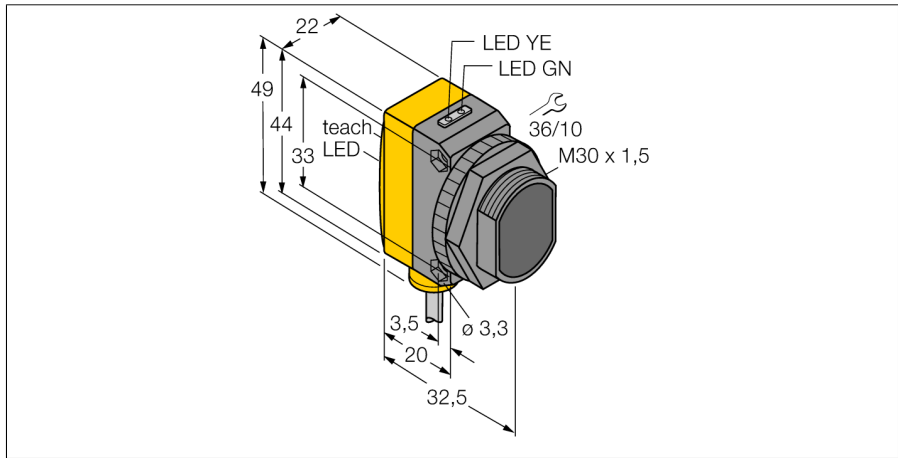


**Photoelectric sensor  
retroreflective sensor with polarizing filter  
QS30LLP**



- Cable, PVC, 2 m
- Protection class IP67
- Compact design
- Rectangular profile
- LED all-round visible
- Reflector BRT-36X40BM included in delivery
- Self-adhesive reflector foil BRT-THVG-2X2 included in delivery
- Excess gain, max. setting for long range
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

<b>Type designation</b>	QS30LLP
Ident no.	3002993

<b>Operating mode</b>	Laser sensor, retroreflective mode (triangulation) with polarizing filter
Reflector included in delivery	no
Light type	Red polarized
Wavelength	650 nm
Laser class	▲ 1
Beam diameter	3 mm
Range	200...18000 mm
Ambient temperature	-10...+50 °C

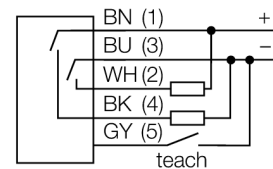
<b>Operating voltage</b>	10...30 VDC
Residual ripple	< 10 % U <sub>in</sub>
DC rated operational current	≤ 150 mA
No-load current I <sub>0</sub>	≤ 35 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 1000 Hz
Readiness delay	≤ 1 s

<b>Approvals</b>	CE
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<b>Design</b>	Rectangular, QS30
Dimensions	35 mm x 22 mm x 49 mm
Housing material	Plastic, ABS, Yellow
Lens	plastic, acrylic
Electrical connection	Cable, PVC
Cable length	2 m
Cable cross section	5 x 0.5 mm <sup>2</sup>
Protection class	IP67
MTTF	28 years acc. to SN 29500 (Ed. 99) 40 °C

<b>Special features</b>	Laser Pushbutton Teach input LED green LED yellow LED green flashing LED red flashing
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED green flashing
Excess gain indication	LED red flashing

**Wiring Diagram**

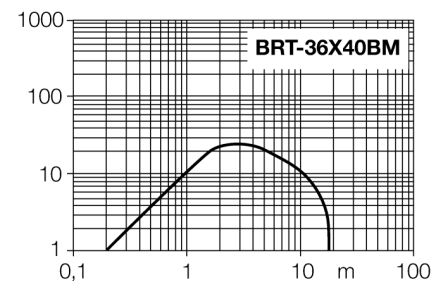


**Functional principle**

Retro-reflective sensors incorporate emitter and receiver in the same compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors incorporate some of the advantages of opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device.

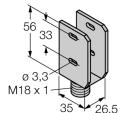
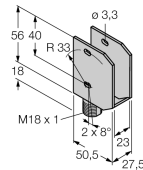
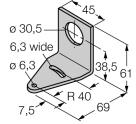
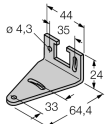
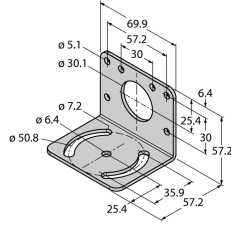
**Excess gain curve**

Excess gain in relation to the distance



**Photoelectric sensor  
retroreflective sensor with polarizing filter  
QS30LLP**

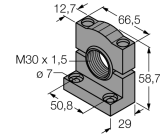
**Accessories**

Type code	Ident no.	Description	
SMBQS30Y	3002811	Protective housing, stainless steel, for QS30 series	
SMBQS30YL	3072741	Protective housing with safety glass panel, stainless steel, for QS30 series	
SMB30A	3032723	Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	
SMBQS30L	3002809	Mounting bracket, stainless steel, for QS30 series	
SMB30MM	3027162	Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment	

**Photoelectric sensor  
retroreflective sensor with polarizing filter  
QS30LLP**

**Accessories**

Type code	Ident no.	Description
SMB30SC	3052521	Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable



**Function accessories**

Type code	Ident no.	Description
BRT-TVHG2X2	3057260	Rectangular reflective foil, reflection coefficient 0.8, ambient temperature -20 ... +60 °C, 4 sheets

