Potential monitoring device
Type 8521 as per DIN EN 50122 part 1 / VDE 0115 part 3

8521 ESN

Description

As protection from dangerous body currents generated from contact voltages/tapping voltages, maximum voltages have been stipulated depending on the effect time. On exceeding the maximum voltages and effect time, safety measures such as short circuit or switching off have to be initiated.

The potential monitoring device type 8521 has been developed to register these maximum voltages taking account of their effect time, and to trigger switching measures.

Function

The potential of the contact points to be monitored is supplied to terminals 1 and 4. Polarity, DC or AC voltage is irrelevant for the connection.

K2 and K3 take into account the voltage/time values for the "normal" range. Relay K2 and K3 are working in operating circuit mode.

The potential monitoring device already takes account of a time workload of > 150 ms for the subsequent switching measure for a DC of 420 V and an AC of 295 V.

Caution: for possible higher touchable voltages! The time required for switching off or short-circuiting must always be included in the planning (should not be longer than 150 ms). If registration and reaction times are allowed longer than DIN EN 50122, additional measures (e.g. voltage-limiting devices) are to be provided.

Technical data

Dimensions	W / H / D 150 / 73 / 113 mm
Housing material	Terminal board: polycarbonate lower section: ABS
Fastening	2 drilled holes as per drilling template Standard support rails as per DIN EN 50022
Protection	Housing: IP 40; terminals: IP 10
Connections	2 x 2.5 mm² solid to DIN 46288 or 2 x 1.5 mm²
Ambient temp.	- 20°C to + 60°C
Power supply	(Kl. 31 - 32) DC 12 - 30 V, ≤ 5 W
Measuring input	≤ 1500 V, continuous; resistance: approx. 2 MΩ (1,4)
Relay outputs	3 change-over contacts (u), potential-free (14-22) voltage / current / cos φ AC 250 / V4.0 A / > 0.7 DC 120 V / 1.0 A / ohmic load
Displays	Network: LED green K1-K3: LED yellow
Test voltage	Supply voltage - measuring voltage outputs: 5 kV_{eff}
Input voltage	according diagram next page
Function	K1: supply OK K2: EN50122 DC K3: EN50122 AC

Ordering Information

Type	Order No.
8521	210101

The potential monitoring device type 8521 requires no adjustment. For other monitoring devices, please see the full leaflet folder.

