

### Compact yet Powerful

Sense object, count parts, position, and still stay in budget. These are the requirements met by the BOS 35K optoelectronic sensor in all areas of automation.

### Diffuse

Object sensing is done using infrared light. The light emitted by the sensor is reflected back by the target and registered by the sensor. Versions with a fixed switching distance (200 mm) and an adjustable switching distance (to 400 mm) are available.

### Retroreflective with Polarizing Filter

The red light beam emitted by the sensor is bounced back to the sensor by a reflector or reflective tape. The range is up to 4000 mm using Balluff reflectors with 80 mm diameter. As soon as an object interrupts the beam, a switching function is generated. The built-in polarizing filter makes possible reliable detection of reflecting objects (i.e. cans or polished workpieces).

### Thru-Beam

An infrared light beam is sent by the emitter to a distant receiver. The receiver switches when the beam is interrupted. Ranges of up to 8000 mm are possible. All models with their small, compact housings and connectors are easy to install and easily adjustable in their mounting brackets.

### IP 67 –

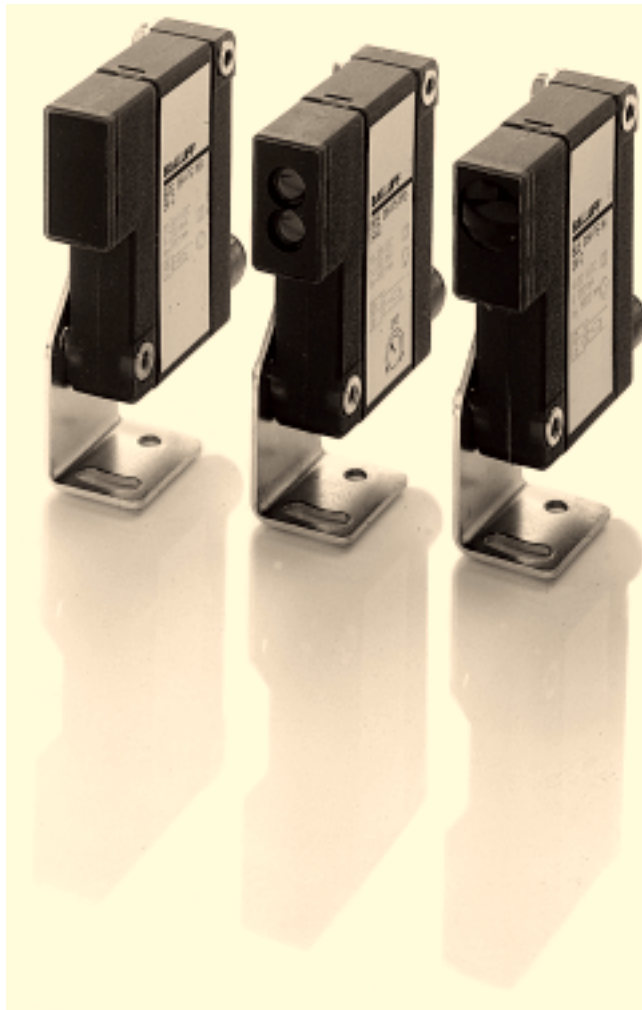
Use them anywhere

### Fully potted –

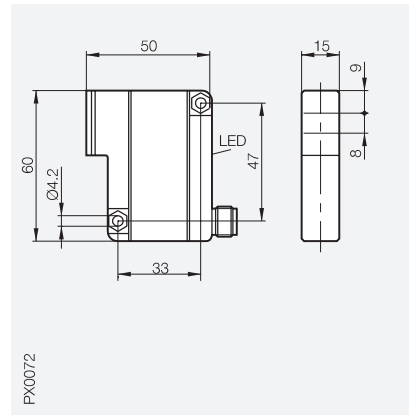
Shock and vibration immune





Mounting bracket included

2



