

Capacitive level sensor with adjustable level detection

Level limit switch CPS 05 of stainless steel 316Ti with protective tube for sensing probe in moving liquids

By exchanging or shortening the sensing probe, the level limits can be detected variably

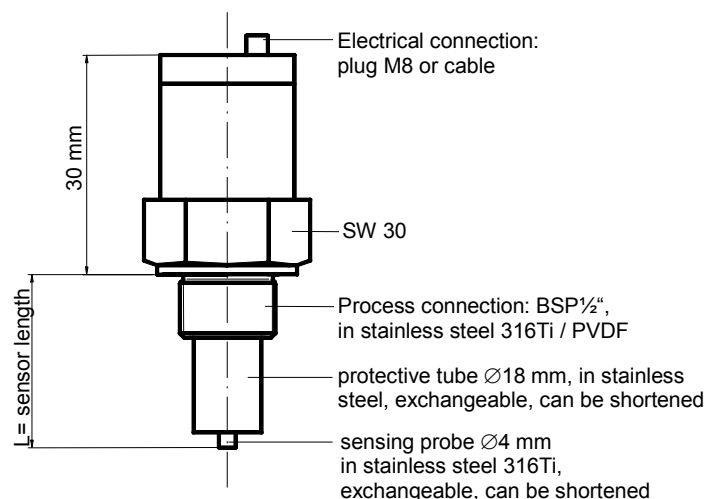
CPS 05

Characteristics

- ▶ Variable detection of the level limits
 - by exchanging the sensing probe or
 - by shortening the sensing probe
- ▶ Easy and quick adjustment by pressing the respective keys (teach in) or fixed setting by programming in the factory
- ▶ PNP transistor output
- ▶ 1 switch point: make contact or break contact
- ▶ Functional LED display
- ▶ Thread BSP $\frac{1}{2}$ "
- ▶ Cable or plug M8
- ▶ Material: stainless steel 316Ti / PVDF
- ▶ protective tube for sensing probe, screw-on type



Dimensions



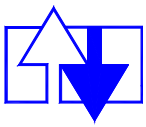
Minimum length as of sealing surface = 30 mm

Application:

Limit level detection of moving liquids, such as cooling lubricant, emulsions, water, cooling water, fluids for cleaning etc.

Scope of application:

Process and manufacturing technology, environmental technology, water engineering, plant engineering, mechanical engineering



Description

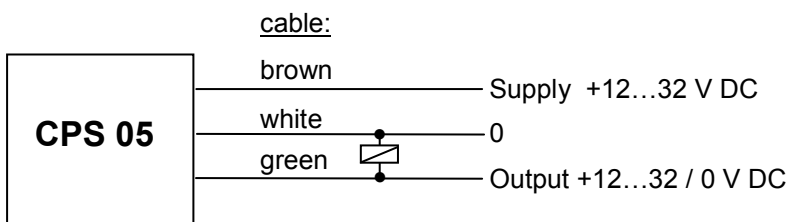
Immersing the CPS 05 into the medium will cause a change in capacitance in the electrical capacitor. The change in capacitance is detected by the electronics and the switching operation is initiated.

By exchanging or shortening the sensing probe, the level can be established at various heights.

The adjustment of the filling level and the corresponding medium is effected by pushing respective keys (Teach in).

The CPS 05 will be programmed by the factory if required by the customer.

Connection scheme



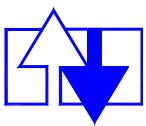
Assignment plug M8	
1	Supply +12...32 V DC
3	0
4	Output +12...32 / 0 V DC

Technical Data

Max. pressure	1,6 MPa	Sensing probe:	stainless steel 316Ti, Ø 4mm
Ambient temperature	-30°C up to +70°C		exchangeable,
Medium temperature	-30°C up to +100°C		can be shortened
Material housing	stainless steel 316Ti / PVDF	min. Sensor length L:	30 mm
Protective tube Ø18mm	stainless steel 316Ti	as of sealing surface	
Fastening screw	BSP 1/2", other designs	max. Sensor length L:	1,5 m; longer dimensions
thread	on request	as of sealing surface	on request

Electrical data

Operating voltage	12...32 V DC	Protection class	IP65
Max. power consumption	40 mA	Switching state display	1 LED
Output	Protective DC PNP (200 mA)	Electrical connection	PVC or PUR cable 3 x 0.25 mm ² or plug M8,
Number of switching points	1		Other designs on request
Function	Make contact or break contact		
	Closer (make contact): closed in the medium		
	Opener (break contact): opened in the medium		



Type key, order scheme

CPS 05

Process connection
 A Screw thread BSP 1/2"
 X other designs on request



Electrical connection
 2P Cable output 2 m PVC cable 3 x 0.25 mm², standard
 L In case of other cable length, specification is in metres
 2U Cable output 2 m PUR cable 3 x 0.25 mm², standard
 L In case of other cable length, specification is in metres
 M8 Plug output M8
 X Other designs on request

Switching function
 S Make contact (closed in the medium, 12 – 32 V DC)
 O Break contact (opened in the medium, 0 V DC)

Sensor Length L
 Dimensions in mm (length from sealing face of process connection,
 L min.=30 mm, L max.=1500 mm)

Diagram showing a type key for CPS 05 with four empty boxes for specification: [CPS 05] [] [] [] []

Accessory: Circular connector M8

Type		Item number	Design
Coupling M8 with	2 m PVC cable	K8PVC 2	
	5 m PVC cable	K8PVC 5	
	2 m PUR cable	K8PUR 2	
	5 m PUR cable	K8PUR 5	
Angle coupling M8 with	2 m PVC cable	W8PVC 2	
	5 m PVC cable	W8PVC 5	
	2 m PUR cable	W8PUR 2	
	5 m PUR cable	W8PUR 5	

Colour identification	
1	brown
3	blue
4	black

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