

# Short-body

## Ultra Short Housing

Proximity



Appearance		
Mounting	Shielded	
Size	φ 6.5	φ 6.5Y
Sensing distance	1mm/2mm ± 10%	
Housing material	Stainless steel	
Operating voltage	10~30V DC(Ripple < 10%)	
Voltage drop	< 1.5V	
Load Current , Max	150mA	
Current consumption	< 10mA	
Leakage current	< 0.01mA	
Switch frequency	2KHz	
Repeat accuracy	< 1.0% (Sr)	
Hysteresis	< 15% (Sr)	
Sensing surface material	PBT	
Operating Temperature	-25°C~+75°C	
Circuit Protection	Short circuit	
Degree of protection	IP67	
Model No.	NPN Normally open	TSSF6.5-01 <a href="#">N/O</a> / TSSF6.5-02 <a href="#">N/O</a>   TSSF6.5Y-01 <a href="#">N/O</a> / TSSF6.5Y-02 <a href="#">N/O</a>
	Others	<a href="#">N/O</a> :NPN Normally open <a href="#">N/C</a> :NPN Normally closed <a href="#">P/O</a> : PNP Normally open <a href="#">P/C</a> : PNP Normally closed



Appearance		
Mounting	Shielded	
Size	M8	M12
Sensing distance	1mm/2mm ± 10%	2mm/4mm ± 10%
Housing material	Stainless steel	Nickle plated brass
Operating voltage	10~30V DC(Ripple < 10%)	
Voltage drop	< 1.5V	
Load Current , Max	150mA	
Current consumption	< 10mA	
Leakage current	< 0.01mA	
Switch frequency	2KHz	
Repeat accuracy	< 1.0% (Sr)	
Hysteresis	< 15% (Sr)	
Sensing surface material	PBT	
Operating Temperature	-25°C~+75°C	
Circuit Protection	Short circuit, except TSSF08-02 N O	
Degree of protection	IP67	
Model No.	NPN Normally open	TSSF08-01 <a href="#">N/O</a> / TSSF08-02 <a href="#">N/O</a>   TSSF12-02 <a href="#">N/O</a> / TSSF12-04 <a href="#">N/O</a>
	Others	<a href="#">N/O</a> :NPN Normally open <a href="#">N/C</a> :NPN Normally closed <a href="#">P/O</a> : PNP Normally open <a href="#">P/C</a> : PNP Normally closed

**HOT**



Appearance					
Mounting	Shielded				
Size	M8	M12	M18	M30	
Sensing distance	1mm/2mm ± 10%	2mm/4mm ± 10%	5mm/8mm ± 10%	10mm/16mm ± 10%	
Housing material	Stainless steel		Nickle plated brass		
Operating voltage	10~30V DC(Ripple < 10%)				
Voltage drop	< 1.5V				
Load Current, Max	150mA				
Current consumption	< 10mA				
Leakage current	< 0.01mA				
Switch frequency	2KHz	2KHz/1KHz	1KHz/500Hz	300Hz/150Hz	
Repeat accuracy	< 1.0% (Sr)				
Hysteresis	< 15% (Sr)				
Sensing surface material	PBT				
Operating Temperature	-25°C~+75°C				
Circuit Protection	Short circuit				
Degree of protection	IP67				
Model No.	NPN Normally open	TSF08-01[NO] / TSF08-02[NO]	TSF12-02[NO] / TSF12-04[NO]	TSF18-05[NO] / TSF18-08[NO]	TSF30-10[NO] / TSF30-16[NO]
	Others	[NO]:NPN Normally open	[NC]:NPN Normally closed	[PO]:PNP Normally open	[PC]:PNP Normally closed