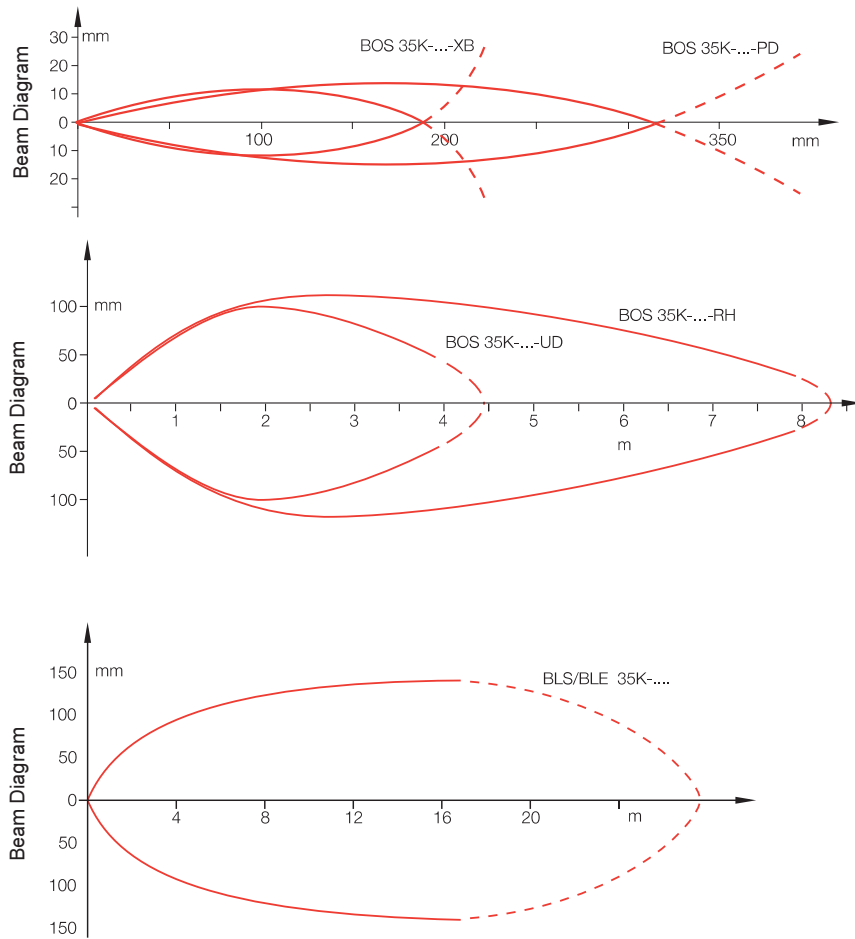
Series		<b>BOS 35K</b>
Diffuse	Sensing range	<b>200 mm</b>
Retroreflective	Sensing range	
Thru-Beam	Sensing range	



	<b>Diffuse</b>				
	PNP	○	200/400 mm	①	BOS 35K-PS-1XB-S 4-C
	PNP	●	200/400 mm	②	BOS 35K-PO-1XB-S 4-C
	<b>Retroreflective</b>				
	PNP	●	4 m	①	
	PNP	○	4 m	②	
	PNP	●	8 m	①	
	<b>Thru-Beam</b>				
	PNP	●	Receiver	①	
	PNP	○	Receiver	②	
			Emitter	⑮	
	Supply voltage $U_B$				10...30 V DC
	Voltage drop $U_d$ at $I_e$				≤ 2,5 V
	Rated isolation voltage $U_i$				250 V DC
	Rated operational current $I_e$				200 mA
	No-load supply current $I_0$				≤ 20 mA
	Short circuit protected				yes
	Permissible capacitance				1 µF
	On/Off delay (Standard/one-way)				5 ms
	Frequency of operating cycles $f$ (Standard/one-way)				100 Hz
	Utilization category				DC 13
	Output				PNP
	Output function				O/●
	Permissible ambient light				5000 Lux
	Sensitivity adjustment				no
	Output function indication				yes
	Stability indication				no
	Ambient temperature range $T_a$				-5...+55 °C
	Degree of protection per IEC 529				IP 67
	Insulation class				II
	Housing material				Polyamide 12
Material of sensing face				PMMA	
Connection				Connector	
No. of wires × conductor cross section					
Weight				40 g	
Recommended connector				BKS-S 19/S20	
O/● = Light-On/Dark-On					

**Note:** NPN version on request!  
Mounting bracket included.





**Bracket  
for BOS 35K included!**

