



## 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

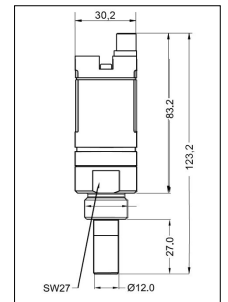
Order code Cable for FO 510:

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	
<b>Measuring range humidity:</b>	0...1 $a_w$
<b>Accuracy (0...0.9 <math>a_w</math>):</b>	$\pm 0.02 a_w$ at +23 °C
<b>Accuracy (0.9...1.0 <math>a_w</math>):</b>	typically $\pm 0.03 a_w$ at +23 °C
<b>Measuring range temperature:</b>	0...125 °C
<b>Accuracy temperature:</b>	$\pm 0,3$ °C
<b>Oil temperature:</b>	-20...+125 °C
<b>Ambient temperature:</b>	-20...+70 °C
<b>Pressure range:</b>	up to 300 bar
<b>Interfaces:</b>	2 x analogue output 04...20 mA (3-wire), Modbus RTU (RS 485)
<b>Supply voltage:</b>	24 VDC (10...36 VDC)
<b>Protection class:</b>	IP 66
<b>EMV:</b>	acc. to DIN EN 61326-1
<b>Material thread:</b>	1.4404
<b>Material perforated cap</b>	1.4301
<b>Connection:</b>	M12, 8-pin