

Infrared Temperature Sensors For Industries & OEM



Applications:

- Induction Heating
- Heat Treatment
- TMT Rod Manufacturing
- Steel Hot Rolling
- Steel Galvanizing
- Welding & Preheating Process

Features:

- High Optics Up to 300 :1
- DUAL Laser Aiming
- Spectral Response 1μ , 1.6μ , 2.4μ & $8-14\mu$
- Back Panel LCD Display of Reading and Pyrometer Settings
- Protection Accessories & Windows

Temperature Range:

TS-33-1M-SF	: 600°C to 1600°C (1112°F to 2912°F)
TS-33-2M-SF	: 300°C to 1300°C (572°F to 2372°F)
TS-33-3M-SF	: 100°C to 600°C (212°F to 1112°F)
TS-33-LTSF	: 0°C to 900°C (212°F to 1652°F)
TS-33-LRSF	: 0°C to 1300°C (212°F to 2372°F)

Spectral Response (Wavelength):

TS-33-1M-SF	: 1μ (Best Suitable For Metal at High Temperature)
TS-33-2M-SF	: 1.6μ (Suitable For Metal at High Temperature)
TS-33-3M-SF	: 2.3μ (Suitable For Shiny Metallic Surfaces)
TS-33-LT/LR-SF	: 8-14μ (NON Shiny Metallic Surfaces / GREY bodies)

Optics Resolution (Distance To Spot Ratio ; D:S):

TS-33-1M-SF	: 300 : 1 (Refer Chart 4,5,6 on Page:3)
TS-33-2M-SF	: 300 : 1 (Refer Chart 4,5,6 on Page:3)
TS-33-3M-SF	: 60 : 1 (Refer Chart 4,5,6 on Page:3)
TS-33-LT-SF	: 60 : 1 (Refer Chart 1,2,3 on Page:3)
TS-33-LR-SF	: 120 : 1 (Refer Chart 1,2,3 on Page:3)
Aiming	: DUAL Pointer(2 lasers meet at Focus Point)
(Note: Close Focus Option Available, Please ensure Material, smallest spot diameter of object to be measured and Environment before selection of right product)	

Measurement Specifications:

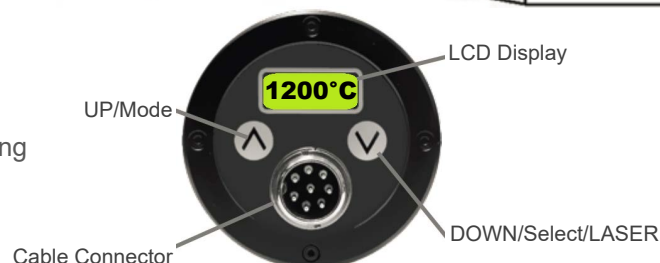
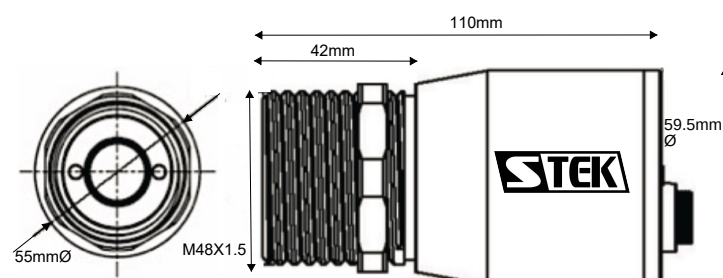
Accuracy ¹	: ±(0.5% of reading +2°C)
Repeatability ¹	: ±(0.3% of reading + 1°C)
Response	: 5 ms (95% signal) 150ms (LT/LR)
Temperature	: 0.1°C
Emissivity	: 0.100- 1.000 Through Pack Panel & GPCM Controller
Signal	: Peak hold, Valley hold, Average Through Back Panel & GPCM Controller

¹At 23°C ± 5°C, emissivity= 1.00

Electrical Specifications:

Analog Output:	: 4-20mA; Maximum loop resistance 500Ω
Digital Output	: TTL (2-wire)
Power Supply	: 24 VDC ± 20% Current Draw max. 100 mA
Cable Length	: 2 m

Dimensions:



General Specifications:

Environmental Rating	: IP 65 (NEMA- 4)
Ambient Temperature	: 0°C to 70°C
Storage Temperature	: -20°C to 85°C
Relative Humidity	: 10 to 95% Rh, non-condensing
Cable Temperature	: -20°C to 80°C
Weight	: 280g (2m cable)

Optional Accessories:

