

Long Distance-TY Series

Pre-wired



Basic Features	Working principle	Inductive sensor									
	Housing	Cylindrical									
	Installation type	Flush					Non-flush				
	Sensing distance	3.0mm ± 10%		6.0mm ± 10%	12mm ± 10%	22mm ± 10%	6.0mm ± 10%		10mm ± 10%	20mm ± 10%	40mm ± 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	Normally Open or Normally Closed									
	Output mode	NPN or PNP Open Collector									
	External input	None									
	Switching frequency	1.0kHz		0.8kHz	0.3kHz	0.15kHz	0.5kHz		0.4kHz	0.1kHz	
	Repeatability	5%									
	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	1,000 VAC, 50/60Hz for 1 min between power terminals and enclosure		330VAC 0.26mA		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		Ø6.5x45.0mm	M8x45.0mm	M12x45.0mm	M18x54.0mm	M30x54.0mm	Ø6.5x44.0mm	M8x44.0mm	M12x53.0mm	M18x58.0mm	M30x61.0mm
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	TYF6.5-03[NO]	TYF08-03[NO]	TYF12-06[NO]	TYF18-12[NO]	TYF30-22[NO]	TYN6.5-06[NO]	TYN08-06[NO]	TYN12-10[NO]	TYN18-20[NO]	TYN30-40[NO]
	Others	[NO]:NPN Normally open		[NC]:NPN Normally closed		[PI]:PNP Normally open		[PC]:PNP Normally closed			

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

Cylindrical

Correction

resistance type

Flat type

Level detection



Basic Features	Working principle	Inductive sensor							
	Housing	Cylindrical							
	Installation type	Flush				Non-flush			
	Sensing distance	3.0mm ± 10%	6.0mm ± 10%	12mm ± 10%	22mm ± 10%	6.0mm ± 10%	10mm ± 10%	20mm ± 10%	40mm ± 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	Normally Open or Normally Closed							
	Output mode	NPN or PNP Open Collector							
	External input	None							
	Switching frequency	1kHz	0.8kHz	0.3kHz	0.15kHz	0.5kHz	0.4kHz	0.1kHz	
	Repeatability	5%							
	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, 50/60Hz for 1 min between power terminals and enclosure	<40V			1,000 VAC, 50/60 Hz for 1 min between power terminals and enclosure		330VAC 0.11mA	<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	TYF08-03[NO]-E1	TYF12-06[NO]-E2	TYF18-12[NO]-E2	TYF30-22[NO]-E2	TYN08-06[NO]-E1	TYN12-10[NO]-E2	TYN18-20[NO]-E2	TYN30-40[NO]-E2
	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

Cylindrical

Correction

resistant type

Flat type

Level detection

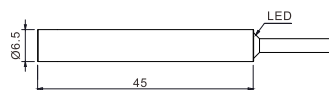
Long Distance-TY Series

Dimensions-Pre-wired

Unit:mm

φ6.5

TYF6.5-03□□

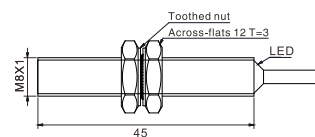


TYN6.5-06□□

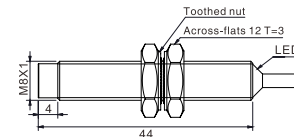


M8

TYF08-03□□

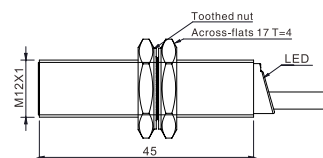


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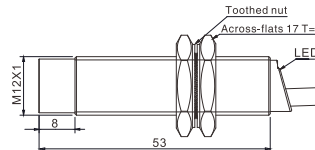


M12

TYF12-06□□

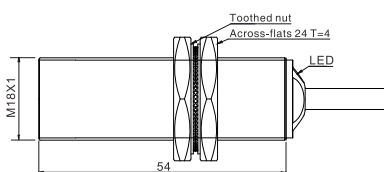


TYN12-10□□

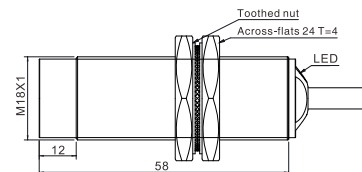


M18

TYF18-12□□

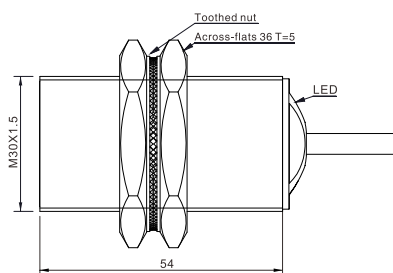


TYN18-20□□

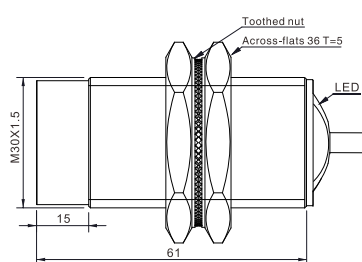


M30

TYF30-22□□



TYN30-40□□

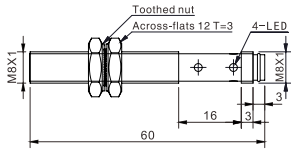


Unit:mm

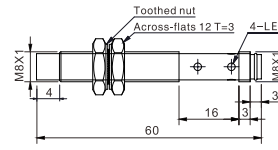
Dimensions-Connector Type

M8

TYF08-03□□-E1

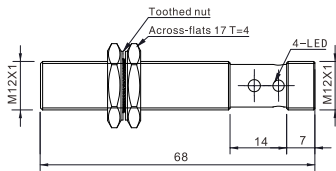


TYN08-06□□-E1

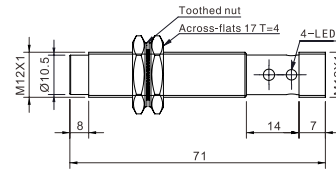


M12

TYF12-06□□-E2

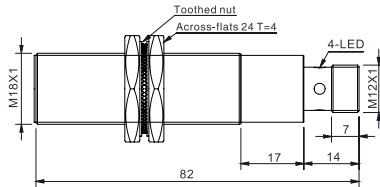


TYN12-10□□-E2

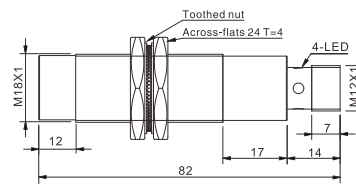


M18

TYF18-12□□-E2

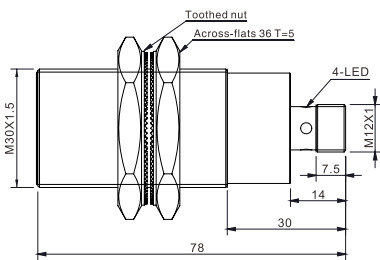


TYN18-20□□-E2

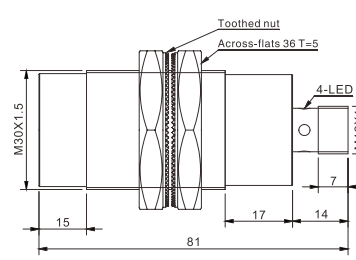


M30

TYF30-22□□-E2



TYN30-40□□-E2



- 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

- Cylindrical
- Correction resistance type
- Flat type
- Level detection