

## Pressure transmitter PASCAL Ci4 for general application, Type series CI4100



### Application area

- Machinery construction
- Chemical and petrochemical industry
- General process technology

### Features

- Pressure transmitter for the measuring of relative and absolute pressures of gases, vapors and liquids
- Stainless steel case in sturdy design, degree of protection IP 65/67
- Accuracy 0.1 %
- High-resolution graphic display with Intuitive 4-button operation and backlight
- Comprehensive parameterising functions
- Comprehensive simulation and diagnostic functions
- Quick access to device data
- Development according to SIL2
- Nominal range 0.25 bar to 400 bar
- Turndown up to 100:1
- Measuring rate up to 100 Hz
- Output signal 4...20 mA with HART® protocol
- Configuration memory
- Digital communication via PDM, FDT/DTM, 375/475 Field Communicator
- Output functions: linear, invers, square root, table function with up to 64 support points
- Media temperature -40...100 °C
- Wetted parts stainless steel
- Case design:
  - process connection bottom
  - process connection back
- Process connections: various screw-in thread with internal diaphragm
- Approved according to NAMUR 95
- EAC declaration (upon request)

### Options

- Approvals/Certificates
  - Explosion protection for gases and dust
  - Classification per SIL2
  - Certificate of measuring equipment for Russian Federation
  - Material certificate per EN 10204
  - Calibration certificate per EN 10204
- Removable display and control unit
- Degree of protection IP 69K
- Front cover of stainless steel with window of non-splintering glass

### Application

The digital pressure transmitter PASCAL Ci4 is suitable for measuring the relative and absolute pressure of gases, vapors and liquids. Due to the design the transmitter is suitable for highest requirements. The 4 operation buttons allow an easy and fast parameterisation.

## Technical data

### Measuring ranges

Up to a turndown of 100:1 the measuring span can be freely selected.

| Nominal range         | Measuring span |             | Overload capacity | Lower measuring range limit ** | Sensor type    |
|-----------------------|----------------|-------------|-------------------|--------------------------------|----------------|
|                       | min            | max         |                   |                                |                |
| -0.25...0.25 bar rel. | 0.0025 bar     | 0.5 bar     | 1 bar rel.        | 750 mbar abs                   | Piezoresistive |
| 0...1 bar *           | 0.01 bar       | 2 bar       | 3 bar rel.        | 100 mbar abs                   |                |
| 0...4 bar rel. *      | 0.04 bar       | 5 bar       | 10 bar rel.       | 100 mbar abs                   |                |
| 0...16 bar rel. *     | 0.16 bar       | 17 bar      | 60 bar rel.       | 100 mbar abs                   |                |
| 0...40 bar rel. *     | 0.4 bar        | 41 bar      | 100 bar rel.      | 100 mbar abs                   |                |
| -1...1 bar rel.       | 0.01 bar       | 2 bar       | 20 bar rel.       | 30 mbar abs                    |                |
| -1...4 bar rel.       | 0,04 bar       | 5 bar       | 50 bar rel.       | 30 mbar abs                    |                |
| -1...16 bar rel.      | 0.16 bar       | 17 bar      | 60 bar rel.       | 30 mbar abs                    |                |
| -1...40 bar rel.      | 0.4 bar        | 41 bar      | 150 bar rel.      | 30 mbar abs                    |                |
| -1...100 bar rel.     | 1 bar          | 101 bar     | 200 bar rel.      | 0 mbar abs                     |                |
| -1...400 bar rel.     | 4 bar          | 401 bar     | 750 bar rel.      | 0 mbar abs                     |                |
| 0...1 bar abs         | 0.01 bar abs.  | 1 bar abs.  | 3 bar abs.        | 30 mbar abs                    | Piezoresistive |
| 0...4 bar abs         | 0.04 bar abs.  | 4 bar abs.  | 10 bar abs.       | 30 mbar abs                    |                |
| 0...16 bar abs        | 0.16 bar abs.  | 16 bar abs. | 60 bar abs.       | 30 mbar abs                    |                |

\* Short term or sporadic measurement in vacuum range permitted up to lower measuring limit. Lower range value up to -1 bar rel. adjustable.

\*\* Vacuum-proof designs are available upon request.

