

Pneumatic comparison test pump

To 140 bar [2,000 psi]

Model CPP140-M

WIKA data sheet CT 91.14

Applications

- Calibration service companies and service industry
- Calibrations directly on-site
- Maintenance and service facilities
- Pressure test

Special features

- Simple handling
- Pneumatic pressure generation to 140 bar [2,000 psi]
- Knurled nut for easy and optimal positioning of the measuring instruments
- Precise setting of the test pressure through a fine adjustment valve
- Pressure connections with quick-release connector and knurled nut

Description

Application areas

Comparison test pumps serve as pressure generators for the testing, adjustment and calibration of mechanical and electronic pressure measuring instruments through comparative measurements. These pressure tests can take place in the laboratory or workshop, or on-site at the measuring location.

Easy functionality

If one connects the test item and a sufficiently accurate reference pressure measuring instrument to the hand test pump, on actuating the pump, the same pressure will act on both measuring instruments. By comparison of the two measured values at any given pressure value, a check of the accuracy and/or adjustment of the test item can be carried out. In order to approach the measuring points exactly, the comparison test pump features a fine adjustment valve, as well as a shut-off valve for leakage-free testing.



Configurator



Comparison test pump, model CPP140-M

Easy handling

With the model CPP140-M comparison test pump it is possible to generate pneumatic test pressures up to 140 bar [2,000 psi] very simply and precisely and without external pressure supply. The comparison test pump can also be used for vacuum generation to -950 mbar [-14 psi]. The maximum pressure or vacuum achievable is dependent upon the connected test volume.

The reference pressure measuring instrument, as well as the instrument to be tested, can be mounted on the test connections at the side. Both test connections feature a freely rotating knurled nut with an M28 x 1.5 female thread. Via the freely rotating knurled nut, the instruments can be aligned. The scope of delivery includes two suitable adapters in the selectable sizes G ½, female thread, G ¼, female thread, ½ NPT, female thread or ¼ NPT, female thread.

