LAND®

AMETEK®

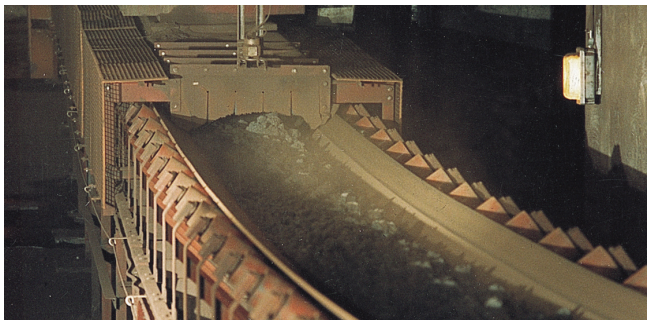


SOLONET

Intelligent compact digital thermometer

A compact digital infrared thermometer, the cutting-edge SOLOnet series offer users versatility and value in a wide range of temperature monitoring applications.
Suitable for stand-alone, single-point or multi-point installations, SOLOnet is easily customised to meet precise measurement and control requirements that help improve product quality, maximise process efficiency and reduce operational costs. SOLOnet's compact design and assortment of protective mountings make it ideal for many tight space requirement applications.
SOLOnet thermometers display live temperature data on a PC, or with direct messaging via Ethernet or RS485, for easy configuration and responsive control. SOLOnet also features industry standard 0-20 or 4-20mA outputs that can be scaled to any span within the overall temperature range of the thermometer.
SOLOnet thermometers utilise addressable RS485 communications. With this, a thermometer can communicate either directly with an external customer device or with the optional Land SOLOnet Interface Unit SN-W/E.
SN-W/E manages and converts the thermometer's RS485 messaging so that the user can:
•Assign the SN-W/E an IP address, integrate it within the organisational network and communicate with it via Ethernet messaging
•Change the position of the front-panel mounted switch and communicate 'straight through' with addressable RS485
Current and contact-closure I/O is also fitted to each SOLOnet thermometer as standard and this can be accessed directly or via the SN-W/E customer terminals

Easy to install, easy to monitor, SOLOnet infrared thermometers are suitable for a wide range of manufacturing and processing industries, including Aluminium, Glass, Industrial Processing, Minerals and Steel.

