

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 3

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



Configurator



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 test 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 inlet 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 pressure measuring instrument is screwed directly to the top of the pump, and the test item is connected using a connection hose with a G 1/4 female thread, included in delivery. The CPP700-H is delivered with a Minimess® 1620 test item hose system as standard.

Specifications

Hand test pump		
Pressure range	Model CPP700-H	0 ... 700 bar [0 ... 10,000 psi]
	Model CPP1000-H	0 ... 1,000 bar [0 ... 14,500 psi]
Test pressure setting	<ul style="list-style-type: none"> ■ Via fine adjustment valve ■ Via pressure relief valve ■ Via pump handles 	
Pressure transmission medium	<ul style="list-style-type: none"> ■ Simple distilled water ■ Hydraulic fluids from mineral oil 	
	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 , refillable	
Pump volume per stroke		
Inlet pressure	81.6 mm ³	
High pressure	21 mm ³	
Case		
Material (non-wetted)	<ul style="list-style-type: none"> ■ Anodised aluminium ■ Brass ■ Stainless steel ■ ABS 	
Weight	1.3 kg [2.9 lb]	

Test connection		
Thread size		
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 device under test	Model CPP700-H	G ¼, female thread at test connection hose Length 1 m [3.28 ft] Minimes [®] 1620 system
	Model CPP1000-H	G ¼, female thread, freely rotating at test connection hose Length 1 m [3.28 ft]
Connection adapters	G ¼, male thread	
Material	Stainless steel	
Seal	<ul style="list-style-type: none"> ■ FKM ■ NBR 	

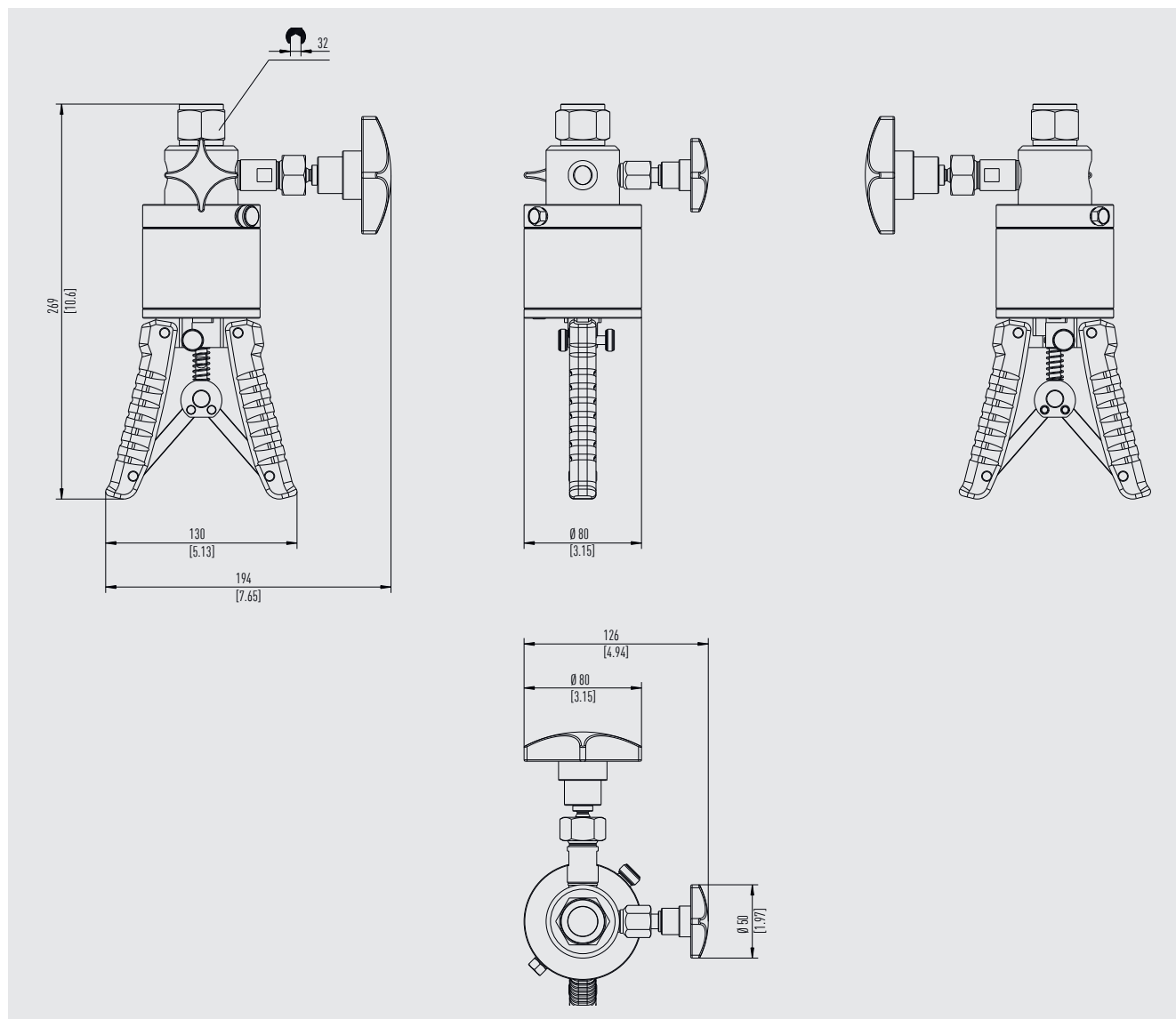
Operating conditions	
Place of use	<ul style="list-style-type: none"> ■ Laboratory ■ Workshop ■ Directly at the measuring location
Usage temperature / Operating temperature	18 ... 28 °C [64 ... 82 °F]
Ambient temperature range	-10 ... +50 °C [14 ... 122 °F]
Storage temperature range	-10 ... +50 °C [14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

