



## 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



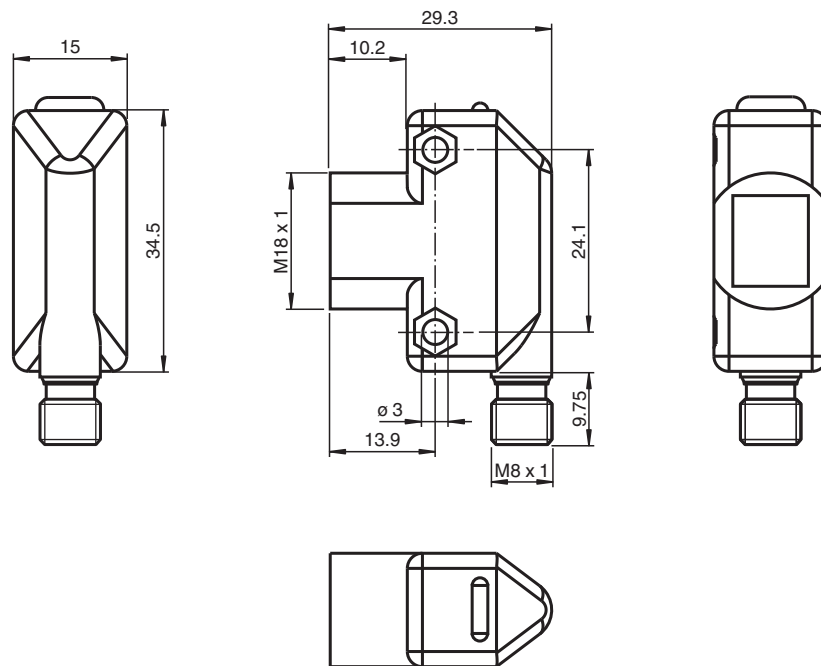
### Function

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

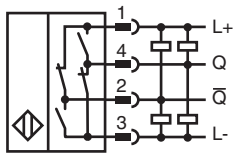
System components		
Emitter		MD17/143
Receiver		MV17/136/143
General specifications		
Effective detection range		0 ... 15 m
Threshold detection range		20 m
Reference target		emitter
Light source		IRED
Light type		Infrared LED
Ambient light limit		≤ 10000 Lux
Indicators/operating means		
Operation indicator		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

Release date: 2022-08-03 Date of issue: 2022-08-03 Filename: 909379\_eng.pdf

## Technical Data

Switching current		max. 100 mA
Voltage drop	$U_d$	$\leq 2$ V DC
Switching frequency	$f$	150 Hz
Response time		$\leq 3$ ms
<b>Conformity</b>		
Product standard		EN 60947-5-2 IEC 60947-5-2
<b>Approvals and certificates</b>		
CE conformity		CE
EAC conformity		TR CU 020/2011
UL approval		cULus
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 55 °C (-4 ... 131 °F)
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
<b>Mechanical specifications</b>		
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



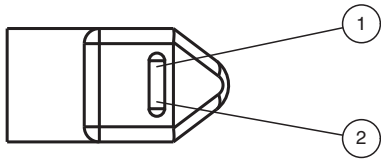
## Connection Assignment



Wire colors in accordance with EN 60947-5-2

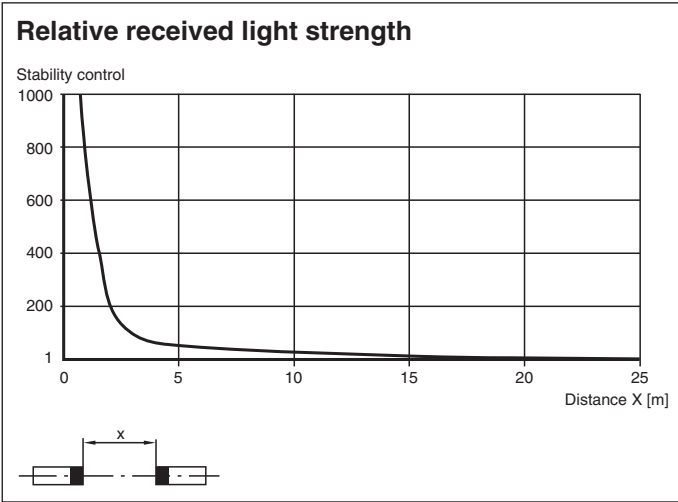
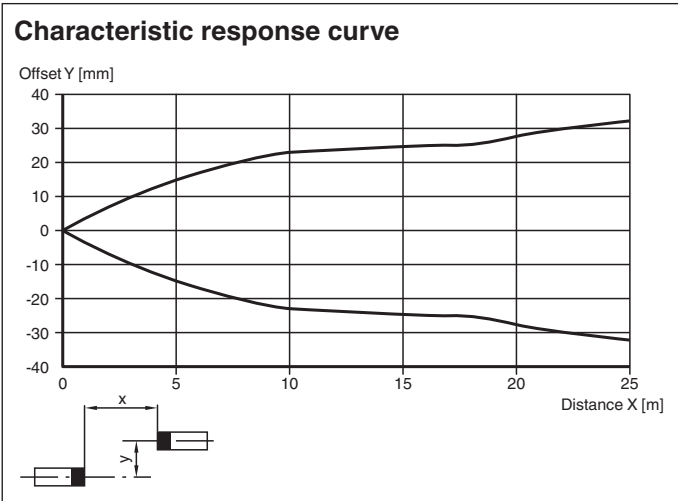
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

**Indication**



1	Signal display	yellow
2	Operating display	green

**Characteristic Curve**



**Matching System Components**


	<b>MD17/143</b>	Thru-beam sensor transmitter, small design, infrared light, 20 m range, M8 plug
--	-----------------	---

**Accessories**

	<b>OMH-ML17</b>	Mounting bracket
	<b>OMH-ML17-1</b>	Mounting bracket

Release date: 2022-08-03 Date of issue: 2022-08-03 Filename: 909379\_eng.pdf

## Accessories

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