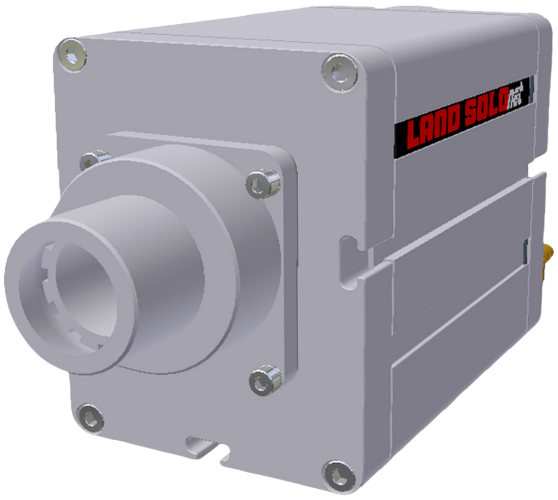


FEATURES & BENEFITS

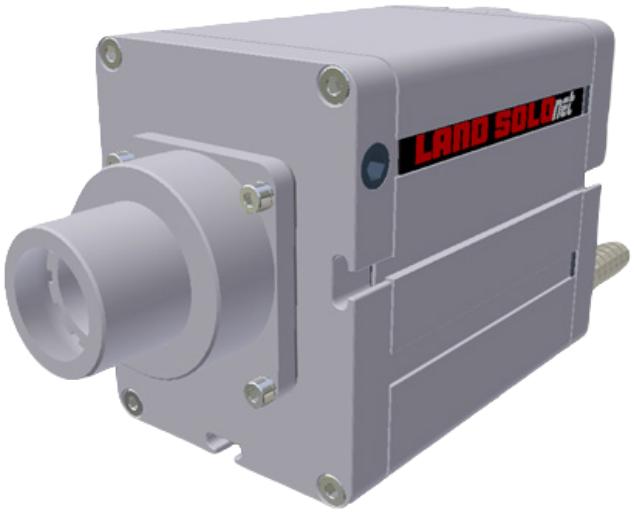
- **Out of the box flexibility** SOLOnet offers OEMs, system builders and end users virtually limitless flexibility of choice making system integration simpler and easier than before.
- **Varied control** An optional DIN-rail mounted SOLONet Ethernet Interface Unit provides the user with a wide choice of configuration, interconnection, system monitoring and maintenance options.
- **Changeable optics** Field changeable optics are offered without need to recalibrate or any additional parts
- **Results you can trust** With cost-effective, reliable measurements, SOLOnet offers the choice of built-in peak picker, track and hold, or average signal processing functions for the accurate monitoring of difficult or complex processes.
- **Low maintenance** A sapphire window is standard on all models
- **Traceability** Calibrated to National Standards offering peace of mind temperature accuracy.

See degrees differently.

THERMOMETER MOUNTINGS AND ACCESSORIES

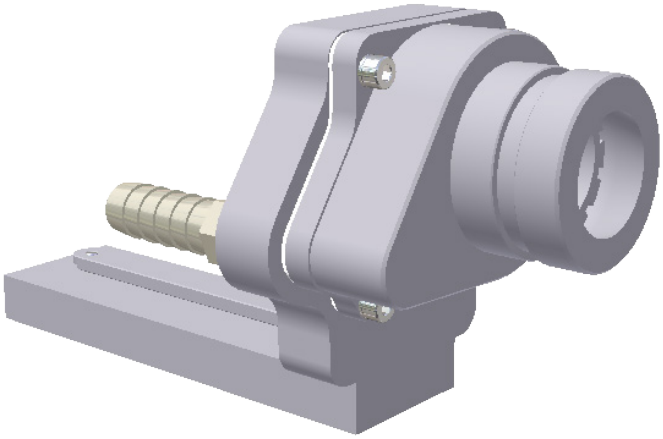


Air cooled protection jacket with air purge.

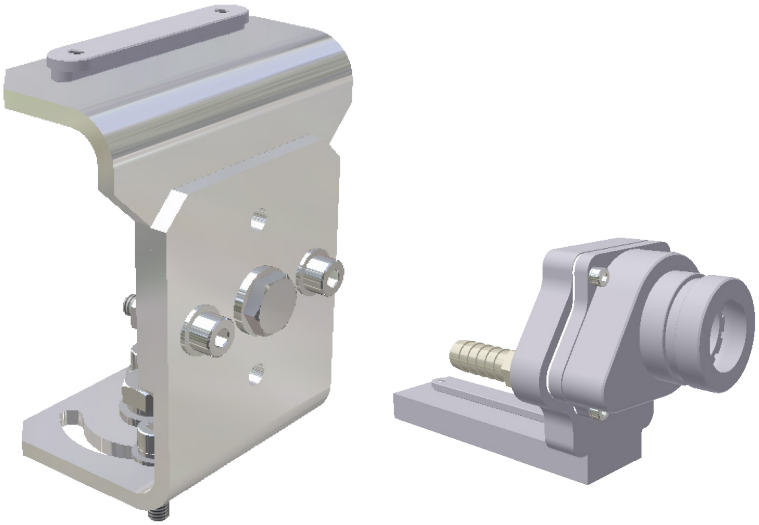


Water cooled protection jacket with air purge.

For use in ambient temperatures exceeding 60°C/140°F or where radiant heat levels are high.



Mounting plate with air purge for use in ambient temperatures up to 60°C/140°F.

