



## Capacitive analogous filling level probe

### Filling level measurement with liquids

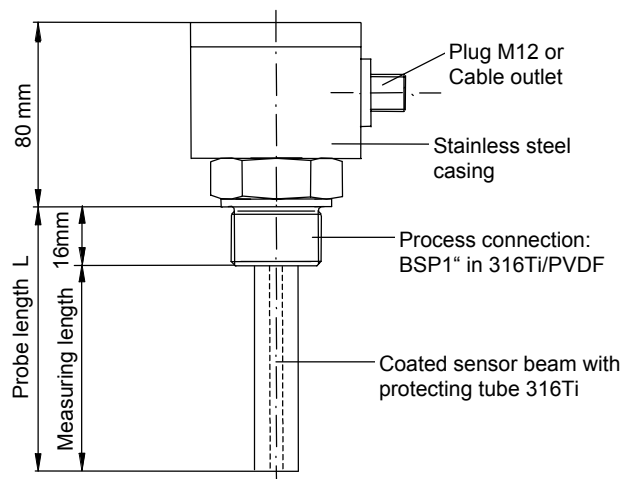
## CPA 01

### Characteristics

- ▶ Analogous output 4-20mA proportional to filling level
- ▶ Max. measurement range: 2000 mm; also suitable for short measuring
- ▶ Simple calibration at keypress
- ▶ Operating pressure max. 16 bar
- ▶ Vertical installation
- ▶ Thread BSP1" and protective tube in stainless steel 316Ti
- ▶ Electrical connection: Cable outlet, plug M12
- ▶ Measuring accuracy: 1% of measurement range
- ▶ Material housing in stainless steel 304
- ▶ Tube and sensor beam are exchangeable and can be shortened



### Dimensions



### Application:

For liquids with low dielectricity, such as oil, hydraulics, cooling lubricant, emulsions, water, diesel, etc., suitable for metal and plastic container

### Scope of Application:

Process and manufacturing technology, environmental technology, water engineering, plant and mechanical engineering, lubricant technology, commercial vehicle construction, dosing systems etc.



## Description

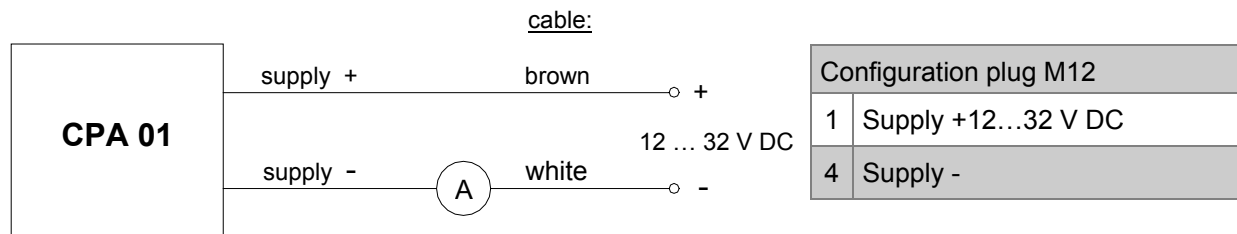
The sensing probe and the protecting tube are building an electrical condenser when being immersed into the liquid. The capacity of the condenser changes with its filling level.

An electronic system integrated into the device converts the capacity change into an electrical standard signal 4-20mA proportionally to the filling level.

Calibration 0% and 100% is made at keypress (TEACH IN).

The CPA 01 will be programmed by the factory if required by the customer (0% and 100% marker can be set if required by the customer).

## Electrical connection



## Technical data

<b>Operating voltage</b>	12 – 32V DC	<b>Process connection</b>	BSP1" of 316Ti / PVDF
<b>Output</b>	4-20mA (2-wire)		length of the thread: 16 mm
<b>Measuring accuracy</b>	1% of measuring length	<b>Electrical connection</b>	plug M12 or cable outlet
<b>Environmental temp.</b>	-30°C to +70°C	<b>Probe length L</b>	max. 2000 mm
<b>Medium temperature</b>	-30°C to +100°C	<b>Casing</b>	Ø 67x55 mm of stainless steel 304
<b>Pressure</b>	max. 16 bar	<b>Sensor beam</b>	Ø 5 mm made of stainless steel, coated with elastomer-hose
<b>Protection class</b>	IP65		



## Type key, order scheme

**CPA 01**



**Process connection**  
 A Screw thread BSP 1"  
 X other designs on request

**Electrical connection**  
 2P Cable output 2 m PVC cable, standard  
 L In case of other cable length, specification is in metres  
 2U Cable output 2 m PUR cable, standard  
 L In case of other cable length, specification is in metres  
 M12 Plug output M12  
 X Other designs on request

**Probe Length L (Probe Length=measuring length +16 mm)**  
 Dimensions in mm (length from sealing face of process connection to the end of the sensor beam, max. 2000mm)

CPA 01

### Accessory: Circular connector M12

Type		Item number	Design
Coupling M12 with	2 m PVC cable	K12PVC 2	
	5 m PVC cable	K12PVC 5	
	2 m PUR cable	K12PUR 2	
	5 m PUR cable	K12PUR 5	
Angle coupling M12 with	2 m PVC cable	W12PVC 2	
	5 m PVC cable	W12PVC 5	
	2 m PUR cable	W12PUR 2	
	5 m PUR cable	W12PUR 5	

Colour identification	
1	brown
4	black



**DRUCK & TEMPERATUR Leitenberger GmbH**

Bahnhofstr. 33

D-72138 Kirchentellinsfurt

GERMANY

Tel.: +49 (0) 7121-90920-0

Fax: +49 (0) 7121-90920-99

E-Mail: [DT-Info@Leitenberger.de](mailto:DT-Info@Leitenberger.de) + [DT-Export@Leitenberger.de](mailto:DT-Export@Leitenberger.de)

Internet: [www.druck-temperatur.de](http://www.druck-temperatur.de)

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