

PFM8 Digital Hydraulic Tester & Dynamometer

Simultaneously Measures Flow, Pressure, Power and Temperature



- Five flow ranges
- Front panel selectable US or metric readings
- Dynamometer reads power (HP & kW) directly
- 3-1/2 digit LCDs for digital display of flow, temperature, pressure and power
- Large easy-to-use membrane switch
- Loading valve with fingertip control of pressure
- Silicon strain gauge pressure sensor
- Platinum resistance temperature sensor
- Pressure surge protection
- Turbine flow sensor provides fast response
- Pressures up to 6000 PSI (414 Bar)
- Temperatures up to 300 °F (150 °C)
- Flow accuracy $\pm 1\%$ of full scale
- Repeatability $\pm 0.2\%$

The all digital PFM8 Series combines a compact, lightweight hydraulic tester and a dynamometer in one unit. Designed for fast diagnostic troubleshooting of all types of hydraulic systems and components, including engine-pump combinations. These testers make all flow, temperature, pressure and power measurements from one point. A bonus feature of this series is the capability to switch from US to metric units of measure in the field.

Each tester utilizes two digital displays, one for flow and temperature and a second display for pressure and power. Simple operation includes a large format membrane switch for on/off control and selection of units of measure to be displayed. A loading valve with fingertip control and pressure surge protection are standard features.

SPECIFICATIONS

Performance

Flow Accuracy:	$\pm 1\%$ of full scale
Repeatability:	$\pm 0.2\%$
Turbine Response:	$\leq 200\text{ms}$
Temperature:	
Fluid	-4 to +300 °F (-20 to +150 °C)
Ambient	-4 to +131 °F (-20 to +55 °C)
Flow Readout:	Linearity and zero shift ± 1 digit
Operating Pressure:	up to 6000 PSI (414 Bar, 41.4 MPa, 420 kg/cm ²)
Pressure Drop:	See ΔP charts on page 14
Readout Accuracy:	± 1 digit

Material

Housing:	6013-T651 Aluminum; anodized
Turbine Rotor:	T416 Stainless steel
Ball Bearings:	440C Stainless steel
Rotor Shaft:	T303 Stainless steel
Rotor Supports:	
PFM6-15/30	CA360 Brass
PFM6-60/85/200	6061-T6 Aluminum alloy
Hub Cones:	6061-T6 Aluminum alloy
Valve Body:	
PFM6-15/30	Cold rolled steel; zinc plate, dichromate finish
PFM6-60/85/200	12L14 Steel; zinc plate, dichromate finish
Valve Stem:	T303 Stainless steel
Poppet:	12L14 Steel; hardened
Sleeve:	
PFM6-200 only	D.O.M. steel tube
Temperature Probe:	T303 Stainless steel
Magnetic Pick-up:	
Body	12L14 Steel; electroless nickel plate
Nut	12L14 Steel; electroless nickel plate
Seals:	Buna N standard; Viton® and EPR optional
Carrying Handle:	Cast aluminum; anodized
Electronic Case & Cover:	Cold rolled steel; zinc plate with clear seal, epoxy black paint
Battery:	AA size alkaline, ~ 50 hours of service

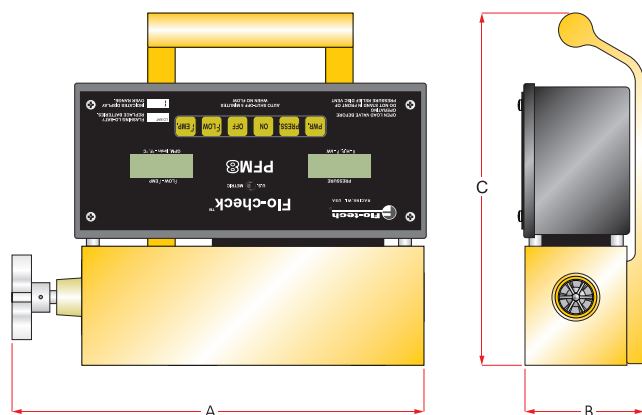
Ports:	SAE Straight thread O-ring boss, female J1926/1
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DIMENSIONS



SERIES	A LENGTH IN (mm)	B DEPTH IN (mm)	C HEIGHT IN (mm)	WEIGHT LBS (KG)
PFM8-15	11.3 (287)	3.5 (89)	9.8 (249)	13.85 (6.3)
PFM8-30	11.3 (287)	3.5 (89)	9.8 (249)	13.85 (6.3)
PFM8-60	11.5 (292)	3.5 (89)	9.8 (249)	16.50 (7.5)
PFM8-85	11.5 (292)	3.5 (89)	9.8 (249)	16.50 (7.5)
PFM8-200	12.3 (311)	4.0 (101)	10.3 (262)	20.00 (9.1)

ORDERING INFORMATION

SERIES	NOMINAL PORT SIZE	FLOW RANGE	POWER HP (kW)	MODEL NUMBER
PFM8-15	SAE 12	1 - 15 GPM (4 - 56 LPM)	52.5 (39)	F5061
PFM8-30	SAE 12	2 - 30 GPM (7.5 - 113.6 LPM)	105 (78)	F5058
PFM8-60	SAE 16	3 - 60 GPM (12 - 227 LPM)	210 (157)	F5052
PFM8-85	SAE 16	4 - 85 GPM (15 - 321 LPM)	298 (222)	F5053
PFM8-200	SAE 24	7 - 199.9 GPM (26 - 757 LPM)	700 (522)	F5054

Examples:

F5061 = PFM8-15
SAE 12 ports
1 - 15 GPM (4 - 56 LPM)

F5053 = PFM8-85
SAE 16 ports
4 - 85 GPM (15 - 321 LPM)

ACCESSORIES

MODEL NUMBER	DESCRIPTION	SERIES
F4934-1530	Carrying Case	PFM8-15 & PFM8-30
F4934-6085	Carrying Case	PFM8-60 & PFM8-85
F4934-200	Carrying Case	PFM8-200
F1614-7500	Pressure Relief Disc, 7500 PSI (1 per Tester)	All PFM8s
F001109	5-Point Calibration Certificate ¹	All PFM8s
F001110	10-Point Calibration Certificate ¹	All PFM8s

¹ Certificates are traceable to NIST, ISO 9001.