Transit Time Sensors

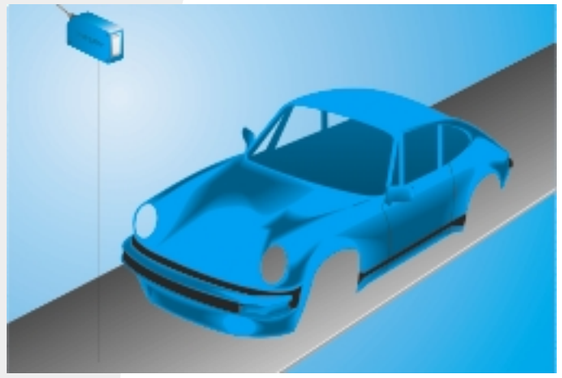
for Measuring Tasks LASER

Y1TA100MHV80

Part Number

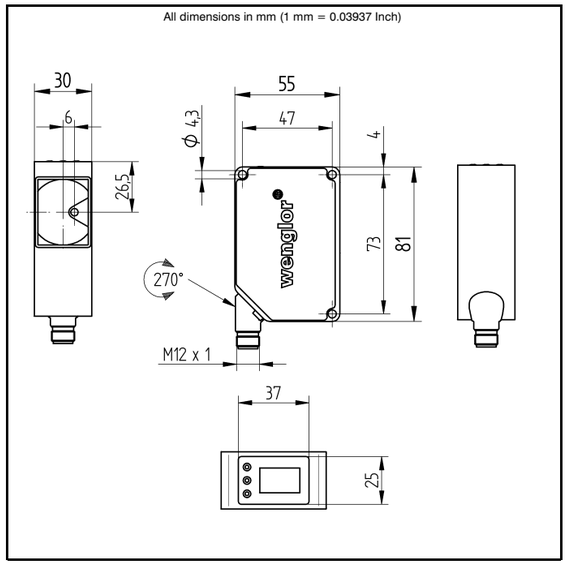
- **Analog Output can be set to 0...10 V or 4...20 mA**
- **Emitted light disengageable (S88)**
- **graphical display for easy operation**
- **Scratch-resistant optic cover**

These sensors measure the distance between the sensor and the object. They function in accordance with the principle of transit time measurement. For this reason, the object's colour, shape and surface characteristics have practically no influence on measurement results. They are aligned directly to the object.Settings are selected by means of a menu, and can be protected with a password.



Technical Data

Optical Data	
Working Range	0,1...10.1 m
Measuring Range	10 m
Linearity	0.2 %
Switching Hysteresis	3...20 mm
Light Source	Laser (red)
Wave Length	660 nm
Service Life (T = +25°C)	100000 h
Laser Protection Class (EN 60825-1)	2
Beam Divergence	< 2 mrad
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (Ub = 24V)	< 100 mA
Measurement Rate	1...100 /s
On-/Off-Delay	0...10000 ms
Temperature Drift	0,25 mm/K
Temperature Range	-10...60 °C
Switching Outputs	2
Switching Output Voltage Drop	< 2.5 V
Switching Output / Switching Current	200 mA
Error Output/Switching Current	200 mA
Analog Output	0...10 V
Analog Output	4...20 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Resolution	1...10 mm
Mechanical Data	
Adjustment	Teach-In
Housing	Plastic
Protection Mode	IP 68
Connection	M12 x 1
Protective Insulation, Rated Voltage	50 V



Specifications are subject to change without notice

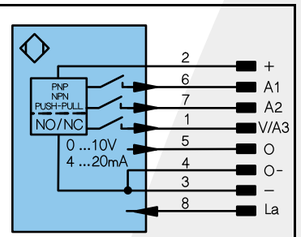
22/07

	Plug Version
	Part Number: Y1TA100MHV80
Error Output	●
Configurable as PNP/NPN/Push-Pull	●
Analog Output	●
Connection Diagram No.	514
Control Panel No.	TA1
Suitable Plug No.	80 88

Table 1

Working Distance	0 m	10 m
Light Spot Diameter	5 mm	< 20 mm

514



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)	AMV	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	SnR	Switching Distance Reduction		
RDY	Ready	USBD+	USB data +		
GND	Ground	USBD–	USB data -		
CL	Clock	Bus	Interfaces-Bus A(+)/B(-)		
		La	Emitted light disengageable		

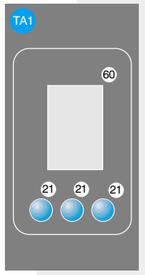
Wire colors according to DIN IEC 757

Accessories

Analog Evaluation Unit AW02

Mounting Bracket WTA

Ctrl.Panel



21 = Mode Button
60 = Display