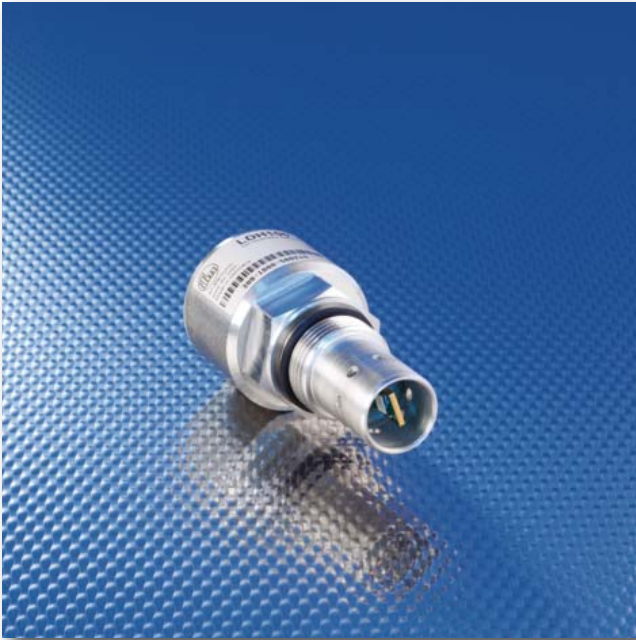
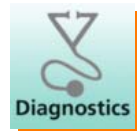


Moisture measurement in air and oil



Combined oil moisture and temperature sensor

- Continuous condition monitoring of oils and air
- Two analogue outputs (4...20 mA) for relative humidity and temperature
- Wide input voltage range 9...33 V DC
- Medium temperature -20...100 °C
- G 3/4" process connection for direct mounting



Application

Water is generally not wanted in hydraulic liquids and lubricants. High concentrations of water can seriously affect operation or even cause damage.

Measuring principle

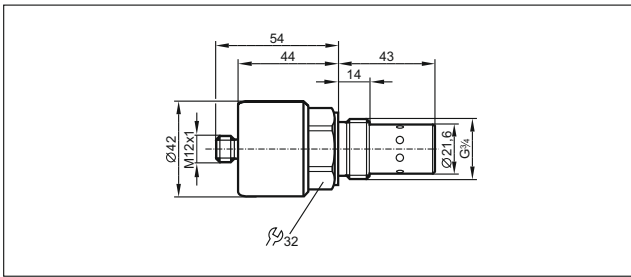
The sensor measures the relative humidity in the oil and the air in the range of 0...100 % by means of a capacitive measuring element. At 0 % the medium is absolutely without any water content. At 100 %, however, the medium is completely saturated. No more water is dissolved and is then present as free water. Besides the relative humidity the sensor also outputs the medium temperature as an analogue signal.



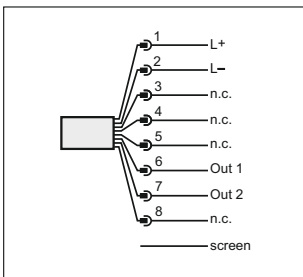
Application:
Moisture and temperature monitoring of mineral oils, synthetic esters, bio oils and air.

Process connection	Pressure resistance [bar]	Output function	Protection	Medium temperature	Ambient temperature	Order no.
M12 connector, 8-pole						
G 3/4	10	4...20 mA	IP 67	-20...100 °C (short-term 120 °C)	-20...85 °C	LDH100


Dimensions



Wiring diagram



Accessories


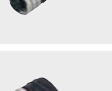

Type	Description	Order no.
	Assembly block G 3/4	E43400

Further technical data

Operating voltage	[V]	9...33 DC
Measuring range		
Rel. humidity	[%]	0...100
Temperature	[°C]	-20...120
Measuring resolution		
Rel. humidity	[%]	1
Temperature	[K]	0.1
Measuring accuracy		
Rel. humidity	[%FS*]	± 3
Temperature	[%FS*]	± 2
Current consumption	[mA]	< 60
Materials (wetted parts)		aluminium, HNBR, polyurethane resin, epoxy resin
EMC		EN 13309:2000-11

*FS = Full scale

Connectors and splitter boxes

Type	Description	Order no.
	Socket M12, 8-pole 2 m PUR, shielded	E80021
	Socket M12, 8-pole 10 m PUR, shielded	E11855
	Socket M12, 8-pole 2 m PUR, shielded	E80022