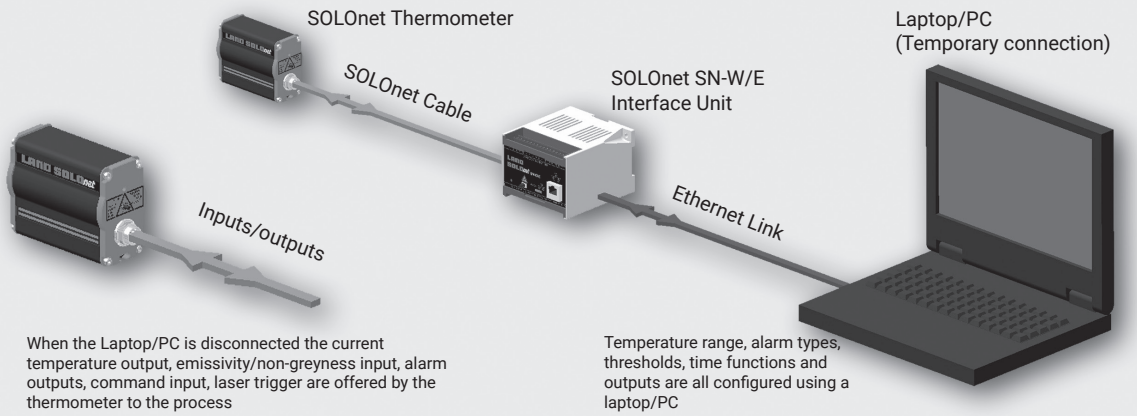


Dual and single axis mounting brackets for adjustable sighting.

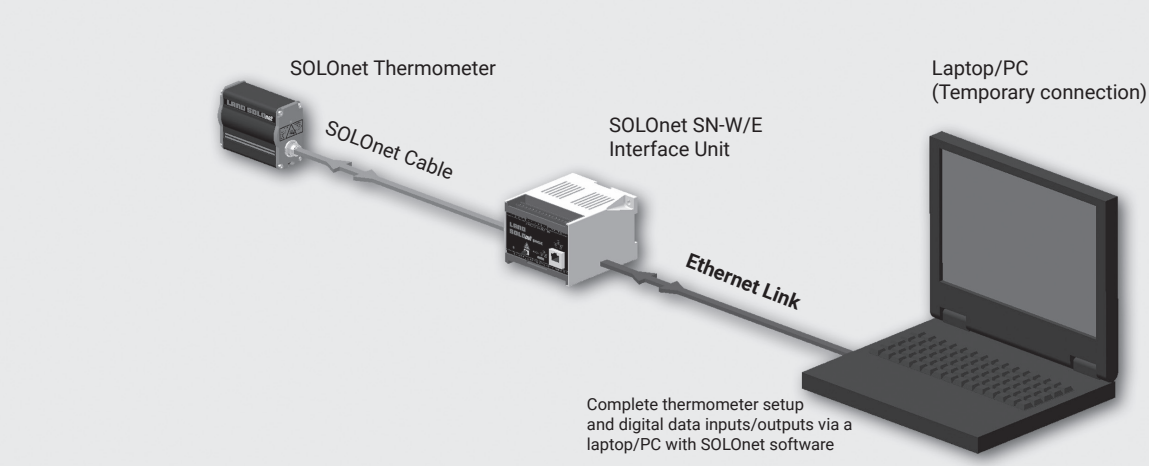
CONFIGURATIONS

The following diagrams are only intended to give a range of examples illustrating the flexibility of SOLOnet connectivity.
If your application differs from those illustrated please contact us for information on how SOLOnet can be configured to suit your specific requirements.

