Extended Distance-TL Series

Pre-wired Type

		φ6.5	M8	M12	M18	M30	φ6.5	M8	M12	M18	M30
Basic Features	Working principle	Inductive sensor									
	Housing	Cylindrical									
	Installation type	Flush					Non-flush				
	Sensing distance	2.0mm ± 10%		4.0mm ± 10%	8.0mm ± 10%	16mm ± 10%	4.0mm ± 10%		8.0mm ± 10%	16mm ± 10%	25mm ± 10%
	Thread size	φ6.5	M8	M12	M18	M30	φ6.5	M8	M12	M18	M30
	Sensing surface material	PBT									
	Detected objects	Metal									
	Indicator	Operation Status: LED									
	Sensing range adjustment	None									
Electrical data	Switching output	No:normally open,NC:normally closed									
	Output mode	NPN or PNP Open Collector									
	External input	None									
	Switching frequency	2.0kHz	1.0kHz	0.3kHz	0.5kHz	0.15kHz	1.0kHz	0.8kHz	0.5kHz	0.15kHz	0.1kHz
	Repeatability	1%		5%	1%			5%		1%	
	Hysteresis	≤15%									
	Operating Voltage	10~30V DC±10%									
	Current consumption	≤10mA									
	Residual Voltage	≤1.5V	≤2.0V				≤1.5V	≤2.0V			
	Load current	150mA									
	Leakage current	<0.01mA									
	Insulation resistance	≥50MΩ with 500V DC between power terminals and enclosure									
	Dielectric strength	1,000 VAC, 50/60 Hz for 1 min between power terminals and enclosure									<40V
	Vibration resistance	10 to 55 Hz, 1.5 mm double amplitude, 2 hours for each X, Y, and Z directions									
	Circuit Protection	Short circuit protection									
Environmental conditions	Operating Temperature	−25~+75℃									
	Operating Humidity	35~85%									
	Enclosure rating	IP67									
Mechanical data	Connection type	2m/3-core Cable									
	Dimension	Ø6.5x45.5mm	M8x46.7mm	M12x49.7mm	M18x63.0mm	M30x55.6mm	Ø6.5x45.0mm	M8x50.7mm	M12x54.6mm	M18x63.1mm	M30x58.5mm
	Material	Stainless steel+PBT		Copper−nickel alloy+PBT			Stainless steel+PBT		Copper−nickel alloy+PBT		
	Weight	0.009kg	0.012kg	0.05kg	0.08kg	0.12kg	0.009kg	0.012kg	0.05kg	0.08kg	0.12kg
	Accessories	–	Nut M8x1	Nut M12x1	Nut M18x1	Nut M30x1.5	–	Nut M8x1	Nut M12x1	Nut M18x1	Nut M30x1.5
Model	NPN NO	TLF6.5-02NO	TLF08-02NO	TLF12-04NO	TLF18-08NO	TLF30-16NO	TLN6.5-04NO	TLN08-04NO HOT	TLN12-08NO HOT	TLN18-16NO	TLN30-25NO
	Others	NO:NPN Normally open NC:NPN Normally closed PO:PNP Normally open PC:PNP Normally closed									

Fiber Optic
Slot Sensors
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Area
Ultrasonic
AI Image
Code Readers
Vibration
Temperature
RFID
Safety door lock
Pressure Switch
Communication
Accessories

Guidance

Inductive sensors
Standard distance
Extended distance
Long distance
Square
Mini square
Mini-cylindrical
Short-body
Ring-type
Metal face
Temperature resistance type
IP69K high protection
Anti-Slag
Analog output
DC 2 wires

Capacitive sensors
Cylinderical
Correctsion resistant type
Flat type
Level detection

