

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 low energy



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

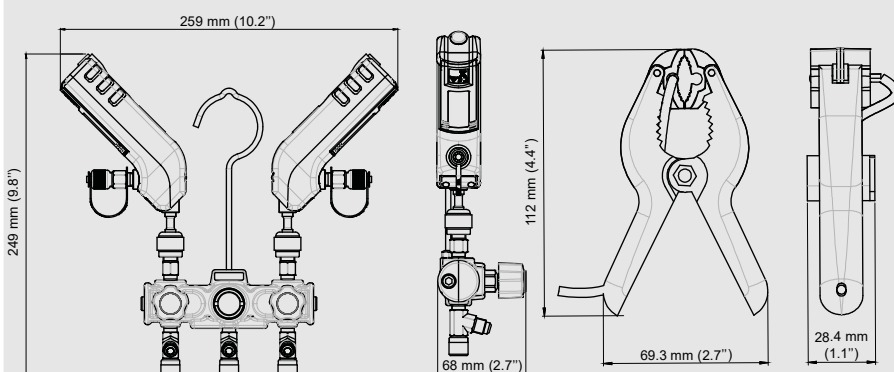
Manifold features

- 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

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

*See warranty.sauermanngroup.com for conditions

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 length with strengthened Jack connector 3 points, 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 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 subcooling	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 ¼" FFL with Shrader® depressor To flexible: male ¼" MFL with Shrader® 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 accuracy is given for the -20 to 80°C range (-4 to 176°F).

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*



OPTIONS

Option	Ref.	Illustration
Adaptation connector for R410 gas	ACC25830	
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-RM5	
Extension cable for Si-RM2 and Si-RM5 probes. Cable: 5 m length.	Si-RM6	



We recommend to use only accessories in compliance with the indicated manufacturer features.

CLEANING

A cleaning is possible with isopropyl alcohol.

WARRANTY

Devices have an additional 1-year manufacturer warranty. See conditions on warranty.sauermanngroup.com

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.