Infrared Temperature Sensors for OEM & Industries

STEK CM / MIM (micro) / MID / MIDH series

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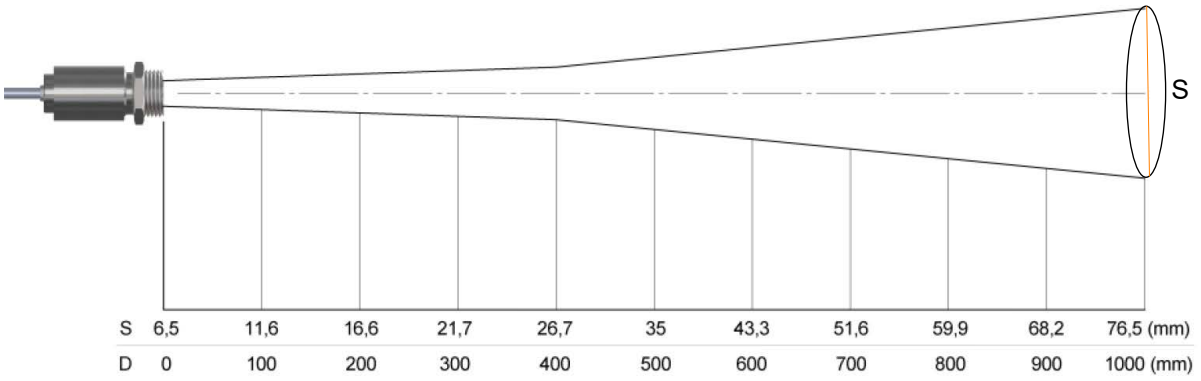
Technical Specifications

