheat
	30	Input from battery +, direct 12/24 V series-parallel battery switch
	30a	Input from + terminal of battery II
	31	Battery negative terminal, or ground, direct
	31a	Return line to battery II, negative (12/24 V series-parallel battery switch)
	31b	Return line to battery negative terminal, or ground via switch or relay (switched negative)
	31c	Return line to battery I, negative (12/24 V series-parallel battery switch)
	X	Battery power switched through the load reduction relay
	Motors	32
33		Main terminal connection
33a		Self-parking switch-off
33b		Shunt field
33f		For 2nd low-speed range
33g		For 3rd low-speed range
33h		For 4th low-speed range
33L		Anticlockwise
33R		Clockwise
Starters		45
	45a	Output, starter I, Input, starters I and II
	45b	Output, starter II
	48	Terminal on starter & on repeating relay for monitoring starting procedure
Turn-signal flashers (pulse generators)	49	Input
	49a	Output
	49b	Output, 2nd circuit
	49c	Output, 3rd circuit

Component	Terminal	Significance
Starter control	50	Starter control (direct)
	50a	Series-parallel battery switch - Output for starter control with parallel operation of two starters with sequential control
	50b	Starting relay for sequential control of the engagement current during parallel operation of two starters
	50c	Input at starting relay for starter I
	50d	Input at starting relay for starter II
	50e	Start-locking relay Input
	50f	Start-locking relay Output
	50g	Start-repeating relay Input
	50h	Start-repeating relay Output
Alternator	51	DC voltage at rectifier
	51e	DC voltage at rectifier with choke coil for daytime driving
Trailer signals	52	Additional signals from trailer to vehicle
Wiper motors	53	Wiper motor, input (+)
	53a	Wiper (+), self-parking switch-off
	53b	Wiper (shunt winding)
	53c	Electric windshield-washer pump
	53e	Wiper (brake winding)
	53l	Wiper motor with permanent magnet and 3rd brush (for higher speed)
Trailer signals (see also 52)	54	Trailer plug connections and lighting combinations, brake light
	54g	Pneumatic valve for continuous brake in trailer, solenoid-operated
Lighting	55	Fog lamp
	56	Headlamp
	56a	High beam, high-beam indicator lamp
	56b	Low beam
	56d	Headlamp-flasher
	57a	Parking lamp
	57L	Parking lamp, left
	57R	Parking lamp, right
	58	Side-marker, tail, numberplate and instrument panel lamps
	58b	Taillight changeover for two-wheeled tractors
	58c	Trailer plug and receptacle assembly for single-conductor taillight with fuse in trailer
	58d	Variable intensity instrument panel light, tail light and side marker.
	58L	Numberplate lamp, left
	58R	Numberplate lamp, right

Component	Terminal	Significance
Alternators and voltage regulators	59	A/c voltage output, rectifier input
	59a	Charging armature, output
	59b	Tail light armature, output
	59c	Brake light armature, output
	61	Alternator charge-indicator lamp
	B+	Battery +
	B-	Battery -
	D+	Dynamo +
	D-	Dynamo -
	DF	Dynamo field
	DF1	Dynamo field 1
	DF2	Dynamo field 2
	U,V,W	Three-phase alternator terminals
Multi-tone horn and emergency lights	71	Input
	71a	Output to horns 1 & 2 low
	71b	Output to horns 1 & 2 high
	72	Alarm switch - revolving emergency light
Radio, cigarette lighter	75	Radio, cigar lighter
	76	Speakers
	77	Door valve control
Normally closed and changeover switches	81	Input
	81a	Output 1, NC side
	81b	Output 2, NC side
Normally open switches	82	Input
	82a	Output 1
	82b	Output 2
	82z	Input 1
	82y	Input 2
Multi-position switches	83	Input
	83a	Output, position 1
	83b	Output, position 2
	83L	Output, left-hand position
	83R	Output, right-hand position
Current relays	84	Input, actuator and relay contact
	84a	Output, actuator
	84a	Output, relay contact

Component	Terminal	Significance
Switching relays	85	Output, actuator (end of winding to ground or negative)
	86	Input, actuator (start of winding)
	86a	Start of winding or 1st winding
	86b	Winding tap or 2nd winding
Relays - N/C and changeover	87	Input
	87a	Output 1(NC side)
	87b	Output 2
	87c	Output 3
	87z	Input 1
	87y	Input 2
	87x	Input 3
Relays - N/O and changeover	88	Input
	88a	Output 1
	88b	Output 2
	88c	Output 3
	88z	Input 1
	88y	Input 2
	88x	Input 3
Directional signals	C	Indicator lamp 1
	C2	Indicator lamp 2
	C0	Main connection for separate indicator circuits worked by turn signal switch
	C3	Indicator lamp 3 (e.g., when towing two trailers)
	L	Turn-signal lamps, left
	R	Turn-signal lamps, right

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The first - still mechanical - flasher units were produced from 1950 onwards. In 1965 Hella introduced the first electronic flasher unit to the market. The way was paved for electric and electronic components for safety and convenience functions in motor vehicles. Basic parts of these functions are relays and relay devices.

Thanks to ongoing development and a wide product spectrum, Hella is the "relay specialist" for the aftermarket industry. Because of constant expansion and optimization of the relay range, we are the ultimate in the art of Relays.





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