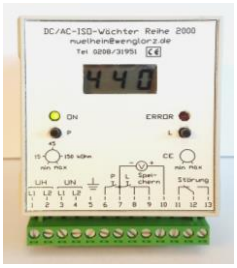
ISO - Monitor Serie 2000 according to DIN - VDE - IEC - EN
suitable for using in DC- and AC - networks

	ISO 2001	ISO 2002	ISO 2003
			
Frontal mounted	LED red → error LED green → UH = ON Erasing key L and test key P	LED red → error, green → UH=ON Erasing key L and test key P Actual value: Bargraph, 10 parts	LED red → error, green → UH=ON Erasing key L and test key P Actual value: LC Display, 3 dec.
Frontal adjustable	Hysteresis or storage function	Hysteresis or storage function Option: RAN and/or CE	Hysteresis or storage function Option: RAN and/or CE
External connectable	Error: 1 change-over contact Erasing key L and test key P	Error: 1 change-over contact Erasing key L and test key P Analogue indicator	Error: 1 change-over contact Erasing key L and test key P Analogue indicator Option: Digital display

General Data DC/AC-ISO Serie 2000

Nominal voltage UN	▪ UN(DC) = 15 - 300 V + 20% ▪ UN(AC) = 15 - 230 V + 20 %, 40-60 Hz
Power supply UH, optional	**1. UH(DC) = 18 - 36 V** **2. UH(AC) = 230 V**
Power consumption PV	▪ approx. 2,5 VA
Target value RAN	▪ 7 - 230 kΩ adjustable via potentiometer
▫ Adjustment on delivery	▫ factory adjusted to 22 kΩ
▫ Adjustment during operation	▫ internal, either frontal
▫ Changing of RAN during operation	▫ The target value factory adjusted can be adapted to the conditions of the electrical system by a specialist during opearation, for this the housing cover must be removed, look at note "1" into the dimension drawing and in figure 01.
Percentage deviation A	▪ A ≤ 10 % at RAN = 22 kΩ (allowable according to EN 61557-8:2007 → ± 15%)
Impedance Zi	▪ Zi > 600 kΩ
Resistance Ri	▪ Ri = ca. 100 kΩ
Leakage capacity CE	▪ CE = 4 - 110 µF adjustable via code switch and potentiometer
▫ Rough adjustment	▫ Range 1 (B1) = 5-50 µF and range 2 (B2) = 15-110 µF via code switches
▫ Fine adjustment	▫ Via potentiometer
▫ Adjustment on delivery	▫ Factory adjusted to 4 µF
▫ Adjustment during operation	▫ internal, either frontal
▫ Changing of CE during operation	▫ The reference value factory adjusted can be adapted to the conditions of the electrical system by a specialist during opearation, for that the housing cover must be removed, look at note "1" into the dimension drawing and in figure 01.
▫ Leakage capacity CE < 4 µF	▫ Adjustment to 4 µF on ISO monitor also valid for all values < 4 µF
Measuring method	▪ Clock synchronous
▫ Measuring voltage UM	▫ UM = ± 15 VDC
▫ Measuring current max. IMmax	▫ IMmax = IEmax = 0,5 mA
▫ Response time tAN	▫ ≤ 5 s ◦ CE = 1 µF ◦ RF = 0,5 x RANmin

