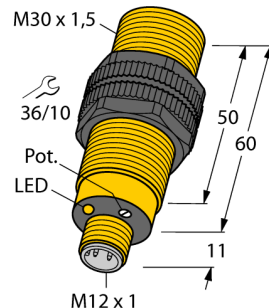


# Capacitive sensor for the detection of dry pellets BCC10-S30-AP6X-H1141

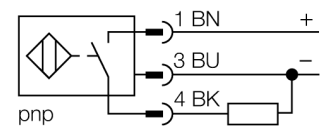
**TURCK**

Industrial  
Automation



- Threaded barrel, M30 x 1.5
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- Especially for dry pellets and the plastics industry
- EMC and ESD resistant
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 connector

## Wiring diagram



## Functional principle

Level monitoring of pellets is usually done with sensors mounted in pipes, silos or on inspection windows. The new TURCK sensor series features excellent EMC and ESD properties. Mounting in metal flanges induces lateral predamping which disturbs normal sensor. This effect is neutralized with a laterally mounted shield and an integrated processing unit. A constant switching distance is thus achieved.



|                                             |                                            |
|---------------------------------------------|--------------------------------------------|
| <b>Type code</b>                            | BCC10-S30-AP6X-H1141                       |
| <b>Ident no.</b>                            | 2503039                                    |
| <b>Rated operating distance Sn</b>          | 10 mm                                      |
| Rated operating distance Sn                 | 10 mm, non-flush mounting                  |
| Assured sensing range                       | ≤ (0.72 x Sn) mm                           |
| Hysteresis                                  | 2...20 %                                   |
| Temperaturdrift                             | type ≤ ± 20 %                              |
| Repeatability                               | ≤ 2 % of full scale                        |
| Ambient temperature                         | -25...+70 °C                               |
| <b>Operating voltage</b>                    | 10...30VDC                                 |
| Residual ripple                             | ≤ 10 % U <sub>ss</sub>                     |
| DC rated operational current                | ≤ 200 mA                                   |
| No-load current I <sub>0</sub>              | ≤ 15 mA                                    |
| Residual current                            | ≤ 0.1 mA                                   |
| Switching frequency                         | 0.1 kHz                                    |
| Rated insulation voltage                    | ≤ 0.5 kV                                   |
| Output function                             | 3-wire, NO contact, PNP                    |
| Short-circuit protection                    | yes/ cyclic                                |
| Voltage drop at I <sub>0</sub>              | ≤ 1.8 V                                    |
| Wire breakage / Reverse polarity protection | yes/ complete                              |
| <b>Design</b>                               | threaded barrel, M30 x 1.5                 |
| Dimensions                                  | 60 mm                                      |
| Housing material                            | Plastic, PA                                |
| Material active face                        | Plastic, PA                                |
| Admissible pressure on front cap            | ≤ 5 bar                                    |
| Max. tightening torque housing nut          | 5 Nm                                       |
| Connection                                  | male, M12 x 1                              |
| Vibration resistance                        | 55 Hz (1 mm)                               |
| Shock resistance                            | 30 g (11 ms)                               |
| Protection class                            | IP67                                       |
| MTTF                                        | 1080 years acc. to SN 29500 (Ed. 99) 40 °C |
| <b>Switching state</b>                      | ● yellow                                   |

