MCS-XV is the new Presys advanced multifunction field calibrator and HART® communicator combining multiple software and hardware resources as well as communication features to achieve productivity gains in day-to-day calibration operation.

MCS-XV Portable Version

Direct Printing of Calibration Report (pass / fail) (PDF or connected USB printer)

MCS-XV Rack Mounting Version

For use in 19" rack

MCS-XV Desktop Version

Model
- MCS-XV - Universal Process Calibrator
  - MCS-XV-RM - Universal Process Calibrator Rack Mounting Version
  - MCS-XV-DT - Universal Process Calibrator Desktop Version

Hart Communication
- NH: No Hart Communication
- CH: Hart Calibrator (basic commands: zero, span, trim mA)
- FH: Full-Hart Configurator, with DD library from FieldComm Group and one-year upgrade.

Number of Pressure Inputs
- 0: no pressure sensors
- 1: one sensor
- 2: two sensors
- 3: three sensors
- 4: four sensors

Pressure Type
- A: Absolute
- C: Compound
- G: Gage
- V: Vacuum
- D: Differential

Input 1
- RESOLUTION
- ACCURACY
- REMARKS
- (0) 0 – 250 mmH O
- 0.0001
- ± 0.05 % FS

Input 2
- RESOLUTION
- ACCURACY
- REMARKS
- (1) 0 – 1 psi
- 0.0001
- ± 0.05 % FS

Input 3
- RESOLUTION
- ACCURACY
- REMARKS
- (2) 0 – 5 psi
- 0.0001
- ± 0.05 % FS

Input 4
- RESOLUTION
- ACCURACY
- REMARKS
- (3) 0 – 15 psi
- 0.0001
- ± 0.05 % FS

Input 5
- RESOLUTION
- ACCURACY
- REMARKS
- (4) 0 – 30 psi
- 0.0001
- ± 0.05 % FS

Input 6
- RESOLUTION
- ACCURACY
- REMARKS
- (5) 0 – 100 psi
- 0.0001
- ± 0.05 % FS

Input 7
- RESOLUTION
- ACCURACY
- REMARKS
- (6) 0 – 250 psi
- 0.0001
- ± 0.05 % FS

Input 8
- RESOLUTION
- ACCURACY
- REMARKS
- (7) 0 – 500 psi
- 0.0001
- ± 0.05 % FS

Input 9
- RESOLUTION
- ACCURACY
- REMARKS
- (8) 0 – 1000 psi
- 0.0001
- ± 0.05 % FS

Input 10
- RESOLUTION
- ACCURACY
- REMARKS
- (9) 0 – 3000 psi
- 0.0001
- ± 0.05 % FS

Input 11
- RESOLUTION
- ACCURACY
- REMARKS
- (10) 0 – 5000 psi
- 0.0001
- ± 0.05 % FS

Input 12
- RESOLUTION
- ACCURACY
- REMARKS
- (11) 0 – 10000 psi
- 0.0001
- ± 0.05 % FS

Input 13
- RESOLUTION
- ACCURACY
- REMARKS
- (12) Others on request
- 0.001
- ± 0.05 % FS

Optional (Only for version with up to three sensors)
- BR - Barometric Reference (15 psia)
  Sensor for ambient pressure measurement. Can be used for simulated indication of absolute pressure on the other sensors.

Accuracy values are valid within a year and for a temperature range between 20 and 26 °C. Outside these limits add 0.005 % FS / °C, taking 23 °C as the reference temperature.

Engineering units:
- Temperature: °C, °F, K, °R; Pressure: psi, bar, mbar, MPa, kPa, atm, mmH2O@4°C, cmH2O@4°C, ftH2O@4°C, inH2O@4°C, inH2O@60°F, torr, mmHg@0°C, cmHg@0°C, inHg@0°C, inHg@60°F, gf/cm2, kgf/cm2, kgf/m2.