### Constructional design / case

|                                      |   |
|--------------------------------------|---|
| Design:                              | Two-chamber case, continuously rotatable by $\pm 170^\circ$<br>Case surface blasted   |
| Material case:                       | <ul style="list-style-type: none"> <li>■ Stainless steel mat.no. 1.4301/1.4305 (304/303)</li> <li>■ Stainless steel mat.no. 1.4404 (316L)</li> </ul>  |
| Material front cover:                | <ul style="list-style-type: none"> <li>■ Polypropylene, black</li> <li>■ Stainless steel mat.no. 1.4305 (303)</li> <li>■ Stainless steel mat.no. 1.4404 (316L)</li> </ul>   |
| Gaskets:                             | Silicone / NBR  |
| Degree of protection per EN 60529:   | <ul style="list-style-type: none"> <li>■ IP 65 / IP 67</li> <li>■ IP 69K</li> </ul>   |
| Climatic category per EN 60721 3-4:  | 4K4H  |
| Vibration resistance per EN 61298-3: | 10...60 Hz: $\pm 0.35$ mm<br>60...1000 Hz: 5 g  |
| Material window:                     | <ul style="list-style-type: none"> <li>■ Macrolon</li> <li>■ Non-splintering glass (requires front cover of stainless steel)</li> </ul>   |
| Elec. connection:                    | <ul style="list-style-type: none"> <li>■ Circular connector M12</li> <li>■ Cable gland M16x1.5, PA black</li> <li>■ Cable gland M16x1.5, stainless steel</li> <li>■ Cable gland M20x1.5, PA black</li> <li>■ Cable gland M20x1.5, stainless steel</li> <li>■ 1/2" NPT, PA black</li> </ul> Further connections upon request |

|                  |  |
|------------------|--|
| Terminal blocks: | <ul style="list-style-type: none"> <li>■ Spring clamp terminals up to 1.5 mm<sup>2</sup></li> <li>■ Pole terminals up to 2.5 mm<sup>2</sup></li> <li>■ Screw terminals up to 2.5 mm<sup>2</sup></li> </ul> |
|------------------|--|

Weight: Approx. 1.4 kg

Type plate: Laser marking

### Process connection

|           |  |
|-----------|--|
| Position: | <ul style="list-style-type: none"> <li>■ bottom</li> <li>■ back *</li> </ul> |
|-----------|--|

\* Flush mounting upon request

|         |  |
|---------|--|
| Design: | <ul style="list-style-type: none"> <li>■ G 1/2 B per DIN EN 837-1</li> <li>■ G 1/4 B per DIN EN 837-1</li> <li>■ G1/4 A per DIN EN ISO 1179-2 (DIN 3852-11) model E</li> <li>■ 1/2 " NPT</li> <li>■ 1/4 " NPT</li> </ul> |
|---------|--|

Further process connections upon request

### Material wetted parts

|                   |                      |                          |
|-------------------|----------------------|--------------------------|
| Sensor :          | piezoresistive       | thin film                |
| Sensor diaphragm: | 1.4404/1.4435 (316L) | 1.4542 (630)             |
| Socket:           | 1.4404/1.4435 (316L) | 1.4301/1.4404 (304/316L) |

### Measuring system

|                 |   |           |
|-----------------|---|-----------|
| Sensor:         | Piezoresistive                                  | Thin film |
| Sensor filling: | Synthetic oil, free of silicone FD1, FDA listed | without   |

