4 HM100PR EHV SF6 DENSITY MONITOR





Description

These instruments are used to monitor SF₆ gas density in sealed tanks. They are applied to provide a signal outputs when the density reaches the set value. At the same time, they reliably output SF₆ gas density signal for remote monitoring. They are specifically designed for over 500KV EHV grade application field, adapting multi-level protection and full range of shielding measures to ensure the reliable operation of the products.

> Application

SF₆ Gas Insulated Switchgear (GIS)
SF₆ Insulated Transformers
SF₆ Insulated Circuit Breakers
SF₆ Insulated Mutual Inductor
SF₆ Insulated Pole-Mounted Switch
SF₆ Insulated Busbar Systems

Features

- They adopt highly reliable protection circuit design, multi-level isolation and filtering technology, thus
 effectively inhibiting the intrusion of conductive interference.
- 2. They adopt the full-body shield design, stainless steel shielding shell, shielding junction box and military-grade shielding window glass, thus ensuring the ability of anti-electromagnetic radiation interference.
- They are able to adopt the optic fiber communication backstage, thus avoiding data transmission link from electromagnetic interference.
- 4. The use of high-precision SF₆ density algorithm ensures that the background monitoring data coincides with those field instructions.
- 5. They are fully compatible with ordinary SF₆ remote products. They do not need other modifications in strong interference occasions.
- 6. The temperature compensation device ensures higher measurement accuracy.
- 7. Suitable for indoor or outdoor installation
- 8. Up to Four switch contacts can achieve overpressure alarm, dual alarm or double locking and many other solutions, ensuring the monitoring more secure and reliable

Options

- 1. Power-frequency withstand voltage: 2.5kV 50/60 Hz 1min
- 2. Oil-filled
- 3. Measuring medium: SF₆, Air, N₂, SF₆ + N₂ and other gases

Technical Data

1. Case diameter: 100mm	Cable size: 1.5mm² recommended, 2.5mm² maximum
2. Scale range: -0.1 to 0.9MPa (customizable)	10. Insulation properties:
3. Accuracy: (related to the measuring span; SF ₆ in gas phase)	Insulation resistance: >100 M Ω (DC 500 V)
a) At 20°C: Class 1.0 or 1.5	Withstand voltage: 2kV, 50/60 Hz 1 min
b) -40°C to +60°C: Class 2.5	11. Contact type: Magnetic snap-action contact
4. Degree of protection: IP65	80%Ag, 20%Ni, 10µm Au plated
5. Ambient conditions:	12. Impact rating: 50g (oil-filled), 30g (non-oil-filled)
-40°C to +60°C, relative humidity ≤95%RH	13. Contact electrical parameters: 30W/50VA, 1A (maximum)
6. Leakage rate: $\leq 1 \times 10^{-9} \text{Pa-m}^3 / \text{s}$ (Helium leakage inspection)	220VDC/380V 50/60Hz (maximum)
7. Process connection: M20 × 1.5, (customizable)	14. Window glass: Laminated safety glass
8. Installation method: radial or axial	15. Weight: 1.2kg
9. Electrical connection: Plug-in connection M20 × 1.5 sealing head	16. Pressure element: Bourdon tubes

Main electrical performance indicators and specifications of the remote transmission part

1. Power supply: DC 24V

2. Power consumption: < 2W

3. Communication mode: RS485

4. Protocol: ModBus RTU

5. Baud rate: 9600bps

Anti-electromagnetic interference:

IEC61000-4-2: level 4 /A (8KV/15kV)

IEC61000-4-3: Exceed national standard requirements /A (30V/m)

IEC61000-4-4: level 4/A (4KV) IEC61000-4-5: level 4/A (+/-2Kv)

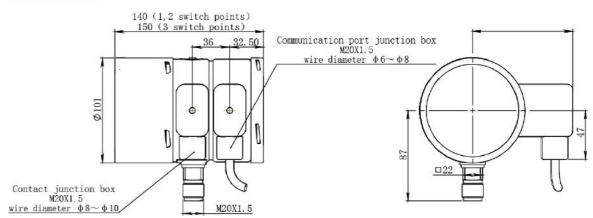
IEC61000-4-6: level 3/A (10V) IEC61000-4-8: level 5/A (100A/m) IEC61000-4-9: level 5/A (100 0A/m)

IEC61000-4-10: level 5/A (100A/m)

IEC61000-4-12: Exceed national standard requirements /A (4KV)

IEC61000-4-17: level 3/A (10%UN) IEC61000-4-29: 0.1s/A (40%UT/70%UT)

Dimensions



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