

## Model CR

### Hand-Held Pressure Measuring Gauge

CR hand-held instruments Series are bus-capable, one- or multi-channel devices, have an interface and are optionally available as data logger. Hand-held instruments CR series COMPACT Line can be used wherever fast and precise measured values at economical prices play an important role.



#### General

The best quality-cost benefit available in the market. The CR Series has a large configuration possibility, One device for any measuring range (-1000 mbar ... 1000 bar) Fully interchangeable pressure probes, Ex versions available.

Available Models:

**CR-3111** device with 1 sensor connection.

**CR-3111 - ex**  device with 1 sensor connection.

**CR-3151** device with 1 sensor connection, analog output and data logger

**CR-3156** device with 2 sensor connections, analog output and data logger

**CR-3151 - ex**  device with 1 sensor connection, analog output and data logger

**CR-3156 - ex**  device with 2 sensor connections, analog output and data logger

**CR-3161** – 002, 01, 07H, 07, 07B, 13 devices with 2 integrated sensors

**CR-3181** – 002, 01, 07H, 07, 07B, 13 devices with 2 integrated sensors and data logger

**CR-3161** – 12 device with 1 integrated sensor Absolute

**CR-3181** – 12 device with 1 integrated sensor Absolute and data logger

#### Features

- 4 ½ digits large display, higher resolution available depending on the probe connected.
- Peak value memory 1000 measurements / s.
- Available models with data-logger & analogue output 0-1 V.
- 1 or 2 sensors depending on the model
- Transducers for air and non aggressive gases available



- Tare function
- Min/Max pressure value
- Barometric option available
- RS232 or USB connection

## Technical Specification

- **Numbers of Digits:** 4 ½
- **Accuracy:** up to  $\pm 0,1$  % f.s.  
 $\pm 1$  digit (at temperature = 25°C) including linearity, repeatability and hysteresis
- **Working conditions** -25 ... +50 °C, 0 ... +95 % RH (non-condensing), CR- 315x-ex: -10 ... +50 °C, 0 ... 95 % RH (non-condensing)
- **Supply:** 9V battery, d.c. connector for external 10.5-12 V
- **Housing:** impact-resistant ABS plastic housing. Front side IP65 **CR 315x only:** pop-up clip for table top or suspended use
- **Dimensions: L x W x H:**  
142 x 71 x 26 mm
- **Weight:** 165 g to 210 g depending on the model

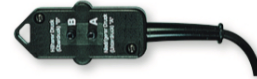
## Intrinsically safe version:

- **Ex Classification:**  
 II 2 G Ex ib IIC T4 Gb

**Special design type:**   
 Ex-protection (Ex II 2 G Ex ib IIC T4 Gb)  
 device type with Ex-protection

Model CI-X-13-090313-01  
 P-CR-E-1116-1

## PLASTIC PRESSURE SENSORS WITH TUBE CONNECTION



### Differential Pressures

(both pressures are connected) as well as for relative pressure measuring (pressure / vacuum, on terminal is left open)

| Range               | Resolution | Over press.    |
|---------------------|------------|----------------|
| -1.999 ÷ 2.500 mbar | 0.001 mbar | max. 200 mbar  |
| -19.99 ÷ 25.00 mbar | 0.01 mbar  | max. 300 mbar  |
| -199.9 ÷ 350.0 mbar | 0.1 mbar   | max. 1 bar     |
| -1000 ÷ 2000 mbar   | 1 mbar     | max. 4 bar     |
| -1.00 ÷ 10.00 bar   | 10 mbar    | max. 10.34 bar |

### Absolute Pressures

for absolute pressure measuring

| Range             | Resolution | Over press.        |
|-------------------|------------|--------------------|
| 0 ÷ 1300 mbar abs | 1 mbar     | max. 4 bar abs     |
| 0 ÷ 2000 mbar abs | 1 mbar     | max. 4 bar abs     |
| 0 ÷ 7 bar abs     | 10 mbar    | max. 10.34 bar abs |

## STAINLESS STEEL PRESSURE SENSORS



### Absolute Pressures

for absolute pressure measuring

| Range             | Resolution | Over press.     |
|-------------------|------------|-----------------|
| 0 ÷ 1000 mbar abs | 1 mbar     | max. 5 bar abs  |
| 0 ÷ 2500 mbar abs | 1 mbar     | max. 10 bar abs |
| 0 ÷ 4000 mbar abs | 1 mbar     | max. 17 bar abs |
| 0 ÷ 6000 mbar abs | 1 mbar     | max. 35 bar abs |
| 0 ÷ 10.00 bar abs | 10 mbar    | max. 35 bar abs |
| 0 ÷ 16.00 bar abs | 10 mbar    | max. 80 bar abs |
| 0 ÷ 25.00 bar abs | 10 mbar    | max. 50 bar abs |

### Relative Pressures

for relative pressure measuring (pressure / vacuum)

| Range             | Resolution | Over press. |
|-------------------|------------|-------------|
| 0.0 ÷ 100 mbar    | 0.1 mbar   | max. 1 bar  |
| 0.0 ÷ 250 mbar    | 0.1 mbar   | max. 2 bar  |
| 0.0 ÷ 400 mbar    | 0.1 mbar   | max. 2 bar  |
| -1000 ÷ 1500 mbar | 1 mbar     | max. 10 bar |
| -1000 ÷ 3000 mbar | 1 mbar     | max. 17 bar |
| 0 ÷ 1000 mbar     | 1 mbar     | max. 5 bar  |
| 0.0 ÷ 2500 mbar   | 1 mbar     | max. 10 bar |
| 0.0 ÷ 6000 mbar   | 1 mbar     | max. 35 bar |
| 0.0 ÷ 10 bar      | 10 mbar    | max. 35 bar |
| 0.0 ÷ 25 bar      | 10 mbar    | max. 50 bar |



|               |         |               |
|---------------|---------|---------------|
| 0.0 ÷ 40 bar  | 10 mbar | max. 80 bar   |
| 0.0 ÷ 160 bar | 0.1 bar | max. 320 bar  |
| 0.0 ÷ 400 bar | 0.1 bar | max. 800 bar  |
| 0 ÷ 1000 bar  | 1 bar   | max. 1500 bar |

\*other ranges on request

## PRESSURES FOR INTEGRATED SENSOR DEVICES



**Over / Under, Differential & Absolute Pressures**  
pressure measuring (pressure / vacuum)

| Range              | Resolution | Over press.    |
|--------------------|------------|----------------|
| -500.0 ÷ 500.0 Pa  | 0.1 Pa     | max. 250 hPa   |
| -1.00 ÷ 25.00 mbar | 0.01 mbar  | max. 100 mbar  |
| -1.00 ÷ 70 mbar    | 0.01 mbar  | max. 100 mbar  |
| -10.0 ÷ 350.0 mbar | 0.1 mbar   | max. 1 bar     |
| -10 ÷ 420 mbar     | 0.1 mbar   | max. 1 bar     |
| -100 ÷ 2000 mbar   | 1 mbar     | max. 4 bar     |
| 0 ÷ 1300 mbar abs  | 1 mbar     | max. 4 bar abs |

## Scope of delivery

- Pressure gauge CR
- Calibration report
- Instruction manual

## Ex version

- Device with associated leather case.



## Accessories and Options

- Connection cable mod. K31, screened with integral 6 pin mini DIN plug and M16-socket (IP 54), length 1.2 m
- Carrying case
- Plug-in power supply
- Interface converter RS-232
- Interface converter USB
- Accredited Calibration Certificate
- Complete solution includes Device, Case and accredited certificate



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We reserve the rights to alter at any time the technical specifications without notice.



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