

Technical data sheet

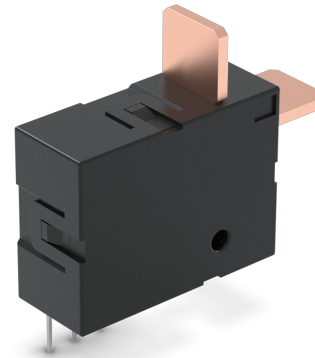
Relay 716

Description

Polarized latching relay for 80 A

Using the H-armature principle the polarised latching relays are noted for their high resistance to shocks and vibrations. They are always in a defined switching position and therefore there is no loss of information in case of power failure. The advantage of polarised latching relays is the pulse driven operation of some milliseconds, coil heating can be neglected. Optionally the relay can also be set by manual operation.

The relays are designed and manufactured in accordance to international standards of IEC 61810 part 1 as well as they meet the UC1 requirements for Supply Control Switches as of IEC 62052 part 31.



Technical data

<b>Coil data</b>	Rated voltage	6 – 48 VDC
	Rated power	4.5 W
	Operating power to set	3.0 W
	Pulse to set	20 ms
	Action time	< 15 ms
<b>Contact data</b>	Max. contact arrangement	1 NO
	Contact material	AgSnO <sub>2</sub>
	Max. switching power	20000 VA
	Max. switching voltage	440 VAC
	Rated switching current	80 A
	Mechanical life	10 <sup>6</sup>
<b>Insulation</b>	Creepage and clearance distance coil - contact	8.0 mm
	Test voltage coil - contact	4000 V eff.
	Test voltage contact- contact	V eff.
	Test voltage open contact	1000 V eff.
	Dielectric strength coil - contact	12 kV / 1.2 / 50 µs

Technical data

<b>General data</b>	Ambient temperature	-40 ... +85 °C
	Weight	45 g
	Conform to	VDE, UL (E539250-x-1), CSA, SEV, SEMKO

Standard windings

Standard winding No.	Nominal coil voltage (VDC)	Operating voltage of the coil U1 - U2 (VDC)	Coil resistance (Ohm)	Tolerance (± %)
8R0	6	4,8 - 7,8	2 x 8	10
032	12	9,6 - 15,6	2 x 32	10
125	24	19,2 - 31,2	2 x 125	10
500	48	38,4 - 62,4	2 x 500	10

<b>Contact position</b>		
Terminal-grid	H 2(-)/5(+) B 2(-)/4(+)	1(-)/5(+) 3(-)/4(+)

The relay can also be used with a single winding (lower operating power to set) if the middle pin of coil is not used. Furthermore, the magnet's polarization can also be adjusted to meet the customer's specific drive circuit requirements.

Identification

<b>Identification code</b>	716 AR - R 1A - B 032
Type	716
Terminal configuration	AR = see dim. drawing C = see dim. drawing
Contact material	R = AgSnO <sub>2</sub>
Contact arrangement	1A = 1 normally open
Terminal-grid	B / H
Winding No.	see coil table

Advice for soldering:

The relay is dust-protected. Take care to avoid that flux medium and lead-tin resp. their evaporations enter into the relay, i.e. the printed circuit board must not be flooded.

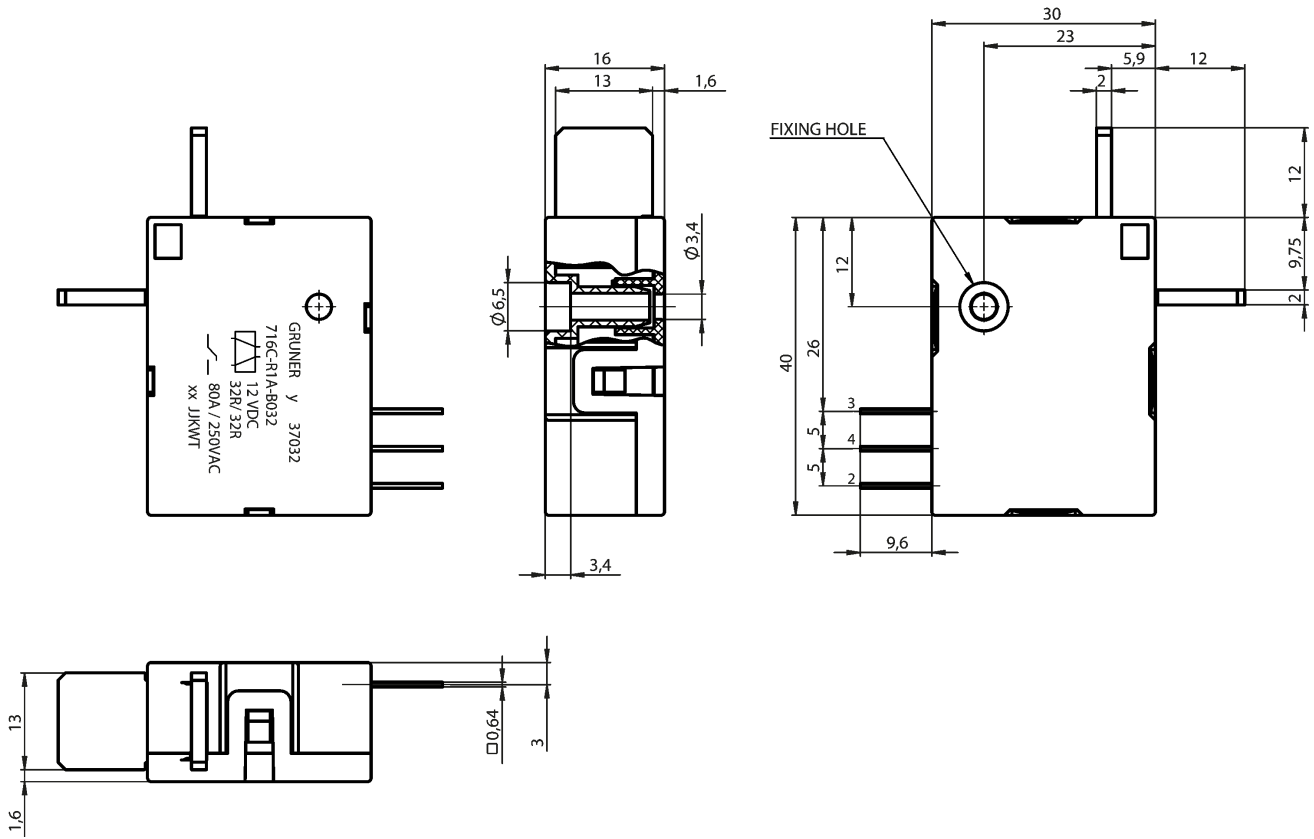
Extended storage could impact solderability due to increased oxidation on the terminals.