Extended Distance-TL Series

Connector Type

Basic Features	Working principle	Inductive sensor							
	Housing	Cylindrical							
	Installation type	Flush				Non-flush			
	Sensing distance	2.0mm ± 10%	4.0mm ± 10%	8.0mm ± 10%	16mm ± 10%	4.0mm ± 10%	8.0mm ± 10%	16mm ± 10%	25mm ± 10%
	Thread size	M8	M12	M18	M30	M8	M12	M18	M30
	Sensing surface material	PBT							
	Detected objects	Metal							
	Indicator	Operation Status: LED							
	Sensing range adjustment	None							
Electrical data	Switching output	No:normally open,NC:normally closed							
	Output mode	NPN or PNP Open Collector							
	External input	None							
	Switching frequency	1kHz		0.5kHz	0.15kHz	0.8kHz	0.5kHz	0.15kHz	0.1kHz
	Repeatability	1%							
	Hysteresis	≤15%							
	Operating Voltage	10~30V DC±10%							
	Current consumption	≤10mA							
	Residual Voltage	≤1.5V							
	Load current	150mA							
	Leakage current	<0.01mA							
	Insulation resistance	≥50MΩ with 500V DC between power terminals and enclosure							
	Dielectric strength	1,000 VAC, 50/60 Hz for 1 min between power terminals and enclosure						<40V	
	Vibration resistance	10 to 55 Hz, 1.5 mm double amplitude, 2 hours for each X, Y, and Z directions							
	Circuit Protection	Short circuit protection							
Environmental conditions	Operating Temperature	-25~+75℃							
	Operating Humidity	35~85%							
	Enclosure rating	IP67							
Mechanical data	Connection type	M8/3-pin Connector	M12/4-pin Connector			M8/3-pin Connector	M12/4-pin Connector		
	Dimension	M8x60.0mm	M12x68.0mm	M18x82.0mm	M30x78.0mm	M8x60.0mm	M12x71.0mm	M18x82.0mm	M30x81.0mm
	Material	Stainless steel+PBT	Copper-nickel alloy+PBT			Stainless steel+PBT	Copper-nickel alloy+PBT		
	Weight	0.012kg	0.05kg	0.08kg	0.12kg	0.012kg	0.05kg	0.08kg	0.012kg
	Accessories	Nut M8x1	Nut M12x1	Nut M18x1	Nut M30x1.5	Nut M8x1	Nut M12x1	Nut M18x1	Nut M30x1.5
Model	NPN NO	TLF08-02NO-E1	TLF12-04NO-E2	TLF18-08NO-E2	TLF30-16NO-E2	TLN08-04NO-E1	TLN12-08NO-E2	TLN18-16NO-E2	TLN30-25NO-E2
	Others	NO:NPN Normally open NC:NPN Normally closed PO:PNP Normally open PC:PNP Normally closed							