Approvals

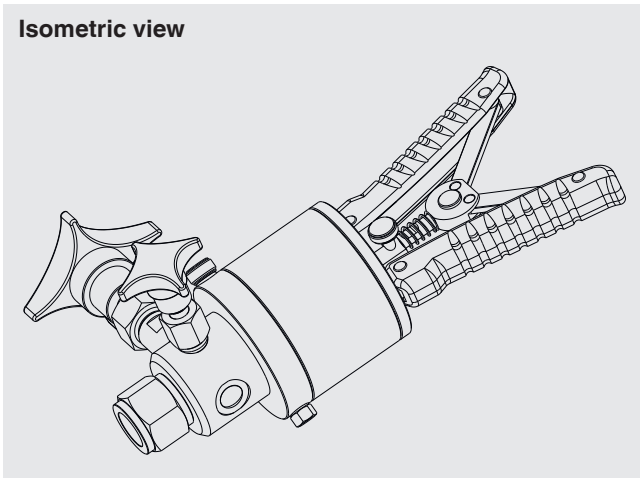
Logo	Description	Region
EAC	EAC	Eurasian Economic Community
	Pressure Equipment Directive	
	Machinery Directive	
-	MChS Permission for commissioning	Kazakhstan

→ For approvals and certificates, see website

Dimensions in mm [in]

