



1) Optical axis receiver 2) Optical axis emitter 3) Power 4) Light reception/Limit range 5) Sn

- Photoelectric sensor
- Series 18M
- Infrared
- 10000 mm



General attributes

Adjuster	Potentiometer 270° (1x)
Approvals / Conformity	cULus CE
Basic standard	IEC 60947-5-2
Enclosure Type per IEC 60529	IP67
Indicator	Power - LED GN Light receipt - LED YE Limit range - LED YE, flash.
Polarity reversal protected	yes
Protection Class	II
Reference reflector	BOS R-1
Series	Series 18M
Setting	Switching distance (Sn)
Short circuit protected	yes

Electrical attributes

Connection type	Connector
Eff. operating current I _e	100 mA
Eff. operating voltage U _e DC	24.0 V
Electrical version	DC, direct current
Load capacitance max. (at U _e)	0.10 µF
No-load current max. I _o at U _e	30 mA
Operating voltage U _B max. DC [V]	30.0 V
Operating voltage U _B min. DC [V]	10.0 V
Rated insulation voltage U _i	75 V DC
Ripple max. (% of U _e)	15 %
Switching freq. f max. (at U _e)	400 Hz
Switching function	NO-NC (pins 4-2)
Switching output	PNP (2x)
Turn on time t _{on} max.	1.25 ms
Voltage drop U _d max. (at I _e)	2.5 V

Mechanical attributes

Ambient temperature T _a max.	55 °C
Ambient temperature T _a min.	-5 °C
Connector type	M12x1-S04
Eff. operating distance Sr	10000 mm
Housing material	Brass
Length 1	Ø18.0 mm
Length 2	75.0 mm
Mounting type	Nut M18x1
Operating range R _o	0...10 m
Range S _n	S _n = 10 m, adjustable
Sensing face material	Glass
Style	Cylinder, straight optics
Surface protection	Nickel-plated
Tightening torque max.	15/30 Nm

Optical attributes

Ambient light max.	5,000 Lux
LED group acc. IEC 62471	Exempt group
Light type	Infrared
Polarizing filter	no
Principle of optical operation	Retro-reflective sensor
Switching function, optical	NO/NC: dark-on/light-on
Wavelength	850 nm

Remarks

The sensor is functional again after the overload has been eliminated. Polarizing filters prevent spurious switching due to reflecting and shiny parts. For additional information, refer to user's guide. Order accessories separately.

Photoelectric sensor

BOS 18M-PA-IR20-S4
BOS01F0

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