

IR Models for Applications

- General Purpose
- Metals/Steel
- Glass: Surface
- Glass: Sub-surface
- Solar/Semiconductor



Product Comparison Table For General Purpose Applications (8-14u Sensors)

	PSC-CS-Laser-LT	PSC-SSS-Laser-LT	DT-40L	Metis MY84
Wavelength	8-14μ	8-14μ	8-14μ	8-14μ
Temperature Range	−40°F to 1832°F	−58°F to 1787°F	−40°F to 1832°F	32°F to 1832°F
Accuracy	± 1% or ± 1°C	± 1% of reading or ± 1°C	± 1% of reading	± 0.1% of reading in °C + 0.2°C
Repeatability	± 0.5% or ± 0.5°C	± 0.5% of reading or ± 0.5°C	± 0.5% of reading	± 0.1% of reading in °C +1°C
Field Of View	50:1	75:1	50:1	up to 124:1
Resolution	0.1°C	0.1°C / 0.2°C	0.1°C / 0.2°C ²	Analog:<0.1%, Digital 0.1°C
Focus Capabilities	Fixed	Fixed	Fixed	Adjustable or fixed
Output	4-20mA 2 Wire- Loop Powered, Digital communication	0 to 20mA, 4 to 20mA, RS485, 0/5, 0/10VDC B, Thermocouple J&K. Optional: USB, Ethernet, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485. opt. Profibus
Response Speed	150ms Fast version: 9 ms	80 ms/120ms	60ms	5 ms adj. up to 10 sec.
Accessories	Air Purge, Software and communication cable, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adj. mounting brackets, right angle mirrors, scanning mirrors
Notes	Sensor provides digital communication to allow set up of all IR sensor parameters . Sensor Ambient rating: 185°F	Sensor head ambient rating: 185°F. Built in temperature display	Sensor provides digital communication to allow set up of all IR sensor parameters . Sensor Ambient rating: 158°F	High resolution optics. Ambient rating: 158°F

Product Comparison Table For General Purpose Applications (8-14μ Sensors)

	PSC-CS	PSC-CMS-LT	PSC-CMS-2W-LT	PSC-SSS-LT	PSC-CX
Wavelength	8-14μ	8-14μ	8-14μ	8-14μ	8-14μ
Temperature Range	−40°F to 1886°F	−40°F to 1886°F	−22F to 1652°F	−58°F to 1787°F	− 22°F to 1652°F
Accuracy	± 1.5% or 1.5°C	± 1.5% or 1.5°C	± 1.5% or 1.5°C	± 1% or ± 2°C	0.5% of reading
Repeatability	± 0.1% of reading in °C + 0.2°C	± 0.1% of reading + 1°C	± 0.1% of reading + 1°C	± 0.5% or ± 0.5°C	0.1% of reading
Field Of View	15:1	15:1	15:1	22:1 (LT22)	22:1
Resolution	Analog: 0.1%, Digital 0.1°C	0.1°C/0.2°	0.1°C/0.2°F	0.1°C/0.2°F	0.1°C / 0.2°C
Focus Capabilities	Fixed	Fixed	Fixed	Fixed	Fixed
Output	0 to 5VDC, 0-10VDC & Digital Communication	0 to 5VDC, 0-10VDC, 1/10/100MV/°C, Digital Communication	4 to 20mA 2-Wire Loop Powered, Digital communication	0 to 20mA, 4 to 20mA, RS485, 0/5, 0/10VDC B, Thermocouple J&K. Opt. USB, Ethernet, relays, Profibus	4-20mA 2 Wire- Loop Powered, Digital communication
Response Speed	25 ms Adj. up to 999 Seconds	30 ms Adj. up to 10Seconds	150ms	80ms/120ms	30 ms Adj. up to 10Sec.
Accessories	Prot. Cooling Jacket,Air Purge, adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Protective Jacket/Air purge, fixed or adjustable mounting brackets, Close focus lens, right angle mirror.	Air Purge, Software and communication cable, fixed or adjustable mounting brackets
Notes	Ambient rating: 158°F LED Indicator-for alarm status and aiming	Sensor head ambient rating: 185°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 180°C. Built in temperature display	Sensor provides digital comm. to allow set up of all IR sensor parameters . Ambient rating: 167°F