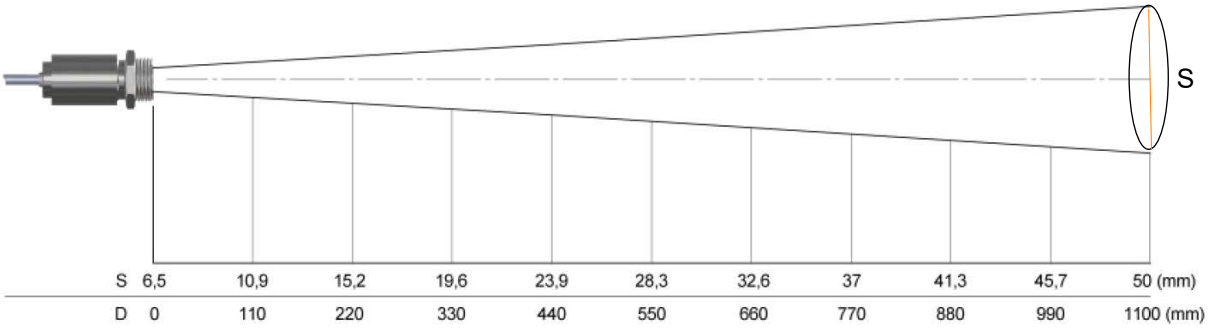
Parameters:	STEK CM	STEK MIM (micro)	STEK MID With Electronic Box	STEK MIDH With Electronic Box (Very High Ambient Temp)
Measurement Specifications				
Temperature range	0 ... 500°C Scale Able Through GPCM Controller	-50 ... 1,030°C Scale Able Through Software	50°C ... 975°C (LT22) -50°C ... 600°C (LT15) -50°C ... 600° (LT02) Scale Able Through KeyPad	-40°C ... 975°C Scale Able Through KeyPad
Spectral range	8 to 14 µm	8 to 14 µm	8 to 14 µm	8 to 14 µm
Optical resolution (90 % energy)	15:1	22:1 (MIMLT22) 15:1 (MIMLT15) 2:1 (MIMLT02)	22:1 (MIDLT22) 15:1 (MILT15) 2:1 (MIDLT02)	10:1 (MIDLTH10) 2:1 (MIDLTH02)
System accuracy (at ambient temperature 23 ± 5°C)	±1% of reading or ±1.5ºC, whichever is greater	± 1.0% or ± 1.0°C	± 1% or ± 1 °C	± 1% or ± 1.5°C
Repeatability (at ambient temperature 23 ± 5°C)	±0.5% of reading or ±1ºC, whichever is greater	± 0.5% or ± 0.5°C	± 0.5% or ± 0.5°C	± 0.5% or ± 0.5°
Response time (90 %)	150ms	14 ms (MIMLT) 150 ms (MIMLTH)	150 ms	100 ms
Emissivity / Gain	(adjustable via GPCM Controller): 0.100 - 1.100	(adjustable via software): 0.100 - 1.100	(adjustable via programming keys): 0.100 - 1.100	(adjustable via programming keys): 0.100 - 1.100
Transmissivity		(adjustable via software): 0.100 - 1.100	(adjustable via programming keys): 0.100 - 1.100	(adjustable via programming keys): 0.100 - 1.100
Signal processing	Peak hold, valley hold, average(adjustable via GPCM Controller)	Peak hold, valley hold, average(adjustable via software)	Peak hold, valley hold, average(adjustable via programming keys)	Peak hold, valley hold, average(adjustable via programming keys)
General Specifications				
Environmental rating		IP 65 (NEMA-4)	IP 65 (NEMA-4)	IP 65 (NEMA-4)
Ambient temperature	-20ºC to 70ºC	–20 ... 120 °C (MIMLT sensing head) –20 ... 180 °C (MIMLTH sensing head)– 20 ... 75 °C (electronics)	sensing head: -20°C ... 180°C 20°C ... 130°C (LT02) Electronic Box: 0°C to 85°C	sensing head: -20°C ... 250°C Electronic Box: 0°C to 85°C
Relative humidity	10 - 95 %	10 - 95 %	10 - 95 %	10 - 95 %
Shock:	IEC 60068-2-27 (25 G and 50 G)	IEC 60068-2-27 (25 G and 50 G)	IEC 60068-2-27 (25 G and 50 G)	IEC 60068-2-27 (25 G and 50 G)
Vibration:	IEC 60068-2-6 (sinus shaped) IEC 60068-2-64 (broadband noise)	IEC 60068-2-6 (sinus shaped) IEC 60068-2-64 (broadband noise)	IEC 60068-2-6 (sinus shaped) IEC 60068-2-64 (broadband noise)	IEC 60068-2-6 (sinus shaped) IEC 60068-2-64 (broadband noise)
Electrical Specifications				
Output	0-5V OR J OR K Thermocouple OR 4-20mA (ANY ONE TO BE SPECIFIED WHILE ORDERING	4-20mA Two Wire (Loop Power)	0/4 - 20 mA, 0-5/10 V, thermocouple J, K Selectable by KeyPad	0/4 - 20 mA, 0-5/10 V, thermocouple J, K Selectable by KeyPad
Output impedances:	mA max. 500 Ω (with 24 V DC) mV min. 100 kΩ load impedance thermocouple 20 Ω	mA max. 500 Ω (with 24 V DC)	mA max. 500 Ω (with 8-36 V DC) mV min. 100 kΩ load impedance thermocouple 20 Ω	mA max. 500 Ω (with 8-36 V DC) mV min. 100 kΩ load impedance thermocouple 20 Ω
Cable length	1 m (standard), 3 m, 8 m, 15 m	1 m (standard), 3 m, 8 m, 15 m	1 m (standard), 3 m, 8 m, 15 m	1 m (standard), 3 m, 8 m, 15 m
Input Power Supply	24 V DC	24V DC Loop Power	8-36 V DC	8-36 V DC

OPTICAL CHART (D:S Ratio)

