Multi-Purpose Infrared Temperature Sensor TS-D Series

Fast response, no need to wait

Maximum 5 ms response speed, truly fast temperature measurement.

Fastest response time
5 ms

Temperature resolution up to ±0.1 °C

Maximum resolution
±0.1 °C

With focusing lens, temperature measurement spot size can be reduced to 2.3 mm

Ultra and standard models are available to meet different needs

1 μm, 1.6 μm, 2.3 μm wavelengths are suitable for detecting metallic objects.

8 to 14 μm wavelengths are suitable for detecting non-metallic objects.

More Features

- Analog and RS-485 output options available.
- Emission rate can be adjusted via RS-485.
- Metal housing, protection class IP65.
- Easy detection even in harsh environments.

CE

Ask SENPUM

+86-755-83330055

Fast Delivery **Standard Models**

Most products are in stock. Upon receiving your order, we will arrange prompt shipment to minimize your downtime-related costs and losses.

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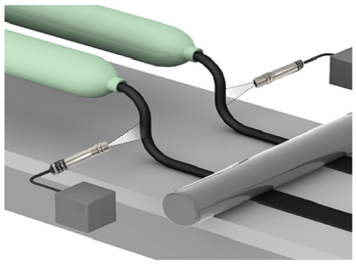
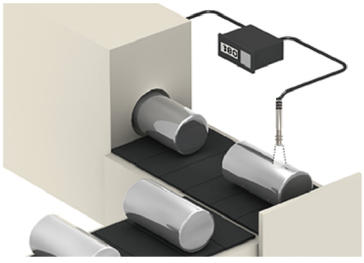
Applications



Temperature measurement
in rubber extrusion process



Aluminum surface temperature detection

Abnormality monitoring of heat generation
in drive components

Product List

Main Unit

Measuring temperature	Celsius (°C)	0 to 500 °C		100 to 600 °C	300 to 1300 °C	600 to 1600 °C
	Fahrenheit (°F)	32 to 932 °F		212 to 1112 °F	572 to 2372 °F	1112 to 2912 °F
Operating wavelength		8 to 14 µm		2.3 µm	1.6 µm	1 µm
Model	With SF focusing lens	TS-D500V	TS-D500K	TS-D600S	TS-D1300S	TS-D1600S
	With CF2 focusing lens	-	-	TS-D600S-CF2	TS-D1300S-CF2	TS-D1600S-CF2
Appearance						

Bracket (sold separately)

Appearance	Type	Model
	M16 bracket	OW-TSD001
	M22 bracket	OW-TSD002
	Adjustable bracket	OW-TSD003

TS-D Multi-Purpose Infrared Temperature Sensor

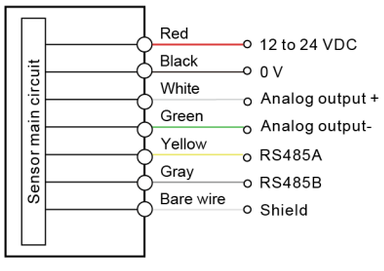
Specifications

Type		Standard type		Ultra type		
Model	With SF focusing lens	TS-D500V	TS-D500K	TS-D600S	TS-D1300S	TS-D1600S
	With CF2 focusing lens	-	-	TS-D600S-CF2	TS-D1300S-CF2	TS-D1600S-CF2
Measuring temperature	Celsius (°C)	0 to 500 °C		100 to 600 °C	300 to 1300 °C	600 to 1600 °C
	Fahrenheit (°F)	32 to 932 °F		212 to 1112 °F	572 to 2372 °F	1112 to 2912 °F
Operating wavelength		8 to 14 μm		2.3 μm	1.6 μm	1 μm
Optical resolution (90% energy)		15:1		60:1	150:1	
Temperature resolution		0.1 °C				
Output method	Analog output	0 to 5 V	-	4 to 20 mA		
	Digital output	RS485				
	Other outputs	-	TypeK	-		
Emissivity		0.100 to 1.000 (set by software, software sold separately)				
Signal process		Peak, valley, average (set by software, software sold separately)				
Mounting thread		M16 × 1		M22 × 1.5		
Accuracy		±1% or ±1.5 °C		± (0.5% of reading + 2 °C)		
Repeatability		±0.5% or ±1 °C		± (0.3% of reading + 1 °C)		
Power voltage		12 to 24 VDC				
Maximum current consumption		50 mA		100 mA		
Maximum load		500 Ω				
Protection class		IP65 (NEMA-4)				
Operating temperature		0 to +70 °C (no freezing)				
Relative humidity		10 to 95% RH (no condensation)				
Cable temperature		-20 to +80 °C (no freezing)				
Response time (95% energy)		150 ms		5 ms		
Material		Stainless steel				
Cable		2 m, 5 m, 10 m optional				
Weight		Approx. 150 g	Approx. 280 g			