Pneumatic Connection:
- 1/4" NPTF (Note: 1/8" NPTF only for range 0 - 10000 psi).

Overpressure:
- up to twice the sensor full scale pressure (for capsules to 5000 psi).

Dimensions:
- Portable: 140 mm x 250 mm x 80 mm (HxWxD)
- Desktop: 132 mm x 308 mm x 275 mm (HxWxD)
- Rack Mounting: 132 mm x 483 mm x 160 mm (HxWxD).

Weight:
- Portable: 2.6 kg approx.
- Desktop: 3.0 kg approx.
- Rack Mounting: 2.0 kg approx.

Warranty:
- 1 year, except for battery.

Included accessories:
- Technical manual;
- Carrying bag (only for portable version);
- Set of test leads;
- Fuse;
- Charger 100 - 240 VAC 50/60Hz (only for portable version).

Optional accessories:
- Temperature Sensor: Probe 1/5 DIN R - Order code: 04.06.0102-21;
- Probe 1/5 DIN A - Order code: 04.06.0107-21;
- Set of test leads;
- Fuses;
- Charger 100 - 240 VAC 50/60Hz (only for portable version).
Universal Process Calibrator
MCS-XV

- Operates all instrumentation signals: electrical, temperature, frequency and pressure.
- Up to four pressure sensors from 250 mmH2O to 10,000 psi.
- Optional Barometric Reference.

- Touch Screen display provides easy-to-read data and showing 2 simultaneous variables.
- Intuitive menu navigation helps in identifying calibrator information for any operational mode.

- Full Hart configurator (optional), which configures all available HART® devices, with DD library from FieldComm Group.
- 24 Vdc power supply for 2-wire transmitters, 250 £Ω internal resistor configurable.

- Data Logger function for data acquisition and graphical visualization.
- Ethernet, Wi-Fi, Pen drive, Hart, USB connection Host / Device.

- Automated calibrations and generation of calibration report on direct connected USB printer or generation of PDF file.

Technical Specifications

Specifications - Inputs

<table>
<thead>
<tr>
<th>Input Ranges</th>
<th>Resolution</th>
<th>Accuracy</th>
<th>Remarks</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 mA to 100 mA</td>
<td>±0.001 mA</td>
<td>±0.1 °C/°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 mA to 20 mA</td>
<td>±0.005 mA</td>
<td>±0.5 °C/°F</td>
<td></td>
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<tr>
<td>-10 °C to 100 °C</td>
<td>±0.1 °C</td>
<td>±0.1 °C/°F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifications - Outputs

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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>0 mA to 100 mA</td>
<td>±0.01 mA</td>
<td>±0.1 °C/°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 mA to 200 mA</td>
<td>±0.05 mA</td>
<td>±0.5 °C/°F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


www.dm-sensors.de
Universal Process Calibrator
MCS-XV

- Operates all instrumentation signals: electrical, temperature, frequency and pressure.
- Up to four pressure sensors from 250 mmHg to 10,000 psi.
- Optional Barometric Reference.
- Touch Screen display provides easy-to-read data and showing 2 simultaneous variables.
- Intuitive menu navigation helps in identifying calibrator information for any operational mode.
- Full Hart configurator (optional), which configures all available HART® devices, with DD library from FieldComm Group.
- 24 Vdc power supply for 2-wire transmitters, 250 £Ω internal resistor configurable.
- Data Logger function for data acquisition and graphical visualization.
- Ethernet, Wi-Fi, Pen drive, Hart, USB connection Host / Device.
- Automated calibrations and generation of calibration report on direct connected USB printer or generation of PDF file.