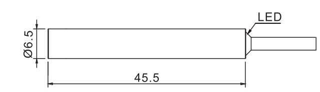
Extended Distance-TL Series

Dimensions-Pre-wired Type

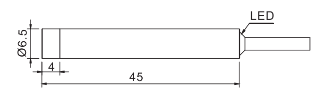
Unit:mm

ϕ6.5

TLF6.5-02□□

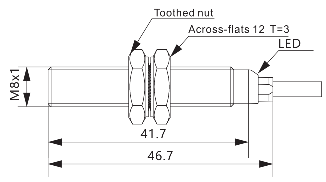


TLN6.5-04□□

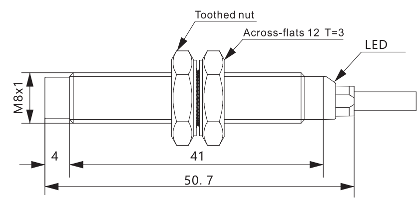


M8

TLF08-02□□

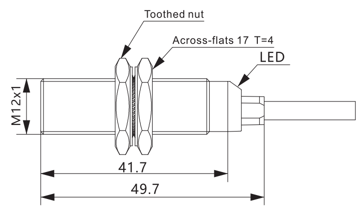


TLN08-04□□

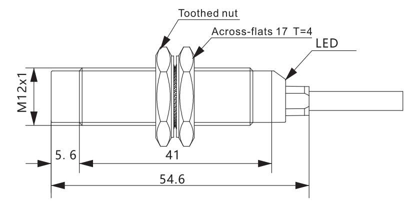


M12

TLF12-04□□

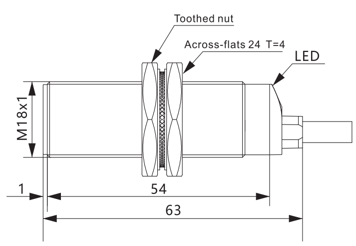


TLN12-08□□

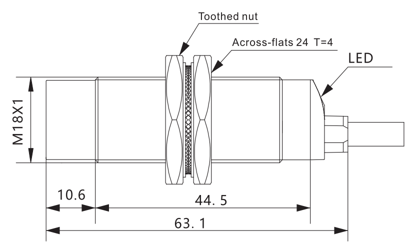


M18

TLF18-08□□

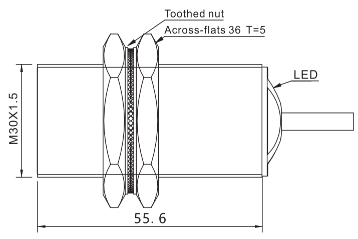


TLN18-16□□

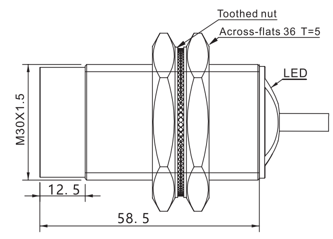


M30

TLF30-16□□



TLN30-25□□



Fiber Optic
Slot Sensors
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Area
Ultrasonic
AI Image
Code Readers
Vibration
Temperature
RFID
Safety door lock
Pressure Switch
Communication
Accessories

Guidance

Inductive sensors
Standard distance
Extended distance
Long distance
Square
Mini square
Mini-cylindrical
Short-body
Ring-type
Metal face
Temperature resistance type
IP69K high protection
Anti-Slag
Analog output
DC 2 wires

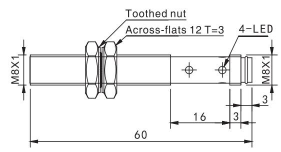
Capacitive sensors
Cylinderical
Correctsion resistant type
Flat type
Level detection

Unit:mm

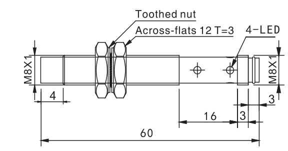
Dimensions- Connector Type

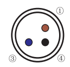
M8

TLF08-02□□-E1



TLN08-04□□-E1

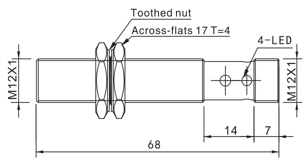




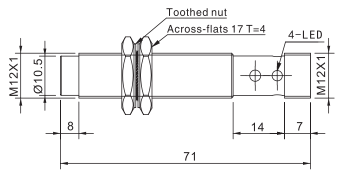
M8 3PIN

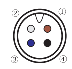
M12

TLF12-04□□-E2



TLN12-08□□-E2

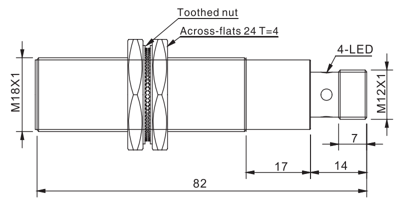




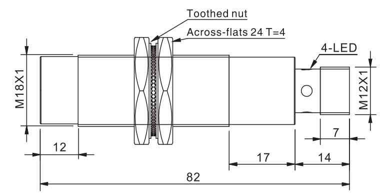
M12 4PIN

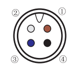
M18

TLF18-08□□-E2



TLN18-16□□-E2

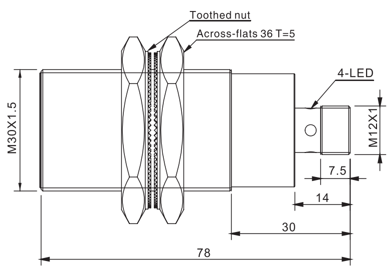




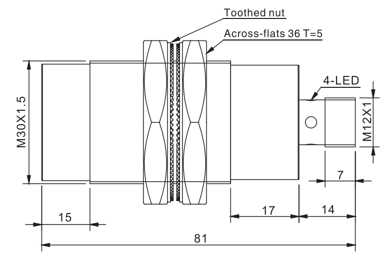
M12 4PIN

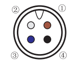
M30

TLF30-16□□-E2



TLN30-25□□-E2





M12 4PIN