

Hydraulic hand test pump To 1,000 bar [14,500 psi] Models CPP700-H and CPP1000-H

WIKA data sheet CT 91.07



For further approvals,
see page 2

Applications

- Simple test pressure generation on-site, in the laboratory or in the workshop
- For the testing, adjustment and calibration of all types of pressure measuring instruments

Special features

- Hydraulic pressure generation up to 700 bar [10,000 psi] or 1,000 bar [14,500 psi]
- Ergonomic handling
- Precise adjustment through the fine adjustment valve
- Compact dimensions
- Low weight



Hand test pump, model CPP700-H

Description

Application areas

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. The model CPP700-H and CPP1000-H hand test pumps have been specifically developed for test pressure generation on-site.

Easy functionality

If one connects the test item and a sufficiently accurate reference pressure measuring instrument to the 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 pressure measuring instrument to be tested can be carried out.

Easy handling

The CPP700-H and CPP1000-H hand test pumps, despite their very compact dimensions, enable simple and accurate pressure generation of up to a max. of 700 bar [10,000 psi] or 1,000 bar [14,500 psi] respectively, with an integrated switching from system pressure to high-pressure generation. The pump has a fine adjustment valve for precise adjustment, so as to ensure an accurate comparative test. As a pressure transmission medium, either hydraulic oil or clean water, free of calcium carbonate, should be used.

The reference instrument is screwed directly to the top of the pump, and the test item is connected using a connection hose with a G ¼ female thread, included in delivery. The CPP700-H is delivered with a Minimess® 1620 test item hose system as standard.


Specifications

Basic information	Model CPP700-H	Model CPP1000-H
Pressure range	0 ... 700 bar [0 ... 10,000 psi]	0 ... 1,000 bar [0 ... 14,500 psi]
Pressure transmission medium	<ul style="list-style-type: none"> ■ Simple distilled water ■ Hydraulic fluids from mineral oil <ul style="list-style-type: none"> → Water-based hydraulic fluids are not suitable → The oil must be clean and must not be thermally aged → Further pressure transmission media on request	
Fluid reservoir	200 cm ³	
Pressure connections		
For reference pressure measuring instrument	G ½, female thread, freely rotating. The connection can be disconnected using an Allen key. Then a G ¾, female thread is available.	
For test item	G ¼, female thread at test connection hose, length 1 m [3.28 ft], Minimes [®] 1620 system	G ¼ female thread, freely rotating at test connection hose, length 1 m [3.28 ft]
Test pressure setting	Fine adjustment valve / Volume adjustment	

Hand test pump	
Seals	<ul style="list-style-type: none"> ■ FKM ■ NBR
Material	<ul style="list-style-type: none"> ■ Anodised aluminium ■ Brass ■ Stainless steel ■ ABS
Dimensions (L x W x H)	280 x 160 x 120 mm [11.0 x 6.3 x 4.7 in]
Weight	1.3 kg [2.9 lb]

