

Multifunction optical sensors



M18-L



One for all: M18-L Series

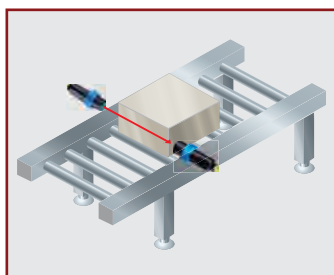
Features

Great lineup of 48 models

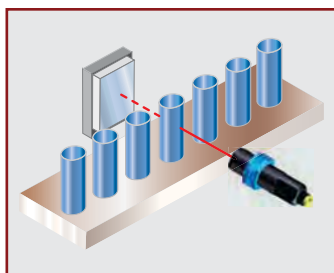
The M18-L series offers all optical functions in an M18 housing. The visible laser light spot makes the sensor simple to align. It is easy to install and requires little space due to its ultra-compact size.

- Available types: Thru-beam laser sensor up to 60m, retro-reflective type up to 16m, diffuse reflective type up to 350mm
- Complete range of optic functions, laser class 1
- Flat plastic tubular housing for improved versatility, or metal cylindrical housing
- Cable or M12 connection
- NPN or PNP
- Radial and axial versions

Typical Applications



Packaging

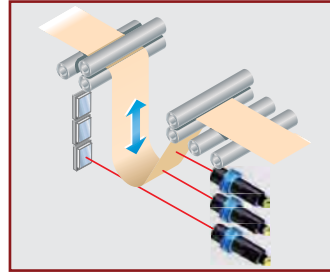


Precise object detection

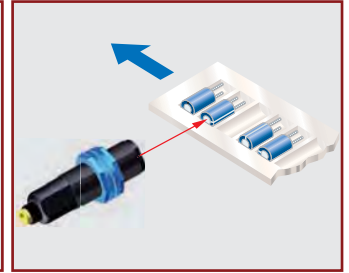
Technical Specifications

NPN-Output	M18-LT5000-[R]-[M/P]-[J]	M18-LT6000-[A]-[M/P]-[J]	M18-LP0900-[R]-[M/P]-[J]*	M18-LP1600-[A]-[M/P]-[J]*
PNP-Output	M18-LT5000-[R]-[M/P]-PN-[J]	M18-LT6000-[A]-[M/P]-PN-[J]	M18-LP0900-[R]-[M/P]-PN-[J]*	M18-LP1600-[A]-[M/P]-PN-[J]*
Sensor type	Thru-beam		Retroreflective	
	Radial	Axial	Radial	Axial
Maximum operation distance	50m	60m	9m	16m
Sensing range	0 to 50m	0 to 60m	0.1 to 9m	0.1 to 16m
Spot diameter	2.5mm at 5m		2mm at 3m	
Standard sensing object	Metal, black			
	Ø 10mm		Ø 5mm	
Detection capability	Opaque		Opaque, translucent	
Hysteresis	-			
Response time	333µs			
Output	Max. 100mA			
Emitting element	Red semiconductor laser, 650nm (class 1)			
Current consumption without load	Emitter: max. 35mA Receiver: max. 30mA		Max. 35mA	
	Metal version: nickel-plated brass Plastic version: PBT Lens: PMMA			
Protection	IP67			
Dimensions (H×W×D)	Cable type: M18×89mm Connector type: M18×93.5mm	Cable type: M18×77mm Connector type: M18×81.5mm	Cable type: M18×89mm Connector type: M18×93.5mm	Cable type: M18×77mm Connector type: M18×81.5mm
	Cable 2m or M12 connector			
Supply voltage	10 to 30VDC			
Ambient temperature	Operation: -10 to +50°C, storage: -25 to +70°C			
Weight	Cable type: Emitter and receiver each approx. 75g Connector type: Emitter and receiver each approx. 25g		Cable type: approx. 75g (plastic version) or approx. 110g (metal version) Connector type: Approx. 25g (plastic version) or approx. 60g (metal type)	
	[R] = Radial • [A] = Axial [P] = Plastic [M] = Metal • [PN] = PNP [J] = M12 connector			