Process Sensors Metals Measurement Pyrometers

	METIS HS09 Ultra High Speed	METIS HI16 Ultra High Speed	METIS HQ11, HQ22 Ultra High Speed	METIS MS09, MI16, MI18	METIS MQ11, MQ22	METIS MP23, MP25, MB35	GALAXY SC11, SC12 Line Scanner
Wavelength	1μ	1.8μ	0.75 – 1.1μ	1μ, 1.6μ, 1.8μ	1.45 – 1.8μ, 1μ	2.6μm, 2.8μm, 3-5μm	Choice of wavelengths
Temp Range	1022°F to 3632°F	752°F to 5432°F	1112°F to 5432°F	248°F to 5972°F	572°F to 5792°F	86°F to 2372°F	Refer to Metis or Sirius Brochures
Accuracy	± 0.5% of reading	± 0.5% of reading	± 0.5% of reading	± 0.3% of reading +1°C	± 0.3% of reading +1°C	<752°F : 2°C of reading >752°F: 0.3% of reading	Refer to Metis or Sirius Brochures
Repeatability	± 0.2% of reading in °C +1°C	± 0.2% of reading in°C +1K	± 0.2% of reading in°C +1K	± 0.1% of reading in °C +1°C	± 0.1% of reading in °C +1°C	0.1% of reading in °C +1°C	Refer to Metis or Sirius Brochures
Field of View	Up to 377:1	Up to 377:1	>500:1	Up to 377:1	Up to 800:1	Up to 316:1	Up to 377:1
Resolution	Analog: 0.1%, Digital 0.1°C	Analog: 0.1%, Digital 0.1°C	Analog: 0.1%, Digital 0.1°C	Analog: <0.1%,digital 0.1°C	0.1°C/ 0.03°C	Analog: 0.1%, Digital 0.1°C	Analog: 0.1%, Digital 0.1°C
Aiming Method	Through Lens or Laser	Through Lens or Laser	Through Lens, Laser or Color Video	Through Lens, Laser or Video	Through Lens, Laser or Video	Through Lens or Laser	Laser
Focus Capabilities	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed
Output	0 to 20mA, 4 to 20mA, RS485	0 to 20mA, 4 to 20mA, RS485	0 to 20mA, 4 to 20mA, RS485	0 to 20mA, 4 to 20mA, RS232, RS485. Profibus	0 to 20mA, 4 to 20mA, RS232, RS485. Profibus	0 to 20mA, 4 to 20mA, RS232, RS485	Qty of 4: 0 to 20mA or 4 to 20mA Outputs. Also Qty of 1 RS232, RS485
Response Speed	<50μs Adj. up to 10 Seconds	<50μs Adj. up to 10 Seconds	<80μs	1ms adj. up to 10 sec.	2ms adj. up to 10 sec.	3 ms Adj. up to 10 Seconds	Refer to Metis or Sirius Brochures
Accessories	Prot. Jacket/Cooling, Front Cooling Plate, Air Purges, Swivel Base Mounts, Cables, Adjustable Mounting Brackets, Right Angle Mirrors, Scanning Mirrors	Prot. Jacket/Cooling, Front Cooling Plate, Air Purges, Swivel Base Mounts, Cables, Adjustable Mounting Brackets, Right Angle Mirrors, Scanning Mirrors	Prot. Jacket/Cooling, Front Cooling Plate, Air Purges, Swivel Base Mounts, Cables, Adjustable Mounting Brackets, Right Angle Mirrors, Scanning Mirrors	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adjustable mounting brackets, right angle mirrors, scanning mirrors	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adjustable mounting brackets, right angle mirrors, scanning mirrors	Prot. Jacket/Cooling, Front Cooling Plate, Air Purges, Swivel Base Mounts, Cables, Adjustable Mounting Brackets, Right Angle Mirrors, Scanning Mirrors	Swivel Base Mounts, Connector Cables, Water Cooled Front Plate with Air Purge, Water Cooling Housing with Air Purge
Notes	Offered in both fiber and non-fiber optic versions	Offered in both fiber and non-fiber optic versions	Two color sensor. Offered in both fiber and non-fiber optic versions.	Offered in both fiber and non-fiber optic versions	2 Color Version sees through dirty windows, compensates for product emissivity (graybody)	Low Temperature, Short Wave Length Model	Choice of a Metis or Sirius Pyrometer