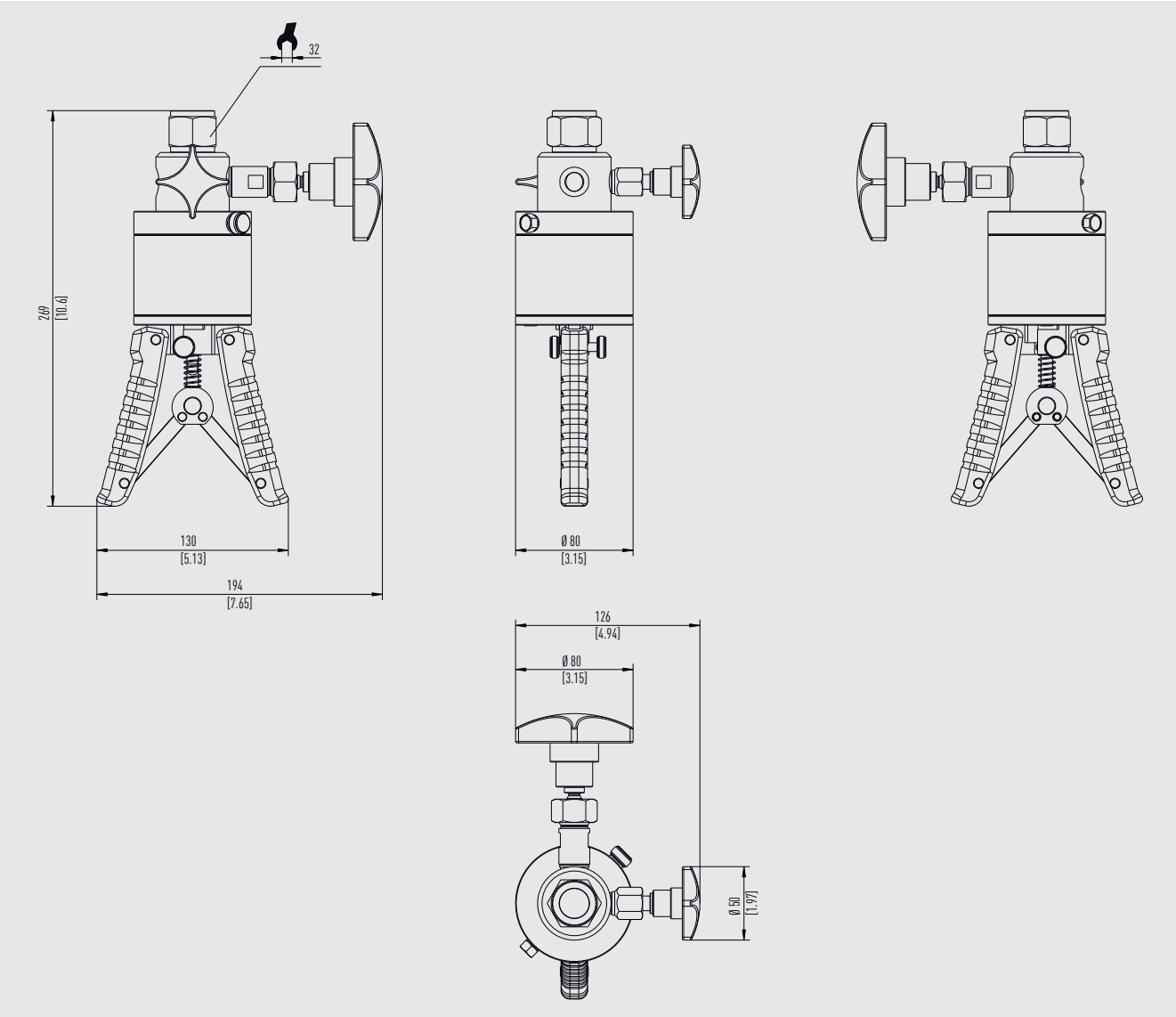
Operating conditions	
Temperature of use / Operating temperature	18 ... 28 °C [64 ... 82 °F]
Ambient temperature range	-10 ... +50 °C [14 ... 122 °F]
Storage temperature range	-10 ... +50 °C [14 ... 122 °F]

Approvals

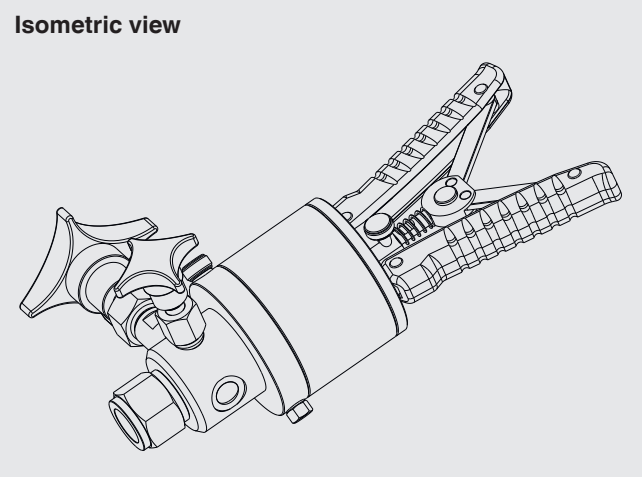
Logo	Description	Region
	EAC	Eurasian Economic Community
	Pressure Equipment Directive Machinery Directive	
-	MChS Permission for commissioning	Kazakhstan