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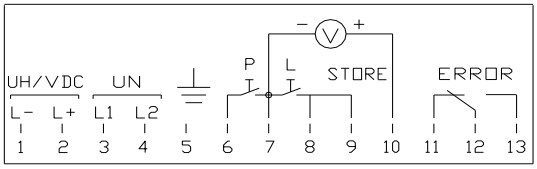
Actual value display for insulation resistance	▪ LC-Display, 3-dec., H = 9,0 mm
▫ Operating uncertenty	▫ According to EN 61557-8:2007
Hysteresis	▪ < 10 %
Electromagnetic compatibility (EMC)	▪ According to IEC 61326 (CE-mark)
Relay output	▪ 1 Change-over-contact
▫ Switching voltage	▫ 250 VAC, 220 VDC
▫ Switching current	▫ 2 A
▫ Switching power	▫ 62,5 VA, 30 W
Analogue output for external indicator	▪ 0 - 11 V ≡ 0 - 440 kΩ/∞, Ri > 1 kΩ/V
Functions and adjusted target values on delivery	▪ 1) Closed circuit system (CCS) 2) Hysteresis function 3) RAN=22kΩ 4) CE=4µF
Protection class	▪ According to DIN EN 60529
	▫ Built-in components IP 40
	▫ Terminal IP 20
Ambient temperature TU	▪ TU = -5 to +45 °C
Climate class	▪ 3k5 according to IEC 60271-3-3, no condensation and no icing
Housing dimensions	▪ B 70,0 x H 75,0 (90,0 including plug-in and screw connector) x T 110,0 mm
Connection	▪ Plug-in and screw connector 13-pole
▫ Wire cross section	▫ ≤ 2,5 mm² (fine stranded)
	▫ ≤ 4,0 mm² (single strand)
Housing mounting	▪ Snap mounting on standard rail according to DIN EN/IEC 60715 TH 35
Weight	▪ ▫ ISO 2000-D → 0,3 kg
	▫ ISO 2000-A → 0,4 kg

Type and Ident no (Order no)

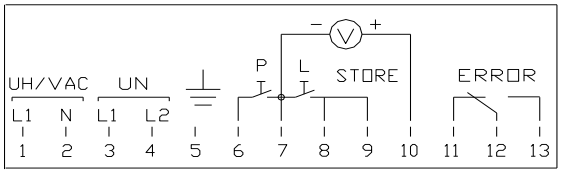
▪ UH(DC) = 18-36 V →	ISO 2001-D →	109 101 00	▪ UH(AC) = 230 V →	ISO 2001-A →	109 102 00
▪ "	ISO 2002-D →	109 151 00	▪ "	ISO 2002-A →	109 152 00
▪ "	ISO 2003-D →	109 201 00	▪ "	ISO 2003-A →	109 202 00

Connection drawings

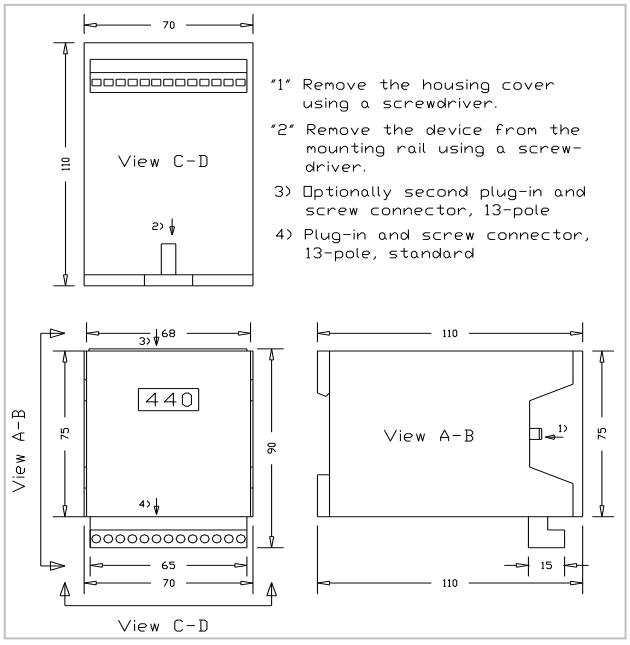
ISO 200x-D → UH(DC) = 18-36 V



ISO 200x-A → UH(AC) = 230 V ± 20%, 40-60 Hz



Dimension



View to open housing without housing cover

1.) RAN-potentiometer left

2.) CE-code switch and CE-potentiometer right

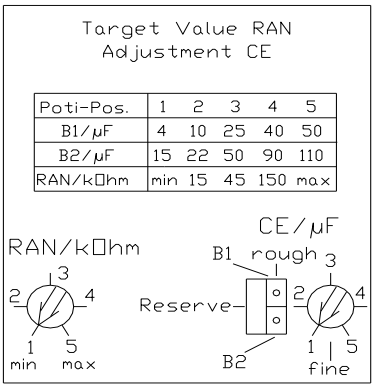


Figure 01

eDB ISO2000 28.10.15/A1-02.05.16

Only <u>one Insulation Monitor</u> may be used in a galvanicly connected network.

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