

## LP-25 Electric calibration pressure test pump pneumatic, -0,9...+25 bar (bis 363 psi)

Rel. 20250723

### Electric calibration pressure test pump LP-25

Generation of test pressure up to +25 bar (363 psi), switchable to generation of vacuum down to -0,9 bar (-26.6 inHg)

The LP-25 electric calibration test pressure pump is used for simple pressure generation (without manual effort) for checking, adjusting and calibration of mechanical and electronic pressure reading instruments by means of comparative measurements.

When the measuring instrument to be checked and a sufficiently accurate reference instrument are connected to the LP-25 electric calibration pressure test pump, the same pressure acts on both measuring instruments when the pump is actuated. By comparing the two measured values at any pressure values, the accuracy of the unit under test can be checked or adjusted.

Due to the integrated electric pump, the LP-25 allows an automatic and exact pressure generation with the possibility to switch to vacuum generation. For precise adjustment of the test pressure the LP-25 electric calibration pressure test pump is equipped with a fine adjustment valve. Both, the test specimen and the reference instrument are mounted on top of the electric calibration pressure test pump, if necessary using suitable thread adapters (see Accessories / Adapter sets on page 3). No tools are required for connecting the unit under test and reference instrument, hand-tightening of the instruments is sufficient.



#### Specification:

|                         |                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Generation of pressure: | 0 to 25 bar (363 psi), switchable to                                                                                                                                 |
| Generation of vacuum:   | 0 to -0,9 bar (-26.6 inHg)                                                                                                                                           |
| Pressure medium:        | Ambient air                                                                                                                                                          |
| Pressure ports:         | 2 connections with free-running union nut and with dirt separator strainer and sealing ring<br>Pressure port P1 left for test item and P2 right for reference device |

| Order-Code: | P1 (test item): | P2 (reference): |
|-------------|-----------------|-----------------|
| G14-G12     | 1/4" BSP F      | 1/2" BSP F      |
| G14-G14     | 1/4" BSP F      | 1/4" BSP F      |
| G12-G14     | 1/2" BSP F      | 1/4" BSP F      |
| G12-G12     | 1/2" BSP F      | 1/2" BSP F      |

|                        |                                                                                     |
|------------------------|-------------------------------------------------------------------------------------|
| Material wetted parts: | Stainless steel, nickel-plated brass, brass, FKM                                    |
| Test pressure setting: | Fine adjustment valve (large volume variator, sensitivity better than $\pm 1$ mbar) |
| Temperatures:          | Operation 0...50°C (+32...+122°F); Storage -20...+60°C (-4...+140°F)                |
| Power supply:          | 100...230 VAC (incl. power supply unit to 24 VDC / 1.5 ADC)                         |
| Motor specification:   | 24 VDC, 220 Ncm, 0.88 A                                                             |
| Dimensions:            | approx. 271 x 228 x 116 mm (without power supply unit)                              |
| Material housing:      | ABS                                                                                 |
| Weight:                | approx. 2.9 kg (without power supply unit)                                          |

#### Standard scope of delivery:

- Electric calibration test pressure pump LP-25

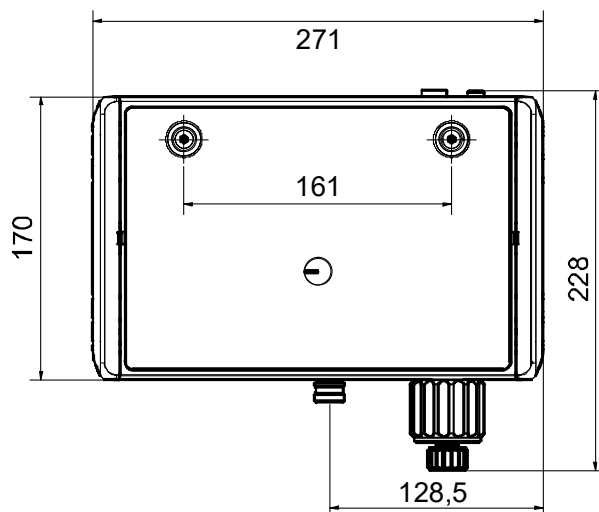
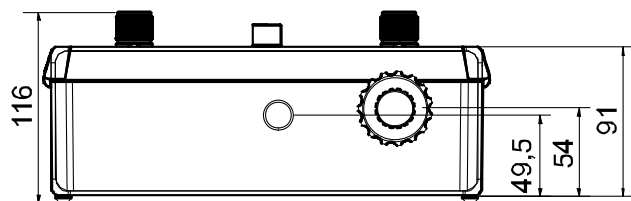
- Power supply unit 100...230 VAC