### Accuracy

|   |  |                        |                       |                        |                        |              |        |                |             |
|---|--|------------------------|-----------------------|------------------------|------------------------|--------------|--------|----------------|-------------|
| Reference cond. per EN 61298-1:           | $T_U = \text{const. (15...25) } ^\circ\text{C}$<br>$\varphi = \text{const. (45...75) \% r.F.}$<br>$p_U = \text{const. (860...1060) mbar}$<br>$U_B = 24 \text{ V DC } (\pm 3 \text{ V DC})$<br>$R_B = 50 \text{ } \Omega, \text{ HART: } 250 \text{ } \Omega$<br>Ground connected<br>$MBA = 0 \text{ bar}$  |                        |                       |                        |                        |              |        |                |             |
| Calibration position:                     | Process connection bottom: vertical<br>Process connection back: horizontal   |                        |                       |                        |                        |              |        |                |             |
| Deviation of characteristic:              | Refer to the adjusted measuring span (Limit point method per DIN 16086)<br><b>Nominal range 1-400 bar, 1-16 bar abs.</b><br><br><table border="0"> <tr> <td>Turndown 5:1</td> <td>0.1 %</td> </tr> <tr> <td>Turndown &gt; 5:1</td> <td>0.02 % x TD</td> </tr> </table><br><b>Nominal range 0.25 bar</b><br><table border="0"> <tr> <td>Turndown 5:1</td> <td>0.15 %</td> </tr> <tr> <td>Turndown &gt; 5:1</td> <td>0.03 % x TD</td> </tr> </table> | Turndown 5:1           | 0.1 %                 | Turndown > 5:1         | 0.02 % x TD            | Turndown 5:1 | 0.15 % | Turndown > 5:1 | 0.03 % x TD |
| Turndown 5:1                              | 0.1 %  |                        |                       |                        |                        |              |        |                |             |
| Turndown > 5:1                            | 0.02 % x TD  |                        |                       |                        |                        |              |        |                |             |
| Turndown 5:1                              | 0.15 %   |                        |                       |                        |                        |              |        |                |             |
| Turndown > 5:1                            | 0.03 % x TD  |                        |                       |                        |                        |              |        |                |             |
| Long-term drift:                          | Refer to nominal range<br>$\leq 0.1 \text{ \% / year}$   |                        |                       |                        |                        |              |        |                |             |
| Operational availability:                 | < 12 s   |                        |                       |                        |                        |              |        |                |             |
| Response time $t_{90}$ at current output: | for 20 Hz measuring rate: typically 120 ms<br>for 100 Hz measuring rate: typically 50 ms   |                        |                       |                        |                        |              |        |                |             |
| Temperature influence, case:              | Refer to nominal range<br><b>Ambient temperature -20...80 C:</b><br><table border="0"> <tr> <td>Nominal range 1-16 bar</td> <td>0.1 %/10K, max. 0.3 %</td> </tr> <tr> <td>Nominal range 0.25 bar</td> <td>0.15 %/10K, max. 0.4 %</td> </tr> </table><br><b>Ambient temperature -40...-20 C:</b><br>Typical 0.2 %/10K   | Nominal range 1-16 bar | 0.1 %/10K, max. 0.3 % | Nominal range 0.25 bar | 0.15 %/10K, max. 0.4 % |              |        |                |             |
| Nominal range 1-16 bar                    | 0.1 %/10K, max. 0.3 %  |                        |                       |                        |                        |              |        |                |             |
| Nominal range 0.25 bar                    | 0.15 %/10K, max. 0.4 %   |                        |                       |                        |                        |              |        |                |             |

### Indication

|                       |   |
|-----------------------|---|
| Display:              | <ul style="list-style-type: none"> <li>■ High-resolution graphic display with backlight</li> <li>■ 4-button operation</li> <li>■ Freely configurable display modes</li> <li>■ continuously rotatable by <math>\pm 170</math> (detent every <math>90^\circ</math>)</li> <li>■ Optional: Remote display and control unit, can be used up to 10 m away from measuring point</li> </ul> |
| Configuration memory: | <ul style="list-style-type: none"> <li>■ All parameterisation data can be copied from the device into the configuration memory in the display module. The data is permanently stored there, even in the event of power failure.</li> <li>■ The parameters can be transferred simply and quickly to other devices.</li> </ul>  |

### Output

|                        |   |            |
|------------------------|---|------------|
| Signal:                | 2-wire technology   | 4...20 mA  |
|                        | Lower limit   | 3.8...4 mA |
|                        | Upper limit   | 20...21 mA |
|                        | Lower alarm current   | < 3.6 mA   |
|                        | Upper alarm current   | > 21 mA    |
|                        | Current limitation  | 22 mA      |
| Digital communication: | HART <sup>®</sup> protocol, version 7   |            |
| Communication via:     | <ul style="list-style-type: none"> <li>■ Siemens PDM</li> <li>■ Pactware or compatible systems (FDT/DTM)</li> <li>■ 375 / 475 Field Communicator</li> </ul>             |            |
| Function:              | <ul style="list-style-type: none"> <li>■ Linear</li> <li>■ Inverse response</li> <li>■ By square root</li> <li>■ Table function with up to 64 support points</li> </ul> |            |
| Turndown:              | Max. 100:1  |            |
| Damping:               | 0...999.9 s selectable in steps of 0.1 s  |            |
| Measuring rate:        | 20 Hz, switchable to 100 Hz   |            |
| Resolution:            | 1 $\mu\text{A}$   |            |
| Current sensing func.  | 3.55...21.5 mA selectable in steps of 0.001 mA  |            |
| Load $R_B$ :           | $R_B \leq (U_V - 12 \text{ V DC}) / 0.022 \text{ A [Ohm]}$<br>$U_V = \text{supply voltage}$<br>for HART communication $R_B \geq 230 \text{ } \Omega$                    |            |

### Supply voltage

|                   |   |
|-------------------|---|
| Functional range: | 12...30 V DC, protected against polarity reversal |
| Ripple:           | < 5 %   |

### Temperature ranges

|          |  |
|----------|--|
| Ambient: | -40...80 $^\circ\text{C}$<br>(Display visibility is limited at temperatures below -30 $^\circ\text{C}$ ) |
| Media:   | -40...100 $^\circ\text{C}$   |
| Storage: | -40...80 $^\circ\text{C}$  |

