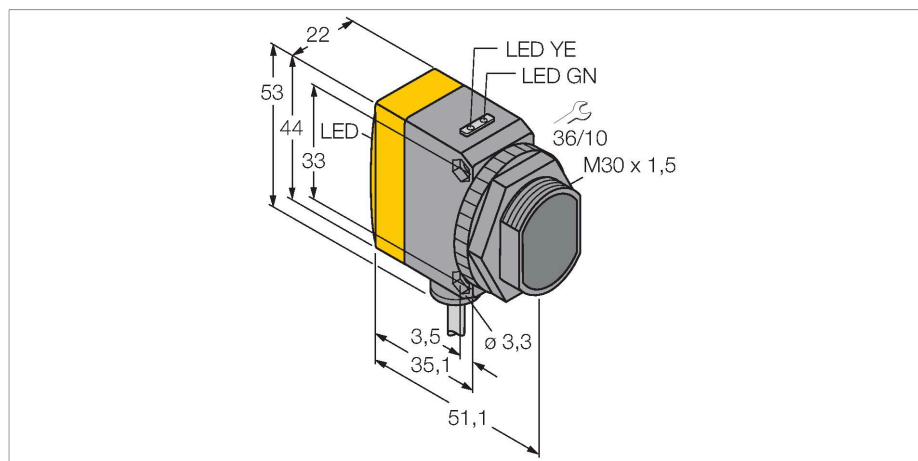


QS30RRH20

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)

For Water Detection



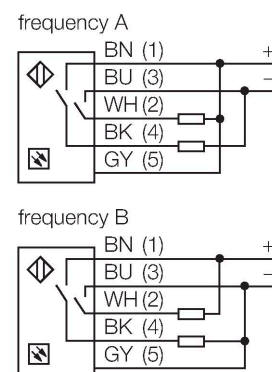
Technical data

Type	QS30RRH20
ID	3079170
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...2000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, dark operation, PNP/NPN
Readiness delay	≤ 100 ms
Response time typical	< 1 ms
Mechanical data	
Design	Rectangular with thread, QS30
Dimensions	Ø 30 x 54.3 x 22 x 53 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	5
Core cross-section	0.5 mm ²
Ambient temperature	-20...+60 °C

Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Selectable operating frequency, protection against crosstalk
- Operating voltage: 10...30 VDC
- Switching output, bipolar, dark operation

Wiring diagram



Functional principle

The opposed mode sensor incorporates an emitter and a receiver. The emitter emits light in the near IR range with a wavelength of 1450 nm, which approximates one of the absorption edges of water. The resulting high contrast ratio leads to a particularly high sensitivity with water or media containing water as opposed to transparent media.

Technical data

Protection class	IP67
Special features	Water detection
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
Tests/approvals	
Approvals	CE

Accessories

<p>SMBQS30Y</p>	<p>3002811</p> <p>Protective housing, stainless steel, for QS30 series</p>	<p>SMBQS30YL</p>	<p>3072741</p> <p>Protective housing with safety glass panel, stainless steel, for QS30 series</p>
<p>SMB30A</p>	<p>3032723</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread</p>	<p>SMBQS30L</p>	<p>3002809</p> <p>Mounting bracket, stainless steel, for QS30 series</p>
<p>SMB30MM</p>	<p>3027162</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment</p>	<p>SMB30SC</p>	<p>3052521</p> <p>Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable</p>