

Voltage signaling relay

Type 8591 Double relay design for DC1500 V

8591



Description

The voltage signaling relay of the type 8591 has been developed particularly for the detection and signalling of the voltage states of DC traction power supply systems. (Auxiliary supply is not needed for the operation of this device.)

Due to the special design the big voltage tolerances occurring during rail operation are unproblematic for the voltage signal relay of the type 8591.

This relay stands out due to its fully encapsulated construction. It is connected to the contact line and the return conductor or the voltage source via firmly moulded cables.

The output contacts (1 or 2 change-over contacts) are encapsulated hermetically and therefore protected against corrosion.

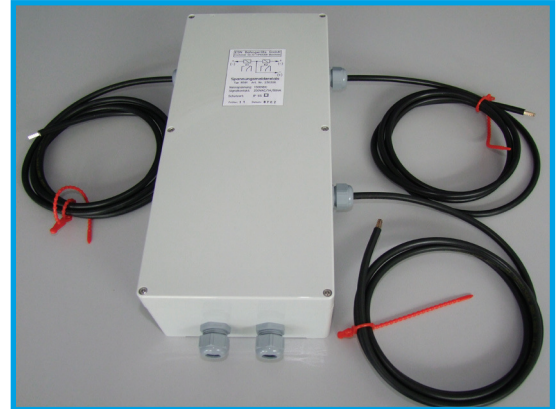
The design offers the best possible protection of the output side against surges of atmospheric origin, which might come from the input side. This also applies to the separation of the contacts, change-over contact against change-over contact.

According to section 60 of VDE 0100 concerning auxiliary circuits short-circuit protection is not required for a voltage signal relay if the connecting cables have been laid in a short-circuit proof way. Therefore, the voltage signal relay should always be ordered with the cable lengths needed for the connection to the voltage and the return conductor.

Polarity need not be observed for the connection of the voltage signal relay. Thus, the cable routing can be optimised to the local conditions. The principles of overvoltage protection have to be observed by the installation.

The output contacts are designed as reed contacts. Under no circumstances shall the limit values be exceeded for this kind of contact. Particularly the capacitive inrush currents and the lamp loads have to be considered (see information sheet concerning reed contacts).

Information about further relays is found in our complete brochure folder.



Technical data

Dimensions	See Figs.
Housing	Makrolon
Degree of protection	IP 65
Protective class	Protective class II
Fastening	Screw fixing M4, see Figs., with mounting plate: screw fixing M8 or strap fitting
Mounting plate	
Dimensions	Approx. 440mm x 160mm
Material	Stainless steel 1.4571
Ambient air temperature	-20°C to +70°C
Coil	Two independent coil systems
Nominal DC voltage	1500 V (+20%/-30%)
Auxiliary supply	None
Resistance	Approx. 900 kΩ
Inductivity (L _i)	> 50 H
Power input	U _N = 1500 V: approx. 5 W U _N = 1800 V: approx. 8 W
U _{pickup}	900 V ± 10 %
U _{drop}	500 V ± 20%
Contact (reed contact)	each relay 1 change-over contact (potential-free contact)
Switching capacity	Max. 80 VA/60 W
Switching voltage	Max. 250 V
Switching current	Max. 1 A
Electric strength	15 kV _{eff} (coil-contact)
Coil connection	Firmly connected and embedded cable ends
Cable	NSGAFöu (3/6 kV) 10mm ²
Standard length	2 m (or customer-specific)
Design	With one or two change-over contacts
Double design	Without mounting plate With mounting plate

Ordering information

Type	Part No.
Type 8591-1500V, double relay, output: 1 change-over contact for each relay:	
without mounting plate	230308
with mounting plate	230309
output: 2 change-over contact for each relay:	
without mounting plate	230310
with mounting plate	230311

Other operating temperatures, nominal voltages, pickup and drop values, contacts and switching capacities, cable end lengths and special designs on enquiry.

We reserve our right always to modify this data sheet.