Technical Specifications

### Specifications - Inputs

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<tbody>
<tr>
<td>0 to 10 mA</td>
<td>±0.03 mA</td>
<td>±0.08%</td>
<td>±0.03%</td>
</tr>
<tr>
<td>0 to 100 mA</td>
<td>±0.30 mA</td>
<td>±0.80%</td>
<td>±0.30%</td>
</tr>
<tr>
<td>0 to 1 mA</td>
<td>±0.30 mA</td>
<td>±0.80%</td>
<td>±0.30%</td>
</tr>
<tr>
<td>0 to 5 mA</td>
<td>±0.30 mA</td>
<td>±0.80%</td>
<td>±0.30%</td>
</tr>
<tr>
<td>0 to 100 mA</td>
<td>±0.30 mA</td>
<td>±0.80%</td>
<td>±0.30%</td>
</tr>
<tr>
<td>0 to 1000 mA</td>
<td>±0.30 mA</td>
<td>±0.80%</td>
<td>±0.30%</td>
</tr>
<tr>
<td>0 to 10 MHz</td>
<td>±0.01 Hz</td>
<td>±0.20%</td>
<td>±0.01 Hz</td>
</tr>
<tr>
<td>0 to 100 MHz</td>
<td>±0.10 Hz</td>
<td>±1.00%</td>
<td>±0.10 Hz</td>
</tr>
<tr>
<td>0 to 10 GΩ</td>
<td>±0.01 %</td>
<td>±0.20%</td>
<td>±0.01 %</td>
</tr>
<tr>
<td>0 to 1 MΩ</td>
<td>±0.01 %</td>
<td>±0.20%</td>
<td>±0.01 %</td>
</tr>
<tr>
<td>0 to 10 KΩ</td>
<td>±0.01 %</td>
<td>±0.20%</td>
<td>±0.01 %</td>
</tr>
<tr>
<td>0 to 1 MΩ</td>
<td>±0.01 %</td>
<td>±0.20%</td>
<td>±0.01 %</td>
</tr>
<tr>
<td>0 to 10 KΩ</td>
<td>±0.01 %</td>
<td>±0.20%</td>
<td>±0.01 %</td>
</tr>
<tr>
<td>0 to 10 KΩ</td>
<td>±0.01 %</td>
<td>±0.20%</td>
<td>±0.01 %</td>
</tr>
</tbody>
</table>

### Technical Specifications

- **W5Re / W26Re**
- **IEC-584**
- **IEC-584**
- **DIN-43760**
- **Minco 16-9**
- **DM-SENSORS**

- **DM-SENSORS**

### Outputs

<table>
<thead>
<tr>
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<th>Resolution</th>
<th>Accuracy</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10mA</td>
<td>±0.01mA</td>
<td>±0.2%</td>
<td>±0.01mA</td>
</tr>
<tr>
<td>0 to 100mA</td>
<td>±0.1mA</td>
<td>±0.2%</td>
<td>±0.1mA</td>
</tr>
<tr>
<td>0 to 1000mA</td>
<td>±1mA</td>
<td>±0.2%</td>
<td>±1mA</td>
</tr>
<tr>
<td>0 to 10 kHz</td>
<td>±0.01 Hz</td>
<td>±0.2%</td>
<td>±0.01 Hz</td>
</tr>
<tr>
<td>0 to 100 kHz</td>
<td>±0.1 Hz</td>
<td>±0.2%</td>
<td>±0.1 Hz</td>
</tr>
<tr>
<td>0 to 1 MHz</td>
<td>±0.1 Hz</td>
<td>±0.2%</td>
<td>±0.1 Hz</td>
</tr>
<tr>
<td>0 to 10 MHz</td>
<td>±1 Hz</td>
<td>±0.2%</td>
<td>±1 Hz</td>
</tr>
<tr>
<td>0 to 1 GΩ</td>
<td>±1 %</td>
<td>±0.2%</td>
<td>±1 %</td>
</tr>
</tbody>
</table>

- **IEC-584**
- **IEC-751**
- **IEC-751**
- **IEC-584**
- **IEC-584**

- **DM-SENSORS**

The values of accuracy cover one year period for a temperature range between 20 and 80 °C. Outside this range, the thermal stability is ±0.001% / °C with reference to 25 °C. When operating with wide load conditions, the output voltage changes due to warm-up and cold-down. The values are measured at the specified transmitter output and with a 100 Ω load.
Universal Process Calibrator

MCS-XV

www.mcsxv.com

MCS-XV is the new Presys advanced multifunction field calibrator and HART® communicator combining multiple software and hardware resources as well as communication features to achieve productivity gains in day-to-day calibration operation.

