

Technical Data

Relay 721

Description

Polarized latching relay for 100 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/VDE 0435 part 201 as well as they meet overload and short circuit requirements of IEC 62053/62054/62055(UC2).



Technical data

Coil data	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
Contact data	Max. contact arrangement	1 a
	Contact material	AgSnO ₂
	Max. switching power	25,000 VA
	Max. switching voltage	440 VAC
	Max. switching current	100 A
Insulation	Mechanical life	10 ⁶
	Creepage and clearance distance coil – contact	8 mm
	Test voltage coil – contact	4,000 V eff.
	Test voltage contact – contact	–
	Test voltage open contact	1,000 V eff.
	Dielectric strength coil – contact	12 kV / 1.2 / 50 µs
General data	Ambient temperature	-40 ... +85 °C
	Weight	75 g
	Conform to	VDE, UL, CSA, SEV, SEMKO

Standard windings

Standard winding No.	Nominal coil voltage (VDC)	Operating voltage of the coil (U1 – U2 (VDC))	Coil resistance (Ohm)	Tolerance (± %)
Double winding				
8R0	6	4.8 – 7.8	2 x 8	10
030	12	9.6 – 15.6	2 x 30	10
125	24	19.2 – 31.2	2 x 125	10
500	48	38.4 – 62.4	2 x 500	15

The relay coil with double winding can also be used as a single winding with half operating power if the middle pin of the coil is not used.

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

Identification

Identification code		721	C	-	R	1A	-	B	125
Type	721								
Terminal configuration	A = see dim. drawing C = see dim. drawing CR = see dim. drawing D = see dim. drawing DR = see dim. drawing F = see dim. drawing FR = see dim. drawing V = see dim. drawing VR = see dim. drawing								
Contact material	R = AgSnO ₂								
Contact arrangement	1A = 1 normally open								
Terminal-grid	B / H								
Winding No.	see coil table								

Example for ordering

Further versions
on request

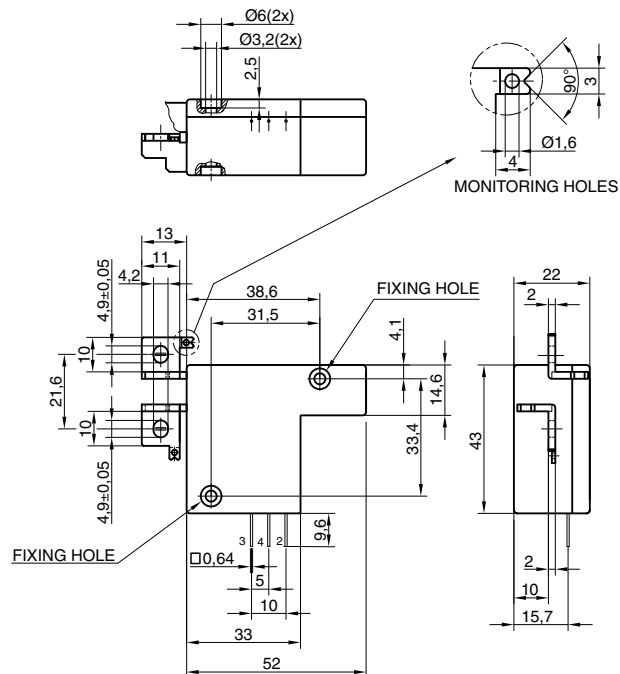
Advice for soldering:

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.

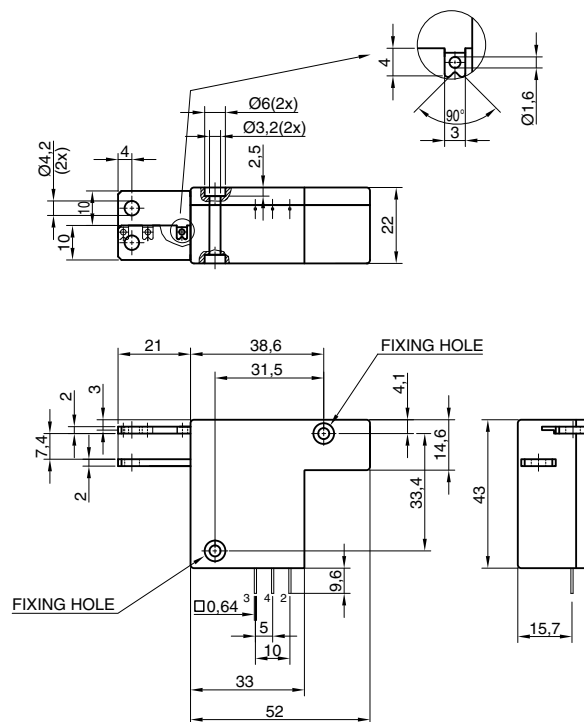
The power terminals can be modified according to customer specification.

A shunt is integrated into one of the power terminals of the type 721 CR/DR/FR/VR. It 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.

Technical drawing

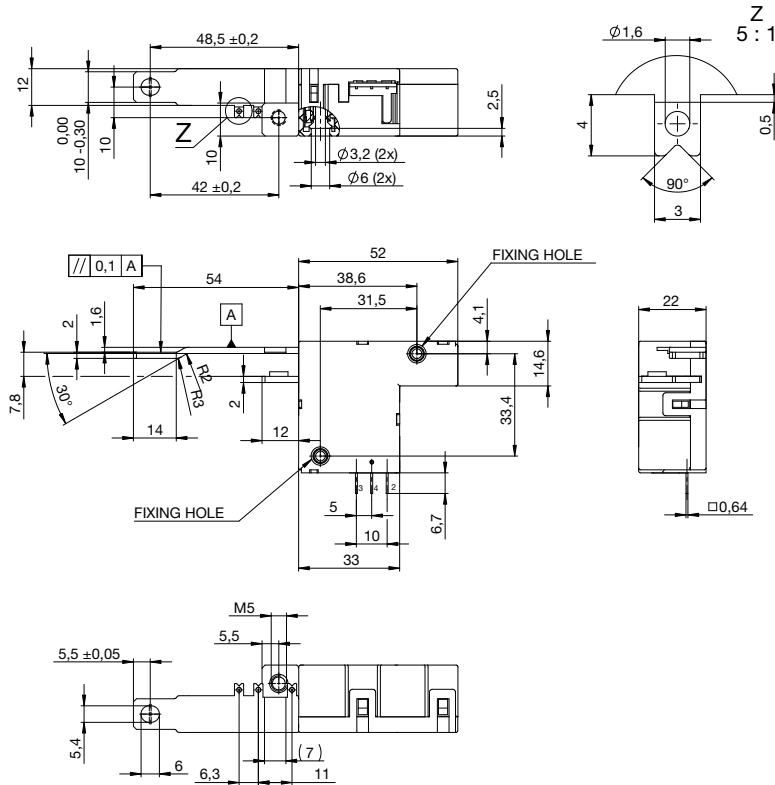


721 A



721 C

Technical drawing



Shunt 721 VR

at 20 °C: 150 $\mu\Omega$
at 0 °C: -0.1 %
at 75 °C: -0.2 %
at 150 °C: -0.6 %

Further resistance values
upon request

721 VR
(shunt)