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DATA SHEET



Si-RM13

Combined manifold with smart wireless probes and 2-channel by-pass

DEVICE KEY FEATURES

Smart wireless manifold probes for pressure and temperature measurements in a refrigeration system.

- Light and curved design for easy plug-in to facilities
- Dual valve system for simultaneous measurement and charge/discharge of refrigerant
- Built-in Schrader® cores for easy refrigerant charging
- Range up to 60 bar (870 psi)
- Reduce the use of cumbersome hoses
- Overmoulding for easy handling and protection
- Two temperature clamps
- Long range wireless connection 4.2 low energy



Si-Manifold app



2-channel manifold body (by-pass type) with flexible hoses and a full aluminium body designed for safety and perfect fit.

- 3 x 1/8" NPT 1/4" SAE connectors (1 with Schrader® valve to perform charging)
- Valve with obturator
- "Y" connections to screw hose ends
- Anti-rotation resistant hook
- Liquid indicator
- 100% of parts are tightness tested

SI-MANIFOLD APP KEY FEATURES

General features

- Clear interface for easy reading in any condition
- Gauge, table or graphic visualizations
- Creation of measurements report with possibility to add pictures
- Report exportation in PDF, CSV and XML formats
- Data logging
- Chronometer function
- Free app for iOS and Android devices
- Minimum required versions: Android 4.4, IOS 8.0, BLE 4.0

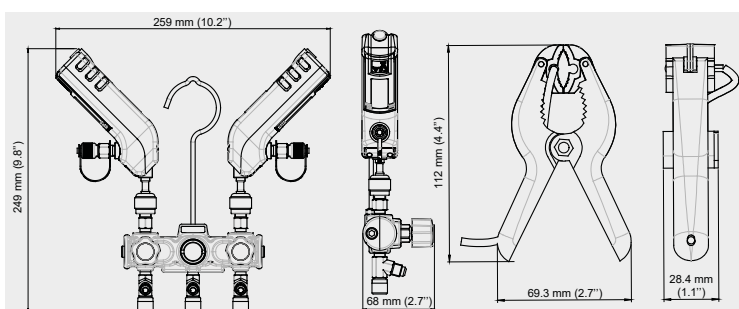
Manifold features

- Superheat and subcooling real time calculation
- Configuration of superheat/subcooling target values
- Heating and cooling functions
- 126 refrigerant gases with favorite list

Vacuum features

- Vacuum measurement function
- Configuration of vacuum target value
- Temperature of water evaporation

DEVICE DIMENSIONS



HOUSING

Control	1 on/off button
Material	Pressure gauges: ABS – PC and thermoplastic elastomer Temperature clamps: polyamid 6.6 Manifold body: anodized aluminium
Batteries power supply	3 alkaline AAA 1.5 V batteries
Protection	IP 54

TECHNICAL FEATURES

Pressure	
Pressure valves	2 valves
Measuring range	From -1 to 60 bar (-14 to 870 psi)
Pressure sensing accuracy*	±0.5% of full scale
Available units	psi, MPa, kPa, bar, Foot of head
Resolution	0.1 psi, 0.001 MPa, 1 kPa, 0.01 bar, 1 foot of head
Overload	65 bar (943 psi)
Burst pressure	150 bar (2175 psi)
Operating temperature (handle)	From -20 to 50°C (-4 to 122°F)
Storage temperature (handle)	From -20 to 60°C (-4 to 140°F)
Temperature	
Number of probe	2 clamp probes
Temperature sensors	High accuracy NTC thermistors
Temperature sensor range**	From -40 to 150°C (-40 to 302°F)
Temperature accuracy*	±1.3°C (±2.4°F)***
Maximum operating temperatures	Jaws: 150°C (302°F) - Cable: 105°C (221°F) - Handle: 90°C (194°F)
Available units	°C, °F, K
Resolution	0.1°C, 0.1°F, 0.1 K
Pipes diameter	From 6 to 42 mm (0.2" to 1.7")
Cable	2 m (6 ft) length with strengthened 3-point Jack connector, Ø3.2 mm, in PVC, max. temperature 105°C (221°F)
Operating temperature	From -20 to 50°C (-4 to 122°F)
Storage temperature	From -20 to 60°C (-4 to 140°F)
Device	
Environmental conditions of use	Hygrometry: in non-condensing condition (< 80% RH) Maximum altitude: 2000 m (6561') Non-corrosive or combustible gases
Battery life	250 h (for one measurement every seconds @ 20°C / 68°F)
Wireless connection	Class 1 BLE 4.2
Wireless connection range	Up to 30 m (98 ft) - Depending on smartphone and tablet wireless connection radio strength.
Superheat and sub-cooling	Automatically calculated by the Manifold app
Refrigerant database	126 refrigerant gases. Measurable products: CFC, HFC, HCFC, N, CO ₂ , H ₂ O (see the complete list on the user manual)
Connections	To installation: female 1/4" FFL with Schrader® depressor To flexible: male 1/4" MFL with Schrader® valve
Standards	2011/65/EU RoHS II; 2012/19/EU WEEE; 2014/30/EU EMC; 2014/53/EU RED

* All accuracies specified in this document were conducted under laboratory conditions & can be guaranteed for measurement carried out in the same conditions, or carried out with calibration compensation.




** The temperature concerns the sensors operating range, do not use the handle or cables outside the indicated temperature.


*** The temperature accuracy is given for the -20 to 80°C / -4 to 176°F range.

KIT CONTENT

- 2 pressure probes. Ref: Si-RM1
- 2 temperature probes. Ref: Si-RM2
- 1 manifold body. Ref: ACC25561
- Set of three flexible hoses of 1 m (39") length with stop valves. Ref: ACC25831
- Adjustment certificate
- Simplified User Manual
- 6 AAA batteries
- Elastomer rings
- Robust transport case. Ref: ACC25563

ACCESSORIES

Designation	Sales reference	Description	Illustration
ACC25830	25830	Set of two connectors for R410A and R32 gas. 1/4" MFL to 5/16" FFL.	
Si-RM5	26140	Velcro® temperature probe for large diameter pipes. The Si-RM5 temperature probe works with the Si-RM1 smart wireless manifold probe to calculate superheat and subcooling. Measuring range: from -40 to 150°C. Cable: 2 m length with strengthened Jack connector.	
Si-RM6	26141	Extension cable for Si-RM2 and Si-RM5 probes. 5 m length.	

 Only the accessories supplied with the device must be used.

CLEANING

A cleaning is possible with isopropyl alcohol.

PRECAUTIONS FOR USE

Please always use the device in accordance with its intended use and within parameters described in the technical features in order not to compromise the protection ensured by the device.

FT_EN – Si-RM13 – 05/02/24 – Non-contractual document – We reserve the right to modify the characteristics of our products without prior notice.