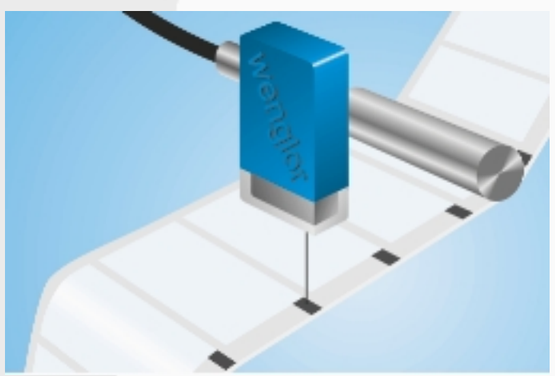
Print Mark Sensors

WM03PCT2

Part Number

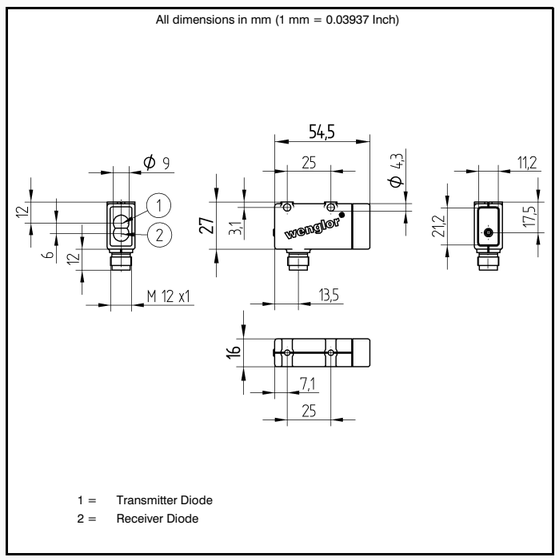
- **Compact Housing**
- **Small Light Spot**
- **Teach-In, external Teach-In, RS-232 Interface**
- **White Light for recognition of any print mark combinations**

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

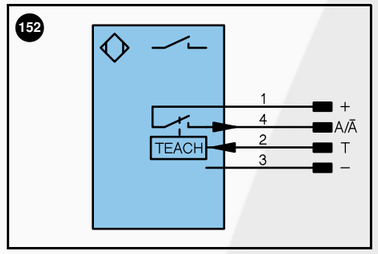
Optical Data	
Working Range	12...18 mm
Working Distance	15 mm
Resolution	20 Gray Scale
Switching Hysteresis	< 2 %
Light Source	White Light
Wave Length	400...700 nm
Service Life (T = +25°C)	100000 h
max. Ambient Light	10000 Lux
Light Spot Size a (a x b)	1.5 mm
Light Spot Size b (a x b)	2.5 mm
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24V)	< 30 mA
Switching Frequency	5 kHz
Response Time	100 µs
Time Delay	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
Mechanical Data	
Adjustment	Teach-In
Housing	Plastic
Full Encapsulation	yes
Protection Mode	IP 67
Connection	M 12x1
Protective Insulation, Rated Voltage	50 V



Specifications are subject to change without notice

18/03

	Plug Version
	Part Number: WM03PCT2
PNP NO/NC switchable	●
RS-232 with Adapterbox	●
Connection Diagram No.	152
Control Panel No.	M 7
Suitable Plug No.	2



Legend

+	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
Ā	Switching output (1,2,3...) / NC	BZ	Block discharge	YE	yellow
V	Contamination / Error output (NO)	AW	Valve output	GN	green
V̄	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				

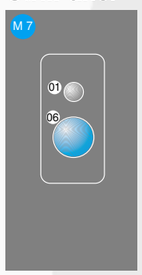
Wire colors according to DIN IEC 757

Accessories

Adapterbox A232

Mounting Bracket WM2

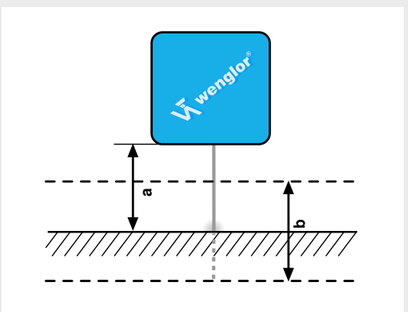
Ctrl.Panel



01 = Switching Status Indicator

06 = Teach Button

Ideal Working Distance



a = Working Distance

b = Working Range