Adjustable Mounting Bracket

Air Purge Jacket

Water/Air Cooling Jacket

Complete Assemble



Lens Protection Window

SMPS Power Supply

STEK GPCM Controller

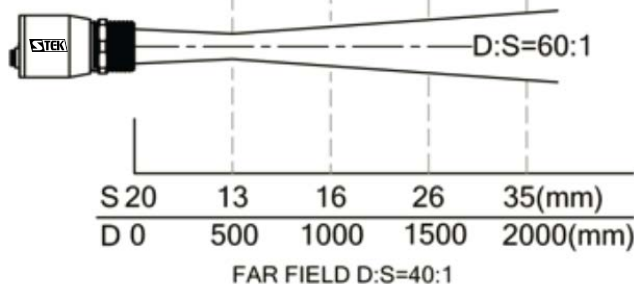
STEK 4 Inch Large Display

IP 65 Junction Box



1	D 0	19.7	39.4	59	78.7(inch)
	S 0.8	0.51	0.67	1.02	1.38(inch)

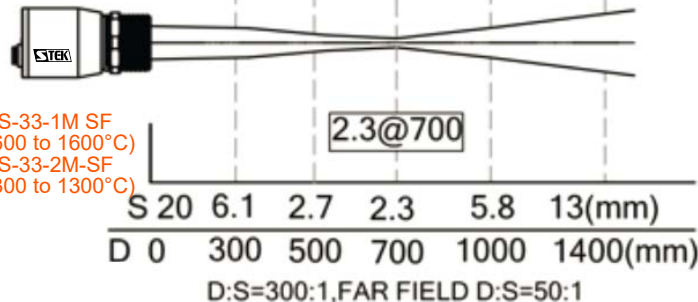
TS-LT-SF
(0 to 900°C)



4	D:S=140:1, FAR FIELD D:S=25:1
	S 20 9.8 6 5 9 22(mm)

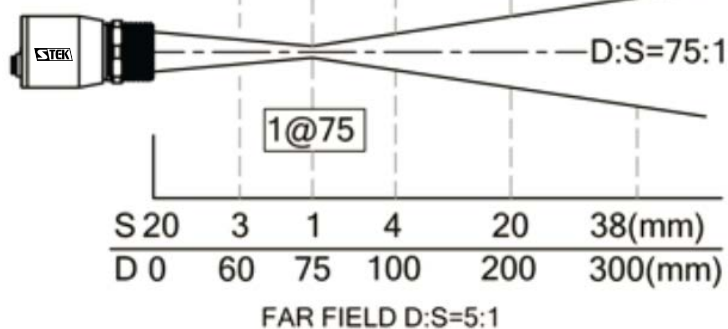
TS-33-3M-SF
(100 to 600°C)

TS-33-1M SF
(600 to 1600°C)
TS-33-2M-SF
(300 to 1300°C)



2	D 0	2.36	2.95	3.94	7.87	11.8(inch)
	S 0.8	0.12	0.04	0.25	0.79	1.50(inch)

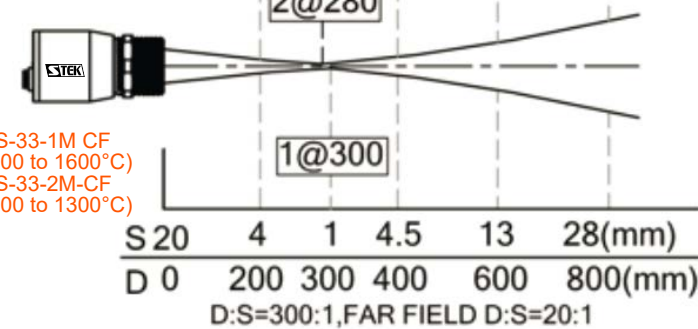
TS-LT-CF
(0 to 900°C)



5	D:S=140:1, FAR FIELD D:S=15:1
	S 20 5 2 7 20 40(mm)

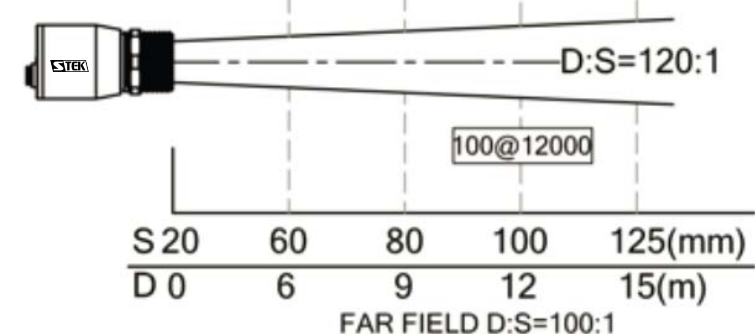
TS-33-3M-CF
(100 to 600°C)

TS-33-1M CF
(600 to 1600°C)
TS-33-2M-CF
(300 to 1300°C)



3	D 0	236	354	472	591(inch)
	S 0.8	2.4	3.1	3.9	4.9(inch)

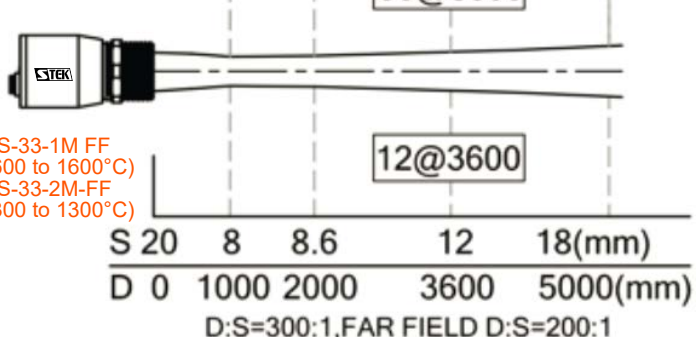
TS-33-LR- FF
(0 to 1300°C)



6	S 20 16 20 30 45(mm)
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TS-33-3M-FF
(100 to 600°C)

TS-33-1M FF
(600 to 1600°C)
TS-33-2M-FF
(300 to 1300°C)



Standard Accessory: Sensor with 3 meter Cable