



Thru-beam sensor receiver MV17/136/143



- Receiver
- Compact, versatile housing
- 360° high visibility LEDs
- 4-in-1 output (push-pull)
- M8-plug connection

Thru-beam sensor receiver, small design, infrared, light-on/dark-on switching, push-pull output, M8 plug



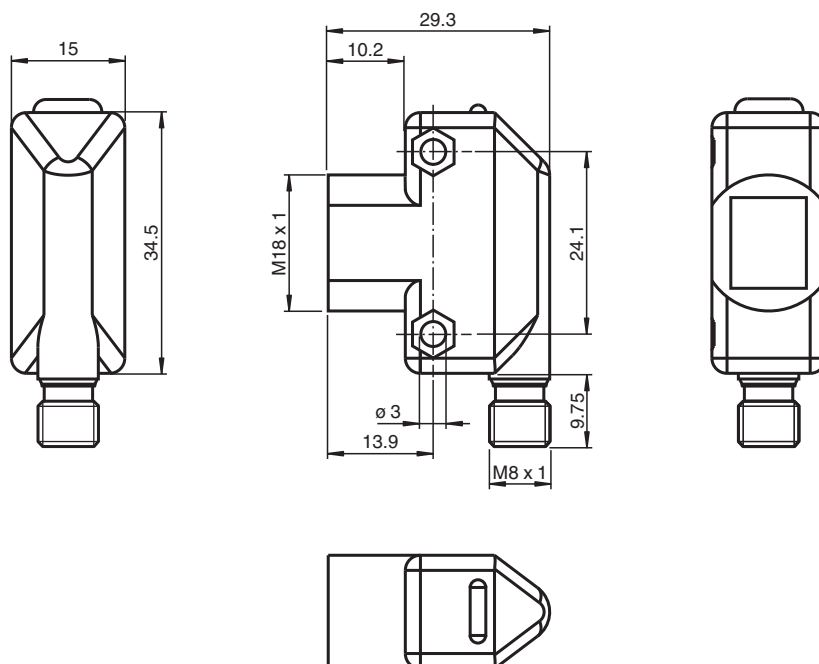
Function

The ML17 sensor family offers diverse connection and installation options, which means that it can adapt to the most varied automation tasks. In addition to the usual fitting method using M4 screws, these sensors can also be installed by means of M18 threaded insert. All devices are equipped with a green Power On display and a yellow function display. These displays are arranged in such a way that they are clearly visible from different directions.

Application

- Presence monitoring
- Target sensors
- Congestion monitoring
- Track loading
- Completeness checks

Dimensions



Technical Data

System components

Emitter	MD17/143
Receiver	MV17/136/143

General specifications

Effective detection range	0 ... 15 m
Threshold detection range	20 m
Reference target	emitter
Light source	IRED
Light type	Infrared LED
Ambient light limit	≤ 10000 Lux

Indicators/operating means

Operation indicator	LED green
Function indicator	LED yellow, lights up with receiver lit

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC, class 2
Ripple		max. 10 %
No-load supply current	I_0	< 25 mA
Operating current	I_B	100 mA max per output
Time delay before availability	t_v	≤ 200 ms

Output

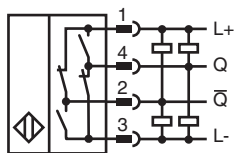
Switching type	light/dark on
Signal output	2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected, overvoltage protected
Switching voltage	max. 30 V DC

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Technical Data

Switching current		max. 100 mA
Voltage drop	U _d	≤ 2 V DC
Switching frequency	f	150 Hz
Response time		≤ 3 ms
Conformity		
Product standard		EN 60947-5-2 IEC 60947-5-2
Approvals and certificates		
CE conformity		CE
EAC conformity		TR CU 020/2011
UL approval		cULus
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-20 ... 55 °C (-4 ... 131 °F)
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
Mechanical specifications		
Housing width		15 mm
Housing height		34.5 mm
Degree of protection		IP67
Connection		M8 x 1 connector , 4-pin
Material		
Housing		ABS
Optical face		Acrylic
Mass		approx. 9 g

Connection



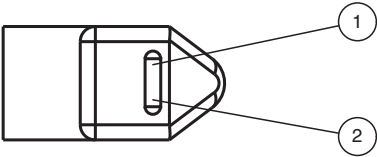
Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

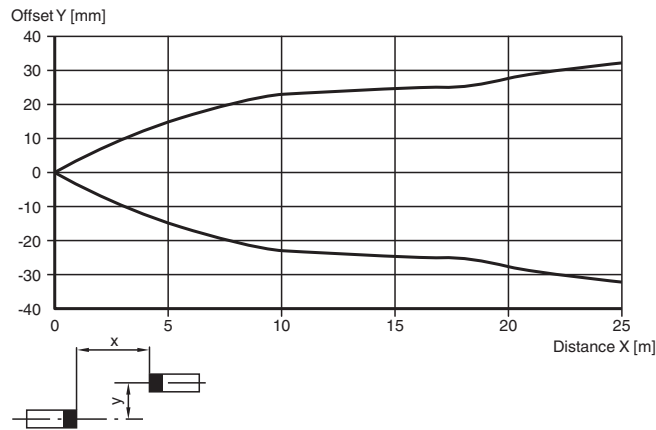
Indication



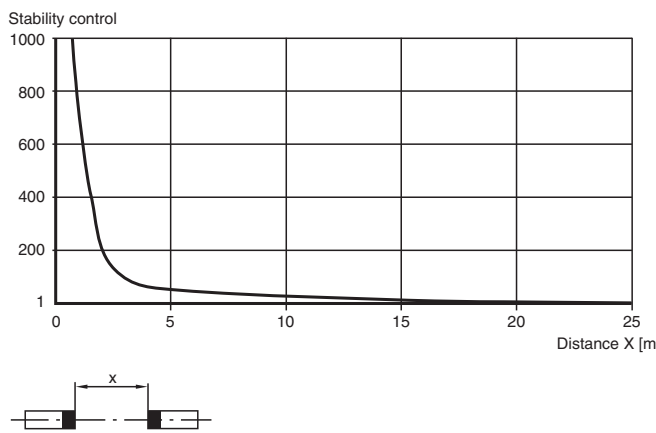
1	Signal display	yellow
2	Operating display	green

Characteristic Curve

Characteristic response curve



Relative received light strength



Matching System Components



MD17/143

Thru-beam sensor transmitter, small design, infrared light, 20 m range, M8 plug

Accessories



OMH-ML17

Mounting bracket



OMH-ML17-1

Mounting bracket

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Accessories

	V31-GM-BK2M-PUR-U	Female cordset single-ended M8 straight A-coded, 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant
	V31-WM-BK2M-PUR-U	Female cordset single-ended M8 angled A-coded, 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant
	V31-GM-BK5M-PUR-U	Female cordset single-ended M8 straight A-coded, 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant
	V31-WM-BK5M-PUR-U	Female cordset single-ended M8 angled A-coded, 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant

Additional Information

4-in-1 Output

The 4-in-1 output automatically detects the connected load, so the output either sources or sinks current depending on the load. The light on/dark on switch on the housing selects normally open or normally closed mode. A single sensor can operate as NPN normally open, NPN normally closed, PNP normally open, or PNP normally closed.

