

Precise level measurement in tight installation space due to compact probe head



For process-reliable production, fill levels must always be measured accurately - even if there is little installation space around the tank. The new ORCA level probe from CAPTRON is designed for high-precision measurements of thin to viscous adhesives as well as (synthetic) resins and oils, for example in potting applications. Thanks to the low-profile probe head and the customized process connections, it can be easily and quickly installed and tightened, for example, with a nut and ratchet.

ORCA offers you decisive advantages for level measurement of thin to viscous media:



Easy and fast installation even in tight installation situations on the tank due to the compact design



Digital connectivity: You can configure the probe remotely via a graphical user interface via IO-Link at any time and read out process data digitally



Probe lengths and process connections such as flange or thread can be individually adapted to your customer-specific requirements



Durable, reliable and robust thanks to wear-free electronics



In addition, medium properties as well as min and max values can be set remotely from the cloud via the PLC, so that configuration does not have to be carried out on the tank itself. The mechanical design of the electronics, probe rod and process connection makes the level probe durable and robust.

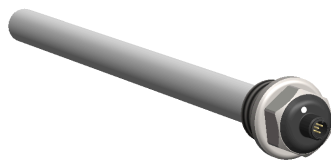
The ORCA level probe operates according to the capacitive measuring principle: the probe rod and the tank wall form the two electrodes, the medium forms the dielectric. When the level changes, the capacitance changes. An empty vessel has a low capacitance, a filled vessel a high capacitance.



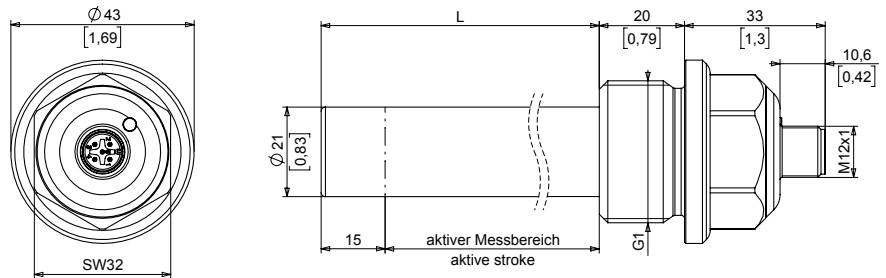
Are you looking for a compact level probe to precisely measure levels in your process? We will satisfy your individual requirements. Arrange a non-binding consultation now: sales@captron.com

Level probe

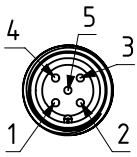
Product image



Dimensional drawing



Plug M12, 5-pin



Pin	Signal	Description
1	U_V	+24V DC supply voltage
2	Switching output or analog output	PNP / NPN; NO / NC 4...20 mA / 0...10 V
3	GND	0V
4	Switching output IO-Link communication	PNP / NPN; NO / NC
5	Switching output	PNP / NPN; NO / NC

Technical specifications

Technical specifications at 24 V and 20 °C

Connection	Plug M12
Operating voltage	DC 24 V (19.2 to 28.8 V)
Power consumption	typically 29 mA
Load current	typically 50 mA max. 200 mA
Operating temperature	0°C (32°F)...+70°C (158°F)
Analog output	4...20 mA / 0...10 V
Switching output	NPN/PNP/Push-Pull, NO/NC switchable

Technical specifications at 24 V and 20 °C

Switching point position	adjustable
Measurement accuracy	± 2% of upper range limit
Repeat accuracy	± 1% of upper range limit
Response time	<1 s
Degree of protection IP	IP67
Compressive strength	10 bar
Communication interface	IO-Link specification V1.1
Measuring principle	Capacitive
Process connection	V4A
Probe rod	PTFE
DK medium	>1.8 (dielectric constant ϵ_r)

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