



FO 510 - Industrial oil moisture sensor

FO 510 for moisture measurement in technical oils



Special advantages:

- Fast response time
- Highly accurate measurement of water activity (a_w), as well as process temperature. Measurement is independent of the respective oil type or age
- Calculation of the absolute water content (PPM), possible for transformer oil
- Two configurable analogue outputs, as well as Modbus-RTU (RS 485) interface available

Typical application, measurement of residual moisture in:

- Transformer oil
- Engine oil
- Lubricating oil
- Hydraulic oil
- Diesel fuels

Example order code FO 510:

0699 0100_A1_B1_C1_D1

| Process connection | |
|--------------------|----------|
| A1 | G 1/2" |
| A2 | 1/2" NPT |

| Scaling analogue output 1 | |
|---------------------------|-------------------------------|
| B1 | Water activity [] (standard) |
| B2 | Water content x [ppm] |
| B3 | Temperature T (°C) |
| B4 | Temperature T (°F) |

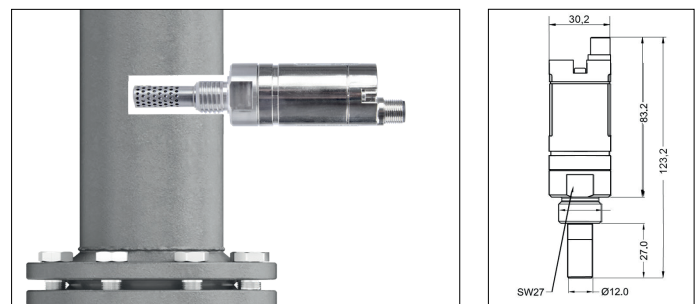
| Scaling analogue output 2 | |
|---------------------------|-------------------------------|
| C1 | Temperature T (°C) (standard) |
| C2 | Temperature T (°F) |
| C3 | Water activity [] |
| C4 | Water content x [ppm] |

| Oil type | |
|----------|--------------------------|
| D1 | Standard transformer oil |
| D2 | Customer specific oil |

Order code Cable for FO 510:

0553 0145_A1

| Cable 8-polig | |
|---------------|-----------------------------|
| A1 | 5 m |
| A2 | 10 m |
| A3 | Variable lengths on request |



Recommendation:
Installation in a constantly flushed measuring point for best results

Dimensions FO 510

| ACCESSORIES | ORDER NO. |
|---|-----------|
| CS Service Software FO 510 incl. interface cable to PC (USB) and power supply - for configuration / parametrisation of FO 510 | 0554 2010 |

| TECHNICAL DATA FO 510 | |
|---|--|
| Measuring range humidity: | 0...1 a_w |
| Accuracy (0...0.9 a_w): | $\pm 0.02 a_w$ at +23 °C |
| Accuracy (0.9...1.0 a_w): | typically $\pm 0.03 a_w$ at +23 °C |
| Measuring range temperature: | 0...100 °C |
| Accuracy temperature: | $\pm 0,3$ °C |
| Oil temperature: | -20...+100°C |
| Ambient temperature: | -20...+70°C |
| Pressure range: | up to 300 bar |
| Interfaces: | 2 x analogue output 04...20 mA (3-wire), Modbus RTU (RS 485) |
| Supply voltage: | 24 VDC (10...36 VDC) |
| Protection class: | IP 66 |
| EMV: | acc. to DIN EN 61326-1 |
| Material thread: | 1.4404 |
| Material perforated cap | 1.4301 |
| Connection: | M12, 8-pin |