CAPACITIVE SENSORS
SERIES
BC, BCF, BCC

Performance

<table>
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<tr>
<th>Features/Capabilities</th>
<th>BC</th>
<th>BCF</th>
<th>BCC</th>
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<td>Large switching distances</td>
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<td>Adjustment via potentiometer</td>
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= n/a
• standard
** strengths

For detailed information please see our catalog Capacitive Sensors (D101683)
Capacitive sensors work on the principles of non-contact, isolated and wear-free detection. Both electrically conductive and non-conductive materials are detected reliably. Capacitive sensors can thus be applied in systems where the inductive principle fails.

Typical applications are distance and position measurement, bending strength, thickness, level control, eccentricity, and deformation, wear, and vibrations.

- Non-contact detection of metal and non-metal targets
- Large switching distances (adjustable)
- Short-circuit and reverse polarity protection
- Connection types: Connector, cable connection, terminal chamber
- Plastic, metal, or Dyflor housings
- EMC protection (highly EMC immune)
- ESD protection (immune to electrostatic discharge)
- Wetting compensation
- Switching status displayed via LED
- Degree of protection up to IP67

BC series – The standard

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BCF series – The problem solver

In difficult applications conventional sensors don’t provide sufficient detection reliability. In particular, conductive coatings that cover large surfaces may lead to detection problems or even to complete failure.

Such difficulties belong to the past, thanks to the BCF sensors because they combine innovative switching technology with optimized electrode and compensation features.

- Suitable for highly viscous media
- Improved EMC safety (in connection with high frequency technology)
- Plastic most commonly provided in form of pallets for transport and storage purposes. Sensors are installed in pipes, silos, and inspection windows to monitor the filling level.
- From the perspective of sensor technology, such applications are a challenge, because electrostatic charge may destroy the sensor or poor permittivity may reduce switching distances.
- Moreover, mounting in metal flanges inhibits unrestrained detection and thus error-free operation of the electronics.
- Any kind of parasitics evolving from level control of plastic pallets can be blanked off by BCC sensors. They are highly EMC safe and ESD immune.
- Predamping is effectively prevented with a laterally mounted shield and an integrated processing unit. The user can thus exploit the full measuring range.
- Detection of smallest pallets
- Unchanged switching distance, even when mounted in a metal pipe
- High EMC safety and almost completely ESD immune

Excellent EMC immunity

Thanks to special protective measures, the sensors are highly EMC safe, even when exposed to increased electromagnetic interference (industrial environments).

Automatic wetting compensation

Interferences caused by wetting or dewing are automatically blanked off.

Maximum use of minimum space

High-quality components mounted in a compact and stable housing open up unimaginable new installation and detection possibilities.
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