## Tests and certificates

### Ex approvals

ATEX: TÜV 13 ATEX 120264 X  
Ⓢ II 1/2G Ex ia IIC TX Ga/Gb  
Ⓢ II 1/2D Ex ia IIIC Txx °C Da/Db  
Ⓢ II 2G Ex ia IIC TX Gb  
Ⓢ II 2D Ex ia IIIC Txx °C Db

IECEX: IECEX TUN 13.0018X  
Ex ia IIC TX Ga/Gb  
Ex ia IIIC Txx °C Da/Db  
Ex ia IIC TX Gb  
Ex ia IIIC Txx °C Db

### **Please note:**

For all nominal ranges, except:

-1...1 bar rel. bis -1...40 bar rel.

more detailed information can be found in Ex Safety Instruction XA\_010.

For the nominal ranges:

-1...1 bar rel. bis -1...40 bar rel.:

more detailed information can be found in Ex Safety Instruction XA\_011.

EMC \*: Per DIN EN 61326-1, NAMUR NE21

\* A deviation of accuracy due to EMC influence up to 0.25 % is impossible for a design with process connection at the back.

SIL 2: Functional safety per EN 61508, classification per SIL2

For detailed information see SIL instruction SA\_001

NAMUR: Approved according to NE95, Test report TP14033 available upon request

- EAC declaration upon request
- Certificate of measuring equipment for Russian Federation

## Parameterisation, simulation and adjustment

### Parameterisation \*

| Parameter                               | Values   | Default setting                      |
|---|--|--------------------------------------|
| <b>Device</b>                           |  |                                      |
| device ID                               | 16 digits, freely selectable   | LABOM PASCAL Ci4                     |
| lower range value                       | at any value within nominal range  | 0 bar respectively 0 bar abs.        |
| upper range value                       | at any value within nominal range  | end of nominal range                 |
| measuring rate                          | 20 Hz, 100 Hz  | 20 Hz                                |
| damping                                 | 0.0...999.9 s  | 0.0 s                                |
| <b>Display and control unit</b>         |  |                                      |
| pressure unit                           | mbar, bar, Pa, hPa, kPa, MPa, g/cm <sup>2</sup> , kg/cm <sup>2</sup> , psi, atm, torr, mmH <sub>2</sub> O, mH <sub>2</sub> O, inH <sub>2</sub> O, ftH <sub>2</sub> O, mmHg, inHg | bar                                  |
| temperature unit                        | °C, °F, °R, K  | °C                                   |
| lighting                                | on, off  | on                                   |
| language                                | English, German  | German                               |
|   | English, Chinese   | as ordered                           |
|   | English, Spanish, French   | as ordered                           |
|   | English, Polish, German  | as ordered                           |
|   | English, Turkish, German   | as ordered                           |
| decimal point                           | auto, x.xxxx, xx.xxx, xxx.xx, xxxx.x, xxxxx  | auto                                 |
| display mode                            | five values, four values, three values, two values, big display  | four values                          |
| main value                              | pressure, current (%), current (mA)  | pressure                             |
| secondary values                        | pressure, current (%), current (mA), sensor temperature, device ID, HART-TAG, HART descriptor, <empty>   | current (%), current (mA), device ID |
| <b>Current output</b>                   |  |                                      |
| output function                         | linear, inverse response, by square root, table function   | linear                               |
| lower current limit                     | 3.8...4.0 mA   | 3.8 mA                               |
| upper current limit                     | 20...21 mA   | 20.5 mA                              |
| alarm current                           | low (<3.6 mA), high (> 21.0 mA)  | low (<3.6 mA)                        |
| position correction (mounting position) | on, off  | off                                  |
| <b>Maintenance counter</b>              |  |                                      |
| maintenance interval                    | 0...9999 days  | 0 days                               |
| status                                  | on, off  | off                                  |
| <b>HART data</b>                        |  |                                      |
| HART address                            | 0...63   | 0                                    |
| number of response preambels            | 5...20   | 5                                    |
| current mode                            | proportional, constant   | proportional                         |

