



## capacitance level switch

### benefits

- easy adjustment via magnetic pin
- IP 68 degree of protection
- for temperatures of the medium of up to 300 °C
- EX version suitable for mining

## Application

For level detection of conductive and non-conductive liquids in tanks, ducts, pipes or silos. Particularly suitable for application in the food, pharmaceutical and chemical industries. Also ideal for level detection of bulk solids such as sand, gravel, cement and granular material stored in open or closed containers.

## Description

The capacitance level switch CapFox® ENT 21 consists of an electronics module integrated in a robust stainless steel housing and the measuring electrode. The electrode is partially or fully insulated; in conjunction with a conductive tank wall or an earthed counter-electrode, it forms a capacitor whose capacitance depends on the electric characteristics of the environment. As soon as the dielectric (electric field) is no longer formed by a air or a another gas (free electrode), but by a liquid or the bulk solids, the capacitance changes. This is converted into a switching signal by the electronics. An NPN or a PNP transistor output is available as electrical output. The sensor output of the EX version complies with EN 60947 (NAMUR).

Fully or partially insulated rigid probes or flexible probes are available, depending on the medium and the application. Only fully insulated electrodes are used for level detection of adhesive, corrosive or electrically conductive media.

## Technical Specifications

### Indicator

LED green: Operation  
LED orange: status

### material

Housing: Stainless steel 304  
MK

### Supply voltage

DC 7 – 34 V  
load current: max. 300 mA

### Switching point adjustment

Adjustment via magnetic pin, included

### Current input

max. 5 mA without load

**Degree of protection**

IP 68 (EN 60529)

**Electrical connection**

Cable gland M12 x 1.5 with fixed cable connection

Cable length: 2 m

**Scope of delivery**

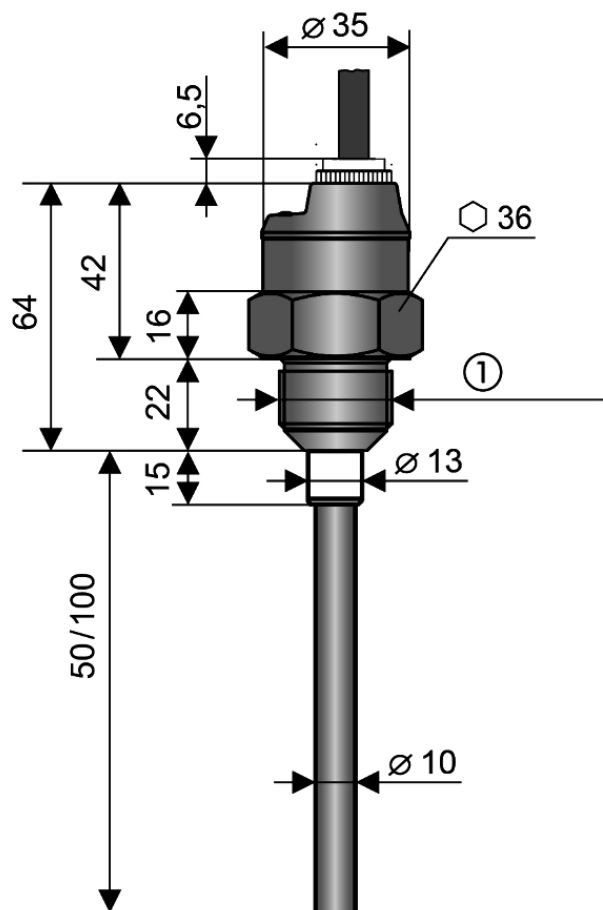
- CapFox® ENT 21 according to configuration
- magnetic pin

**Options**

- other process connections
- FEP/PFA coatings
- Ex version
- Ex II 1 G Ex ia IIB T6 Ga
- Ex II 1 D Ex ia IIIC T80°C Da
- Ex I M1 Ex ia I Ma
- HT EX version
- Ex II 1/2 G Ex ia IIB T6 Ga/Gb
- Ex II 1/2 D Ex ia IIIC T80°C Da/Db

## Technical Drawings

CapFox® ENT 21 MK - 05/10 compact probe with PPS partial insulation



**Dimensions (mm)**  
Process connection

## Versions

|                   | model / series              | Process connection                | Output signal |   | Part no.         |
|-------------------|-----------------------------|-----------------------------------|---------------|---|------------------|
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | G1B                               | 3-wire PNP    | ● | 5656010ST-L-1B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | G1B                               | 3-wire NPN    | ● | 5656010ST-L-1B02 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | G¾B                               | 3-wire PNP    | ● | 5656010ST-L-2B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | G¾B                               | 3-wire NPN    | ● | 5656010ST-L-2B02 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | ¾" NPT                            | 3-wire PNP    | ● | 5656010ST-L-3B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST |                                   | 3-wire NPN    | ● | 5656010ST-L-3B02 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | Tri-Clamp DIN<br>32676, ø 34 mm   | 3-wire PNP    | ● | 5656010ST-L-4B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | Tri-Clamp DIN<br>32676, ø 34 mm   | 3-wire NPN    | ● | 5656010ST-L-4B02 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | Tri-Clamp DIN<br>32676, ø 50.5 mm | 3-wire PNP    | ● | 5656010ST-L-5B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 ST | Tri-Clamp DIN<br>32676, ø 50.5 mm | 3-wire NPN    | ● | 5656010ST-L-5B02 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 HT | G1B                               | 3-wire PNP    | ● | 5656010HT-L-1B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 HT | G1B                               | 3-wire NPN    | ● | 5656010HT-L-1B02 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 HT | G¾B                               | 3-wire PNP    | ● | 5656010HT-L-2B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 HT | G¾B                               | 3-wire NPN    | ● | 5656010HT-L-2B02 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 HT | ¾" NPT                            | 3-wire PNP    | ● | 5656010HT-L-3B01 |
| CapFox® ENT 21 MK | CapFox® ENT 21 MK<br>-10 HT | ¾" NPT                            | 3-wire NPN    | ● | 5656010HT-L-3B02 |