→ For approvals and certificates, see website

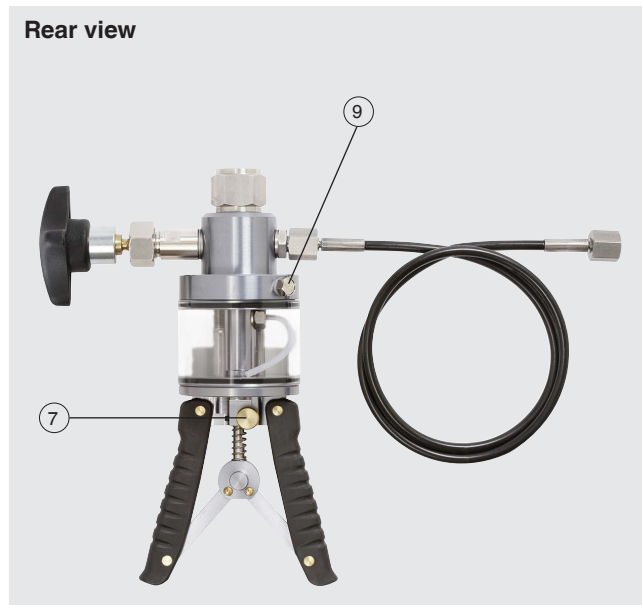
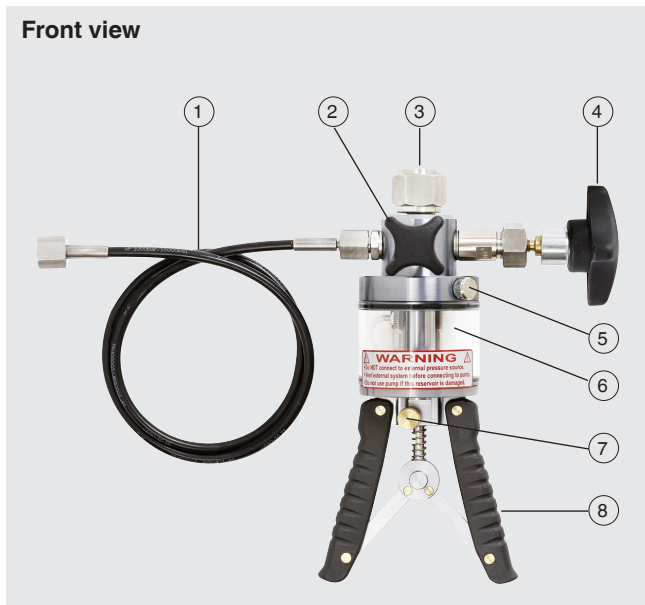
Dimensions in mm [in]



Isometric view



Design



- ① Test item connection hose
CPP700-H: Minimes® system with a G ¼ female pressure gauge bulkhead connector
CPP1000-H: G ¼, female thread
- ② Pressure relief valve
- ③ Connection G ½ female thread, freely rotating for reference instruments
- ④ Fine adjustment valve (volume adjustment)
- ⑤ Plug screw for fluid reservoir

- ⑥ Fluid reservoir
- ⑦ Toggle control, initial and high-pressure generation
- ⑧ Pump handles
- ⑨ Blind plug, for filling the pump

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



Hand-held pressure indicator model CPH6200

Measuring ranges: 0 ... 1,000 bar [0 ... 14,500 psi]
Accuracy: down to 0.1 % FS

→ For further specifications, see data sheet CT 11.01



Hand-held pressure indicator model CPH6300

Measuring ranges: 0 ... 1,000 bar [0 ... 14,500 psi]
Accuracy: down to 0.1 % FS

→ For further specifications, see data sheet CT 12.01

Calibration software



WIKI-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
- Precision digital pressure gauge model CPG1500
- Hydraulic hand test pump model CPP700-H

→ For further specifications, see data sheet CT 93.03

Calibration case








Consisting of:

- Plastic service case with foam insert
- Digital pressure gauge model CPG1200
- Hydraulic hand test pump model CPP700-H


→ For further specifications, see data sheet CT 93.03





Accessories and spare parts

Accessories for CPP700-H		Order code
Description ¹⁾		CPP-A-
	Plastic case Incl. foam insert with recesses for model CPP700-H Dimensions (W x H x D): 440 x 370 x 140 mm [17.32 x 14.57 x 5.51 in]	-40-
-	Adapter set "BSP" for test item hose Consisting of: <ul style="list-style-type: none"> ■ G ¼, male thread, to G ⅛, female thread ■ G ¼, male thread, to G ⅜, female thread ■ G ¼, male thread, to G ½, female thread ■ Various O-rings Material: stainless steel	-41-
-	Adapter set "metric" for test item hose Consisting of: <ul style="list-style-type: none"> ■ G ¼, male thread to M12 x 1.5 ■ G ¼, male thread to M20 x 1.5 ■ G ¼, male thread to Minimesh® ■ Various O-rings Material: stainless steel	-42-
-	Adapter set "NPT" for test item hose Consisting of: <ul style="list-style-type: none"> ■ G ¼, male thread, to ⅛ NPT, female thread ■ G ¼, male thread, to ¼ NPT, female thread ■ G ¼, male thread, to ⅜ NPT, female thread ■ G ¼, male thread, to ½ NPT, female thread ■ Various O-rings Material: stainless steel	-43-
	Connection adapters G ¼, male thread, to G ½, female thread Material: stainless steel	-44-
	Hydraulic fluid Based on VG22 mineral oil in plastic bottle Content 1 litre	-45-
	Sealing and maintenance set Consisting of different O-rings and seals	-46-