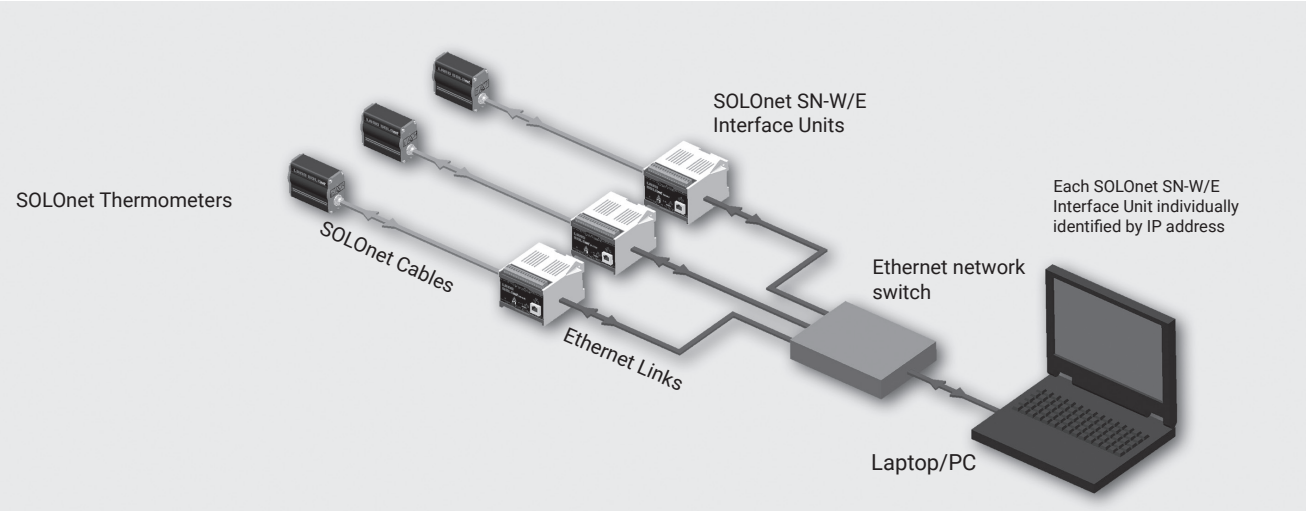
SIMPLE STAND ALONE SYSTEM



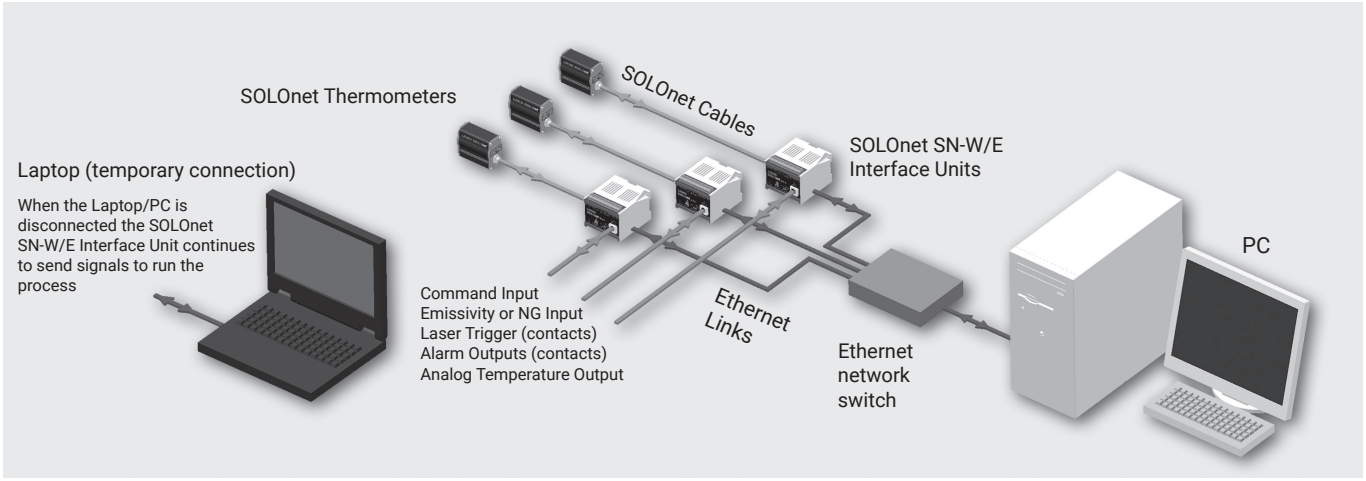
SINGLE THERMOMETER SYSTEM FOR PROCESS MONITORING



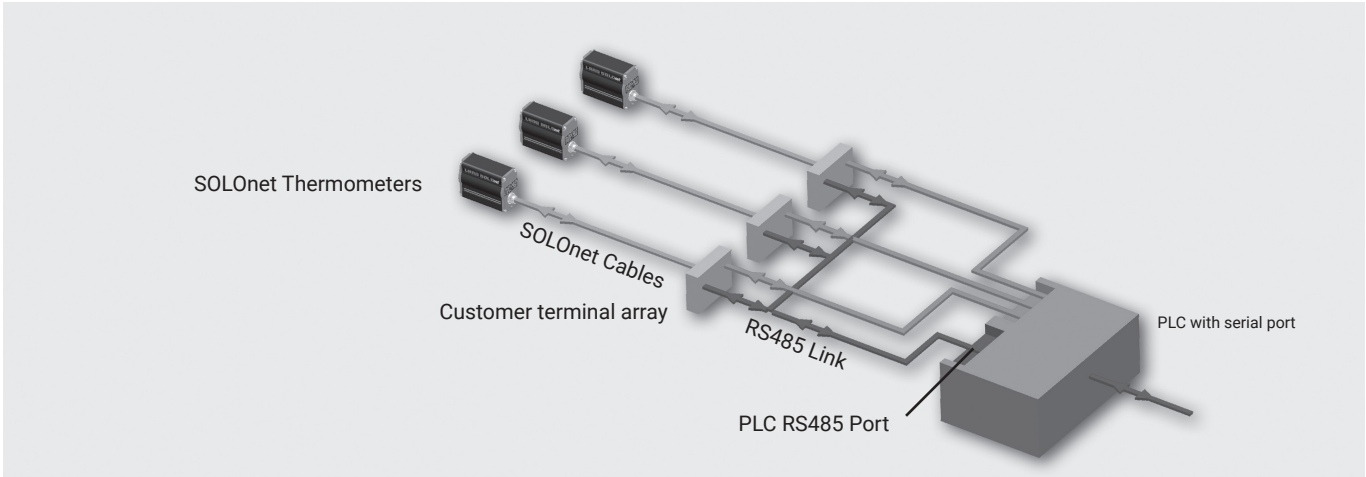
MULTI POINT SYSTEM FOR PROCESS MONITORING



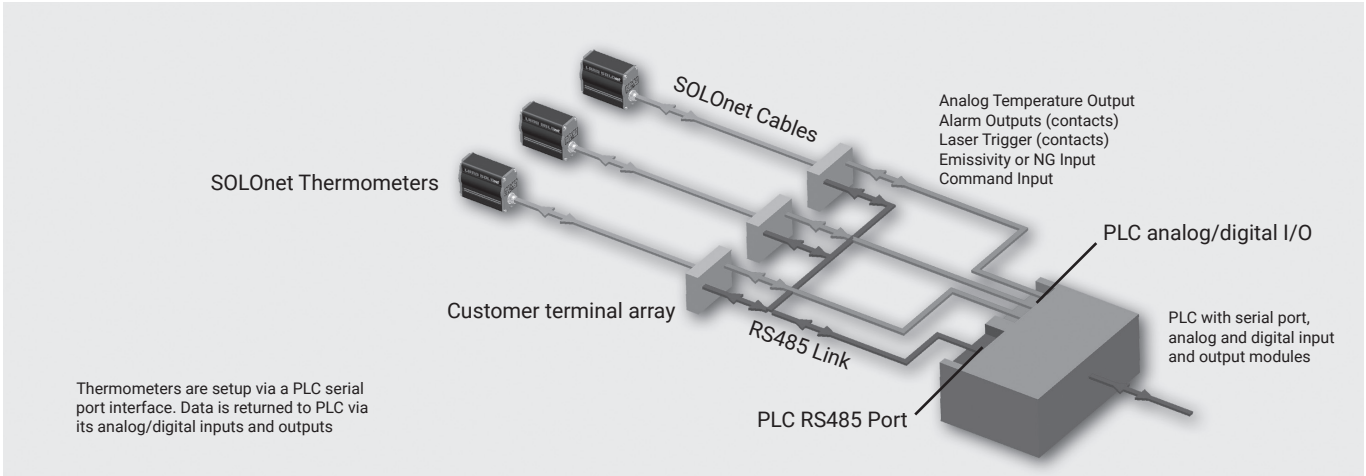
MULTI POINT SYSTEM USING DIGITAL AND ANALOG PLC



MULTI POINT SYSTEM USING DIGITAL PLC OR DATA ACQUISITION SYSTEM



MULTI POINT SYSTEM USING DIGITAL AND ANALOG PLC



SOLONET APPLICATIONS

Model	Temperature	Typical applications
SN11	550 to 1750°C/ 1022 to 3182°F	Heat treatment, forging, welding, induction heating, soldering, hardening, chain annealing, ceramics, glass gobs, sub surface glass
SN21	250 to 1300°C/ 482 to 2372°F	Heat treatment, preheating, induction heating, welding, hardening, annealing, non ferrous metals moulding, aluminium welding, glass moulds
SN51	200 to 1100°C/ 392 to 2012°F	Toughening/tempering, annealing, automotive glass, architectural/decorative glass, glass containers, forming, stem/base seal, pinch seal, sealex machine, phosphor coating, curing exit
