

Monitoring Technique

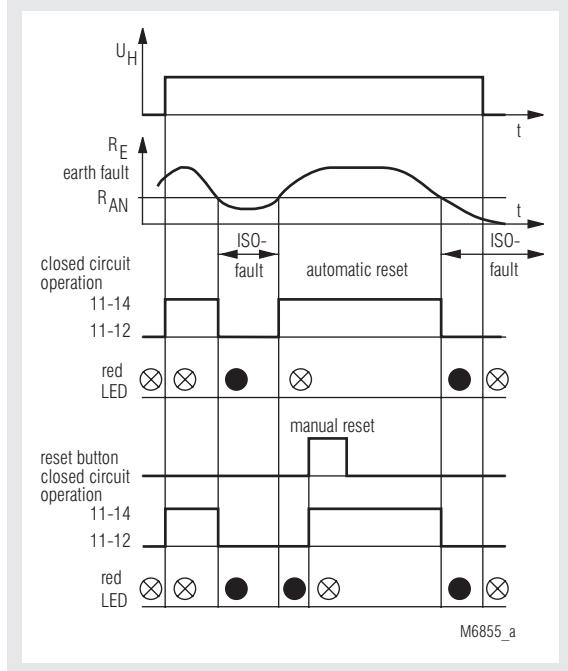
VARIMETER IMD Insulation Monitor AN 5890

DOLD 

0225271



Function Diagram



M6855_a

- According to IEC/EN 61 557
- For mixed AC - DC systems
- Fixed response value R_{AN}
- Programmable for:
 - manual reset (bridge X5 - LT1)
 - automatic reset (without bridge)
- Optionally with internal reset button
- External reset and test button can be connected
- Test button to check the function of the device
- LED indicator
- 1 changeover contact
- External connection of indicating instrument possible
- Closed circuit operation
- Optionally open closed circuit operation
- Width 100 mm

Approvals and Marking



Applications

Monitoring of the resistance to earth in ungrounded mixed AC - DC systems

Indicators

LED chain: shows actual resistance to ground
red LED: on, when ground fault

Notes

The device can be connected on the AC or on DC side of a mixed voltage system and monitors the ground fault on the AC and also on the DC side with the same response sensitivity. The AN 5890 connects an alternating measuring voltage to the monitored voltage system. This voltage has a low frequency with a time period of 2 ... 16 sec. so that a fast changing mains voltage could lead to a fault. When the mains is back to normal this fault is reset.

Technical Data

Auxiliary circuit

Auxiliary voltage U_H : AC 230 V, others on request
Voltage range: 0.8 ... 1.2 U_N
Frequency range: 40 ... 400 Hz

Measuring Circuit

Nominal voltage U_N:	\leq DC 500 V / \leq AC 250 V
Voltage range:	0 ... 1.15 U_N
Frequency range:	40 ... 60 Hz
Response value R_{AN}:	50 k Ω , 10 ... 440 k Ω on request
Setting R_{AN}:	fixed
Internal test resistor:	10 k Ω
Internal AC resistance:	> 100 k Ω
Internal DC resistance:	> 100 k Ω
Measuring voltage:	approx. +/- 13 V
Max. measuring current ($RE = 0$):	< 0.3 mA
Max. permissible noise DC voltage:	DC 580 V
Measuring cycle internally adjustable:	2 ... 16 s
Line capacitance CE to ground:	1 ... 20 μ F
Factory setting:	2 s (for $CE = 1 \mu$ F)

