



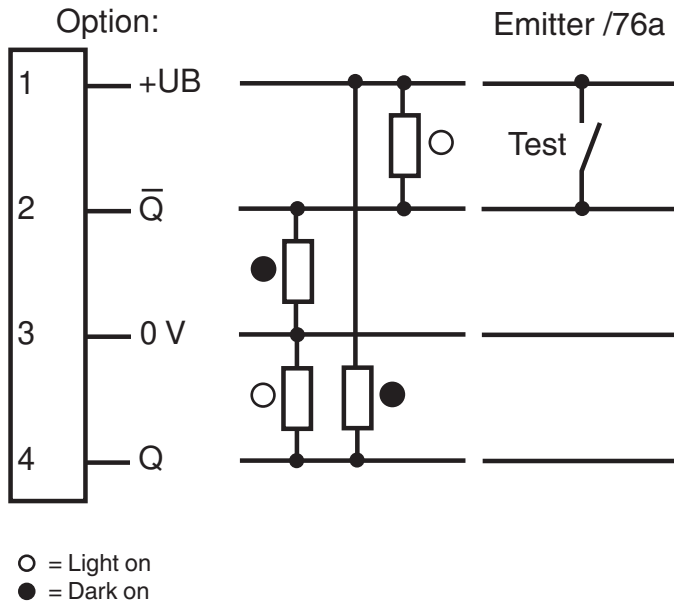
## Technical Data

Receiver		LV31/73c/136
<b>General specifications</b>		
Effective detection range		0 ... 30 m
Threshold detection range		43 m
Light source		LED
Light type		modulated visible red light , 630 nm
Alignment aid		LED yellow: 1. LED illuminates: Sufficient light signal received, emitter and receiver alignment is correct 2. LED flashes: Reaching switching point 3. LED off: Light beam is interrupted or the alignment is out
Diameter of the light spot		approx. 800 mm at a distance of 30 m
Opening angle		Emitter: 1.5 ° , Receiver: 1.5 °
Ambient light limit		50000 Lux ; according to EN 60947-5-2
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		750 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
Operation indicator		LED green: power on
Function indicator		LED yellow: 1. LED lit constantly: signal > 2 x switching point (function reserve) 2. LED flashes: signal between 1 x switching point and 2 x switching point 3. LED off: signal < switching point
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	Emitter: ≤ 18 mA Receiver: ≤ 18 mA
<b>Input</b>		
Test input		emitter deactivation at +U <sub>B</sub>
<b>Output</b>		
Switching type		dark-on
Signal output		2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Voltage drop	U <sub>d</sub>	≤ 1.5 V
Switching frequency	f	≤ 250 Hz
Response time		≤ 2 ms
<b>Conformity</b>		
Product standard		EN 60947-5-2
<b>Approvals and certificates</b>		
Protection class		II , rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit basis insulation of input circuit according to EN 50178, rated insulation voltage 240 V AC
UL approval		cULus Listed, Class 2 Power Source, Type 1 enclosure
CCC approval		CCC approval / marking not required for products rated ≤36 V
<b>Ambient conditions</b>		
Ambient temperature		-30 ... 55 °C (-22 ... 131 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
Degree of protection		IP67
Connection		4-pin, M12 x 1 connector
<b>Material</b>		
Housing		Polycarbonate
Optical face		PMMA

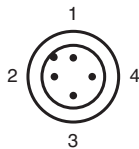
### Technical Data

Mass	Emitter: 24 g Receiver: 24 g
Dimensions	
Height	62 mm
Width	18 mm
Depth	35 mm

### Connection Assignment



### Connection Assignment



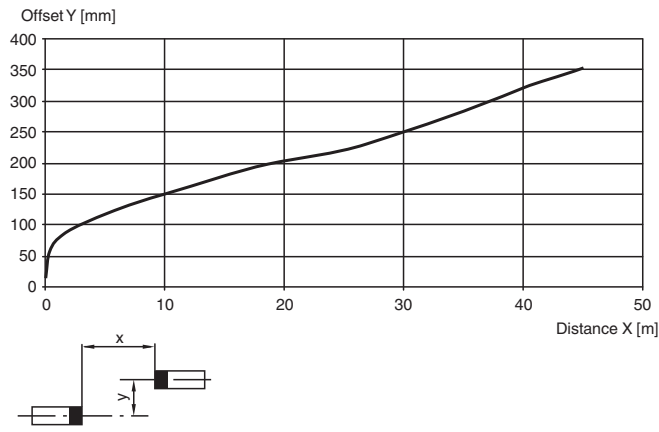
Wire colors in accordance with EN 60947-5-2

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

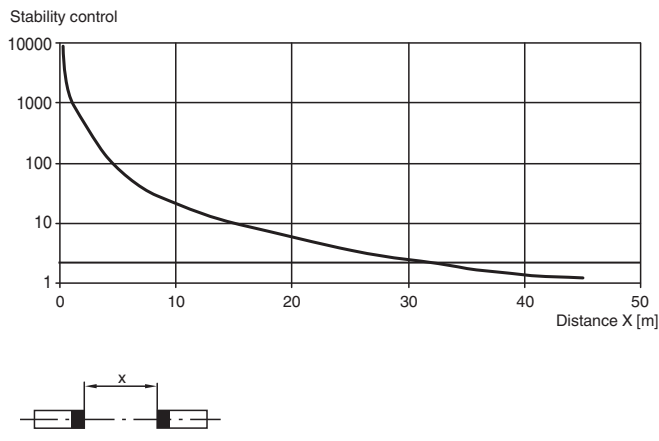
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# Characteristic Curve

## Characteristic response curve



## Relative received light strength



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