Order Code

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS-XV</td>
<td>Universal Process Calibrator MCS-XV Portable</td>
</tr>
<tr>
<td>MCS-XV-RM</td>
<td>Universal Process Calibrator MCS-XV Rack Mounting Version</td>
</tr>
<tr>
<td>MCS-XV-DT</td>
<td>Universal Process Calibrator MCS-XV Desktop Version</td>
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</table>

Hart Communication

NH: No Hart® Communication
CH: Hart Calibrator (basic commands: zero, span, trim mA)
FH: Full-Hart Configurator, with DD library from FieldComm Group and one-year upgrade.

Number of Pressure Inputs

| 0 | no pressure sensors |
| 1 | one sensor          |
| 2 | two sensors         |
| 3 | three sensors       |
| 4 | four sensors        |

Pressure Type

- G: Gage (Ranges 0 to 11)
- V: Vacuum (Only for range 3)
- C: Compound (Only for ranges 3 to 8)
- D: Differential (Only for ranges 0 to 2)

Pressure Type Input 1 (Only for version with one sensor or more)

- A: Absolute (Only for ranges 3 to 8)
- C: Compound (Only for ranges 3 to 8)
- G: Gage (Ranges 0 to 11)
- V: Vacuum (Only for range 3)
- C: Compound (Only for ranges 3 to 8)
- D: Differential (Only for ranges 0 to 2)

Pressure Type Input 2** (Only for version with two sensors or more)

Pressure Type Input 3** (Only for version with three sensors or more)

Pressure Type Input 4** (Only for version with four sensors)

Optional Accessory

BR: Barometric Reference (15 psia)

Sensor for ambient pressure measurement. Can be used for simulated indication of absolute pressure on the other sensors.

(*) Percentage of full scale
(**) Same code as input 1
(*** From -15 psi to full scale of range)

Accuracy values are valid within a year and for a temperature range between 20 and 26 °C. Outside these limits add 0.005 % FS / °C, taking 23 °C as the reference temperature.

Engineering units:
- Temperature: °C, °F, K, °R; Pressure: psi, bar, mbar, MPa, kPa, atm, inH2O@4°C, cmH2O@4°C, ftH2O@4°C, inH2O@60°F, torr, mmHg@0°C, cmHg@0°C, inHg@0°C, inHg@60°F, gf/cm2, kgf/cm2, kgf/m2.

Pneumatic Connection:
1/4” NPTF (Note: 1/8” NPTF only for range 0 - 10000 psi).

Overpressure:
up to twice the sensor full scale pressure (for capsules to 5000 psi).

Dimensions:
Portable: 140 mm x 250 mm x 80 mm (HxWxD) / Desktop: 132 mm x 308 mm x 275 mm (HxWxD) / Rack Mounting: 132 mm x 483 mm x 160 mm (HxWxD).

Weight:
Portable: 2.6 kg approx. / Desktop: 3.0 kg approx / Rack Mounting: 2.0 kg approx.

Warranty:
1 year, except for battery.

Included accessories:
- Technical manual;
- Carrying bag (only for portable version);
- Set of test leads;
- Fuse;
- Charger 100 - 240 VAC 50/60Hz (only for portable version).

Optional accessories:
- Temperature Sensor: Probe 1/5 DIN R - Order code: 04.05.0121;
- Probe 1/5 DIN A - Order code: 04.06.0107.21;
- Set of test leads;
- “Fex”;
- Charger 100 - 240V 50/60Hz (only for portable version).

Direct Printing of Calibration Report (pass / fail) (PDF or connected USB printer)