

## Si-RM3

# Smart wireless manifold P/T probes with dual valves

**Test Equipment Depot**  
1-800-517-8431


99 Washington Street  
Melrose, MA 02176  
Phone 781-665-1400  
Toll Free 1-800-517-8431

Visit us at [www.TestEquipmentDepot.com](http://www.TestEquipmentDepot.com)



### 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 Bluetooth® 4.2 low energy  **Bluetooth®**



### 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, Bluetooth® 4.0

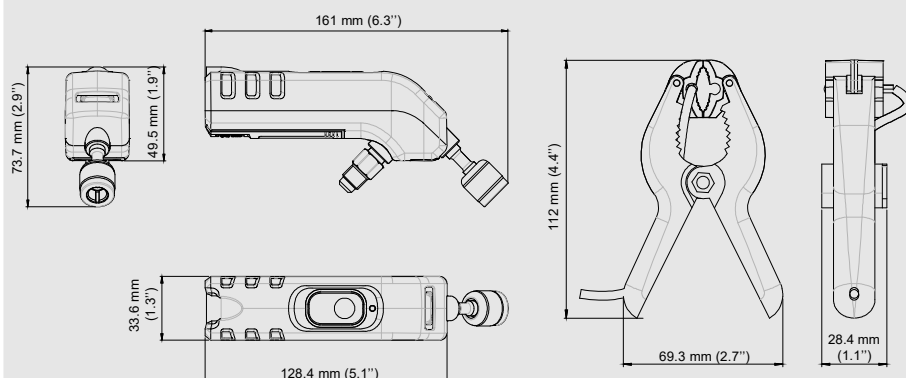
#### Manifold features

- 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

#### Weight

560 g (4.8 oz)

#### Control

1 on/off button

#### Material

Pressure gauges: ABS – PC and thermoplastic elastomer  
Temperature clamps: polyamid 6.6

#### 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 Ø2.5 mm Jack connector<br>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 (< 80% RH)<br>Maximum altitude: 2000 m (6561')<br>Non-corrosive or combustible gases                    |
| Battery life                    | 250 h (for one measurement every seconds @ 20°C / 68°F)   |
| Bluetooth®                      | Class 1 Bluetooth® 4.2  |
| Bluetooth® range                | Up to 30 m (98 ft) - Depending on smartphone and tablet Bluetooth® radio strength.  |
| Superheat and subcooling        | Automatically calculated by the Manifold app  |
| Refrigerant database            | 126 refrigerant gases. Measurable products: CFC, HFC, HCFC, N, CO <sub>2</sub> , H <sub>2</sub> O<br>(see the complete list on the user manual) |
| Connections                     | To installation: female ¼" FFL with Schrader® depressor<br>To flexible: male ¼" 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*
- Adjustment certificate
- Simplified User Manual
- 6 AAA batteries
- Elastomer rings
- Soft case. *Ref: Si-RM4*



## OPTIONS

| Option   | Ref.     | Illustration |
|--|----------|--------------|
| Set of three flexible hoses of 1m length (39") with stop valves  | ACC25831 |              |
| Adaptation connector for R410 gas  | ACC25830 |              |
| Velcro® temperature probe for large diameter pipes.<br>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. 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 a 1-year manufacturer extended warranty. See conditions on [warranty.sauermannngroup.com](http://warranty.sauermannngroup.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.