Process Sensors Metals Measurement Pyrometers

	DSF-30NG/34NG Fiber Optic	DS-40N/DG-40N	DSF-40N/DGF-40N Fiber Optic	DS-44N/DG-44N	NOVA MULTI-SENSOR SYSTEM	SIRIUS SS09	SIRIUS SI16
Wavelength	0.8µm to 1.1µm	.8µm - 1.1µm, 1.5µm- 1.8µm	0.8µm to 1.1µm	0.8µm - 1.1µm, 1.5µm- 1.8µm	0.7 - 1.0µm, 1.6 -1.8µm	0.67µm to 1.1µm	1.45µm to 1.8µm
Temp Range	1112°F to 3272°F	482°F to 5432°F	482°F to 5432°F	482°F to 5432°F,	Refer to Metis or Sirius brochures	1022°F to 2552°F 1202°F to 3272°F	482°F to 1832°F, 572°F to 2372°F, 662°F to 3272°F
Accuracy	± 0.3% of reading	± 0.5% of reading	± 0.5% of reading	± 0.5% of reading	Refer to Metis or Sirius Brochures	± 0.5% of reading + 1°C	± 0.5% of reading + 1°C
Repeatability	± 0.1% of reading	± 0.1% of reading	± 0.1% of reading	± 0.1% of reading	± 0.1% of reading in °C +1°C	± 0.1% of reading + 1°C	± 0.1% of reading + 1°C
Field of View	>100:1	>100:1	>100:1	100:1, 200:1	Up to 316:1	Up to 180:1	Up to 180:1
Resolution	Analog: 0.1%, Digital 0.1°C	Analog: 0.1%, Digital 0.1°C	0.1°C Depends on Temperature Range Selection	0.1°C Depends on Temperature Range Selection	Analog: 0.1%, Digital 0.1°C	0.1°C	0.1°C
Aiming Method	None	Green LED or Laser	Laser	Green LED or Laser	Laser	Laser	Laser
Focus Capabilities	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable	Adjustable
Output	4 to 20mA	4 to 20mA	4 to 20mA	4 to 20mA, RS485	Relay and Qty of 4 Individual Sensors: 4 to 20mA Outputs.	0 to 20mA, 4 to 20mA, RS232, RS485	0 to 20mA, 4 to 20mA, RS 232, RS485
Response Speed	<10 ms Adj. up to 10 Seconds	<10 ms Adj. up to 10 Seconds	<10 ms Adj. up to 10 Seconds	5 ms Adj. up to 10 Seconds	1, 5 ms Adj. up to 10 Seconds	5 ms Adj. up to 10 Seconds	5 ms Adj. up to 10 Seconds
Accessories	3 Pin Connecting Cable, 12 Pin Connecting Cable, USB Cable, Sheathed Fiber Optic Cable, Power Supply	Connecting Cables, Power Supply, Mounting Angle Bracket, Ball & Socket Mount, Air Purge, Water Cooling Jacket, Vacuum Flange, Protective Window	Connecting Cables, Mounting Angle Bracket, Power Supply, Ball & Socket Mount, Air Purge, Mirror, Protective Window, Laser Rejection Filter	12 Pin Connecting Cables, Interface Module, Power Supply, Mounting Angle Bracket, Ball & Socket Mount, Air Purge, Water Cooling Jacket, Vacuum Flange, Protective Window	Swivel Base Mounts, Connector Cables, Water Cooled Front Plate with Air Purge, Water Cooling Housing with Air Purge	Inter-Connecting Cables, Air Purge, Cooling Housing, Cooling Housing Mounting Bracket, Stainless Steel Adjustable Mounting Bracket PSCWin Software	Inter-Connecting Cables, Air Purge, Cooling Housing, Cooling Housing Mounting Bracket, Stainless Steel Adjustable Mounting Bracket PSCWin Software
Notes	Two-wire Loop Powered Fiber Optic Sensor	Two-wire Loop Powered Three-wire Laser Aiming	2 wire loop powered fiber optic version.		Can Accept up to Qty 4 Metis 1 and 2 Color Pyrometers and Sirius One Color Pyrometers	Self contained sensor	Self contained sensor

