

KISSLING BI-STABLE RELAYS WITH INTERNAL CONTROL ELECTRONICS

Series 31 / INIT

Our series 31 bi-stable power relay with internal control electronics is based on the Series 30 industrial relay and has all of the same quality mechanical and electrical switching characteristics - but also features additional electronic functions.

This relay is particularly well suited for battery management and power distribution applications on commercial vehicles, buses, construction & agricultural vehicles, aircraft, ground support equipment and lift trucks.

Our robust design of our bi-stable relays provides a sealing rate of IP67 and IP6K9K (steam pressure cleaning) in accordance with IEC 60529 and DIN 40050-9. The series 31 includes power relays in nominal voltages of 12 & 24 V and nominal continuous amperages of 300 A. Contact voltages up to 250 VDC with magetical blowout (>40 VDC).

Electronic INIT-Control

The basic principle of the relay is a reliability proven two coil device with a "Pull In" and "Drop Out" coil with a powerless permanent magnetic holding.

At the clamp 30(+) and 85(-) applied the permanent-supply. The selection ensured powerless from INIT-impul.

A HIGH-level activates the relay, a LOW-level disconnects it. If the monostable activation keep use, the INIT- activation is a advantage. The electronics are short-circuit protected and feature safety coil selection, reverse polarity protection and coil cancellation. The integrated undervoltage protector secures the relay against undefined operating conditions.

KEY BENEFITS

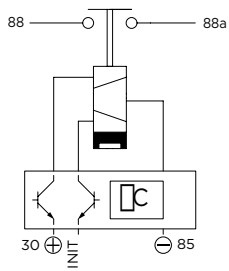
- Sealed housing meets IP67 and IP6K9K
- Robust design
- Variety of configuration options
- 6G shock and 4G vibration resistant

APPLICATIONS

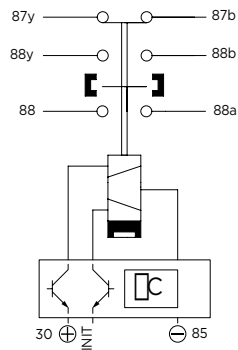
- Commercial vehicles
- Bus
- Lift truck
- Ground support equipment
- Construction and agricultural vehicles

CIRCUITS

NO-Contact
Standard type



NO-Contact Auxiliary contact /
Magnetic blowout



SPECIFICATION

Technical Data	
Temperature range	-40°C to +85°C
Protection	IEC 60529 / DIN 40050-9 / IP67 (0,2 bar; 1 min) and IP6K9K
Shock	6g / 11 msec
Vibration	4g / 50 - 2000 Hz
Thread sizes / Torque	M4 = 2.0 - 2.2 Nm M10 = 15 - 20 Nm

Electrical Characteristics	
Min. Insulation resistance	100 MΩ
After live or environment	50 MΩ
Dielectric withstanding voltage	1050 VAC / 1 min at 50 Hz
Max. Contact drop, initial	150 mV
Contact drop after life test	175 mV
Continuous current	300 A
Overload	2400 A - 1 sec / 600 A - 20 sec
Quiescent current	Approx. 2 mA

Rated contact load	
	12 and 24 / 28 VDC
Resistive load	50.000 cycles 300 A
Mechanical life	100.000 cycles

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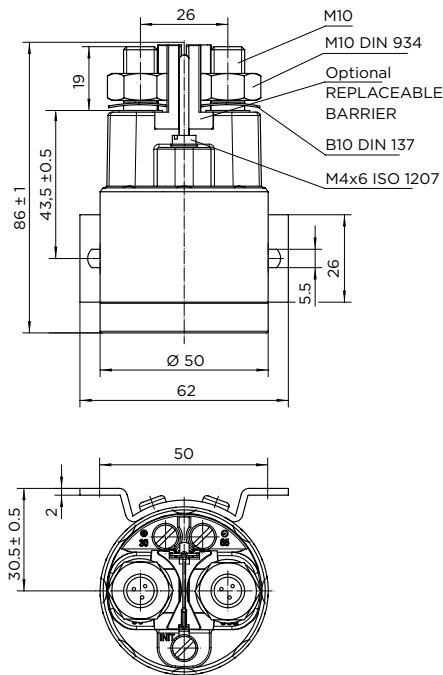
Coil Data	12 VDC	24 / 28 VDC
Voltage range	9-16 VDC	18-32 VDC
Nominal voltage	12 VDC	28 VDC
Pull in current	5.7A, 50 ms	2.9A, 50 ms
Drop out current	6.0A, 50 ms	3.0A, 50 ms

Control input INIT	
Control signal	Active high
Drop out current	LOW < 0,5 VDC / HIGH > 5 VDC LOW < 5 VDC / HIGH > 9 VDC

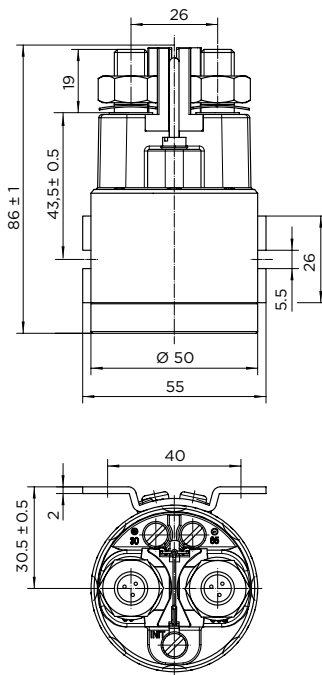
Operating times	
Pick up incl. bounce and running time μ C	Approx. 150 msec
Drop out incl. running time μ C	Approx. 150 msec
Wire Section	Min. 95 mm ² / 0.147 sq.inch / AWG 4-0
Mounting position	Optional

