

# Reflex Sensors

with Background Suppression **LASER**

## YN33PBV3

Part Number



- High Precision Background Suppression up to 300 mm
- Stainless Steel Plug (V2A)
- Switching Frequency: 1 kHz



### Technical Data

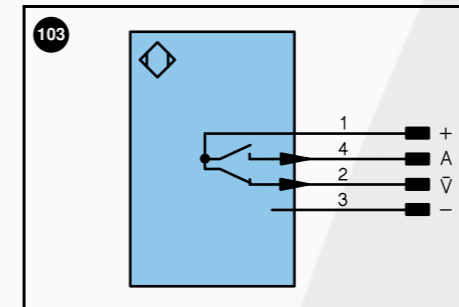
Optical Data	
Range	300 mm
Switching Hysteresis	< 1 %
Light Source	Laser (red)
Wave Length	655 nm
Service Life (T = +25°C)	100000 h
Laser Protection Class (EN 60825-1)	2
max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24V)	< 20 mA
Switching Frequency	1 kHz
Response Time	500 μs
Temperature Drift	< 2 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2.5 V
PNP Switching Output/Switching Current	200 mA
Contamination Output Voltage Drop	< 2.5 V
PNP Contamination Output/Switching Current	50 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Mechanical Data	
Housing	Plastic
Protection Mode	IP 67
Connection	M 12x1
Protective Insulation, Rated Voltage	50 V



Table 1

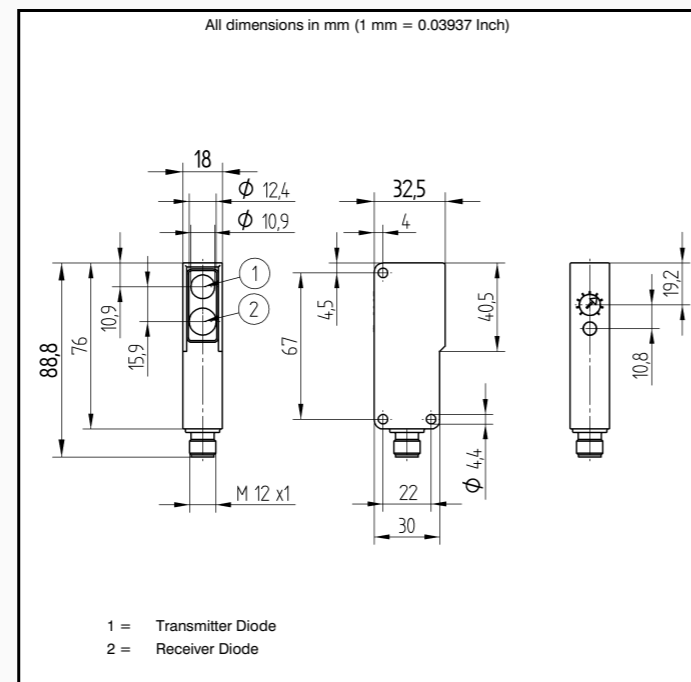
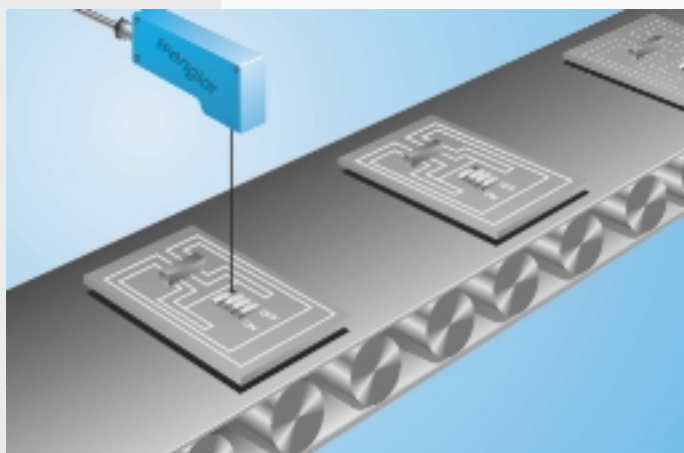
Range	60 mm	150 mm	300 mm
Light Spot Diameter	3 mm	2 mm	3 mm

	Plug Version
Part Number	YN33PBV3
Contamination Output	●
PNP NO	●
Connection Diagram No.	103
Control Panel No.	N 3
Suitable Plug No.	1



Legend			Wire colors according to DIN IEC 757		
+	Power supply "+"	U	Test input	BK	black
-	Power supply "0V"	W	Trigger input	BN	brown
~	Power supply (AC Voltage)	O	Analog output (1,2,3,...)	RD	red
A	Switching output (1,2,3...)/ NO	O-	Ground for the analog output	OG	orange
A	Switching output (1,2,3...)/ NC	BZ	Block discharge	YE	yellow
V	Contamination / Error output (NO)	Aw	Valve output	GN	green
V	Contamination / Error output (NC)	a	Valve control output "+"	BU	blue
E	Input (analog or digital)	b	Valve control output "0V"	VT	violet
T	Teach input	SY	Synchronization	GY	grey
Z	Time delay (activation)	E+	Receiver-Line	WH	white
S	Shielding	S+	Emitter-Line	PK	pink
RxD	RS-232 receive path	⊕	Grounding	GNYE	green yellow
TxD	RS-232 send path				

These sensors are particularly well suited for recognizing objects in front of any type of background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.



### Accessories

Mounting Bracket WN

### Ctrl. Panel



- 05 = Switching Distance Adjuster
- 30 = Switching Status/Contamination Warning

### Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90%