Process Sensors Metals Measurement Pyrometers

	PSC-SSS-1MH/2MH	PSC-SSS-3M	PSC-CMS-2W-2MH	PSC-SSS-LASER-1M/2M	PSC-SSS-LASER-3M	PSC-SSS-Ratio-1M	METIS VISION MV09 Thermal Imaging Camera
Wavelength	1.0µm, 1.6µm	2.3µm	1.6µm	1.0µm, 1.6µm	2.3µm	0.7µm to 1.1µm	0.75µm to 1.08µm
Temp Range	Ranges from 482°F to 3632°F	122°F to 3272°F	725°F to 2912°F	Ranges from 482°F to 3632°F	Ranges from 122°F to 3632°F	1292°F – 3272°F	1112°F to 2372°F 1382°F to 2732°F 1652°F to 3272°F 2192°F to 4532°F
Accuracy	± 0.3% of reading +2°C	± 0.3% of reading +2°C	± 0.3% of reading +2°C	± 0.3% of reading +2°C	± 0.3% of reading +2°C	± 0.5% of reading + 1°C	± 0.5% of reading, 0.75% for 5432°F
Repeatability	± 0.1% of reading + 1°C	± 0.1% of reading + 1°C	± 0.1% of reading + 1°C	± 0.1% of reading + 1°C	± 0.1% of reading + 1°C	± 0.2% of reading + 1°C	± 0.3% of reading
Field of View	40:1, 75:1	22:1, 33:1, 75:1	75:1	150:1, 300:1	60:1, 100:1, 300:1	40:1	Choice of lenses
Resolution	0.1°C	0.1°C	0.1°C	0.1°C, 0.2°C	0.1°C	0.1°C	640 x 480 Pixels
Aiming Method	Laser Accessory	Laser Accessory	Laser Accessory	Dual Laser	Dual Laser	Laser	Real time thermal imaging
Focus Capabilities	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Adjustable
Output	0 to 20mA, 4 to 20mA, 0-5/10V, Thermocouple J,K, Alarm, RS232, RS485, Profibus, Ethernet	0 to 20mA, 4 to 20mA, 0-5/10V, Thermocouple J,K, Alarm, RS232, RS485, Profibus, Ethernet	4 to 20 mA, Additional Alarm Outputs	0 to 20mA, 4 to 20mA, 0-5/10V, Thermocouple J,K, Alarm, RS232, RS485, Profibus, Ethernet	0 to 20mA, 4 to 20mA, 0-5/10V, Thermocouple J,K, Alarm, RS232, RS485, Profibus, Ethernet	0 to 20mA, 4 to 20mA, 0-5/10V, USB, RS232, RS485, Profibus, Ethernet	Gigabit Ethernet 1000 mbit/s
Response Speed	1ms	1ms	10ms	1ms	1ms	5ms – 10ms	Up to 47 FPS
Accessories	Close Focus Lens, Inter-Connecting Cable, Air Purge, Protective Window, Mounting Bracket	Close Focus Lens, Inter-Connecting Cable, Air Purge, Protective Window, Mounting Bracket	Close Focus Lens, Inter-Connecting Cable, Air Purge, Protective Window, Mounting Bracket	Water Cooled Jacket, Air Purge, Mounting Bracket	Water Cooled Jacket, Air Purge, Mounting Bracket	Adjustable Mounting Bracket, PSC Connect Software with USB Cable, Air Purge	Inter-Connecting Cable, Swivel Bases, Air Purge, Protective Cooling jacket with Window, Protective Hood, Ethernet Cable

Process Sensors Corporation Glass Measurement Pyrometers - Surface Temperature

	PSC-CS	PSC-CMS-LT	PSC-CMS-2W-LT	PSC-SSS-G5	PSC-SSS-P7	PSC-SSS-LT22	PSC-CX
Wavelength	8-14μ	8-14μ	8-14μ	5.2μ	7.9μ	8-14μ	8-14μ
Temp Range	-40°F to 1886°F	-40°F to 1886°F	-22F to 1652°F	212°F to 3002°F	32°F 932°F	-40°F - 1652°F	-22°F to 1652°F
Accuracy	± 1.5% or 1.5°C	± 1.5% or 1.5°C	± 1.5% or 1.5°C	± 1% of reading or ± 1°C	± 1% of reading or ± 1.5°C	± 1% or ± 2°C	± 0.5% of reading
Repeatability	± 0.1% of reading in °C + 0.2°C	± 0.1% of reading + 1°C	± 0.1% of reading + 1°C	± 0.5% of reading + 0.5°C	± 0.5% of reading 0.5°C	± 0.5% or ± 0.5°C	± 0.1% of reading
Field of View	15:1	15:1	15:1	Up to 75:1	10:1	22:1	22:1
Resolution	Analog; <0.1%, Digital 0.1°C	0.1°C	0.1°C	0.1°C / 0.2°C	0.5°C	0.1°C	0.1°C
Aiming Method	N/A	Laser accessory	Laser accessory	Laser accessory	Laser accessory	Laser Accessory	N/A
Focus Capabilities	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Output	0 to 5VDC, 0-10VDC & Digital Communication	0 to 5VDC, 0-10VDC, 1/10/100MV/°C, Digital Communication	4 to 20mA 2-Wire Loop Powered, Digital communication	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	4-20mA 2 Wire- Loop Powered, Digital communication
Response Speed	25 ms Adj. up to 999 Seconds	30ms Adj. up to 999 seconds	30ms Adj. up to 999 seconds	80 ms / 120 ms	150 ms	80ms / 120ms	150ms Adj. up to 10 seconds
Accessories	Prot. Cooling Jacket,Air Purge, adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, fixed or adjustable mounting brackets	Protective Jacket/Air purge, fixed or adjustable mounting brackets, Close focus lens, right angle mirror.	Protective Jacket /Air purge, fixed or adjustable mounting brackets, Close focus lens, right angle mirror.	Air Purge, Software and communication cable, fixed or adjustable mounting brackets
Notes	Ambient rating: 158°F LED Indicator-for alarm status and aiming	Sensor head ambient rating: 167°F	Sensor head ambient rating: 257°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 185°F	Sensor provides digital comm. to allow set up of all IR sensor parameters. Ambient rating: 167°F