Special designs, safety housings etc. on request

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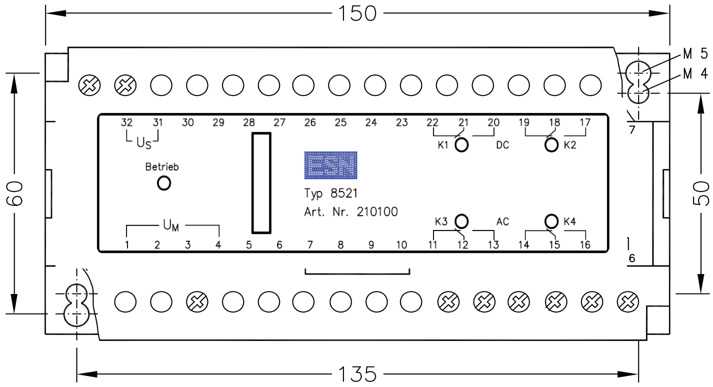
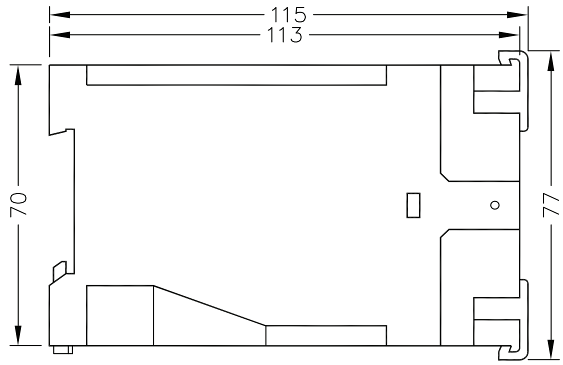
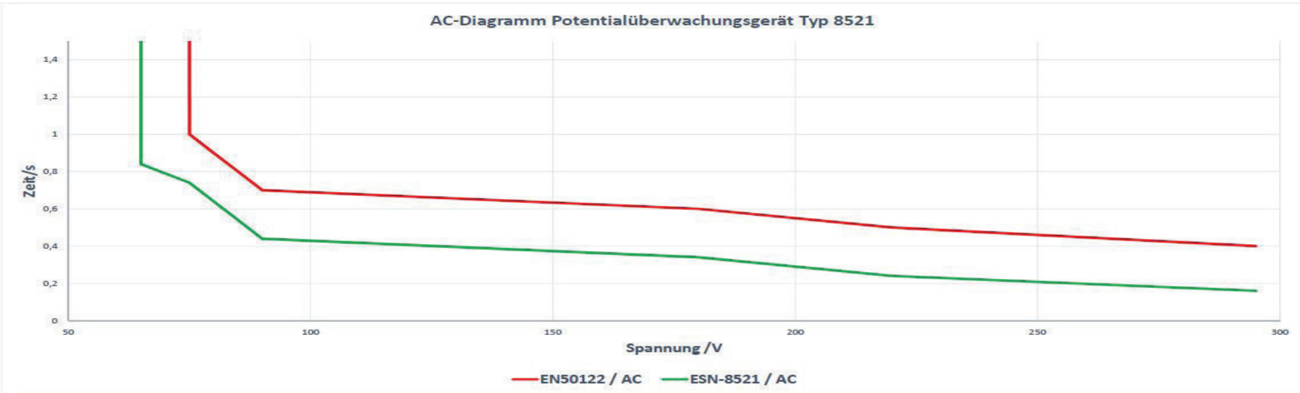
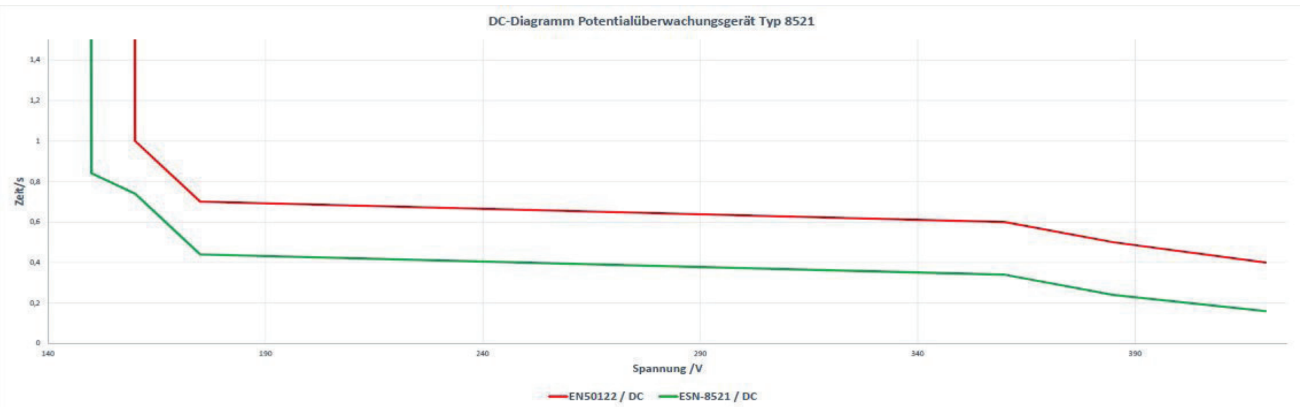

150
M 5
M 4
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
U_S
Betrieb
K1
DC
K2
ESN
Typ 8521
Art. Nr. 210100
K3
AC
K4
U_M
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
60
50
7
6
135


115
113
70
77


AC-Diagramm Potentialüberwachungsgerät Typ 8521
Zeit/s
Spannung /V
EN50122 / AC
ESN-8521 / AC


DC-Diagramm Potentialüberwachungsgerät Typ 8521
Zeit/s
Spannung /V
EN50122 / DC
ESN-8521 / DC