### Diagnostic functions

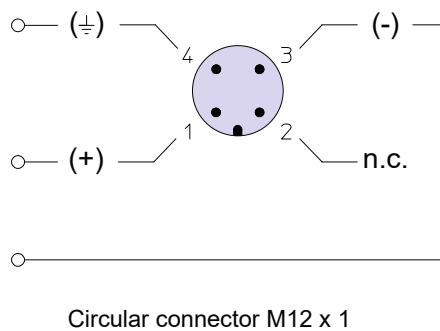
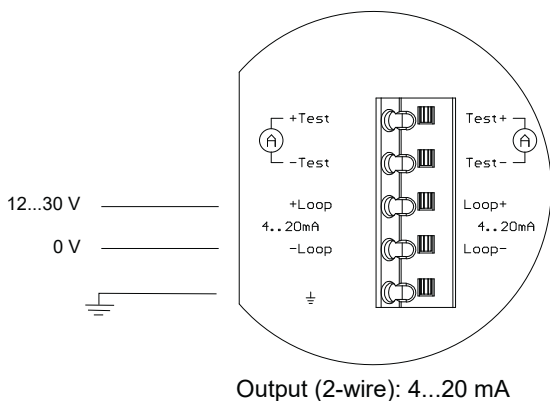
| Self- diagnosis                      | Description   | Value range    |
|--------------------------------------|---|----------------|
| RAM-Test                             | Permanent check of the read/write memory  | /              |
| ROM-Test                             | Permanent check of the checksum via the program memory  | /              |
| Bridge circuit test                  | Permanent check of the bridge circuit   | /              |
| CRC parameterisation test            | Permanent check of the checksum via the parameter memory  | /              |
| Electronics temperature monitoring   | Permanent check of the electronics temperature  | /              |
| <b>Process diagnostics</b>           |   |                |
| Maintenance timer                    | Check of the maintenance cycles   | /              |
| Operating hours counter              | Capture of operating hours  | /              |
| Min/Max values                       | Check of minimum and maximum process pressure and sensor temperature  | /              |
| <b>Measuring circuit diagnostics</b> |   |                |
| loop-test                            | Setting of a fixed current value at the output  | 3.55...21.5 mA |
| pressure simulation                  | Setting a fixed pressure value, it also considers dampingk and tabular function unlike the current simulation | Nominal range  |

## Adjustment

| Type                  | Description   |
|-----------------------|---|
| zero point correction | adjusts reading to zero at ambient pressure (for differential and gauge pressure devices) |
| position correction   | adjusts reading of mounted device to zero at ambient pressure                             |
| lower adjustment      | adjusts reading to applied pressure (affects zero point + span)                           |
| upper adjustment      | adjusts reading to applied pressure (affects span only)                                   |
| current adjustment    | adjusts current output to achieve 4 resp. 20 mA at the end of the measurement chain       |

\* Operating software LAB4Level for intuitive parameterisation of level measurements upon request

