

Print Mark Reader

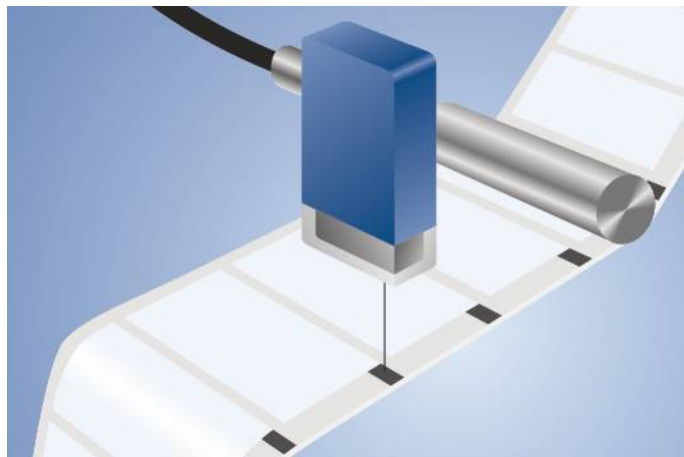
WM03NCT2S614

Part Number



- Compact housing
- Small light spot
- Teach-in, external teach-in
- White light for recognition of any print mark combinations

These sensors have been specially designed to recognize print marks. They have a very small spot and use a white light LED with long service life. Only one sensor is required for the recognition of all color combinations, as well as the difference in brightness between print marks and the background.



Technical Data

Optical Data

Working Range	12...18 mm
Working Distance	15 mm
Resolution	20 Gray Scale
Switching Hysteresis	< 2 %
Light Source	White Light
Wave Length	400...700 nm
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Spot Diameter	1,5 × 2,5 mm

Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	10 kHz
Response Time	50 µs
On-/Off-Delay (RS-232)	20 ms
Temperature Drift	< 2 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
NPN Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Lockable	yes
Teach Mode	ZT, FT
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.

M7

Suitable Connection Technology No.

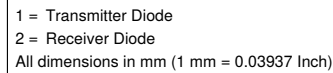
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Suitable Mounting Technology No.

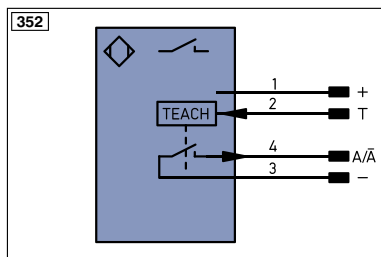
360

Complementary Products

Adapterbox A232

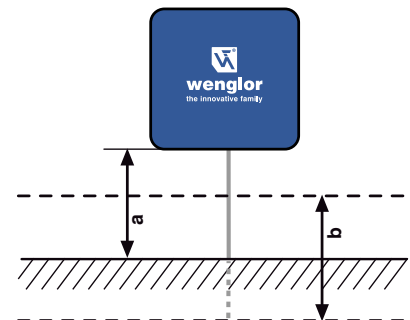


01 = Switching Status Indicator
06 = Teach Button



Legend		PT		ENa	
+	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
Ä	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
∇	Contamination/Error Output (NC)	BZ	Block Discharge	SY OUT	Synchronization OUT
E	Input (analog or digital)	ÄW	Valve Output	OLT	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	Wire Colors according to DIN IEC 757	
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		
QSSD	Safety Output	RES	Input confirmation		
Signal	Signal Output	EDM	Contactors Monitoring		
Bi-D+/-	Ethernet Gigabit bidirect. data line (A-D)	ENAR5422	Encoder A/Ä (TTL)	BK	Black
ENR5422	Encoder 0-pulse 0-Ö (TTL)	ENBR5422	Encoder B/B̄ (TTL)	BN	Brown
				RD	Red
				OG	Orange
				YE	Yellow
				GN	Green
				BU	Blue
				VT	Violet
				GY	Grey
				WH	White
				PK	Pink
				GNYE	Green/Yellow

Ideal Working Distance



a = Working Distance
b = Working Range