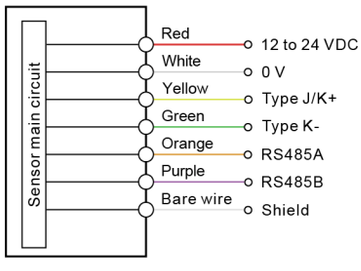
*Note: Emissivity = 1.000 at 23 °C ± 5 °C

I/O Circuit Diagrams

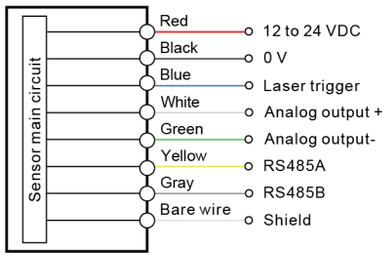
TS-D500V



TS-D500K

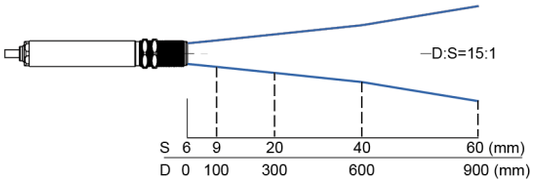


TS-D600* / TS-D1300* / TS-D1600*

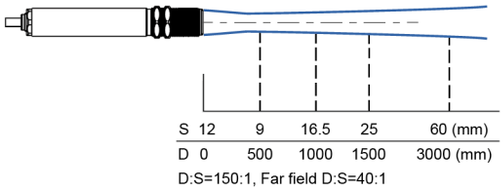


Measuring Area Description

TS-D500V TS-D500K



TS-D600S



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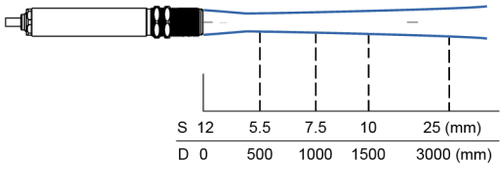
TS-D1300S TS-D1600S



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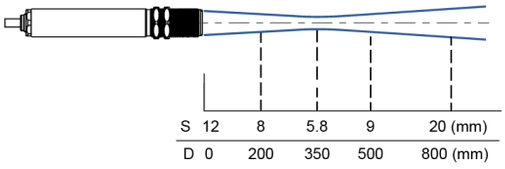
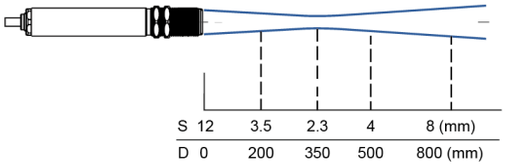
TS-D600S-CF2



D:S=60:1, Far field D:S=15:1

TS-D1300S-CF2 TS-D1600S-CF2

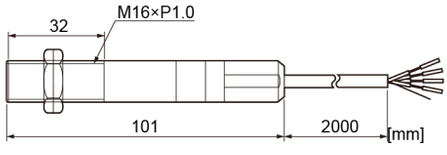


D:S=150:1, Far field D:S=30:1

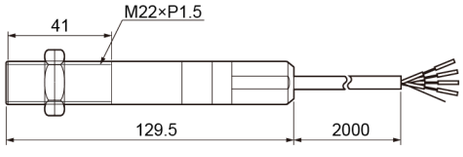
Dimensions

Unit: mm

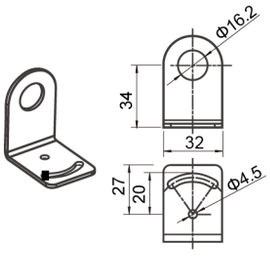
TS-D500*



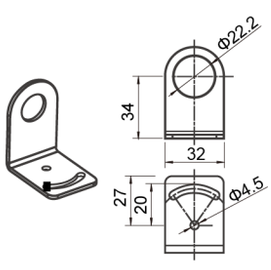
TS-D600* / TS-D1300* / TS-D1600*



OW-TSD001



OW-TSD002



OW-TSD003