Process Sensors Corporation Glass Measurement Pyrometers - Surface Temperature

	PSC-CS-Laser-LT	PSC-SSS-Laser-G5	PSC-SSS-Laser-LT	DT-40G/DT-44G	DT-40L	Metis MY51	Metis MY84
Wavelength	8-14μ	5μ	8-14μ	5μ	8-14μ	5μ	8-14μ
Temp Range	-22°F to 1832°F	212°F to 3002°F	-58°F – 1787°F	212°F to 5432°F	-40°F to 1832°F	212°F to 5432°F	1°C + 0.5% of reading
Accuracy	± 1% or ± 1°C	± 1% of reading or ± 1°C	± 1% of reading or ± 1°C	0.6% of reading	1% of reading	1°C + 0.5% of reading btwn measurement value & housing temp	± 0.1% of reading
Repeatability	± 0.5% or ± 0.5°C	± 0.5% of reading + 0.5°C	± 0.5% of reading + 0.5°C	0.5% of reading	0.5% of reading	± 0.1% of reading in °C + 0.2°C	± 0.1% of reading in °C +1 °C
Field of View	50:1	Up to 75:1	Up to 75:1	50:1	50:1	65:1 to 200:1	up to 124:1
Resolution	0.1°C	0.1°C / 0.2°C	0.1°C / 0.2°C	0.1°C	0.1°C / 0.2°C2	Analog: <0.1%, Digital 0.1°C	Analog: <0.1%, Digital 0.1°C
Aiming Method	Dual Lasers	Dual Lasers	Dual Laser	Laser or Green LED	Laser accessory	Through Lens or Laser	Through Lens or Laser
Focus Capabilities	Fixed	Fixed	Fixed	Fixed	Fixed	Adjustable or Fixed	Adjustable or Fixed
Output	4-20mA 2 Wire- Loop Powered, Digital communication	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	4-20mA, RS485	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485. opt. Profibus
Response Speed	150ms Fast version; 9 ms	80 ms / 120 ms	80 ms /120ms Fast version: 9ms	60 ms / 30 ms	60ms	10 ms, 40 ms or 100 ms	5 ms adj. up to 10 sec.
Accessories	Air Purge, Software and communication cable, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Air purge, Sealed window assembly, cables, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adjustable mounting brackets, right angle mirrors, scanning mirrors	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adj. mounting brackets, right angle mirrors, scanning mirrors
Notes	2 wire loop powered. Sensor provides digital communication to allow set up of all IR sensor parameters . Sensor Ambient rating: 185°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 158°F	Sensor provides digital communication to allow set up of all IR sensor parameters . Sensor Ambient rating: 158°F	Sensor head ambient rating: 158°F	Offered in both fiber and non-fiber optic versions Ambient rating: 158°F

Process Sensors Glass Measurement Pyrometers - Subsurface (Molten Glass)

	Metis MS09	DS-40N	DSF-40N Fiber Optic	Sirius SS09
Wavelength	1μ	1μ	1μ	1μ
Temp Range	1022°F – 2552°F 1112°F – 2912°F 1202°F – 3272°F 1382°F – 4532°F 1832°F – 5972°F	1112°F – 4532°C	1112°F – 4532°F	1022°F – 2552°F 1202°F – 3272°F
Accuracy	± 0.3% of reading	± 0.5% of reading	± 0.5% of reading	±0.5% of reading +1° C
Repeatability	± 0.1% of reading in °C +1°C	± 0.1% of reading	± 0.1% of reading	± 0.1% of reading + 1°C
Field of View	Up to 377:1	>100:1	>100:1	Up to 180:1
Resolution	Analog 0.1%, Digital 0.1°C	0.1°C	0.1°C	0.1°C
Aiming Method	Through Lens, Laser or video	Laser or Green LED	Laser	Laser
Focus Capabilities	Adjustable or Fixed	Adjustable or Fixed	Adjustable	Adjustable
Output	0 to 20mA, 4 to 20mA, RS232, RS485	4-20mA	4-20mA	0 to 20mA, 4 to 20mA, RS232, RS485
Response Speed	1ms adj. up to 10 sec.	10ms adj. up to 10 sec.	10ms adj. up to 10 sec.	5ms adj. up to 10 sec.
Accessories	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adjustable mounting brackets, right angle mirrors, scanning mirrors	Prot. Jacket/Cooling, Air purge, Sealed window assembly , cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Air purge, Sealed window assembly , cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Air purge, Sealed window assembly , cables, fixed or adjustable mounting brackets
Notes	Penetrates glass up to 2 inches. Offered in both fiber and non-fiber optic versions	Penetrates glass up to 2 inches. Sensor provides digital communication to allow set up of all IR sensor parameters . Sensor Head ambient rating: 158°F	Penetrates glass up to 2 inches. Fiber optic lens ambient rating: 482°F	Penetrates glass up to 2 inches. Sensor head ambient rating: 158°F