TECHNICAL DRAWINGS

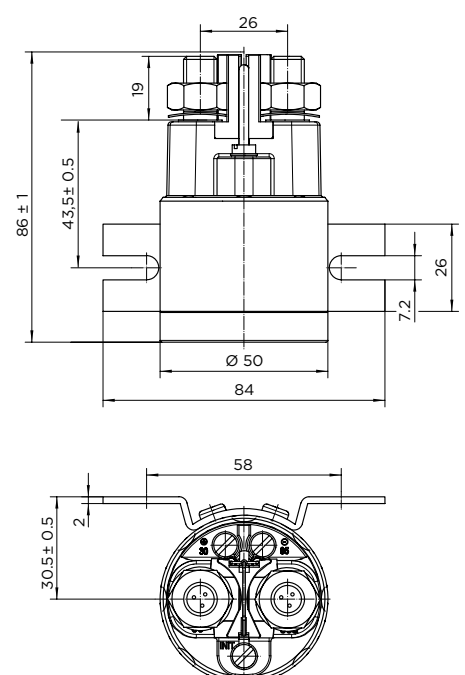
Standard side mounting



Short form side mounting



Long form side mounting

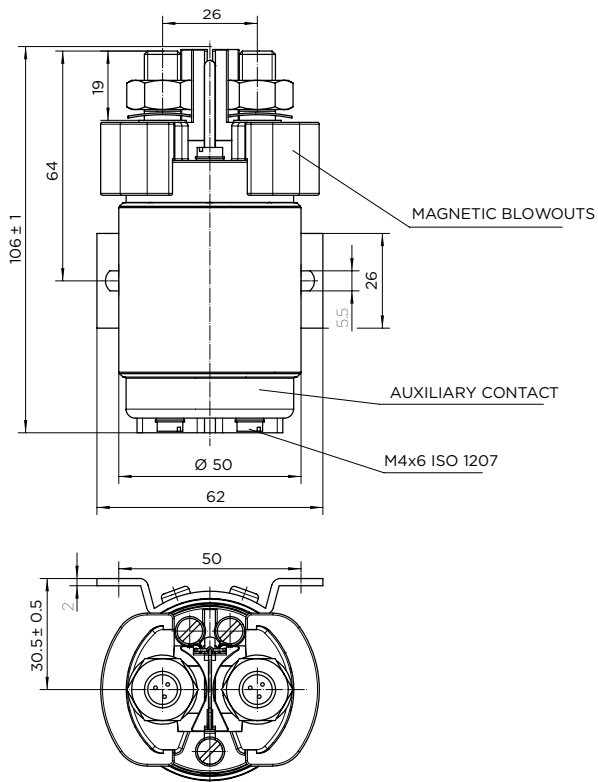


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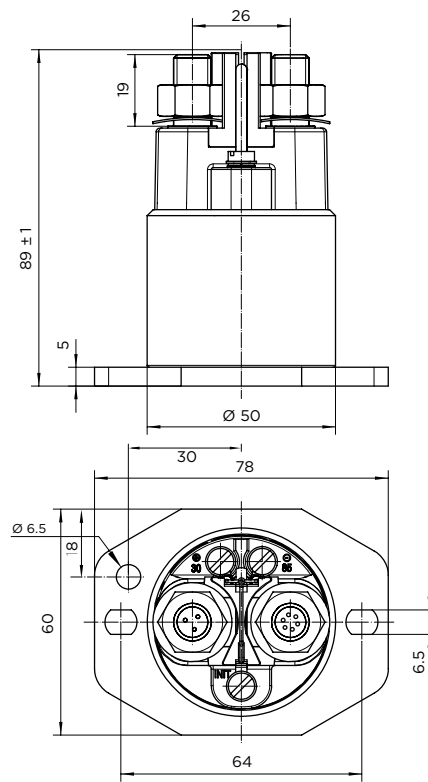
Series 31 / INIT

Options:

Auxiliary contacts, magnetic blowouts



Bottom mounting



ORDERING INFORMATION

Part Number
example: 31-XXX-XX-X
31 - X _ _ - _ _ - _ _

Current

3	Current 300 A
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Contacts

1	Make contact NO
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Mounting

1	Standard side mounting
2	Short form side
3	Bottom mounting
4	Long form side

Suppression

1	Suppression (integrated)
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Options

A	Auxiliary contacts*
B	Magnetic blowout (required over 40 VDC)

* Not possible for bottom mounting

Switching function INIT

I	INIT
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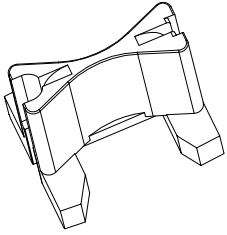
Coil voltage

1	12 V
2	24 / 28 V

ACCESSORIES

Replaceable barrier

29-200-55



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