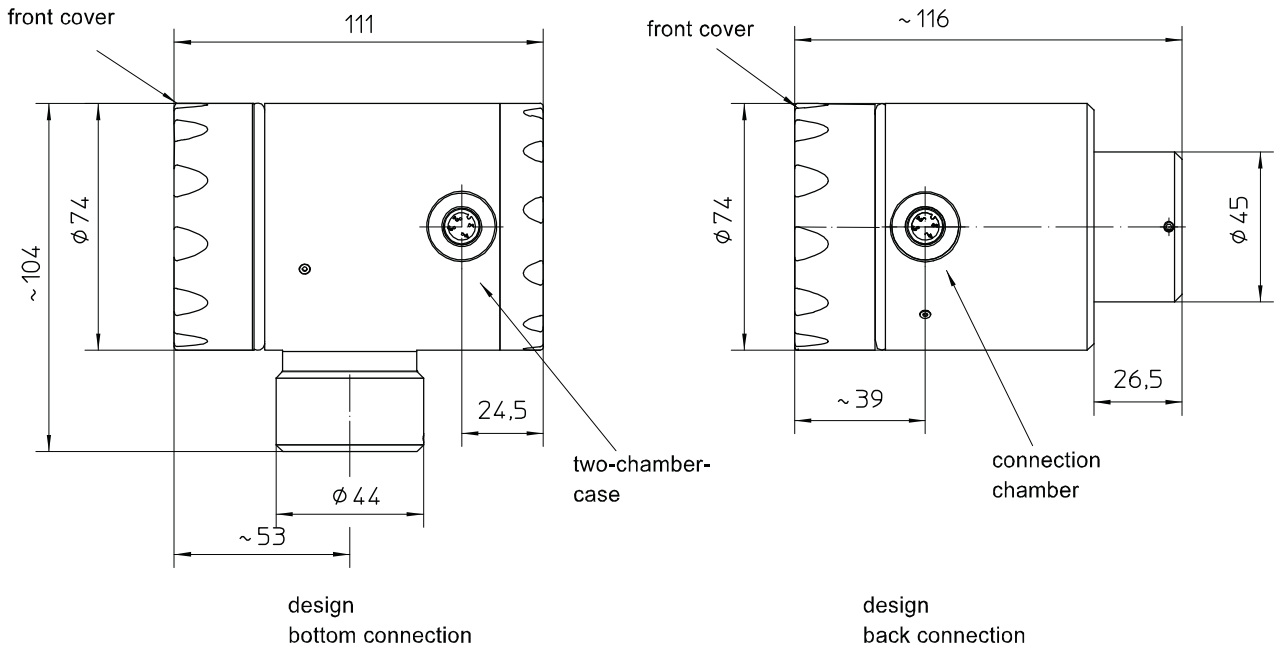
## Connection diagram



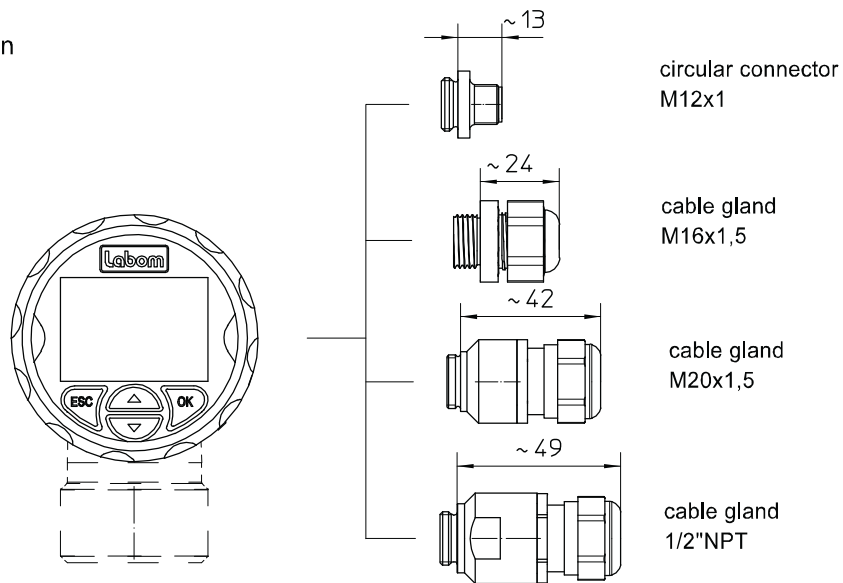
## Dimensions

### Case

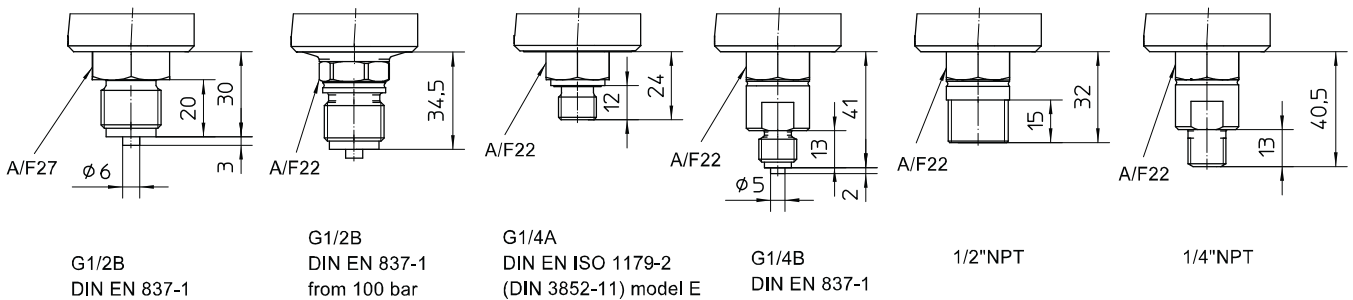
#### Case



#### Electrical connection

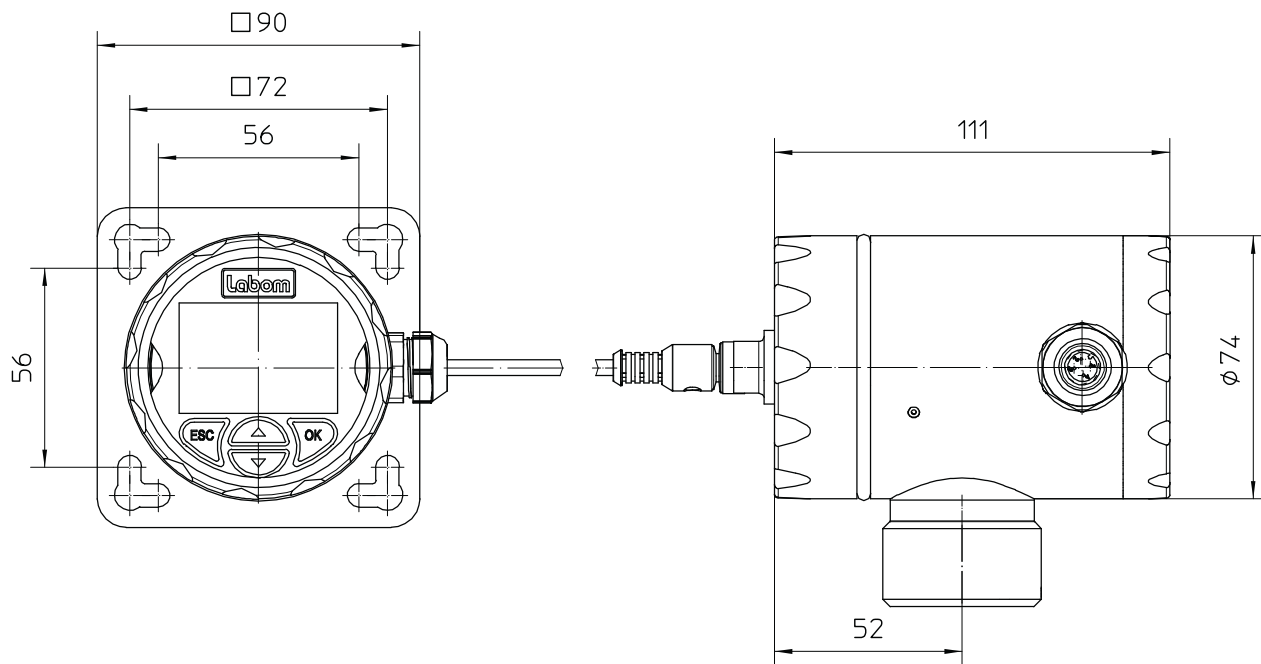


### Process connections



All dimensions are in millimeters

Remote display and control unit (Type series MC1140)



All dimensions are in mm



## Order details

### Pressure transmitter PASCAL Ci4 for general application Type series CI4100

#### Order details pressure transmitter PASCAL CI410. for general application

|         |                                       |   |   |  |
|---------|---------------------------------------|---|---|--|
| CI4100  | process connection bottom             |   |   |  |
| CI4103  | process connection back               |   |   |  |
|         | nominal range                         | turndown  | overload limit [bar]                            | sensor type                                      |
| A1078   | -0.25...0.25 bar rel.                 | TD up to 100:1  | 1   | piezoresistive                                   |
| A1053   | 0...1 bar rel.                        |   | 3   |  |
| A1056   | 0...4 bar rel.                        |   | 10  |  |
| A1059   | 0...16 bar rel.                       |   | 60  |  |
| A1061   | 0...40 bar rel.                       |   | 100   |  |
| A1053.1 | -1...1 bar rel.                       |   | 20  |  |
| A1056.1 | -1...4 bar rel.                       |   | 50  |  |
| A1059.1 | -1...16 bar rel.                      |   | 60  |  |
| A1061.1 | -1...40 bar rel.                      |   | 150   |  |
| A3063   | -1...100 bar rel.                     |   | 200   |  |
| A3066   | -1...400 bar rel.                     |   | 750   |  |
| B1053   | 0...1 bar abs.                        |   | 3   | piezoresistive                                   |
| B1056   | 0...4 bar abs.                        |   | 10  |  |
| B1059   | 0...16 bar abs.                       |   | 60  |  |
| F1      | parameterisation                      |   | factory settings (standard)                     |  |
| F2      |                                       | as per customer's specification (pls. specify)  |   |  |
| H21     | output signal                         | 4...20 mA, with HART-Protokoll  |   |  |
| Y1.     | material case                         | stainless steel mat.-no. 1.4301 (304)   |   |  |
| Y2.     |                                       | stainless steel mat.-no. 1.4404 (316)   |   |  |
| 1       | material front cover                  | polypropylene (black), window Macrolon  |   |  |
| 2       |                                       | stainless steel, window non splintering glass   |   |  |
| 3       |                                       | stainless steel, closed, without window   |   |  |
