



Type		Diffuse sensor with background suppression	
Detection range		200...2000 mm	
PNP	Complementary	Part number	BOS 50K-PA-RH12-S4 ④
NPN		Part number	BOS 50K-NA-RH12-S4 ⑩
PNP	NO/NC	Part number	
NPN	Switchable	Part number	
PNP	NO/NC	Part number	
	Switchable IO-Link	Part number	
PNP	NO	Part number	BOS 50K-PS-RH12-S4 ①
NPN	NO	Part number	
PNP	NC	Part number	
NPN	NC	Part number	
PNP	NO with	Part number	BOS 50K-PSV-RH12-S4 ②
NPN	Error output	Part number	BOS 50K-NSV-RH12-S4 ⑧
PNP	NC with	Part number	BOS 50K-POV-RH12-S4 ⑥
NPN	Error output	Part number	BOS 50K-NOV-RH12-S4 ⑪
Supply voltage $U_B$		10...30 V DC	
Output current		100 mA	
No-load supply current $I_0$ max.		≤ 50 mA	
Switching type		Light/dark switching	
Polarity reversal/short-circuit protected		Yes/Yes	
Settings		Potentiometer, 10-turn	
Emitter, light type		LED, red light	
Wavelength		630 nm	
Light spot diameter		75×75 mm at 1.5 m	
Gray value shift (90%/18%)		8%	
Power indicator		Green LED	
Received light indicator		Yellow LED	
Stability indicator			
Error indicator		Yellow LED (flashes)	
Response time		1 ms	
Switching frequency f		500 Hz	
Degree of protection as per IEC 60529		IP 67	
Ambient temperature $T_a$		-10...+60°C	
Permissible ambient light		10 klx	
Material	Housing	ABS/PC	
	Optical surface	Glass	
Connection		M12 connector, 4-pin	

Diffuse sensor values referenced to 90% reflective Kodak gray card.

Wiring diagrams on page 233.

Ordering codes on page 227.

