

# DIGITAL HYDRAULIC TESTER



## HFP-110/ 120 Series



- ✓ ±1% FS Accuracy
- ✓ Turbine Flow Sensor Gives Fast Response
- ✓ Large 3½-Digit LCD for Flow or Temperature
- ✓ Toggles Between Power, Flow and Temperature
- ✓ Load Valve Offers Fingertip Control of Pressure to 6000 psi (41.4 MPa)

The HPF-110/120 series are compact, lightweight, self-contained portable testers with laboratory accuracy. Designed for fast diagnostic troubleshooting of all types of mobile or stationary hydraulic systems and components, makes all flow, pressure and temperature measurements

simultaneously from one point. Helical type pressure gauge provides pulsation dampening and high over-pressure capacity. Additional features include pressure relief disc protection, and low battery/over-range indicators. Metric units are also available.

### SPECIFICATIONS

**Material**  
**Housing:** 2024-T351 anodized aluminum  
**Turbine Rotor:** T416 stainless steel  
**Rotor Supports:** 6061-T6 aluminum  
**Rotor Shaft:** T303 stainless steel  
**Seals:** Buna standard; FKM and EPR optional  
**Ball Bearings:** 440 C stainless steel  
**Hub Cones:** 6061-T6 aluminum alloy  
**Temperature Probe:** 12L14 steel (zinc plate, dichromate finish)  
**Valve Body for 15/30's:** Cold rolled steel; 60/85/200  
**Body:** 12L14  
**Steel Stem:** 303 stainless steel  
**Poppet:** 12L14 steel hardened

HFP-113P shown smaller than actual size.

### Straightening Section:

**15/30:** CA360 brass  
**60/85/200:** 6061-T6 aluminum  
**Cones:** 2024-T4 aluminum  
**200 GPM (757 LPM):** Sleeve—D.O.M. steel tube  
**Ports:** SAE straight thread O-ring boss, female, J1926/1; BSPP ISO1179  
**Magnetic Pick-Up:**  
**Body:** 12L14 steel, black oxide finish  
**Nut:** 12L14 steel, zinc plate, dichromate finish

### Performance

**Electrical Output Signal:** Self-generating alternating pulse, 100 mV RMS (100 Hz) min  
**Flow Accuracy:** ±1% of full scale  
**Repeatability:** ±0.2%  
**Turbine Response:** < 200 ms  
**Fluid Temperature Range:** -20 to 150°C (-4 to 300°F)  
**Ambient Temperature Range:** -20 to 55°C (-4 to 131°F)  
**Flow Readout:** Linearity and zero shift = ±1-digit

**Operating Pressure:** Max 6000 psi  
(414 bar, 41.4 MPa, 420 kg/cm<sup>2</sup>)  
**Fluid Temperature:** Max 150°C (300°F)

**Readout Accuracy:** ±1-digit  
**Battery Type:** 2 "AA" alkaline  
(included); life 50 hours

**Dimensions:**  
**HFP-111/121 thru HFP-114/124:**  
287 x 279 x 89 mm (11.3 x 11 x 3.5")  
**HFP-115, HFP-125:**  
311 x 298 x 101 mm (12.3 x 11.8 x 4")

<b>To Order Visit <a href="http://omega.com/hfp_series">omega.com/hfp_series</a> for Pricing and Details</b>				
Model No.	Port Size	Units	Pressure Description	Weight kg (lb)
HFP-111P	SAE 12	psi	1 to 15 GPM hydraulic tester	6.3 (13.9)
HFP-112P	SAE 12	psi	2 to 30 GPM hydraulic tester	6.3 (13.9)
HFP-113P	SAE 16	psi	3 to 60 GPM hydraulic tester	7.5 (16.5)
HFP-114P	SAE 16	psi	4 to 85 GPM hydraulic tester	7.5 (16.5)
HFP-115P	SAE 24	psi	7 to 199.9 GPM hydraulic tester	9.1 (20.0)
HFP-121P	G ¾	psi	4 to 56 LPM hydraulic tester	6.3 (13.9)
HFP-122P	G ¾	psi	7.5 to 113.6 LPM hydraulic tester	6.3 (13.9)
HFP-123P	G 1	psi	12 to 227 LPM hydraulic tester	7.5 (16.5)
HFP-124P	G 1	psi	15 to 321 LPM hydraulic tester	7.5 (16.5)
HFP-125P	G 1½	psi	26 to 757 LPM hydraulic tester	9.1 (20.0)

Comes complete with 2 "AA" alkaline batteries, and operator's manual.  
For units with BAR pressure units change the last letter in the model number from "P" to "B", no additional change.  
**Ordering Examples:** HFP-124P, 15 to 321 LPM hydraulic tester, G1 port size.  
HPF-114P, 4 to 85 GPM hydraulic tester, SAE 16 port size.

# DIGITAL HYDRAULIC TESTER WITH DYNAMOMETER

- ✓ Front Panel Selectable U.S. or Metric Readings
- ✓ Digital Pressure to 6000 psi (41.4 MPa or 414 bar)
- ✓ Dynamometer Reads Power (HP and kW) Directly
- ✓ Large Easy-to-Use Membrane Switch Selects Flow, Temperature, Pressure or Power
- ✓ Low Noise Input Circuitry Provides Steadier Readings When Flow is Pulsating or Cavitating
- ✓ Auto/Off Automatically Turns Power Off After 5 Minutes with No Flow Signal

## HFP-100 Series



The HPF-100 series are all-digital, compact, lightweight, self contained portable hydraulic testers and dynamometers. Designed for fast diagnostic troubleshooting of all types of hydraulic systems and components, including engine-pump combinations. Makes all flow, pressure, temperature and power measurements simultaneously from one point, in either U.S. or metric



HFP-101 shown smaller than actual size.

units (switchable). Silicon strain gauge pressure sensor. This series also offers other standard features of HFP-110/120 series, however, the HFP-100 series is NOT CE rated.

<b>To Order Visit <a href="http://omega.com/hfp_series">omega.com/hfp_series</a> for Pricing and Details</b>				
Model No.	Port Size	Pressure Scale	Description	Weight kg (lb)
HFP-101	SAE 12	bar (psi)	1 to 15 GPM (4 to 56 LPM) digital with dynamometer	6.3 (13.9)
HFP-102	SAE 12	bar (psi)	2 to 30 GPM (7.5 to 113.5 LPM) digital with dynamometer	6.3 (13.9)
HFP-103	SAE 16	bar (psi)	3 to 60 GPM (12 to 227 LPM) digital with dynamometer	7.5 (16.5)
HFP-104	SAE 16	bar (psi)	4 to 85 GPM (15 to 321 LPM) digital with dynamometer	7.5 (16.5)
HFP-105	SAE 24	bar (psi)	7 to 199.9 GPM (26 to 757 LPM) digital with dynamometer	9.1 (20.0)

Comes complete with 2 "AA" alkaline batteries, and operator's manual.  
**Ordering Examples:** HFP-101, digital hydraulic tester with dynamometer 1 to 15 GPM (4 to 56 LPM), HP and KW displays.  
HFP103, digital hydraulic tester with dynamometer, 3 to 60 GPM (12 to 227 LPM), HP, and kW displays.