|         |                                       |   | default language                                | available language                               |
| M21.1   | display                               | High-resolution graphic display with backlight, intuitive 4-button operation, quick access to device data | German (standard)                               | English, German                                  |
| M22.1   |                                       |   | English   |  |
| M22.2   |                                       |   | English   | English, Chinese                                 |
| M23.1   |                                       |   | Chinese   |  |
| M23.2   |                                       |   | English   | English, Spanish, French                         |
| M23.3   |                                       |   | Spanish   |  |
| M23.3   |                                       |   | French  |  |
| M25.1   |                                       |   | English   | English, Polish, German                          |
| M25.2   |                                       |   | Polish  |  |
| M25.3   |                                       |   | German  |  |
| M26.1   |                                       |   | English   | English, Turkish, German                         |
| M26.2   |                                       |   | Turkish   |  |
| M26.3   |                                       |   | German  |  |
| M1      | without display                       |   |   |  |
| T20.    | electrical connection                 | cable gland   | M16 x 1.5 polyamide, for cable Ø 4.5-10 mm      |  |
| T22.    |                                       |   | M16 x 1.5 stainless steel, for cable Ø 5-9.5 mm |  |
| T15.    |                                       |   | M20 x 1.5 polyamide, for cable Ø 7-13 mm        |  |
| T17.    |                                       |   | M20 x 1.5 stainless steel, for cable Ø 8-13 mm  |  |
| T27.    |                                       |   | 1/2" NPT polyamide, for cable Ø 6-12 mm         |  |
| 0       |                                       |   | cable clamps                                    | spring clamp terminals up to 1.5 mm <sup>2</sup> |
| 5       | pole terminals 2.5 mm <sup>2</sup>    |   |   |  |
| 6       | screwed terminals 2.5 mm <sup>2</sup> |   |   |  |
| T30     | circular connector M12 x 1 (4 pin)    |   |   |  |
| K1010   | process connection                    | G1/2 B per DIN EN 837-1   |   |  |
| K1002   |                                       | G1/4 B per DIN EN 837-1   |   |  |
| K1024   |                                       | G1/4 A per DIN EN ISO 1179-2 (DIN 3852-11) model E  |   |  |
| K1070   |                                       | 1/2" NPT  |   |  |
| K1072   |                                       | 1/4" NPT  |   |  |
| K9999   |                                       | as per indication   |   |  |

