Technical Data for RA70 Signalling Relays with Double Coil

PL 1732400000

Features

- 2 changeover contacts 250VAC / 5A
- Coil nominal voltages 24VDC and 230VAC, due to double coil system, independent activation from 2 places is possible
- Message display with acknowledgement
- Working current type

Technical data

Input characteristic values	
Nominal voltage coil 1	24 VDC
Nominal voltage coil 2	230 VAC, 50 / 60 Hz
all. rated voltage tolerance	-20% / +15%
all. nominal frequency tolerance	± 6 %
Operate voltage	≤ 0.8 U_N
Release voltage	≥ 0.05 U_N
Max. operating voltage	1.15 U_N
Duty	Continuous operation with exclusive activation of one coil input Pulse duty as per load graph with simultaneous activation of both coil inputs
Mode	Working current
Minimum actuating time	≥ 100 ms at U_N
Rated power	≤ 5.0 VA
Output characteristic values	
Contact configuration	2 changeover contacts
Switching voltage max.	250 V AC
Contact type	Single contact
Contact material	Hard silver - AgCu4
Contact resistances	≈ 40 mΩ when new
Making capacity max.	10 A
Limiting continuous current	5 A
all. continuous current max.	5 A
Breaking capacity max.	10 A cos φ = 1.0 230 V AC 6 A cos φ = 0.4 230 V AC 0.6 A τ = 0 ms 220 V DC 0.2 A τ = 40 ms 220 V DC
Switching capacity min.	24 V, 50 mA
Frequency of operation max.	≤ 600 cycles per hour
Electrical endurance	≥ 1 × 10^5 cycles at max. breaking capacity
Characteristic use values	
Ambient temperature	- 10°C to 50°C
Rated impulse voltage	4.0 kV, voltage waveform 1.2/50 µs
Rated insulation voltage AC	2.0 kV
Pollution degree	3
Clearances	≥ 3 mm
Creepage distances	≥ 4 mm

Installation altitude	≤ 2000 m above sea level
HF interference immunity (1 MHz)	1.0 kV mating contact voltage (transverse voltage) 2.5 kV common-mode voltage (longitudinal voltage)

Installation and connection conditions	
Operating position	Front face vertical to horizontal, facing upwards
Detectability of the visual display	up to approx. 5 m at a viewing angle of 90° ± 20° to the front face
Relay enclosure	closed panel mounting housing, transparent inspection window
Degree of protection	Relay enclosure: IP 40 Terminals: IP 00
Connection technique	Screw terminal Tab terminal 4.8 or 6.3 or soldered termination as optional additional elements
Wire cross-section	1 or 2 × 0.5 mm^2 to 2.5 mm^2 Cu single and multi-wired 1 or 2 × 1.0 mm^2 up to 2.5 mm^2 Cu, finely wire~~strand~~ed
Fixing	Compression-type fitting
Front dimensions	60 mm × 60 mm
Panel cutout	$54.5^{+0.5}$ mm × $54.5^{+0.5}$ mm
Weight	approx. 0.3 kg
Transport and storage conditions	
Temperature range	-50 °C to 70 °C
Storage location	enclosed and ventilated rooms

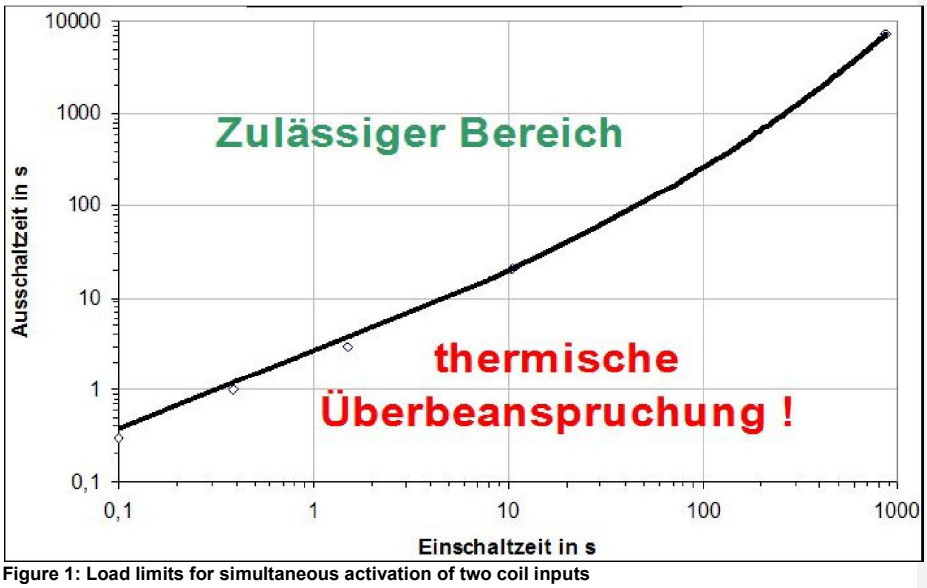

Figure 1: Load limits for simultaneous activation of two coil inputs

(Ausschaltzeit) Break time in s
(Einschaltzeit) Make time in s
(Zulässiger Bereich) Allowable range
(thermische Überbeanspruchung) thermal overload!

Formatiert: Deutsch (Deutschland)

Circuit diagram

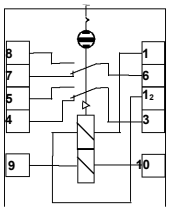

Figure 2: Circuit diagram

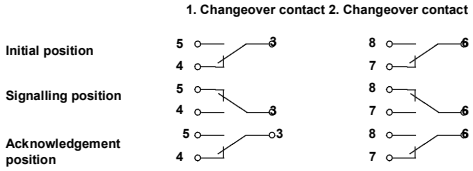

Figure 3: Switching position depending on signalling status

Dimensions

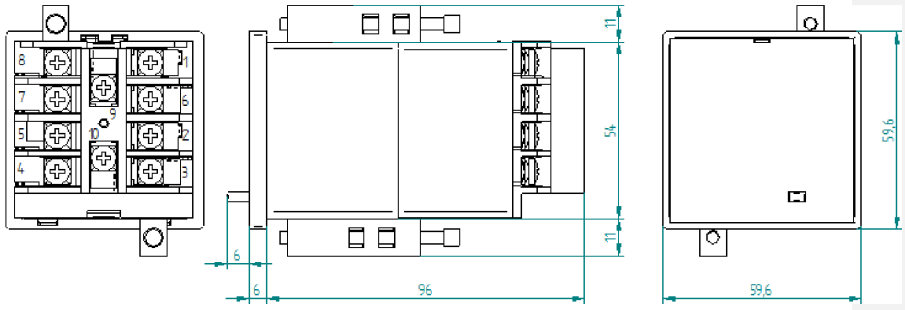

Figure 4: Dimensions

Installation

The signalling relay is intended for installation in a panel cutout with the dimensions given above. To this end, the device is to be inserted into the panel cutout from the front of the panel and then fitted with the enclosed screw-on clamp-type holders. These must then be braced against the front of the panel using a size 2 cross-head screwdriver.

Note on putting into operation

If the relay operates with simultaneous energising of both coil groups (AND operation), the polarity of the connected control circuits must be noted.
If the two coil groups have opposite polarity, in case of simultaneous energising opposite magnetic fields develop, which compensate each other. The relay operates solely on activation of a coil group. (XOR operation).
The required function must be checked during putting into operation. If necessary, the polarity of a control circuit must be reversed.