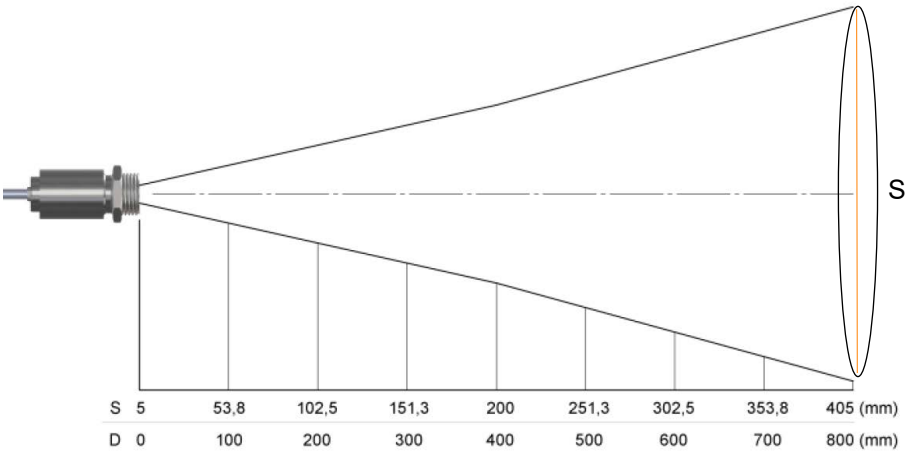
D:S = 15:1
STCMLTV/J/K/MA
STMIMLT15
STMIDLT15
STMIDLTH15



D:S = 22:1
STMIMLT22
STMIDLT22
STMIDLTH22



D:S = 2:1
STMIMLT02
STMIDLT02
STMIDLTH02



S = Circular area of the Spot whose average Temperature in Measured
D = Distance between sensing head and Object
NOTE: Area of interest whose temperature needs to measured should be larger or equal to S

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Model Selection

STCM Series
STCMLTV, O/P:0-5V
STCMLTJ, O/P: J Thermocouple
STCMLTK, O/P: K Thermocouple
STCMLTMA, O/P: 4-20mA (4 wire)
...CB3, Suffix for Cable Length of 3 meter
...CB8, Suffix for Cable Length of 8 meter
,,,CB15, Suffix for Cable Length of 3 meter

STMIM (micro Series)
STMIMLT22, O/P: 4-20mA (2 wire),Head Ambient Temp 120ºDeg C
STMIMLT15, O/O:4-20mA (2 wire), Head Ambient Temp 120ºDeg C
STMIMLT02, O/P:4-20mA (2 Wire),Head Ambient Temp 120ºDeg C
STMIMLTH22, O/P: 4-20mA (2 wire),Head Ambient Temp 180ºDeg C
STMIMLTH15, O/P:4-20mA (2 wire),Head Ambient Temp 120ºDeg C
STMIMLTH02, O/P:4-20mA (2 Wire),Head Ambient Temp 120ºDeg C
..CB3, Suffix for Cable Length of 3 meter
...CB8, Suffix for Cable Length of 8 meter
,,,CB15, Suffix for Cable Length of 3 meter

STMID Series With Electronic Box
STMIDLT22, O/P: Universal O/P ,Head Ambient Temp 180ºDeg C
STMIDT15, O/O:Universal O/P, Head Ambient Temp 180ºDeg C
STMIDLT02, O/P:Universal O/P,Head Ambient Temp 130ºDeg C
..CB3, Suffix for Cable Length of 3 meter
...CB8, Suffix for Cable Length of 8 meter
,,,CB15, Suffix for Cable Length of 3 meter

STMIDH Series With Electronic Box (Very High Ambient Temperature)
STMIDHLT22, O/P: Universal O/P ,Head Ambient Temp 250ºDeg C
STMIDHT15, O/O:Universal O/P, Head Ambient Temp 250ºDeg C
STMIDHLT02, O/P:Universal O/P,Head Ambient Temp 250ºDeg C
..CB3, Suffix for Cable Length of 3 meter
...CB8, Suffix for Cable Length of 8 meter
,,,CB15, Suffix for Cable Length of 3 meter

AirPurge With
INFRARED Protection Window

Air Purge
Collar

Adjustable
Mounting Bracket

GPCM Process Contrller

SMPS Power Supply