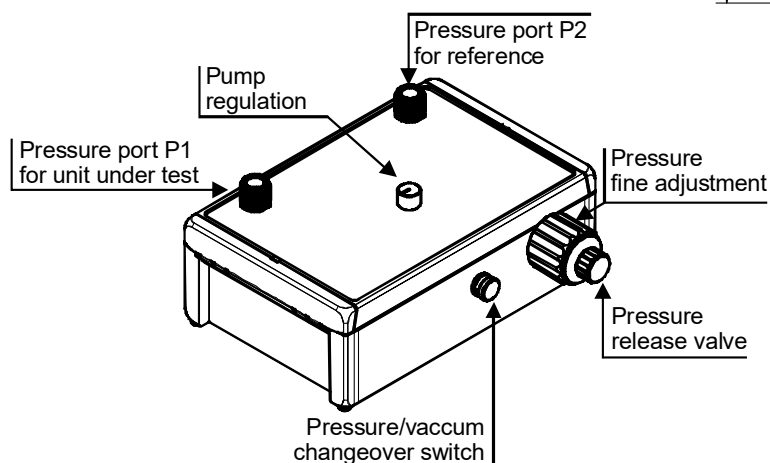
- Operating manual



## Dimensions (in mm):



## Controls and connections:



## Order-Codes:

### Electric calibration pressure test pump LP-25 variants

| Order-Code | Pressure port <b>P1</b> for test item | Pressure port <b>P2</b> for reference |
|------------|---------------------------------------|---------------------------------------|
| G14-G12    | 1/4" BSP F                            | 1/2" BSP F                            |
| G14-G14    | 1/4" BSP F                            | 1/4" BSP F                            |
| G12-G14    | 1/2" BSP F                            | 1/4" BSP F                            |
| G12-G12    | 1/2" BSP F                            | 1/2" BSP F                            |

## Spare parts:

| Order-Code | Description                                                                                                                                 |  |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------|--|
| NT         | Power supply unit (input 100...230 VAC / output 24 VDC - 1.5 A)<br>(spare part, as already included in standard supply of the basic device) |  |
| G12        | Pressure connector 1/2" BSP F free running union-nut (assembly)<br>(without dirt separator sleeve)                                          |  |
| G14        | Pressure connector 1/4" BSP F free running union-nut (assembly)<br>(without dirt separator sleeve)                                          |  |
| G12        | 10 pcs. dirt separator sleeves for pressure connector 1/2" BSP F                                                                            |  |
| G14        | 10 pcs. dirt separator sleeves for pressure connector 1/4" BSP F                                                                            |  |
| VENTIL     | Fine adjustment and pressure release valve (assembly)                                                                                       |  |
| SICH       | Glass fuse 5 x 20 mm, medium order, 1 A / 250 V                                                                                             |  |

## Accessories:

| Order-Code          | Content                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ADAPTER-BSP</b>  | <p>BSP thread adapters for pressure port 1/4" BSP free running union-nut:</p> <p>1 piece 1/4" BSP male x 1/8" BSP female<br/> 1 piece 1/4" BSP male x 3/8" BSP female<br/> 1 piece 1/4" BSP male x 1/2" BSP female<br/> 1 piece 1/4" BSP male x 1/2" BSP male</p>    |
| <b>ADAPTER-NPT</b>  | <p>NPT thread adapters for pressure port 1/4" BSP free running union-nut:</p> <p>1 piece 1/4" BSP male x 1/8" NPT female<br/> 1 piece 1/4" BSP male x 1/4" NPT female<br/> 1 piece 1/4" BSP male x 3/8" NPT female<br/> 1 piece 1/4" BSP male x 1/2" NPT female</p>  |
| <b>ADAPTER-M</b>    | <p>Metric thread adapters for pressure port 1/4" BSP free running union-nut:</p> <p>1 piece 1/4" BSP male x M12x1.5 female<br/> 1 piece 1/4" BSP male x M20x1.5 female<br/> 1 piece 1/4" BSP male x Minimes 1620</p>                                                 |
| <b>ADAPTER-SET</b>  | <p>Thread adapters for pressure port 1/2" BSP free running union-nut:</p> <p>1 piece 1/2" BSP male x 1/4" BSP female<br/> 1 piece 1/2" BSP male x M20x1.5 female<br/> 1 piece 1/2" BSP male x 1/4" NPT female<br/> 1 piece 1/2" BSP male x 1/2" NPT female</p>      |
| <b>V-G12</b>        | <p>Volume reducer for LR-Cal TLDMM-3.0 and LR-Cal LDM 80</p>                                                                                                                                                                                                        |
| <b>VOLUMEN-TOOL</b> | <p>Tool for the fine adjustment valve, to increase the diameter, thus even easier fine adjustment of the test pressure.<br/> Material: aluminum. Simply plug it on the pressure fine adjustment valve.</p>                                                         |

Please note that the performance of the LP-25 electric calibration pressure test pump depends on the volume of the calibration circuit. The smaller the volume, the better the performance. You can keep the volume of the calibration circuit small or minimize it by dispensing with hose lines or pressure hoses and using a reference device with the smallest possible volume in the pressure connection.

For the TLDMM-3.0 and ILDM 80 reference instruments listed on page 4, for example, we recommend using the optional volume reducer, order-code [V-G12](#).



### Typical performance of the electric pump LP-25:

Pressure: 0 to 20 bar: <85 seconds

(The final value of 25 bar is most easily achieved if you first turn the fine adjustment valve quite far out (anti-clockwise), electrically generate pressure up to approx. 20 bar and then screw the fine adjustment valve in clockwise.)

Vacuum: 0 to -0,9 bar: <8 seconds

**As a reference pressure instrument (pressure calibrator) we recommend:**

Pressure calibrator

**TLDMM-3.0**

Accuracy  $\pm 0.025\%$  FS or  $\pm 0.05\%$  FS

Precision reference pressure handheld

**ILHM**

Accuracy  $\pm 0.05\%$  FS or  $\pm 0.1\%$  FS

Reference digital pressure gauge

**ILDMM 80**

Accuracy  $\pm 0.1\%$  FS or  $\pm 0.2\%$  FS

Digital pressure gauge

**ILDMM 70**

Accuracy  $\pm 0.125\%$  BFSL or  $\pm 0.25\%$  BFSL

Digital pressure gauge

**IDM 80** and **IDM 80-UMS**

Accuracy  $\pm 0.25\%$  BFSL