SF₆ gas transmitters
Smart condition monitoring

Humidity
Density
Temperature
Pressure
For SF₆ gas instrumentation WIKA has been a partner in the Transmission and Distribution (T&D) industry for more than 30 years with an installed fleet of over 1,000,000 units worldwide.

The WIKA headquarters for SF₆ gas products are located in Klingenberg / Germany with production sites in Dortmund / Germany and Suzhou / China. With our global positioning being present in more than 75 countries you will find us close to you, wherever you are in the world.

Digital SF₆ gas transmitters for condition monitoring

In the year 1992 WIKA started to manufacture the first series of SF₆ gas density transmitters with analogue signal output. The new digital GDxx-20 transmitter series is the result of market-driven improvement using a knowledge base second to none. The GDxx-20 series is able to determine the relative humidity¹ (dew point), the pressure, temperature and density of SF₆ gas and SF₆ gas mixtures with enhanced precision in a wide measuring range.

The new digital transmitter series is characterised by the aspects “Advanced technology combined with a robust design”. The GDxx-20 series transmitters will guarantee the highest possible operational safety for switchgear.

Foundation for Operations & Maintenance (O&M) innovation

Full transparency of the status values helps utilities to boost security & efficiency. Coupled with the remote control functions from advanced SCADA² with real-time data acquisition & trending, secure operator supervisory control is guaranteed.

Lifecycle management

The high costs of new substation assets and long lead times justify dedicated service planning for utility equipment. SF₆ gas online monitoring maximises equipment availability, enabling a predictive reliability-centred maintenance strategy. This is the corner stone for utilities to proactively manage the health of their SF₆ gas-illed assets.

¹ only model GDHT-20
² supervisory control and data acquisition
Benefits: TCO savings

with the new transmitters

- Plant safety enhanced
- Inventory reduced
- Environmental impact minimised
- Operation & maintenance more efficient
- Infrastructure streamlined

TCO: Total Cost of Ownership
Technical data

Specifications

Measuring ranges:
Dew point: ±50 ... +30 °C
Density: 0 ... 60 g/litre (8.87 bar abs. at 20 °C)
Temperature: -40 ... +80 °C
Pressure: 0 ... 16 bar abs.

Accuracy (typical)
Dew point: ±3 K
Density: ±0.60 %
Temperature: ±1 K
Pressure: ±0.06 %

Implemented units
Humidity: °CDP, °C, ppmv, ppmw, % rH
Density: g/litre, kg/m³
Temperature: °C, °F, K
Pressure: bar, psi, kPa, MPa, N/cm², bar at 20 °C

Electrical connection
Circular connector M 12 x 1 (5-pin)

Communication
MODBUS® RTU via RS-485 serial interface

Data sheets
SP 60.09 GDT-20
SP 60.14 GDHT-20

Features and options

Variety of adapters and measuring chambers

MODBUS® startup-kit (PC soft- & hardware for setup)

Adjustable gas mixture SF₆ / N₂ or SF₆ / CF₄

Two dew point calculation models implemented
New: based on SF₆
Traditional: based on N₂

1 only model GDHT-20