

# Short-body-TSS Series

## Ultra Short Housing



Basic Features	Working principle	Inductive sensor	
	Housing	Cylindrical	
	Installation type	Flush	
	Sensing distance	1.0mm/2.0mm ± 10%	1.0mm/2.0mm ± 10%
	Thread size	-	
	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	2kHz	
	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	
	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°C
Operating Humidity		35~85%	
Enclosure rating		IP67	
Mechanical data	Connection type	2m/3-core Cable	
	Dimension	Ø6.5x18.0mm	
	Material	Stainless steel+PBT	
	Weight	0.009kg	
	Accessories	-	
	Model	NPN NO	TSSF6.5-01 <a href="#">[NO]</a> / TSSF6.5-02 <a href="#">[NO]</a>
	Others	<a href="#">[NO]</a> :NPN Normally open <a href="#">[NC]</a> :NPN Normally closed <a href="#">[PO]</a> :PNP Normally open <a href="#">[PC]</a> :PNP Normally closed	

Proximity Sensors

- 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



Basic Features	Working principle	Inductive sensor	
	Housing	Cylindrical	
	Installation type	Flush	
	Sensing distance	1.0mm/2.0mm ± 10%	2.0mm/4.0mm ± 10%
	Thread size	M8	M12
	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	2kHz	
	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	
	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, Except TSSF08-02	
Environmental conditions	Operating Temperature	-25~+75°C	
	Operating Humidity	35~85%	
	Enclosure rating	IP67	
Mechanical data	Connection type	2m/3-core Cable	
	Dimension	M8x18.0mm	M12x22.0mm
	Material	Stainless steel+PBT	Copper-nickel alloy+PBT
	Weight	0.012kg	0.05kg
	Accessories	Nut M8x1.0	Nut M12x1.0
Model	NPN NO	TSSF08-01  / TSSF08-02	
	Others	:NPN Normally open   :NPN Normally closed   :PNP Normally open   :PNP Normally closed	

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### 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

## Short-body-TS Series

## General Short Housing



Basic Features	Working principle	Inductive sensor			
	Housing	Mini blocks			
	Installation type	Flush			
	Sensing distance	1.0mm/2.0mm ± 10%	2.0mm/4.0mm ± 10%	5.0mm/8.0mm ± 10%	10mm/16mm ± 10%
	Thread size	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	2kHz	2kHz/1kHz	1kHz/0.5kHz	0.3kHz/0.15kHz
	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			
	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°C		
Operating Humidity		35~85%			
Enclosure rating		IP67			
Mechanical data	Connection type	2m/3-core Cable			
	Dimension	M8x35.0mm	M12x35.0mm	M18x35.0mm	M30x35.0mm
	Material	Stainless steel+PBT		Copper–nickel alloy+PBT	
	Weight	0.012kg	0.05kg	0.08kg	0.12kg
	Accessories	Nut M8x1.0	Nut M12x1.0	Nut M18x1.0	Nut M30x1.5
	Model	NPN NO	<a href="#">TSF08-01[NIO] / TSF08-02[NIO]</a>	<a href="#">TSF12-02[NIO] / TSF12-04[NIO]</a>	<a href="#">TSF18-05[NIO] / TSF18-08[NIO]</a>
Others		<a href="#">[NIO]:NPN Normally open</a> <a href="#">[NIC]:NPN Normally closed</a> <a href="#">[PIO]:PNP Normally open</a> <a href="#">[PIC]:PNP Normally closed</a>			



Basic Features	Working principle	Inductive sensor			
	Housing	Mini blocks			
	Installation type	Non-flush			
	Sensing distance	2.0mm/4.0mm ± 10%	4.0mm/8.0mm ± 10%	8.0mm/16mm ± 10%	15mm/25mm ± 10%
	Thread size	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	2kHz/1kHz	1kHz/0.5kHz	0.5kHz/0.15kHz	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, TSN18-16			
	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°C			
	Operating Humidity	35~85%			
	Enclosure rating	IP67			
Mechanical data	Connection type	2m/3-core Cable			
	Dimension	M8x35.0mm	M12x35.0mm	M18x40.0mm	M30x47.0mm
	Material	Stainless steel+PBT		Copper-nickel alloy+PBT	
	Weight	0.012kg	0.05kg	0.08kg	0.12kg
	Accessories	Nut M8x1.0	Nut M12x1.0	Nut M18x1.0	Nut M30x1.5
Model	NPN NO	<a href="#">TSN08-02 </a> / <a href="#">TSN08-04 </a>	<a href="#">TSN12-04 </a> / <a href="#">TSN12-08 </a>	<a href="#">TSN18-08 </a> / <a href="#">TSN18-16 </a>	<a href="#">TSN30-15 </a> / <a href="#">TSN30-25 </a>
	Others	<a href="#">NIO</a> -NPN Normally open <a href="#">NIC</a> -NPN Normally closed		<a href="#">PIO</a> -PNP Normally open <a href="#">PIC</a> -PNP Normally closed	

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Pressure Switch
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### 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

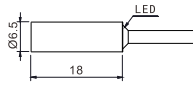
# Short-body-TSS/TS Series

## Super Short housing-Dimensions

Unit:mm

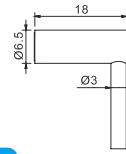
φ6.5

TSSF6.5-01/02 □ □



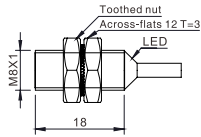
φ6.5Y

TSSF6.5Y-01/02 □ □



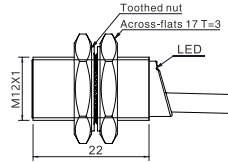
M8

TSSF08-01/02 □ □



M12

TSSF12-02/04 □ □

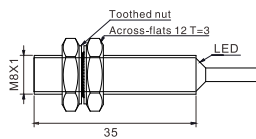


## General-Dimensions

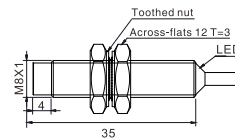
Unit:mm

M8

TSF08-01/02 □ □

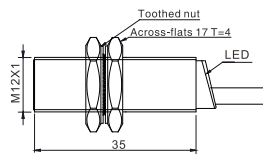


TSN08-02/04 □ □

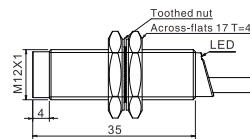


M12

TSF12-02/04 □ □

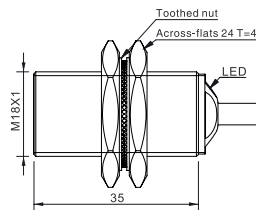


TSN12-04/08 □ □

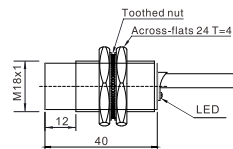


M18

TSF18-05/08 □ □

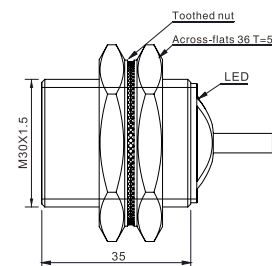


TSN18-08/16 □ □

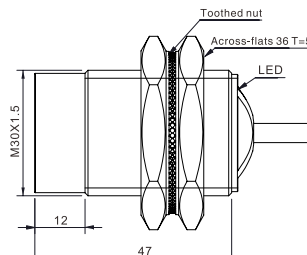


M30

TSF30-10/16 □ □



TSN30-15/25 □ □



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