# Capacitive sensor for the detection of dry pellets BCC10-S30-AP6X-H1141

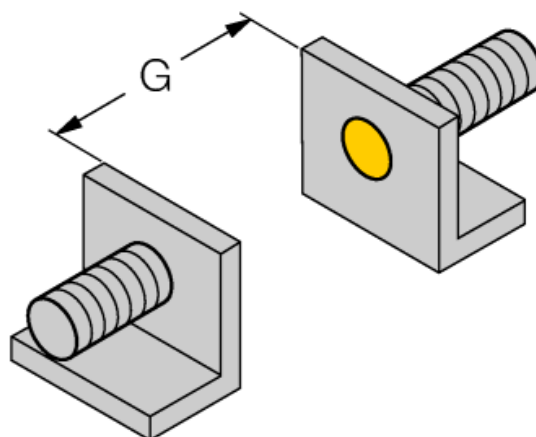
**TURCK**

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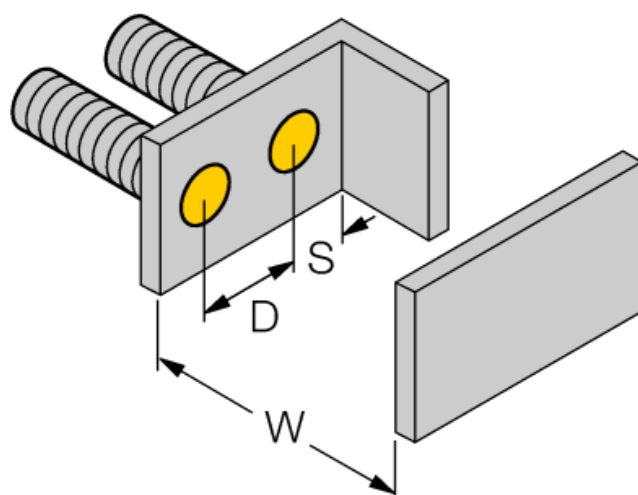
| Mounting instructions / Description | minimum distances |
|-------------------------------------|-------------------|
| Distance D                          | 60 mm             |
| Distance W                          | 30 mm             |
| Distance S                          | 45 mm             |
| Distance G                          | 60 mm             |

---

|                               |         |
|-------------------------------|---------|
| Diameter of the active area B | Ø 30 mm |
|-------------------------------|---------|



The given minimum distances have been checked in compliance with the standard switching distance. Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.

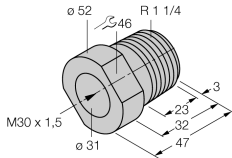
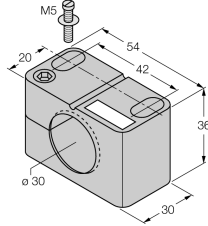


**Capacitive sensor  
for the detection of dry pellets  
BCC10-S30-AP6X-H1141**

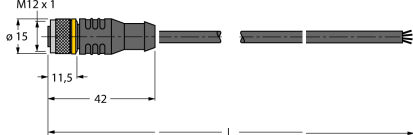
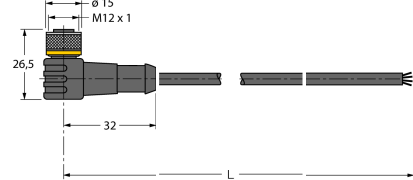
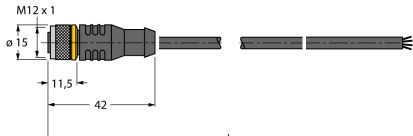
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**Accessories**

| Type code | Ident no. | Description                                                                                                                                           | Dimension drawing                                                                   |
|-----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MAP-M30   | 6950013   | Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement) |  |
| BST-30B   | 6947216   | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6                                                                               |  |

**Wiring accessories**

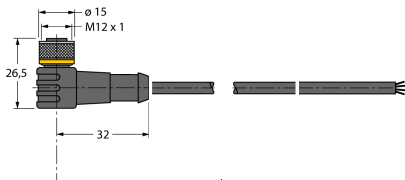
| Type code     | Ident no. | Description                                                                                                                                                                                                      | Dimension drawing                                                                     |
|---------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| RKC4.4T-2/TXL | 6625503   | Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |
| WKC4.4T-2/TXL | 6625515   | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>   |  |
| RKC4.4T-2/TEL | 6625013   | Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |

**Capacitive sensor  
for the detection of dry pellets  
BCC10-S30-AP6X-H1141**

**TURCK**

Industrial  
Automation

**Wiring accessories**

| Type code     | Ident no. | Description                                                                                                                                                                                                    | Dimension drawing                                                                   |
|---------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| WKC4.4T-2/TEL | 6625025   | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |