Scanning Mirror Adapter SC10

Temperature profile across a linear line

Temperature scanners for linear detection of measurement objects

- Peak temperature measurements over a wide scan area
- Measurement of thin wires
- Temperature detection of scale-free points on scaled metal surfaces
- Temperature detection measurement of hot spots
- Peak temperature detection of slabs, billets, steel strips

- Adapters available for all pyrometer models
- Gold-plated deflecting mirror for accurate measurement results
- Signal processing via analog output or serial interface of the pyrometer
- Adjustable scan frequency from 0.2 to 2 Hz or 2 to 10 Hz (switchable)
- Adjustable scan angle from 0 to 12°
- Can be combined with a variety of pyrometer models for numerous applications
- Robust construction designed for 24/7 continuous operation
- Optional cooling plate for use in harsh conditions

Maximum Possible Temperature Detection

Fixed aligned pyrometers often fail to capture the maximum temperature of objects being scanned because the target may move out of the IR sensor's field of view, or cold parts (e.g. scale) on the surface that come into view. Therefore an accurate temperature measurement result is not displayed. An **SC10** scanner is designed to detect and display the maximum (peak value) temperature of a target being scanned.

■ For alignment onto the measuring object, laser targeting is used
■ The length of the scan line at 12° scanning angle corresponds to about 20% of the measuring distance
■ The optical path from the pyrometer's optics to the scanner window must be included with the distance from the pyrometer to the product when calculating the measuring distance.
■ At high scanning speeds fast pyrometers should be used (response time no slower than 1 ms)

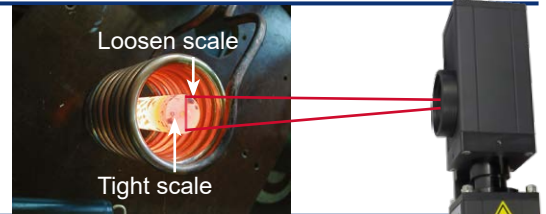|	
Adjustable scan angle	0–12°
Adjustable scan frequency	0.2–2 Hz 2–10 Hz
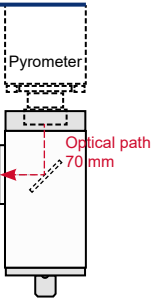
Typical Application

If, for example, steel is heated up to 900°C in an oxidizing environment, the formation of scale can cause dark spots on the glowing material that will have a lower surface temperature.

Loosen scale

Tight scale

Technical Data

Scan angle	0–12° (±6° from the center position), continuously adjustable
Scan frequency	0.2 to 2 Hz or 2 to 10 Hz, switchable, continuously adjustable
Power supply	15 to 30 V AC/DC, 0.7 VA
Protection class	IP65 (with mounted pyrometer)

Weight	0.6 kg
Dimensions (HxWxD)	61 x 70 x 130 mm
Ambient temperature	0 to 70°C (storage temp. -20 to 85°C)
Rel. humidity	No condensing conditions
CE label	According to EU directives for electromagnetic immunity

Recommended Accessories

AL15 / AL17	Connection cable for pyrometer and scanner (available in 5 m steps), AL15 with 12-pin right angle connector + laser push button / AL17 with 12-pin right angle connector
AM15 / AM17	Connection cable for pyrometer (available in 5 m steps) and scanner, 1 m interface cable. AM15 with 12-pin right angle connector + laser push button / AM17 with 12-pin right angle connector
WB (wiring box)	Preassembled connection kit with desktop power supply, connecting cables and interface converter
AK30	Separate scanner connection cable (available in 2 and 5 m)
HA10 / HA21	Mounting angle / swivel mounting base for scanner with pyrometer
BL12	Air purge accessory
KG22	Water cooled front plate
NG12	DIN-rail power supply 24 V DC / 1.6 A

Reference numbers

Protection window and suitable pyrometer models	Pyrometer series: Metis with manual focusable optics	Metis with motorized / fixed focus optics	Metis with fiber optics OL25 / OQ25	Sirius / Polaris
Borosilicate for pyrometer models Metis M3/H3: 09/11/16/18/22, MP23, Sirius SS09, SI16/23, Polaris PS09, PI16	SC10-41	SC10-61	SC10-71	SC10-51
Sapphire (extremely scratch resistant) for pyrometer models Metis M3/H3: 09/11/16/18/22, MP23/25, MB35, MY34/39/45/46, Sirius SS09, SI16/23, Polaris PS09, PI16	SC10-44	SC10-64	–	–
Calcium fluoride for pyrometer models Metis MB35, MP25, MY34/39/45/46/47/51/80/81	SC10-42	SC10-62	–	–
Zinc sulfide for pyrometer model MY84	SC10-43	SC10-63	–	–

Sensortherm reserves the right to make changes in scope of technical progress or further developments.