Process Sensors Glass Measurement Pyrometers - Subsurface (Molten Glass)

	PSC-SSS-1MH/2MH	PSC-CS-Laser-2MH	PSC-SSS-Laser-1M/2MH	DSF-30/34NG Fiber Optic
Wavelength	1μ, 1.6μ	1.6μ	1μ, 1.6μ	1μ
Temp Range	Ranges from 725°F to 3272°F	Ranges from 725°F to 2912°F	Ranges from 725°F to 3272°F	Ranges from 1112°F to 3272°F
Accuracy	± 0.3% of reading +2°C	± 0.3% of reading +2°C	± 0.3% of reading +2°C	± 0.3% of reading
Repeatability	± 0.1% of reading + 1°C	± 0.1% of reading +1°C	± 0.1% of reading +1°C	± 0.1% of reading
Field of View	Up to 75:1	300:1	150:1/330:1	>100:1
Resolution	0.1°C	0.1°C	0.1°C / 0.2°C	0.1°C
Aiming Method	Laser Accessory	Dual Lasers - 3 Wire	Dual Lasers	N/A
Focus Capabilities	Fixed	Fixed	Fixed	Fixed
Output	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, profibus	4-20mA 2 Wire- Loop Powered Digital communication	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	4-20mA/RS485
Response Speed	1 ms	10ms	1 ms	10ms adj. up to 10 sec.
Accessories	Protective Jacket/Air purge, fixed or adjustable mounting brackets, Close focus lens, right angle mirror.	Prot. Jacket/Cooling, Air purge, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Air purge, F.O. cables, fixed or adjustable mounting brackets, cables
Notes	Penetrates glass up to 2 inches. Sensor head ambient rating: 212°F/257°F. Built in temperature display	Penetrates glass up to 2 inches. 2 wire loop powered. Sensor provides digital communication to allow set up of all IR sensor parameters . Sensor Head ambient rating: 185°F.	Penetrates glass up to 2 inches. Sensor head ambient rating: 185°F. Built in temperature display.	Penetrates glass up to 2 inches. 2 wire loop powered. Ambient rating of fiber optic lens : 482°F

IR Sensors for Glass, Photovoltaic (PV), Silicon & GaAs Wafer applications

	Metis MQ11, MQ22	Metis MS09, MI16, MI18	Metis MY51	Sirius SS09, SI16	PSC-CS-Laser-LT/2MH	DT-40G/DT-44G	DG-40N/DS-40N
Wavelength	1.45 – 1.8μ, 1μ	1μ, 1.6μ, 1.8μ	5μ	1.6μ, 1μ	8-14μ, 1.6μ	5μ	1.6μ, 1μ
Temp Range	482°F – 5792°F	248°F – 5972°F	212°F – 5432°F	482°F – 3272°F	- 58°F – 2912°F	212°F – 5432°F	482°F – 5432°F
Accuracy	± 0.3% of reading +1°C	± 0.3% of reading +1°C	± 1°C + 0.5% of reading between measurement value & housing temp	± 0.5% of reading +1°C	± 1% of reading/± 0.3% of reading	± 1% of reading	± 0.5% of reading
Repeatability	± 0.1% of reading in °C +1°C	± 0.1% of reading in °C +1°C	± 0.1% of reading in °C + 0.2°C	± 0.1% of reading + 1°C	± 0.3% of reading + 2°C	± 1% of reading/ ± 0.6% of reading	± 0.1% of reading
Field of View	Up to 800:1	Up to 377:1	65:1 to 200:1	Up to 180:1	Up to 300:1	50:1	>100:1
Resolution	Analog; <0.1%,digital 0.1°C	Analog; <0.1%,digital 0.1°C	Analog; <0.1%, Digital 0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
Aiming Method	Through Lens, Laser or Video	Through Lens, Laser or Video	Through Lens or Laser	Laser	Dual Lasers - 3 wire	Laser, Green LED (above 392°F), laser accessory	Laser or Green LED
Focus Capabilities	Adjustable or Fixed	Adjustable or Fixed	Adjustable or Fixed	Adjustable	Fixed	Fixed	Fixed
Output	0 to 20mA, 4 to 20mA, RS232, RS485. Profibus	0 to 20mA, 4 to 20mA, RS232, RS485. Profibus	0 to 20mA, 4 to 20mA, RS232, RS485, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485	4-20mA 2 Wire-Loop Powered with Digital communication	4-20mA / RS485	4-20mA
Response Speed	2ms adj. up to 10 sec.	1ms adj. up to 10 sec.	10 ms, 40 ms or 100 ms	5 ms adj. up to 10 sec.	10 ms /150 ms	60 ms / 30 ms	<10 ms adj. up to 10 sec
Accessories	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adjustable mounting brackets, right angle mirrors, scanning mirrors	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adjustable mounting brackets, right angle mirrors, scanning mirrors	Prot. Jacket/Cooling, Front cooling plate, Air purges, Swivel base mounts, cables, adjustable mounting brackets, right angle mirrors, scanning mirrors	Prot. Jacket/Cooling, Air purge, Sealed window assembly, cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Air purge, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Air purge, Sealed window assembly, cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Air purge, Sealed window assembly, cables, fixed or adjustable mounting brackets
Notes	2 Color Version sees through dirty windows, compensates for product emissivity (graybody)	Offered in both fiber and non-fiber optic versions	Sensor head ambient rating: 158°F	Sensor head ambient rating: 158°F	Sensor provides digital communication to allow set up of all IR sensor parameters. Sensor Head ambient rating: 185°F	Sensor head ambient rating: 158°F	Sensor head ambient rating: 158°F

