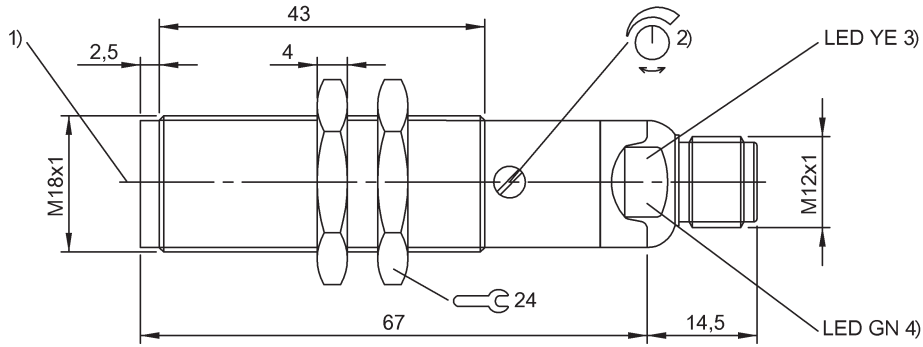


LASER CLASS 1 per IEC 60825-1:
2003-10



1) Optical axis 2) Sn 3) Output function 4) Stability

- Photoelectric sensor
- Series 18M
- Laser red light
- up to 20 m



LISTED IND. CONT. EQ. 1TD4
for use in the secondary of
a class 2 source of supply

General attributes

Adjuster	Potentiometer 270° (1x)
Approvals / Conformity	CE cULus
Basic standard	IEC 60947-5-2
Enclosure Type per IEC 60529	IP67
Indicator	Power - LED GN Output function - LED YE
Polarity reversal protected	yes
Protection Class	II
Reference reflector	BOS R-1
Series	Series 18M
Setting	Sensitivity (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
No-load current max. I _o at U _e	35 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)	8 %
Switching freq. f max. (at U _e)	1500 Hz
Switching function	NO-NC (pins 2-4)
Switching output	PNP (2x)
Turn on time t _{on} max.	0.33 ms
Voltage drop U _d max. (at I _e)	2.0 V

Mechanical attributes

Ambient temperature T _a max.	50 °C
Ambient temperature T _a min.	-10 °C
Connector type	M12x1-S04
Eff. operating distance S _r	16000 mm
Housing material	Brass
Length 1	Ø18.0 mm
Length 2	81.5 mm
Mounting type	Nut M18x1
Operating range R _o	0...16 m
Range S _n	S _n = 16 m, adjustable
Sensing face material	PMMA
Style	Cylinder, straight optics
Surface protection	Nickel-plated
Tightening torque max.	22 Nm

Optical attributes

Average power P _o max.	< 390 µW (IEC 60825-1)
Laser Class per IEC 60825-1	1
Light type	Laser red light
Polarizing filter	yes
Principle of optical operation	Retro-reflective sensor
Switching function, optical	NO dark-on - NC light-on
Wavelength	650 nm

Additional text

Operating object (test target): Gray card, 200 x 200, 90 % remission, lateral approach,

direction of movement vertical to plane of lens axes.
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-LR10-S4S
BOS013N

BALLUFF

sensors worldwide