Accessories for CPP700-H		Order code
Description ¹⁾		CPP-A-
	Spare hose model Minimess® Length: 1 m [3.28 ft] G ¼ bulkhead connector	-47-
-	Sealing plug and pressure equalising valve incl. seal	-48-
-	Drain valve maintenance set Consisting of: ■ Drain valve ■ Seal ■ Handle	-4A-
-	Hose connection adapter maintenance set Consisting of: ■ Adapter for hose connection ■ Seal	-4B-
-	Fluid reservoir maintenance set Consisting of: ■ Cylinder ■ Seal	-4C-
-	Volume controller maintenance set Consisting of: ■ Volume controller ■ Seals ■ Handle	-4D-
-	Pressure chamber maintenance set Consisting of: ■ Complete pressure chamber ■ Seals ■ Valve for input and output pressure ■ Inlet hose	-4E-
-	Pressure equalising valve maintenance set Consisting of: ■ Pressure equalising valve ■ Seals ■ Sealing plug	-4F
Ordering information for your enquiry:		
1. Order code: CPP-A-4 2. Option:		↓ []

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

Accessories for CPP1000-H		Order code
Description ¹⁾		CPP-A-
	Plastic case Incl. foam insert with recesses for model CPP1000-H Dimensions (W x H x D): 440 x 370 x 140 mm [17.32 x 14.57 x 5.51 in]	-50-
-	Adapter set "BSP" for test item hose Consisting of: ■ G ¼, male thread, to G ⅜, female thread ■ G ¼, male thread, to G ⅝, female thread ■ G ¼, male thread, to G ½, female thread ■ Various O-rings Material: stainless steel	-51-

Accessories for CPP1000-H		Order code
Description ¹⁾		CPP-A-
-	Adapter set “metric” for test item hose Consisting of: <ul style="list-style-type: none"> ■ G ¼, male thread to M12 x 1.5 ■ G ¼, male thread to M20 x 1.5 ■ G ¼, male thread to Minimes® ■ Various O-rings Material: stainless steel	-52-
-	Adapter set “NPT” for test item hose Consisting of: <ul style="list-style-type: none"> ■ G ¼, male thread, to ⅛ NPT, female thread ■ G ¼, male thread, to ¼ NPT, female thread ■ G ¼, male thread, to ⅜ NPT, female thread ■ G ¼, male thread, to ½ NPT, female thread ■ Various O-rings Material: stainless steel	-53-
	Connection adapters G ¼, male thread, to G ½, female thread Material: stainless steel	-54-
	Hydraulic fluid Based on VG22 mineral oil in plastic bottle Content 1 litre	-55-
	Sealing and maintenance set Consisting of different O-rings and seals	-56-
	Spare hose For high-pressure insert Length: 1 m [3.28 ft] Connection G ¼, female thread, freely rotating	-57-
-	Sealing plug and pressure equalising valve incl. seal	-58-
-	Drain valve maintenance set Consisting of: <ul style="list-style-type: none"> ■ Drain valve ■ Seal ■ Handle 	-5A-
-	Hose connection adapter maintenance set Consisting of: <ul style="list-style-type: none"> ■ Adapter for hose connection ■ Seal 	-5B-
-	Fluid reservoir maintenance set Consisting of: <ul style="list-style-type: none"> ■ Cylinder ■ Seal 	-5C-
-	Volume controller maintenance set Consisting of: <ul style="list-style-type: none"> ■ Volume controller ■ Seals ■ Handle 	-5D-

Accessories for CPP1000-H		Order code
Description ¹⁾		CPP-A-
-	Pressure chamber maintenance set Consisting of: <ul style="list-style-type: none"> ■ Complete pressure chamber ■ Seals ■ Valve for input and output pressure ■ Inlet hose 	-5E-
-	Pressure equalising valve maintenance set Consisting of: <ul style="list-style-type: none"> ■ Pressure equalising valve ■ Seals ■ Sealing plug 	-5F
Ordering information for your enquiry:		
1. Order code: CPP-A-5 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

CPP700-H

- Hand test pump, model CPP700-H, oil/water
- Minimes® test item hose, length 1 m [3.28 ft]
- Bulkhead connector, G ¼ female thread
- Operating instructions

Scope of delivery

CPP1000-H

- Hand test pump, model CPP1000-H, oil/water
- High-pressure test item hose, length 1 m [3.28 ft]
- Connection, G ¼ female thread
- Operating instructions

Ordering information

Model / Package / Pressure connection kit / Adapter set / Case / Special oil / Sealing tape / Further approvals / Additional ordering information

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