PROCESS SENSORS® CORPORATION

a KPM ANALYTICS brand

PSC-SSS-P7

Precise non-contact measurement of plastic materials from 0 - 710°C / 32 - 1310°F

FEATURES

- Accurate temperature measurement of thin plastic film materials: PET, PU, PTFE, PA
- Rugged and usable up to 85°C ambient temperature without cooling
- Separate electronics with easy accessible programming keys and LCD backlit temperature display
- Selectable analog output: 0/4 - 20 mA, 0 - 5 V, 0 - 10 V, thermocouple type K or J
- Optional USB, RS485, RS232 interface, relay outputs (2x optically isolated), CAN-Bus, Profibus DP, Ethernet

General specifications	
Environmental rating	IP 65 (NEMA-4)
Ambient temperature	sensing head: -20 - 85°C electronics: 0 - 85°C
Storage temperature	sensing head: -40 - 85°C electronics: -40 - 85°C
Relative humidity	10 - 95%, non condensing
Vibration (sensor)	IEC 68-2-6: 3 G, 11 - 200 Hz, any axis
Shock (sensor)	IEC 68-2-27: 50 G, 11 ms, any axis
Weight	sensing head 200 g (with massive housing) electronics 420 g
Electrical specifications	
Outputs/analog	channel 1: 0/4 - 20 mA, 0 - 5/10 V, thermocouple J, K
	channel 2: sensing head temperature (-20 - 180°C as 0 - 5 V or 0 - 10 V), alarm output
Alarm output	Open - collector (24 V /50 mA)
Optional	relay: 2 x 60 V DC/42 V AC_{eff}; 0.4 A; optically isolated
Outputs/digital (optional)	USB, RS232, RS485, CAN, Profibus DP
Output impedances	mA max. 500 Ω (with 5 - 36 V DC) mV min. 100 kΩ load impedance thermocouple 20 Ω
Inputs	programmable functional inputs for external emissivity adjustment, ambient temperature compensation, trigger (reset of hold functions)
Cable length	3 m (standard), 8 m, 15 m
Current draw	max. 100 mA
Power supply	8 - 36 V DC

Measurement specifications	
Temperature range (scalable via programming keys or software)	0 - 710°C / 32 - 1310°F
Spectral range	7.9 µm
Optical resolution (90% energy)	10:1
System accuracy[2] (at ambient temperature 23 ±5°C)	±1% or ±1.5°C[1]
Repeatability[2] (at ambient temperature 23 ±5°C)	±0.5% or ±0.5°C[1]
Temperature resolution (NETD)	0.5°C
Response time	150 ms
Emissivity/Gain (adjustable via programming keys or software)	0.100 - 1.100
Transmissivity/Gain (adjustable via programming keys or software)	0.100 - 1.100
Signal processing (parameter adjustable via programming keys or software, respectively)	peak hold, valley hold, average; extended hold function with threshold and hysteresis

[1] whichever is greater

[2] at object temperatures ≥ 25°C

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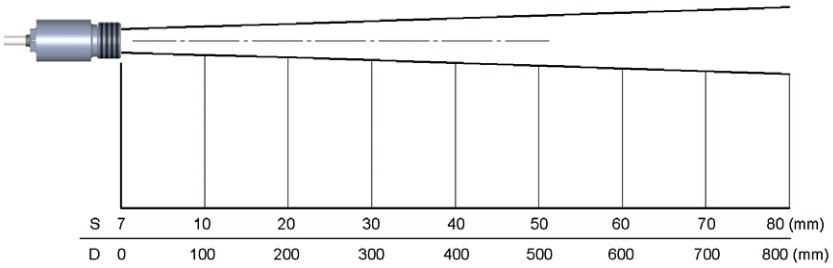
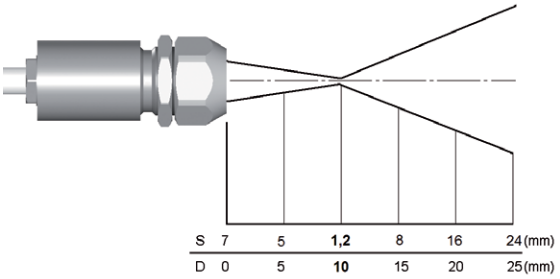
Optic, D:S = 10:1

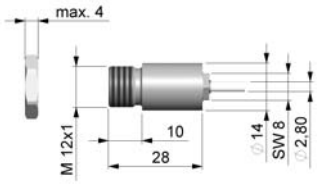


Optic with CF lens, D:S = 10:1

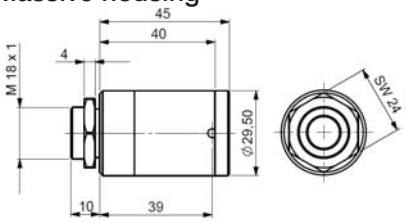


Dimensions

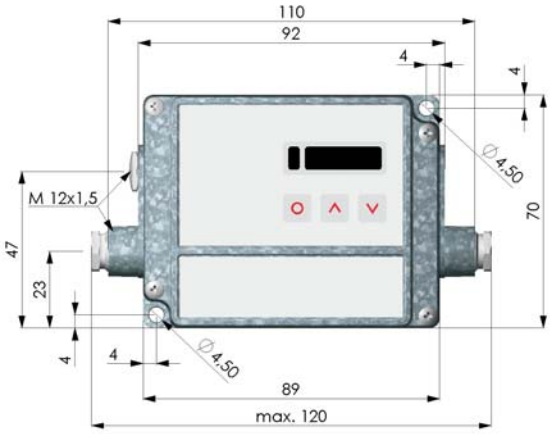
Sensing head

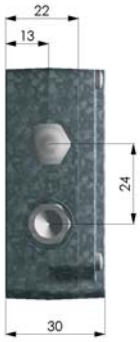


Massive housing

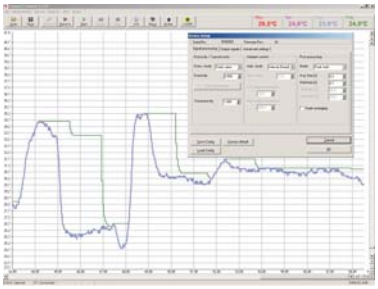


Electronics





PSC Connect Software



- Software for easy sensor setup and remote controlling, supports multi tasking
- Graphic display for temperature trends and automatic data logging for analysis and documentation with 1 ms response time
- Adjustment of signal processing functions and programming of outputs and functional inputs of the sensor
- Automatic emissivity adjustment
- The software PSC Connect allows to customize the sensor to application needs of the user

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