Voltage Monitor Type 8539

8539 ESN

Description

The voltage monitor type 8539, part no. 23018x two limits can independently monitor.

Due to the high input impedance (about 2 Mohm) and the high overvoltage strength, the device is such as to monitor the voltage of contact line systems.

When running part no. 23018x the output relay is activated only when the voltage value, longer than the predetermined time constant is present and the unit is in operation.

Function

The monitoring device part no. 23018x measures the voltage at the monitored site. Decreases or increases the measured voltage is below or above one of the selected limits, this is registered by the device. If the limit for a period of time set permanently at or exceeded, the output of the relay K1 or K2 will change accordingly.

If the threshold is exceeded again, so the relays K1 and K2 are delayed in their normal position and switch on again when the above conditions are met again.

Commissioning

The monitor is delivered with a limit value of DC 200 V for K1 and K2 for DC 400V.

The voltage source to be monitored is to connect (eg between contact line systems and rail or similar).

The supply voltage of the device (AC or DC depending on model) must be connected.

Reprogramming thresholds:

After applying the desired limit as measured voltage at the test voltage input, the learning process (programming) to start the device.

By pressing the „Prog1“ / „Prog2“ (> 3s) a learning procedure is started. To program the switch points and delay times for K1 and K2, see overleaf.

The learning procedure takes less than 10 s, the parameters are stored until an appropriate new programming and permanently retained even after power failure.

The times are programmed at the above and below the threshold.

The contact display on the device corresponds to the position when no voltage is applied.

Other monitoring equipment see complete brochure folder.

Technical data

Dimensions	W/H/D 100/70/115 mm
Casing	ABS / Polycarbonate
Mounting	2 bores in acc. with template, top hat rail in acc. with DIN EN 50022
Protective system	Casing: IP 40; terminals IP: 10
Ambient temp.	-20° C to + 60° C
Connections	2 X 2.5 mm² solid in acc. with DIN 46288 or 2 x 1.5 mm² with sleeve
Supply voltage (AC)	AC 230V, 18 (PE); terminal 19 (N); terminal 20 (L), Pmax 3 VA, part no. 230180 ;
Supply voltage (DC)	DC 19.2 V to DC 110 V; terminal 19 (L-); terminal 20 (L+), Pmax 1.5 W, part no. 230181;
Measurement input	terminal 12 , terminal 14 (polarity-independent)
Input resistance	approx. 2 MΩ
Input voltage	max. 1200 V continuous
Switching threshold	10 V to 1000 V (different values on request)
Relay output	terminal 1, 2, 3 (1 u, potentialfree) terminal 4, 5, 6 (1 u, potentialfree)
Response time	dependent on programming default 0 sec., setup 1 to 9 equivalent 10 to 90 sec.
Contact ass.	AC 250 V / 4 A cos phi > 0.7 DC 120 V / 1 A resistive load
Displays	by means of LED’s; see drawing P1 yellow LED for programming P2 yellow LED for programming K1 green LED for relay 1 K2 green LED for relay 2
Times	Teach-in phase < 5 sec.
Test voltage	4 $kV_{eff.}$
Accessories	Special designs, differing functions and measuring ranges, complete installations, protective casings with additional terminals, etc. on request

Ordering Information

Type	Order No.
AC version	230180
DC version	230181

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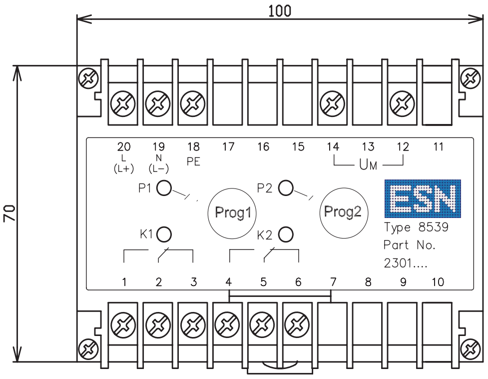
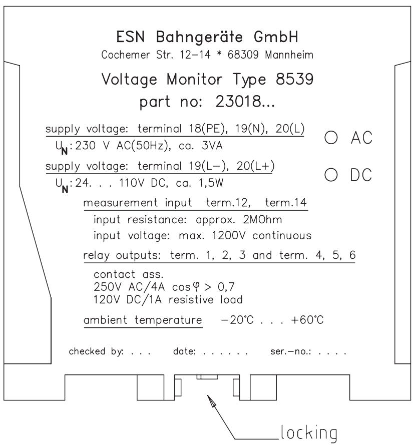
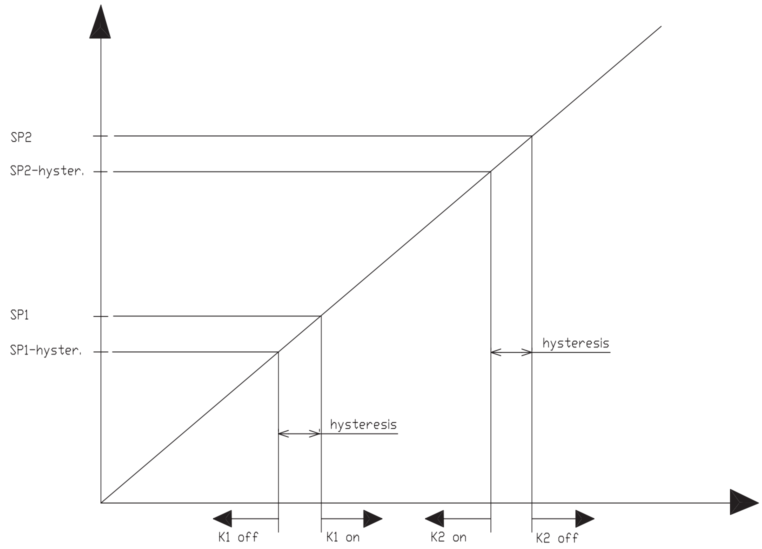
Dimensions:





Switching diagram:



Teach-in procedure:

Teach voltage thresholds and set delays

Voltage Monitor Type 8539 Part-No. 23018x

Teach-in voltage threshold	
Relay K1	Relay K2
Prog1 press 3sec	Prog2 press 3sec
Device is in programming mode now	
Connect the threshold voltage on the measurement input	
Prog1 press 3sec	Prog2 press 3sec
5x	5x
Teaching the Threshold completed	

Adjusting the delays			
Relay K1		Relay K2	
Prog1 press 3sec		Prog2 press 3sec	
Device is in programming mode now			
Prog2 press		Prog1 press	
delay in fall below	delay in exceed	delay in fall below	delay in exceed
Prog1 press	Prog2 press	Prog1 press	Prog2 press
1x, 2x ... 10x / 1x		1x / 1x, 2x ... 10x	
{Number flashes left} x 10sec = delay (10x = no delay)		{Number flashes right} x 10sec = delay (10x = no delay)	
Prog2 hold to adjust delay			
Prog1 press to exit the programming mode			
Adjusting the delay completed			