SNR1	700 to 1750°C/ 1292 to 3182°F	Forging, welding, induction heating, soldering, hardening, chain annealing, heat treating, pipe bending, precious metals melting, automotive components, lamp wire draw and anneal, lamp black glass drop

SPECIFICATIONS

	SN11	SN21	SN51	SNR1
Operating range:	550 to 1750 °C / 1022 to 3182 °F	250 to 1300 °C / 482 to 2372 °F	200 to 1100 °C / 392 to 2012 °F	700 to 1750 °C / 1292 to 3182 °F
Specified range:	600 to 1750 °C / 1112 to 3182 °F	300 to 1300 °C / 572 to 2372 °F	250 to 1100 °C / 482 to 2012 °F	750 to 1750 °C / 1382 to 3182 °F
Spectral range:	1 µm	1.6 µm	5 µm	1 µm ratio
Field of View (95% Energy):	100:1	100:1	50:1	100:1
Focusing:	Fixed, user configurable focus: 250mm/9.8in, 500mm/19.7in, 1000mm/39.4in and infinity			
Output:	0 or 4 to 20mA user selectable (isolated 50V)			
Response Time (0 to 90%):	10 ms	10 ms	50 ms	10 ms
Emissivity:	0.10 to 1.00			
Non Greyness:	0.80 to 1.25			
Resolution (Mid Range):	<1 K			
Stability:	0.2 °/°	0.2 °/°	0.02 %K/K	0.05 K/K
Accuracy (Absolute):	0.3 %K	2 K	0.35 %K	0.6 %K
Time Functions:	Peak picker, track and hold, and averager			
Alarm Outputs:	Process high, process low, internal temperature, emissivity/NG signal lost, insufficient signal			
(SNR1 Only):	Rated to 50 V d.c., 0.1 A non-inductive, NO or NC – software selectable			
Optional Sighting:	Laser defining optical axis; class 2, 1 mW, 650 nm, 120s ON duration, automatic switch-off			
Ambient Limits:	5 to 60 °C/41 to 140 °F specified; 0 to 70 °C/32 to 158 °F operating			
EMC:	EN 61326:1999 (immunity and emission)			
Sealing:	IP65/NEMA 4X			
Vibration:	3g (10 to 300Hz)			
Power Supply:	18 to 30V d.c. (24V d.c. nominal)			
Optional Accessories:	Air cooled/purged jacket, water cooled/air purged jacket, air purge and mounting bracket, 1-axis and 2-axis adjustable mounting brackets, 3m, 15m, 25m prewired cable assemblies, Ethernet Interface Unit SN-W/E, d.c. power supply unit, temperature indicator unit LMi			

LAND® AMETEK®

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We are fully committed to Quality Assurance. See all our accreditations at **AMETEK-LAND.COM/QUALITY**

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