

Print Mark Reader

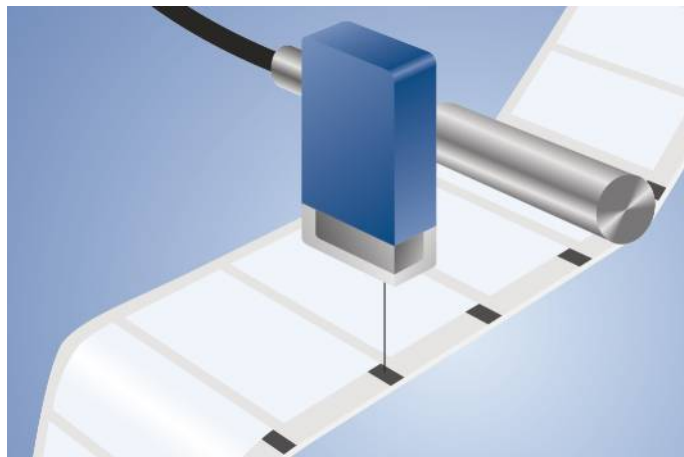
WM03PCT2S614

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
PNP Switching Output/Switching Current	200 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

PNP NO/NC switchable



RS-232 with Adapterbox



Connection Diagram No.

152

Control Panel No.

M7

Suitable Connection Technology No.

2

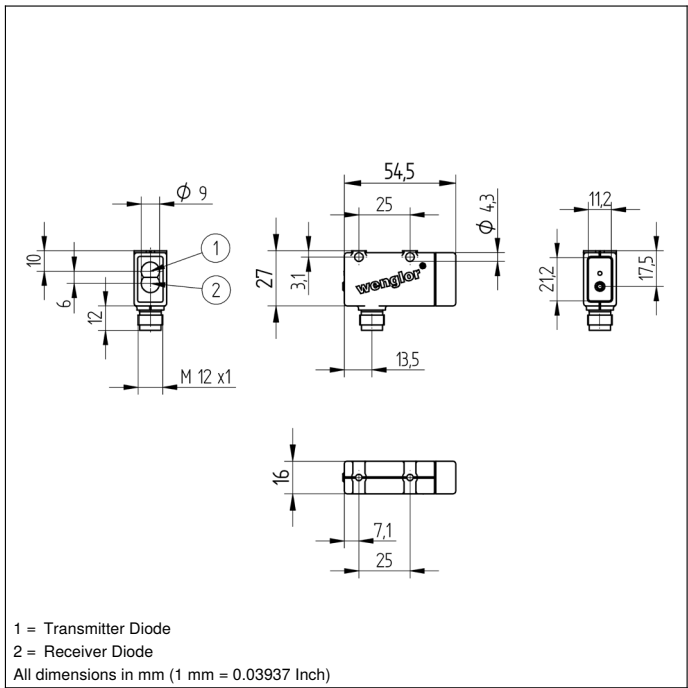
Suitable Mounting Technology No.

360

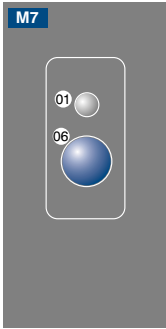
Complementary Products

Adapterbox A232

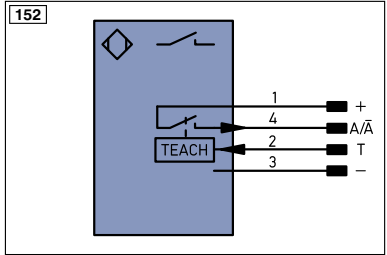
PNP-NPN Converter BG2V1P-N-2M



Ctrl. Panel



01 = Switching Status Indicator
06 = Teach Button



Legend

+	Supply Voltage +
-	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
A̅	Switching Output (NC)
V	Contamination/Error Output (NO)
V̅	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
IO-Link	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
BI-D+/-	Ethernet Gigabit bidirect. data line (A-D)
EN0RS42Z	Encoder 0-pulse 0-0 (TTL)

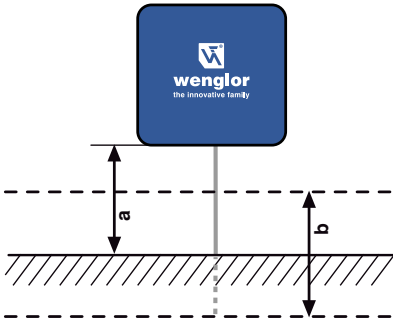
PT	Platinum measuring resistor
nc	not connected
U	Test Input
U̅	Test Input inverted
W	Trigger Input
O	Analog Output
O-	Ground for the Analog Output
BZ	Block Discharge
AwV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
E+	Receiver-Line
S+	Emitter-Line
±	Grounding
SnR	Switching Distance Reduction
Rx+/-	Ethernet Receive Path
Tx+/-	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(-)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contact Monitoring
ENAR542Z	Encoder A/A̅ (TTL)
ENBR542Z	Encoder B/B̅ (TTL)

ENa	Encoder A
ENb	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
LI	Brightness output
M	Maintenance

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
GNYE	Green/Yellow

Ideal Working Distance



a = Working Distance
b = Working Range