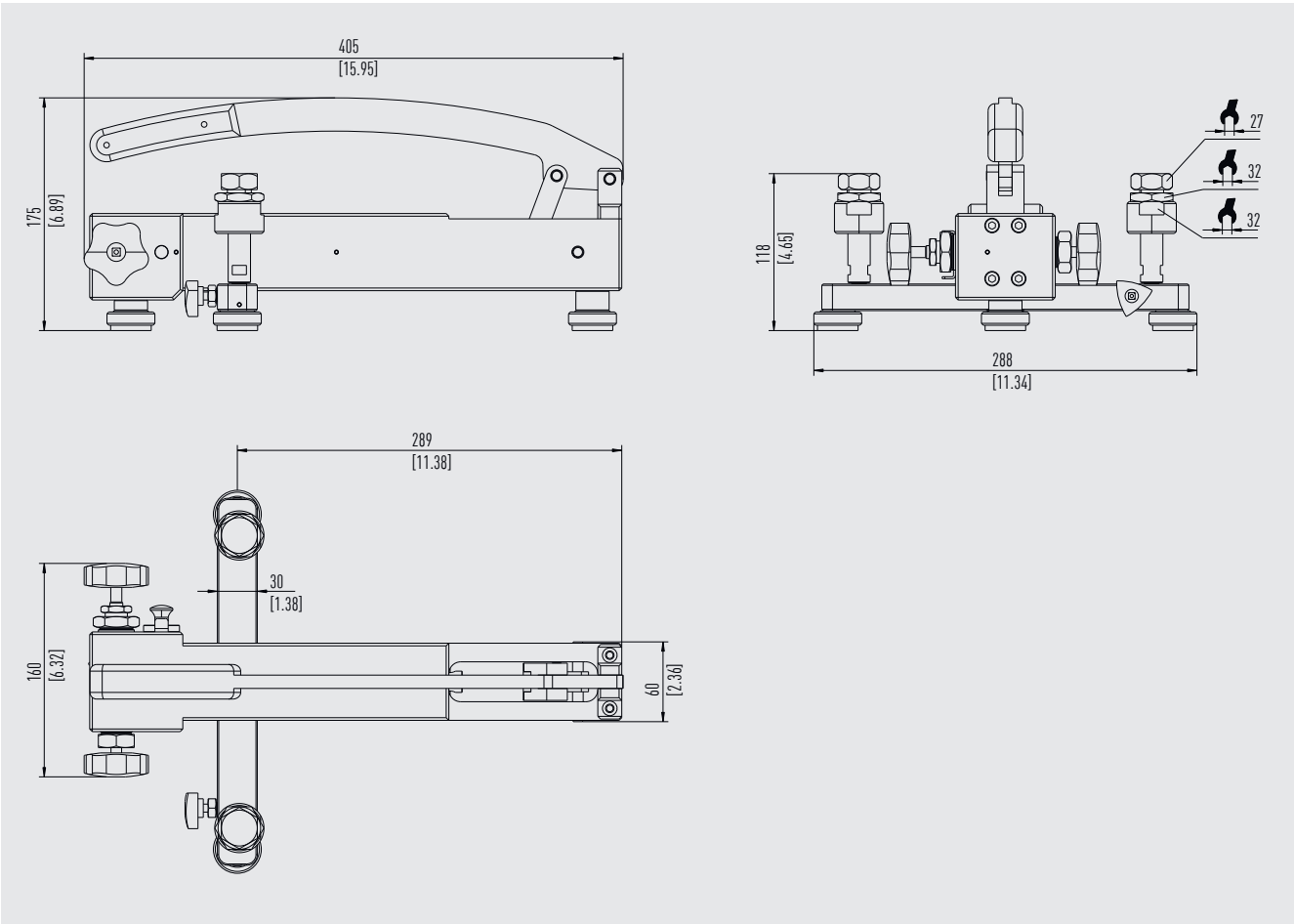
Specifications

Comparison test pump	
Pressure range	-0.95 ... +140 bar [-14 ... +2,000 psi]
Test pressure setting	Fine adjustment valve
Resolution	1 mbar
Pressure transmission medium	Air
Case	
Material (non-wetted)	<ul style="list-style-type: none"> ■ Aluminium alloy ■ Copper ■ Stainless steel
Weight	Approx. 6.5 kg [14.3 lb]

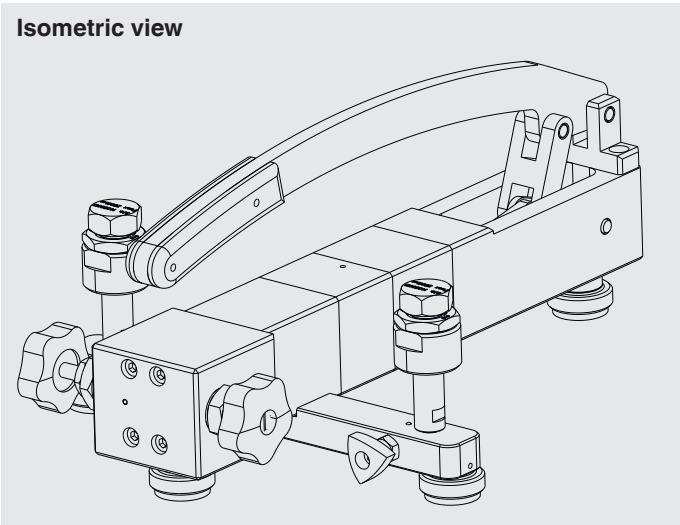
Test connection	
Thread size	2 x quick-release connectors M28 x 1.5, female thread, freely rotating with O-ring
Connection adapters	<ul style="list-style-type: none"> ■ G ½, female thread ■ G ¼, female thread ■ ½ NPT, female thread ■ ¼ NPT, female thread
Material	<ul style="list-style-type: none"> ■ Brass ■ 1.4571
Seal	O-ring 14 x 3.1 mm

Operating conditions	
Place of use	<ul style="list-style-type: none"> ■ Laboratory ■ Workshop ■ Directly at the measuring point
Temperature of use / Operating temperature	18 ... 28 °C [64 ... 82 °F]
Storage temperature range	-10 ... +50 °C [14 ... 122 °F]