Appearance					
Mounting	Unshielded				
Size	M8	M12	M18	M30	
Sensing distance	2mm/4mm ± 10%	4mm/8mm ± 10%	8mm/16mm ± 10%	15mm/25mm ± 10%	
Housing material	Stainless steel		Nickle plated brass		
Operating voltage	10~30V DC(Ripple < 10%)				
Voltage drop	< 1.5V				
Load Current, Max	150mA				
Current consumption	< 10mA		< 20mA		
Leakage current	< 0.01mA				
Switch frequency	2KHz/1KHz	1KHz/500Hz	500Hz/150Hz	150Hz/100Hz	
Repeat accuracy	< 1.0% (Sr)				
Hysteresis	< 15% (Sr)				
Sensing surface material	PBT				
Operating Temperature	-25°C~+75°C				
Circuit Protection	Short circuit				
Degree of protection	IP67				
Model No.	NPN Normally open	TSN08-02[NO] / TSN08-04[NO]	TSN12-04[NO] / TSN12-08[NO]	TSN18-08[NO] / TSN18-16[NO]	TSN30-15[NO] / TSN30-25[NO]
	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  
Vision  
Code Readers  
Vibration  
Temperature  
Accessories

## Guidance

## Inductive sensors

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

## Capacitive sensors

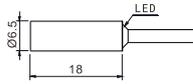
Cylindrical  
Correction  
resistanc type  
Flat type  
Level detection

# Short-body

## Extra Shot Outer Casing-Dimensions (Unit:mm)

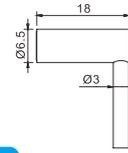
φ6.5

TSSF6.5-01/02 □ □



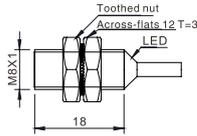
φ6.5Y

TSSF6.5Y-01/02 □ □



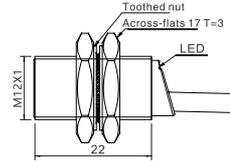
M8

TSSF08-01/02 □ □



M12

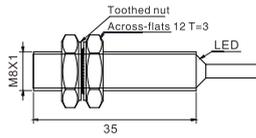
TSSF12-02/04 □ □



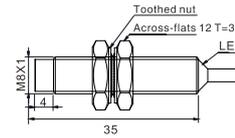
## General-Dimensions (Unit:mm)

M8

TSF08-01/02 □ □

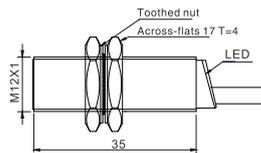


TSN08-02/04 □ □

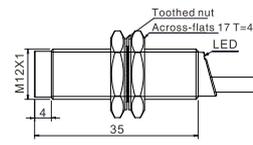


M12

TSF12-02/04 □ □

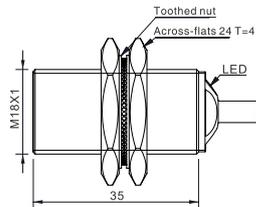


TSN12-04/08 □ □

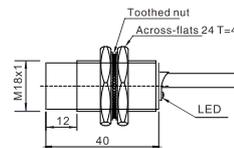


M18

TSF18-05/08 □ □

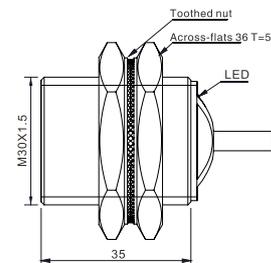


TSN18-08/16 □ □

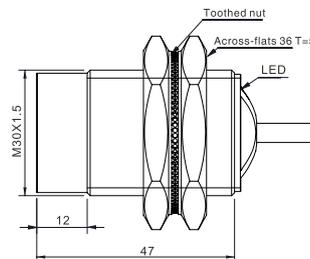


M30

TSF30-10/16 □ □



TSN30-15/25 □ □



- Fiber Optic
- Slot Sensors
- Photoelectric
- Laser
- Proximity**
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature
- Accessories

- Guidance**
- Inductive sensors
  - Standard distance
  - Extended distance
  - Long distance
  - Square
  - Mini square
  - Mini-cylindrical
- Short-body**
- Ring-type
- Metal face
- Temperature
- IP69K high protection
- Analog output
- DC 2 wires
- Capacitive sensors
  - Cylindrical
  - Correction resistanc1 type
  - Flat type
  - Level detection