| Additional features (to be indicated if required) |  |  |   |
|---|--|--|---|
| S66   | Ex marking <sup>1,2</sup>  | ATEX   | ⊕ II 1/2G, II 2G Ex ia IIC TX Ga/Gb, Gb     |
|   |  |  | ⊕ II 1/2D, II 2D Ex ia IIIC Txx°C Da/Db, Db |
| S76   |  | IECEX  | Ex ia IIC TX Ga/Gb, Gb                      |
|   |  |  | Ex ia IIIC Txx°C Da/Db, Db                  |
| S62   | Ex marking <sup>1,3</sup>  | ATEX   | ⊕ II 1/2G, II 2G Ex ia IIC TX Ga/Gb, Gb     |
|   |  |  | ⊕ II 1/2D, II 2D Ex ia IIIC Txx°C Da/Db, Db |
| S77   |  | IECEX  | Ex ia IIC TX Ga/Gb, Gb                      |
|   |  |  | Ex ia IIIC Txx°C Da/Db, Db                  |
| T4  | degree of protection   | IP 69K <sup>1</sup>  |   |
| W1020   | material certificate   | per DIN EN 10204-3.1, wetted parts   |   |
| W1201   | calibration certificate  | per DIN EN 10204-3.1, 5 measuring points   |   |
| W2602   | functional safety per EN 61508, classification per SIL2  |  |   |
| W2673   | certificate of measuring equipment for Russian Federation  |  |   |
| Accessories                                       |  |  |   |
| MC1140  | PASCAL Ci4 remote display and control unit including wall bracket                                |  |   |
|   | material stainless steel, incl. front ring with seal and blind cap with circular connector M12x1 |  |   |
| A1.   | connection cable   | length: 10 m, material: PUR, with circular connector M12 x1 (further lengths upon request) |   |
| 1   | Internal cable clamps  | spring clamp terminals up to 1.5 mm <sup>2</sup>   |   |
| 2   |  | pole terminals 2.5 mm <sup>2</sup>   |   |
| 3   |  | screwed terminals 2.5 mm <sup>2</sup>  |   |
| T1  | degree of protection   | IP 65 / IP 67 (standard)   |   |
| MZ8120-A11  | mounting set for wall bracket  | 2 mounting brackets for pipe and frame mounting Ø 30-50 mm, incl. nuts and washers         |   |
| MZ8120-A12  |  | 2 mounting brackets for pipe and frame mounting Ø 40-64 mm, incl. nuts and washers         |   |
| MC1020  | HART-Modem   | RS 232 -interface  |   |
| MC1040  |  | USB-interface  |   |
| MC1041  |  | USB-interface, Ex  |   |

Order code (example): CI4100 – A1056 – F1 – H21 – Y12 – T200 – K1010 - ...

<sup>1</sup> requires front cover of stainless steel

<sup>2</sup> for all nominal ranges except: -1...1 bar rel. bis -1...40 bar rel.

<sup>3</sup> only for the nominal ranges: -1...1 bar rel. bis -1...40 bar rel.