

Retro-Reflex Sensor for Clear Glass Recognition

KN88PA3

Part Number

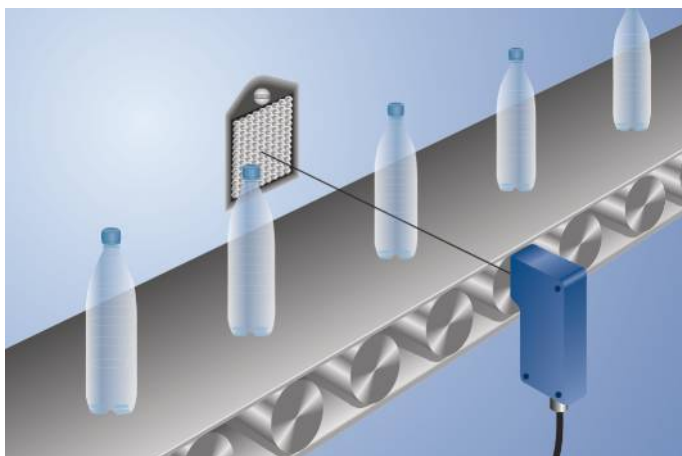


- Foil detection
- Recognition of clear glass
- Recognition of PET bottles

Technical Data

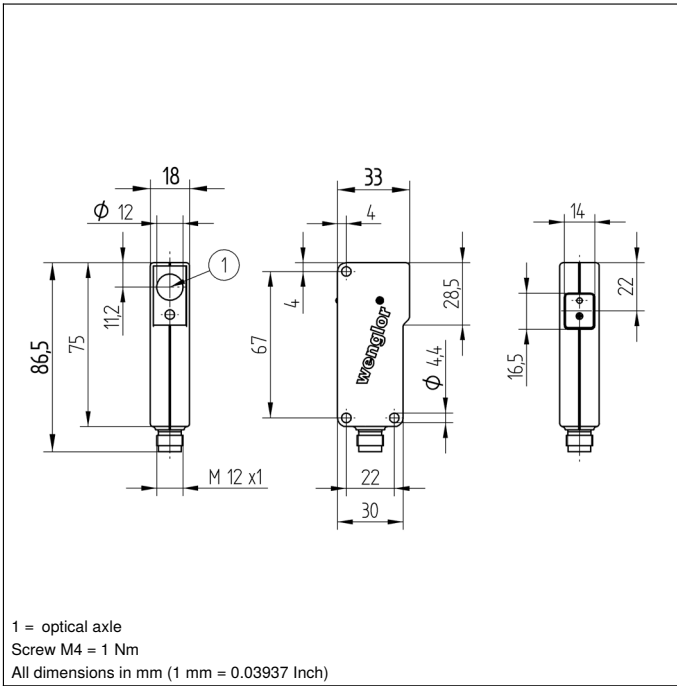
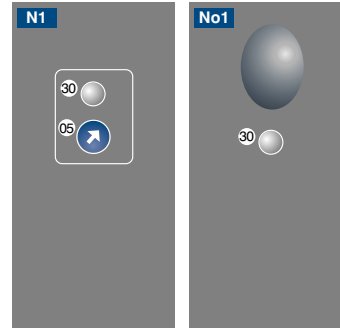
Optical Data	
Range	2600 mm
Reference Reflector/Reflex Foil	RQ100BA
Clear Glass Recognition	yes
Switching Hysteresis	< 5 %
Light Source	Red Light
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	3 °
Single-Lens Optic	yes
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 40 mA
Switching Frequency	2500 Hz
Response Time	200 μs
Temperature Drift	< 3 %
Temperature Range	-10...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Residual Current Switching Output	< 50 μA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Setting Method	Potentiometer
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	N1 No1
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	350

Retro-reflex sensors must be used in combination with a reflector and even crystal-clear objects and sheet products can be reliably recognized.

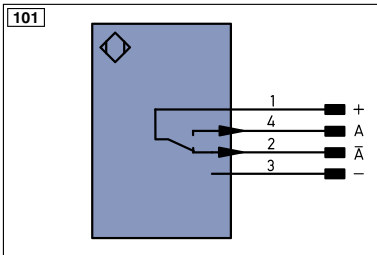


Complementary Products

Dust extraction tube STAUBTUBUS-03	
PNP-NPN Converter BG2V1P-N-2M	
Protection Housing Set ZSN-NN-02	
Reflector, Reflex Foil	


Ctrl. Panel Optic


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


Legend

+	Supply Voltage +	nc	not connected	ENa	Encoder A
-	Supply Voltage 0 V	U	Test Input	ENb	Encoder B
~	Supply Voltage (AC Voltage)	U	Test Input inverted	AMIN	Digital output MIN
A	Switching Output (NO)	W	Trigger Input	AMAX	Digital output MAX
Ā	Switching Output (NC)	O	Analog Output	AOK	Digital output OK
V	Contamination/Error Output (NO)	O-	Ground for the Analog Output	SY In	Synchronization In
V̄	Contamination/Error Output (NC)	BZ	Block Discharge	SY OUT	Synchronization OUT
E	Input (analog or digital)	AWV	Valve Output	Out	Brightness output
T	Teach Input	a	Valve Control Output +	M	Maintenance
Z	Time Delay (activation)	b	Valve Control Output 0 V		
S	Shielding	SY	Synchronization		
RxD	Interface Receive Path	E+	Receiver-Line		
TxD	Interface Send Path	S+	Emitter-Line		
RDY	Ready	⊕	Grounding		
GND	Ground	SnR	Switching Distance Reduction		
CL	Clock	Rx+/-	Ethernet Receive Path		
E/A	Output/Input programmable	Tx+/-	Ethernet Send Path		
	IO-Link	Bus	Interfaces-Bus A(+)/B(-)		
PoE	Power over Ethernet	La	Emitted Light disengageable		
IN	Safety Input	Mag	Magnet activation		
OSSD	Safety Output	RES	Input confirmation		
Signal	Signal Output	EDM	Contactor Monitoring		
Bl..D+/-	Ethernet Gigabit bidirect. data line (A-D)	ENaRS42	Encoder A/Ā (TTL)		
EN0 RS42	Encoder 0-pulse 0-0 (TTL)	ENbRS42	Encoder B/B̄ (TTL)		

Wire Colors according to DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNVE	Green/Yellow

Feasible reflector distance

Reflector type, mounting distance

RQ100BA	0...2,6 m	RR25_M	0...1 m
RE18040BA	0...1,4 m	RR25KP	0...0,7 m
RQ84BA	0...2,4 m	RR21_M	0...0,75 m
RR84BA	0...2,3 m	ZRAE02B01	0...1,2 m
RE9538BA	0...0,9 m	ZRME01B01	0...0,4 m
RE6151BM	0...2,3 m	ZRME03B01	0...1 m
RR50_A	0...2,3 m	ZRMR02K01	0...0,5 m
RE6040BA	0...2,5 m	ZRMS02_01	0...0,6 m
RE8222BA	0...0,95 m	RF505	0...0,8 m
RR34_M	0...1,3 m	RF508	0...0,8 m
RE3220BM	0...0,9 m	RF258	0...0,6 m
RE6210BM	0...0,75 m	ZRDF_K01	0...1,8 m