* Reflector not included



Control of sag



Detection of capacitors

Technical Specifications

NPN-output	M18-LD0025-R-[M/P]-[J]	M18-LD0035-A-[M/P]-[J]
PNP output	M18-LD0025-R-[M/P]-PN-[J]	M18-LD0035-A-[M/P]-PN-[J]
Sensor type	Reflective	
	Radial	Axial
Maximum operation distance	250mm	350mm
Sensing range	0 to 250mm	0 to 350mm
Spot diameter	0.3mm at 50mm	
Standard sensing object	Paper, white	
	100×100mm	200×200mm
Detection capability	Opaque, translucent	
Hysteresis	<1%	
Response time	333µs	
Output	Max. 100mA	
Emitting element	Red semiconductor laser, 650nm (class 1)	
Current consumption without load	Max. 35mA	
Material	Metal version: nickel-plated brass Plastic version: PBT Lens: PMMA	
Protection	IP67	
Dimensions (Ø × L)	M18 × 81.5mm	
Connection	Cable 2m or M12 connector	
Supply voltage	10 to 30V DC	
Ambient temperature	Operation: -10 to +50°C, storage: -25 to +70°C	
Weight	Cable type: approx. 75g (plastic version), approx. 110g (metal version) Connector type: approx. 25g (plastic version), approx. 60g (metal version)	
• [R] = Radial • [A] = Axial • [P] = Plastic • [M] = Metal • [PN] = PNP • [J] = M12 connector		

Options

Cables

UZZ81220	UZZ81221	UZZ81250	UZZ81251
2m straight	2m elbow	5m straight	5m elbow

Mounting brackets

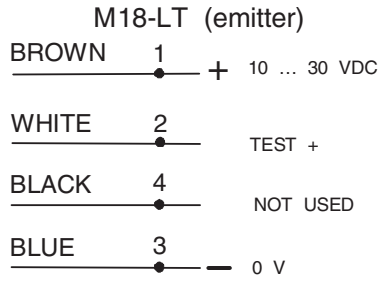
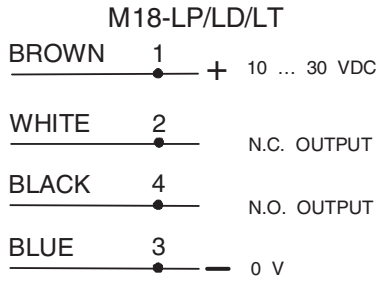
M18-ST20	M18-SPM

Reflector

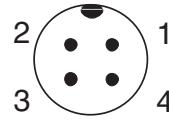
M18-RF48

M18-L Connections

The connections are compliant to the EN 60947-5-2 standard.

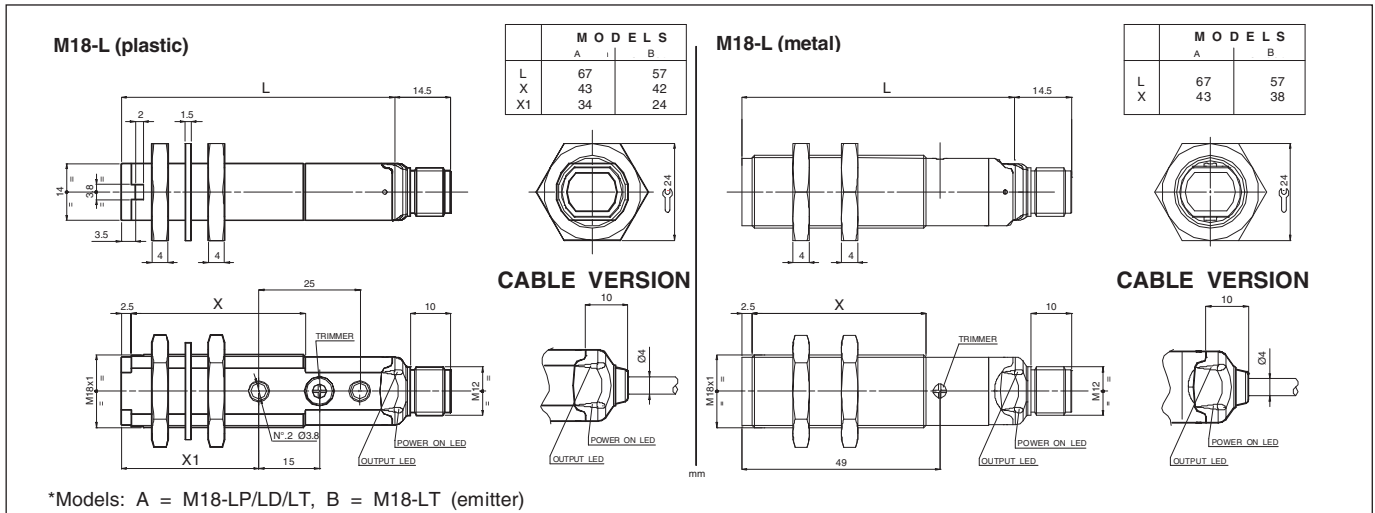


M12 CONNECTOR



Dimensions

Axial



Radial