IR Sensors for Glass, Photovoltaic (PV), Silicon & GaAs Wafer applications

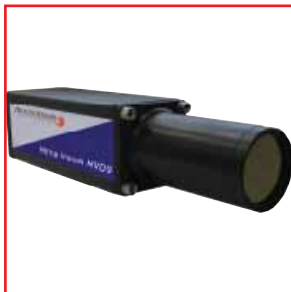
	DGF-40N /DSF-40N Fiber Optic	DSF-30/34NG Fiber Optic	PSC-SSS-G5	PSC-SSS-P7	PSC-SSS-1MH/2MH	PSC-SSS-Laser-G5	PSC-SSS-Laser-1M/2MH	PSC-PI Thermal Imaging Camera
Wavelength	1.6μ, 1μ	1μ	5.2μ	7.9μ	1.6μ, 1μ	5.2μ	1.6μ, 1μ	7.5 to 13μ
Temp Range	482°F – 5432°F	1112°F – 3272°F	212°F – 3002°F	32°F – 932°F	482°F – 3272°F	212°F – 3002°F	482°F – 3272°F	Ranges from -4°F to 2192°F
Accuracy	± 0.5% of reading	± 0.3% of reading	± 1% or ± 2°C	± 1% of reading or ± 1.5°C	± 0.3% of reading +2°C	± 1% of reading or ± 1°C	± 0.3% of reading +2°C	± 2 % of reading or ± 2°C
Repeatability	± 0.1% of reading	± 0.1% of reading	± 0.5% or ± 0.5°C	± 0.5% of reading 0.5°C	± 0.1% of reading + 1°C	± 0.5% of reading + 0.5°C	± 0.1% of reading + 1°C	± 0.5% of reading
Field of View	>100:1	>100:1	20:1	10:1	Up to 75:1	Up to 75:1	Up to 330:1	Up to 956:1
Resolution	0.1°C	0.1°C	0.1°C / 0.2°C	0.5°C	0.1°C	0.1°C / 0.2°C	0.1°C / 0.2°C	0.1°C
Aiming Method	Laser	N/A	Laser accessory	Laser accessory	Laser accessory	Dual Lasers	Dual Lasers	2D thermal image
Focus Capabilities	Adjustable	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Adjustable
Output	4-20mA	4-20mA/RS485	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	0 to 20mA, 4 to 20mA, RS232, RS485,USB, T/C, Ethernet, 0/5, 0/10VDC, relays, Profibus	USB or Ethernet Connection, SDK, 0-10VDC camera output
Response Speed	<10 ms adj. up to 10 sec.	<10 ms adj. up to 10 sec.	80 ms / 120 ms	150 ms	1 ms	80 ms / 120 ms	1 ms	120 frames per second, Adjustable down to 9fps
Accessories	Prot. Jacket/Cooling, Air purge, Sealed window assembly, cables, fixed or adjustable mounting brackets	Prot. Jacket/Cooling, Air purge, Sealed window assembly, cables, fixed or adjustable mounting brackets	Protective Jacket/Air purge, fixed or adjustable mounting brackets, Close focus lens, right angle mirror.	Protective Jacket/Air purge, fixed or adjustable mounting brackets, Close focus lens, right angle mirror.	Protective Jacket/Air purge, fixed or adjustable mounting brackets, Close focus lens, right angle mirror.	Prot. Cooling Jacket, Air purge, fixed or adjustable mounting brackets	Prot. Cooling Jacket, Air purge, cables, fixed or adjustable mounting brackets	Air purge, Cooling Jacket, Tripod mount, I/O modules, PC Touch Screen Display, multiple 4-20mA outputs, multiple relays & variety of lenses
Notes	Fiber optic lens ambient rating: 482°F	Fiber optic lens ambient rating: 482°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 212°F/257°F	Sensor head ambient rating: 185°F	Sensor head ambient rating: 185°F	High speed thermal imaging camera. Sensor head ambient rating: 0 to 122°F



