

l_1	b	d	l_2	l_3	l_4	l_5	l_6	l_7	l_8	l_9	$s \approx$ Max. wall thickness	Max. permissible tightening torque in Nm
127	31	M 12	23	80	161	23	17	18	26	41	12	12
254	35	M 12	21	203	291	26	18,5	18	24	41	12	10

Specification

- Housing plastic
Crystal-clear Polyamide (PA -T)
- Ageing resistant
- High mechanical strength
- Temperature resistant up to 90 °C
- Solvent resistant, but not suitable for alcohol
- Avoid contact with hot water
- Reflector aluminum
- White lacquered
- With 2 marking lines
- Temperature sensor
Platinum resistor PT 100 (PTC)
- O-ring, rubber NBR (Perbunan®)
- Set screw, hexagon nut, serrated lock washer, sensor housing
Steel, zinc plated, blue passivated
- IP Protection Classes → Page 2153
- Elastomer Characteristics → Page 2158
- Plastic Characteristics → Page 2158
- RoHS

Information

Oil level indicators GN 650.8 allow the fluid level of a container to be read from the outside. There is also the option to electrically detect the media temperature by means of a temperature sensor integrated in the lower casing section.

To do so, a platinum resistor (PT 100) is used, the ohmic value of which increases virtually proportional with the temperature in the range from 0° and 100 °C.

The polyamide housing consists of two parts, welded with ultrasound.

Oil level indicators GN 650.8 can also be used in pressurised containers. Pressure test results regarding resistance under pressure are available.

see also...

- List of Oil Level Indicator Types → Page 1562
- Oil Level Indicators GN 650.3 (with Electrical Oil Level Monitoring) → Page 1568
- Oil Level Indicators GN 650.6 (with Electrical Oil Level Monitoring) → Page 1570

On request

- Oil level indicators GN 650.7 with temperature sensor and oil level monitoring

How to order

GN 650.8-254

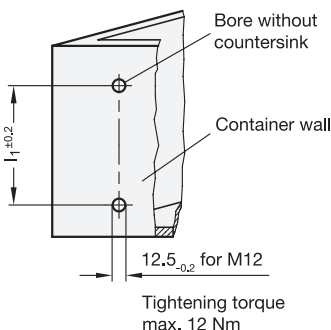
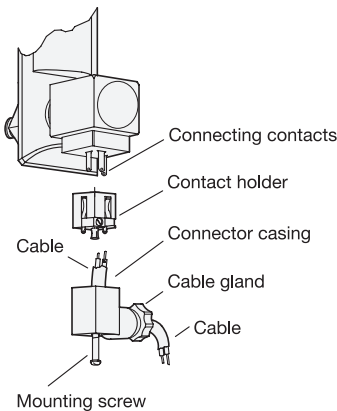
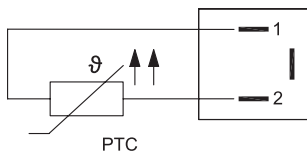
1 l_1

Mode of function of the temperature sensor

The interrelation between electrical resistance and the temperature is used for temperature measurement. The platinum resistor PT 100 changes its ohmic value almost linear in the range from 0° to 100 °C by 0.384 Ω / °C, measured directly at the resistor and beginning with 100 Ω at 0 °C. As platinum resistors have a positive temperature coefficient (PTC), a resistance of 138.4 Ω is reached at 100 °C.

In terms of measurement technology, the change in resistance can be detected in the analogue mode by means of a voltage drop and displayed as temperature value using an appropriate analysis unit.

Please note that the cross-section and the length of the connecting cable influence the total resistance and may therefore impact the measurement result. Also, the use of appropriately shielded and earthed cables is recommended to avoid interference caused by external electrical and magnetic fields.



Elektrical specifications

Measurement voltage:	up to 5 V DC
Measurement current:	2 mA
Connector plug:	DIN EN 175301-803 type C
Protection class:	IP 65
Cable gland:	PG 7, for cable Ø from 6 to 7 mm
Max. cable cross-section:	2 x 1,5 mm ²

Assembly sequence for cable connection

1. Loosen the mounting screw and pull off the connector plug.
2. Push the contact holder out off the connector casing.
3. Loosen the cable gland, feed the cable through the connector casing and connect to the contact holder.
4. Push the contact holder back into the connector casing and tighten the cable gland for strain relief grip / seal.
5. Push the connector plug over the connecting contacts of the oil level indicator and secure with mounting screw.

Assembly instructions

Two 12,5 Ø bore holes in the container wall are sufficient to mount the oil level indicator GN 650.8 with nuts.

The oil level indicator can also be mounted directly, i.e. without nuts, if the container wall has two M12 threads.