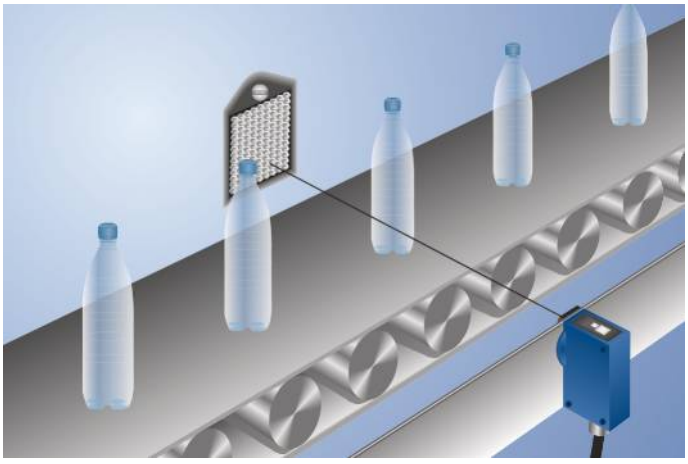
Retro-Reflex Sensor
for Clear Glass Recognition

KR87NCT2
Part Number

- **Recognition of clear glass**
- **Simple installation**
- **Teach-in, external teach-in**

A reflector must be used in combination with these sensors. wenglor has the right retro-reflex light barrier for every application. Even crystal-clear objects and sheet products can be reliably recognized. The sensor is easy to install with its integrated M18 threaded fixation, and can be easily protected as well. Time delay can be activated by RS-232 interface.

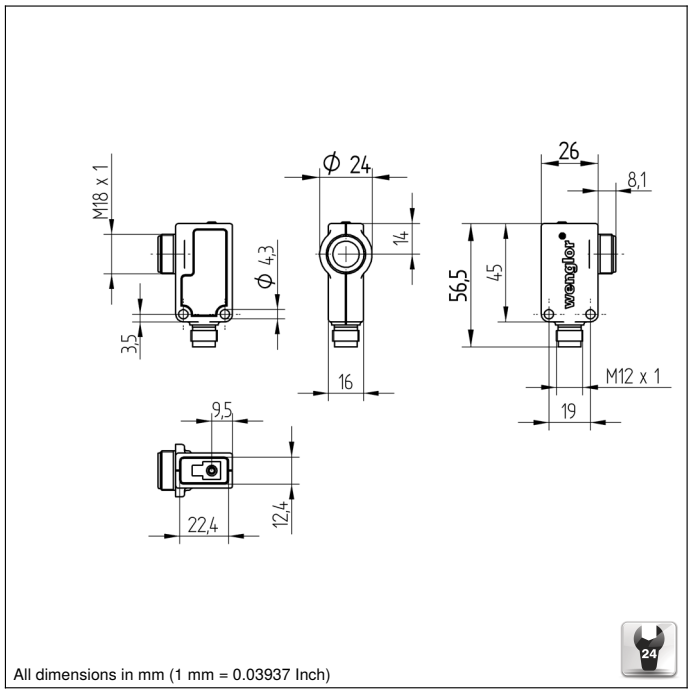


Technical Data

Optical Data	
Range	4000 mm
Reference Reflector/Reflector 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	5 °
Single-Lens Optic	yes
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 40 mA
Switching Frequency	2 kHz
Response Time	250 µs
On-/Off-Delay (RS-232)	0...5 s
Temperature Drift	< 5 %
Temperature Range	-10...60 °C
Switching Output Voltage Drop	< 2,5 V
NPN Switching Output/Switching Current	100 mA
Residual Current Switching Output	< 50 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Lockable	yes
Teach Mode	NT, MT
Protection Class	III
Mechanical Data	
Setting Method	Teach-In
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
NPN NO/NC switchable	●
RS-232 with Adapterbox	●
Connection Diagram No.	352
Control Panel No.	M3
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	150 370

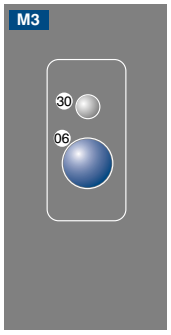
Complementary Products

Adapterbox A232
Dust Extraction Tube STAUBTUBUS-01
Reflector, Reflector Foil
Software

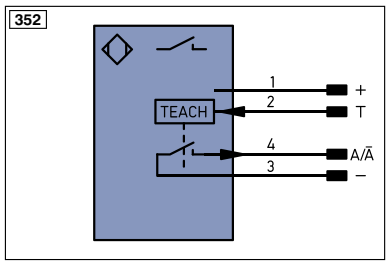


All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



06 = Teach Button
30 = Switching Status/Contamination Warning



Legend

+	Supply Voltage +	PT	Platinum measuring resistor	EN_{ARS422}	Encoder A/Ā (TTL)
–	Supply Voltage 0 V	nc	not connected	EN_{BRS422}	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	EN_A	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	EN_B	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	A_{MIN}	Digital output MIN
V	Contamination/Error Output (NO)	W–	Ground for the Trigger Input	A_{MAX}	Digital output MAX
V̄	Contamination/Error Output (NC)	O	Analog Output	A_{OK}	Digital output OK
E	Input (analog or digital)	O–	Ground for the Analog Output	SY In	Synchronization In
T	Teach Input	BZ	Block Discharge	SY OUT	Synchronization OUT
Z	Time Delay (activation)	A_W	Valve Output	O_{LT}	Brightness output
S	Shielding	a	Valve Control Output +	M	Maintenance
RxD	Interface Receive Path	b	Valve Control Output 0 V	rsv	reserved
TxD	Interface Send Path	SY	Synchronization	Wire Colors according to DIN IEC 757	
RDY	Ready	SY–	Ground for the Synchronization	BK	Black
GND	Ground	E+	Receiver-Line	BN	Brown
CL	Clock	S+	Emitter-Line	RD	Red
E/A	Output/Input programmable	⏚	Grounding	OG	Orange
	IO-Link	SnR	Switching Distance Reduction	YE	Yellow
PoE	Power over Ethernet	Rx+/–	Ethernet Receive Path	GN	Green
IN	Safety Input	Tx+/–	Ethernet Send Path	BU	Blue
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(–)	VT	Violet
Signal	Signal Output	La	Emitted Light disengageable	GY	Grey
Bl_D+/–	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN_{0RS422}	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactor Monitoring	GNYE	Green/Yellow

Feasible reflector distance

Reflector type, mounting distance

RQ100BA	0...4 m	**RR25_M**	0...1,4 m
RE18040BA	0...3 m	**RR25KP**	0...1 m
RQ84BA	0...4 m	**RR21_M**	0...1 m
RR84BA	0...4 m	**ZRAE02B01**	0...2 m
RE9538BA	0...1,5 m	**ZRME01B01**	0...0,6 m
RE6151BM	0...3,6 m	**ZRME03B01**	0...2,8 m
RR50_A	0...3 m	**ZRMR02K01**	0...0,8 m
RE6040BA	0...3,5 m	**ZRMS02_01**	0...0,9 m
RE8222BA	0...2 m	**RF505**	0...1,2 m
RR34_M	0...1,8 m	**RF508**	0...1,1 m
RE3220BM	0...1,8 m	**RF258**	0...1 m
RE6210BM	0...1,2 m	**ZRDF__K01**	0...4 m