Galaxy SC11/12
Metals/Steel
Glass: Surface
Glass: Sub-Surface
Solar/Semiconductor



Metis HS09 Ultra High Speed
Metis HI16 Ultra High Speed
Metis HQ11 Ultra High Speed
Metals/Steel



Metis Vision MV09
Metals/Steel
Glass: Sub-Surface
Solar/Semiconductor



NOVA Multi-Sensor System
Metals/Steel
Glass: Surface
Glass: Sub-Surface
Solar/Semiconductor



PSC-PI
General Purpose
Glass: Surface
Solar/Semiconductor



Metis MS09, MI16, MI18
Metis MQ11, MQ22
Metis MP23, MP25, MB35
Metis MY51
Metis MY84
Metals/Steel
Glass: Surface
Solar/Semiconductor
General Purpose



DSF-30NG/DSF-34NG
Metals/Steel
Glass: Sub-Surface



PSC-CS
Glass: Surface
General Purpose



PSC-CMS
PSC-CMS-2W/2MH
PSC-CMS-2W-LT
Metals/Steel
Glass: Surface
General Purpose



PSC-CX
Glass: Surface
General Purpose



PSC-CS-Laser
PSC-CS-Laser-LT/2MH
Metals/Steel
Glass: Surface
Glass: Sub-Surface
Solar/Semiconductor
General Purpose



DS-44N/DG-44N
Metals/Steel
Glass: Sub-Surface
Solar/Semiconductor



DSF-40N/DGF-40N
Metals/Steel
Glass: Sub-Surface
Solar/Semiconductor



PSC-SSS-P7
Metals/Steel
Glass: Surface
Solar/Semiconductor



PSC-SSS-1MH/2MH
PSC-SSS-3M
PSC-SSS-G5
PSC-SSS-LT22
Metals/Steel
Glass: Surface
Glass: Sub-Surface
Solar/Semiconductor
General Purpose



PSC-SSS-Laser-LT
PSC-SSS Laser 1M/2M
PSC-SSS-Laser 3M
PSC-Sss-Laser-G5
Metals/Steel
Glass: Surface
Glass: Sub-Surface
Solar/Semiconductor
General Purpose



DS-40N/DG-40N
DT-40G/DT-44G
DT-40L
Metals/Steel
Glass: Surface
Glass: Sub-Surface
Solar/Semiconductor
General Purpose



Sirius SS09
Metals/Steel
Glass: Sub-Surface
Solar/Semiconductor



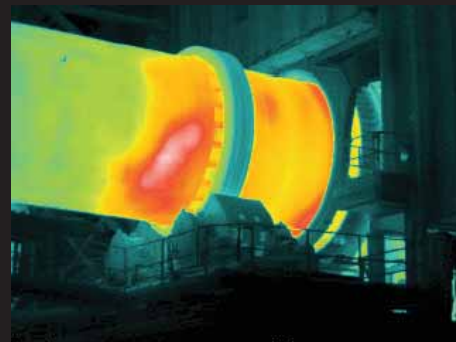
Sirius SI16
Metals/Steel
Solar/Semiconductor



PSC-SSS-Ratio-1M
Metals/Steel
Glass: Sub-Surface
Solar/Semiconductor

IR Temp Questions

- Temperature:
 Critical Minimum Maximum
- Target:
Size (Smallest) _____
Material Type: _____ Dull Shiny
- Distance:
IR Sensor to Target inches mm _____ at _____ distance
- Heat Source:
Type _____
Placement _____
- Obstructions:
Dust _____ Windows _____ Objects _____
- Response Time:
Speed of Moving Target _____



PROCESS SENSORS

C O R P O R A T I O N



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