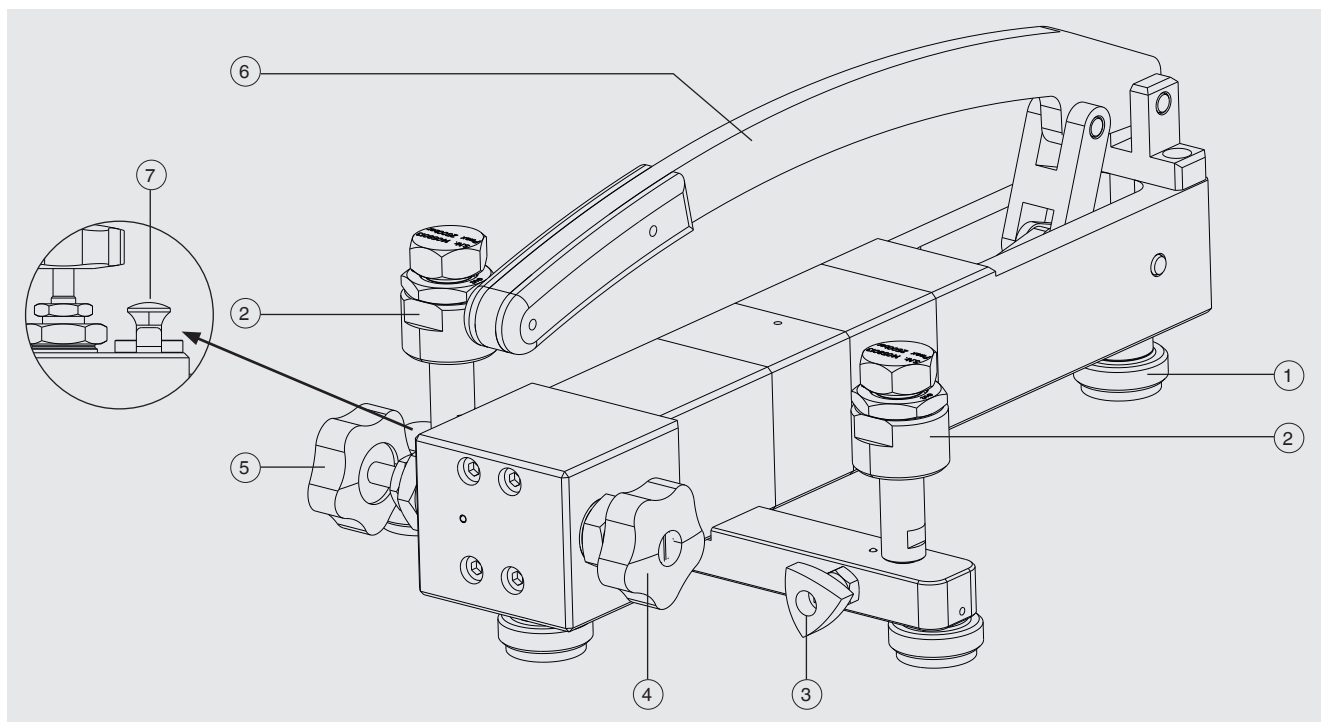
Dimensions in mm [in]



Isometric view



Controls



- ① Levelling feet
- ② Connection for test item or reference pressure measuring instrument
- ③ Pressure relief valve
- ④ Fine adjustment valve
- ⑤ Shut-off valve
- ⑥ Pump handle
- ⑦ Vacuum/Overpressure switch

Recommended reference pressure measuring instruments



Precision digital pressure gauge model CPG1500

Measuring ranges: 0 ... 10,000 bar [0 ... 150,000 psi]
Accuracy: down to 0.025 % FS

→ For further specifications, see data sheet CT 10.51



Digital pressure gauge model CPG1200

Measuring ranges: 0 ... 1,000 bar [0 ... 15,000 psi]
Accuracy: down to 0.25 % FS

→ For further specifications, see data sheet CT 10.20

Calibration software



WIKA-Cal calibration software

For creating calibration certificates or logger protocols
Only in combination with a reference pressure measuring instrument

→ For further specifications, see data sheet CT 95.10

Calibration case



Consisting of:

- Plastic service case with foam insert
- Comparison test pump model CPP140-M
- Standard accessories see scope of delivery
- Reference pressure measuring instrument, model CPG1500 or CPG1200

Accessories and spare parts

Description ¹⁾		Order code
		CPP-A-G
	Shut-off valve Standard version Recommended for connected volumes > 4 cm ³	-G1-
	Fine adjustment valve Standard version	-G3-
	Blind plug G ½, male thread Material: brass	-G5-
	O-ring set Consisting of 10 x O-ring 14 x 3.1 mm for the test connections Material: FKM/FPM	-G6-
	Connection adapters G ½, male thread to G ⅛, female thread, max. 250 bar [3,600 psi] Material: brass	-GA-
	G ½, male thread to G ¼, female thread, max. 1,000 bar [14,500 psi] Material: 1.4571	-GB-
	G ½, male thread to G ⅜, female thread, max. 600 bar [8,700 psi] Material: brass	-GC-
	G ½, male thread to M20 x 1.5, female thread, max. 1,000 bar [14,500 psi] Material: 1.4571	-GD-
	G ½, male thread to ¼ NPT, female thread, max. 1,000 bar [14,500 psi] Material: 1.4571	-GE-
	G ½, male thread to ½ NPT, female thread, max. 1,000 bar [14,500 psi] Material: 1.4571	-GF-
	90° angle connector For test items with back mount connection Incl. NBR seal	-GG-
Ordering information for your enquiry:		
1. Order code: CPP-A-G		↓
2. Option:		[]

1) The figures are an example and may change depending on the state of the art in design, material composition and representation.

Scope of delivery

- Comparison test pump model CPP140-M
- Connection adapters, depending on the configuration:
2 x M28.5 x 1.5, male thread to G 1/2, G 1/4, 1/2 NPT or 1/4 NPT, female thread
- Operating instructions

Ordering information

Model / Case / Threaded insert for test connection / Angle connector / Assembly of measuring case / Further approvals / Additional ordering information

Configurator



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We reserve the right to make modifications to the specifications and materials.

In the event of a different interpretation of the translated and the English data sheet, the English wording shall prevail.