**Shunt:**

The Shunt is used to measure the energy consumed and, as it is integrated in the relay, can be utilised for load shedding in "Energy Management". Two connectors are located on the terminal close to the shunt and only carry the current sensor signal. A third connector is the reference signal for the electronics and is located on the supply side of the terminal to avoid RF sensitivity.

The power terminals can be modified according to customer specification.

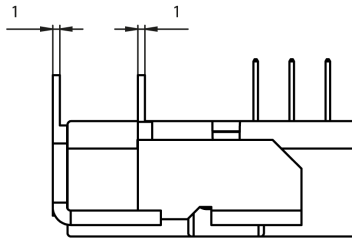
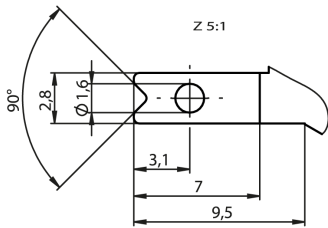
Technical drawing



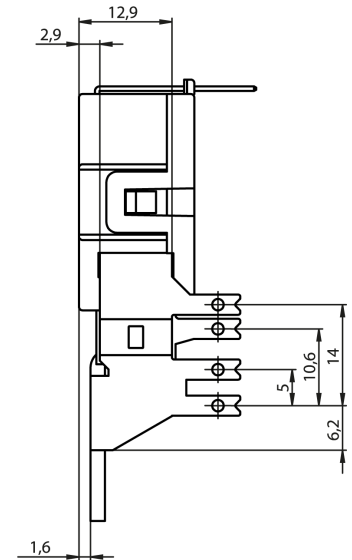
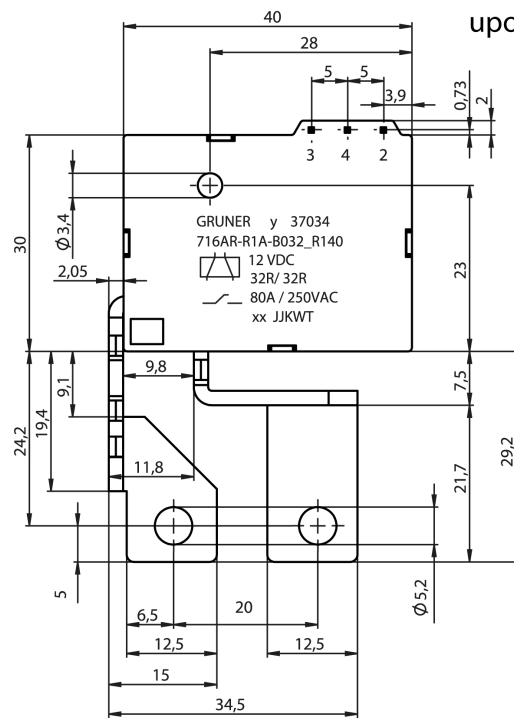
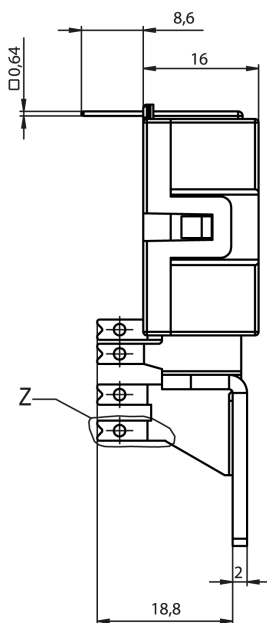
716 C

Shunt 716 AR

- at 20 °C: 140 μΩ
- at 0 °C: -0.1 %
- at 75 °C: -0.2 %
- at 150 °C: -0.6 %



Further resistance values upon request



716 AR (shunt)