

Integrated Measurement Relay - IMR

Detect issues with a single device

Integrated Measurement Relay is an all-in-one solution to protect your transformers. It combines the functions typically performed by multiple accessories in a single compact and reliable device. It reduces the impact on the electrical network and the environment, thus making power more efficient and accessible.



The Integrated Measurement Relay (IMR) enables rapid action on hermetically sealed liquid-filled distribution and small power transformers. The operator will receive an alarm if the transformer's pressure, temperature, oil level, or gassing increases/decreases from predetermined thresholds.

Oil level and gassing

IMR measures variation in transformer oil level or gassing.

- Slight oil level variation or any gas increase is displayed by the float position between "MIN" and "MAX"
- In the event of significant variation in oil level or gas, the float stops at "MIN" and opens/closes the alarm contact
- Any accumulated gas can be drawn off by the bleed valve provided

Temperature

IMR measures the internal temperature of the transformer.

- The operating temperature is set according to the transformer manufacturer's instructions.
- Temperature variation is displayed on a thermometer equipped with a zero-resetting pointer.
- In the event of a significant variation of preset value, two alarms can be set based on the transformer manufacturer's instructions: T2 for Alarm and T1 for Tripping.

Pressure

IMR measures the internal pressure of the transformer.

- Measuring Range: 100 ÷ 500 mbar
- Operating pressure is set according to the transformer manufacturer's instructions
- When the pressure exceeds the preset value, the alarm contact is triggered

Additional features

- Easy installation
- Double insulation system, no need to make earthing connection
- Air venting valve for draining the moisture inside the terminal box
- Withstand a DC magnetic field up to 25 mT
- No need for anti-magnetism shielding

Product information

Product number	1ZTE010001B0001		
Standard	IEC 60076-22-1		
Degree of protection	IP66 – EN 60529		
Degree of shock tightness	IK07 – IEC 62262 / EN 50102		
UV-Ray resistance	500h – EN ISO 4892-3/ISO 105-A02		
Operating ambient temperature	-40°C to 60°C		
Thermometer display range	30°C to 160°C ± 3°C		
Temperature relay measuring range	30°C to 120°C ± 4°C		
Temperature relay max bulb temperature	130°C		
Cable gland	1 x M25x1.5 (1 additional cable gland upon request)		
Terminal block	EN 50005 / EN 60998-2-1		
Wire section to be used on clamp box	Up to 2.5 mm²		
Max. rated pressure	500 mbar		
No. of contacts	1 x Oil Level & Gas Bleed, 1 x Pressure Switch, 2 x Temperature Relay (Alarm & Tripping)		
Pressure switch precision	± 10% accuracy tolerance of end scale		
Electrical characteristics	Insulated enclosure		
Contact characteristics	Voltage	Making Capacity	Breaking Capacity
• Oil Level and gas bleed	24 VDC to 230 VDC	2 A	100 mA L/R <40 ms
• Pressure switch			
• Temperature relays	230 VAC	2 A	2A cos ϕ > 0,5