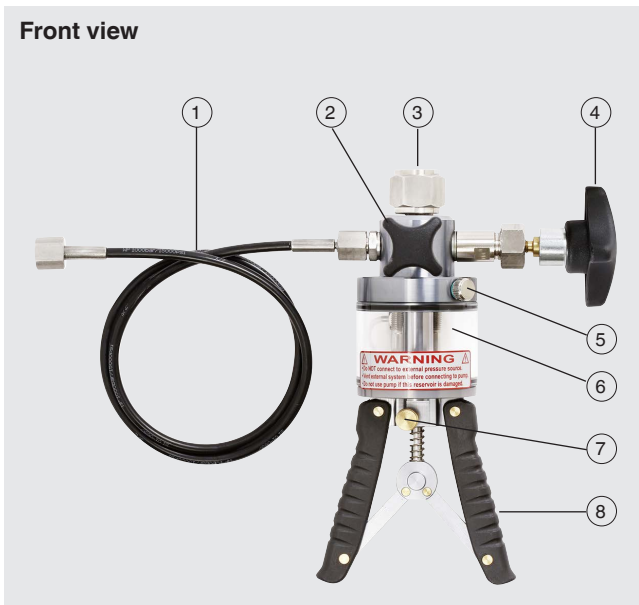


Isometric view

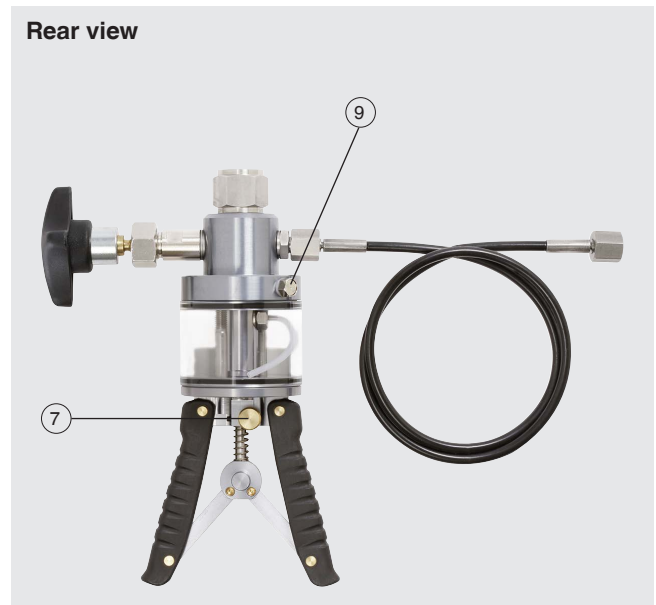


Construction

Front view



Rear view



- ① **Test item hose**
CPP700-H: Minimess® system with a G ¼ female pressure gauge bulkhead connector
CPP1000-H: G ¼, female thread
- ② Pressure relief valve
- ③ Connection for reference pressure measuring instruments, G ½, female thread, freely rotating
- 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, overpressure valve

Complete test cases

Calibration case

**Consisting of:**

- Plastic service case with foam insert
- Precision digital pressure gauge model CPG1500
- Hydraulic hand test pump, model CPP700-H or CPP1000-H

→ For further specifications, see data sheet CT 93.03.

**Consisting of:**

- Plastic service case with foam insert
- Digital pressure gauge model CPG1200
- Hydraulic hand test pump, model CPP700-H or CPP1000-H

→ For further specifications, see data sheet CT 93.03.

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

**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.





Accessories and spare parts

Accessories for CPP700-H		Order code
Description ¹⁾		CPP-A-4
	<p>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]</p>	-40-
-	<p>“BSP” adapter set 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</p>	-41-
-	<p>“Metric” adapter set 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 Minimess® ■ Various O-rings Material: stainless steel</p>	-42-
-	<p>“NPT” adapter set 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</p>	-43-
	<p>Connection adapters G ¼, male thread, to G ½, female thread Material: stainless steel</p>	-44-
	<p>Hydraulic fluid Based on VG22 mineral oil in plastic bottle Content 1 litre</p>	-45-
	<p>Seal and maintenance set Consisting of various O-rings and seals</p>	-46-
	<p>Model Minimess® spare hose Length: 1 m [3.28 ft] G ¼ bulkhead connector</p>	-47-
-	<p>Sealing plug and pressure equalising valve incl. seal</p>	-48-

Accessories for CPP700-H		Order code
Description ¹⁾		CPP-A-4
-	Drain valve maintenance set Consisting of: <ul style="list-style-type: none"> ■ Drain valve ■ Seal ■ Handle 	-4A-
-	Hose connection adapter maintenance set Consisting of: <ul style="list-style-type: none"> ■ Adapter for hose connection ■ Seal 	-4B-
-	Fluid reservoir maintenance set Consisting of: <ul style="list-style-type: none"> ■ Cylinder ■ Seal 	-4C-
-	Volume controller maintenance set Consisting of: <ul style="list-style-type: none"> ■ Volume controller ■ Seals ■ Handle 	-4D-
-	Pressure chamber maintenance set Consisting of: <ul style="list-style-type: none"> ■ Complete pressure chamber ■ Seals ■ Valve for input and output pressure ■ Inlet hose 	-4E-
-	Pressure equalising valve maintenance set Consisting of: <ul style="list-style-type: none"> ■ 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-5
	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-
-	“BSP” adapter set for test item hose Consisting of: <ul style="list-style-type: none"> ■ 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-
-	“Metric” adapter set 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 Minimess® ■ Various O-rings Material: stainless steel	-52-

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

Accessories for CPP1000-H		Order code
Description ¹⁾		CPP-A-5
-	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
- Minimesse[®] test item hose, length 1 m [3.28 ft]
- G ¼ bulkhead connector, 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]
- G ¼ connection, female thread
- Operating instructions

MINIMESS[®] is a registered trademark of Hydrotechnik GmbH in various countries.

Ordering information

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



© 12/2008 WIKA Alexander Wiegand SE & Co. KG, all rights reserved.
 The specifications given in this document represent the state of engineering at the time of publishing.
 We reserve the right to make modifications to the specifications and materials.
 In case of a different interpretation of the translated and the English data sheet, the English wording shall prevail.

