

PFM6BD Bi-Directional Hydraulic Tester

Simultaneously Measures Flow, Pressure and Temperature



- Bi-directional in-line testing capabilities in three flow ranges
- Large 3-1/2 digit LCD for flow and temperature
- Helical tube pressure gauge
- One toggle switch to control power and select flow and temperature
- Loading valve with fingertip control of pressure
- Platinum resistance temperature sensor
- Pressure surge protection with internal pressure relief
- Turbine flow sensor provides fast response
- SAE ports
- 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 PFM6BD Series includes all the features of the standard PFM6 Series with the added benefit of bi-directional flow measurement and an internal pressure relief system. Designed for fast diagnostic troubleshooting of all types of mobile or stationary hydraulic systems and components, these compact testers offer laboratory accuracy and provide flow, pressure and temperature measurements simultaneously from one point.

SPECIFICATIONS

Performance

Flow Accuracy:

Forward	$\pm 1\%$ of full scale
Reverse	$\pm 2\%$ 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/cm²)

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:

6061-T6 Aluminum alloy

Hub Cones:

6061-T6 Aluminum alloy

Valve Body:

12L14 Steel; zinc plate,
dichromate finish

Valve Stem:

T303 Stainless steel

Spool/Sleeve:

4340 Alloy steel; hardened

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
Cast aluminum; anodized

Carrying Handle:

Electronic Case

& Cover:

Cold rolled steel; zinc plate with
clear seal, epoxy black paint
4 AA size alkaline,
~ 50 hours of service

Battery:

Ports:

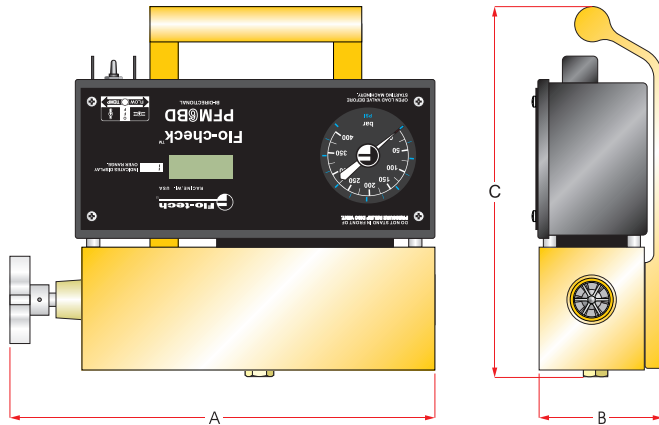
SAE Straight thread O-ring
boss, female J1926/1

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DIMENSIONS



SERIES	A LENGTH IN (mm)	B DEPTH IN (mm)	C HEIGHT IN (mm)	WEIGHT LBS (KG)
PFM6BD-60	11.3 (287)	3.5 (89)	10.1 (256)	16.50 (7.5)
PFM6BD-85	11.3 (287)	3.5 (89)	10.1 (256)	16.50 (7.5)
PFM6BD-200	11.8 (300)	4.0 (101)	10.6 (268)	19.50 (9.0)

ORDERING INFORMATION

SERIES	NOMINAL PORT SIZE	FLOW RANGE	MODEL NUMBER	STD or CE MODEL	PRESSURE GAUGE UNITS OF MEASURE
PFM6BD-60	SAE 16	3 - 60 GPM (12 - 227 LPM)	F5082 * - XXX	Leave blank for standard model or CE for CE option	PSI BAR MPA KG/CM2
PFM6BD-85	SAE 16	4 - 85 GPM (15 - 321 LPM)	F5083 * - XXX		
PFM6BD-200	SAE 24	7 - 199.9 GPM (26 - 757 LPM)	F5084 * - XXX		

Examples:

F5083-PSI = PFM6BD-85
SAE 16 ports
4 - 85 GPM (15 - 321 LPM)
Standard model
PSI pressure units

F5082CE-PSI = PFM6BD-60
SAE 16 ports
3 - 60 GPM (12 - 227 LPM)
CE certified
PSI pressure units

ACCESSORIES

MODEL NUMBER	DESCRIPTION	SERIES
F4934-6085	Carrying Case	PFM6BD-60 & PFM6BD-85
F4934-200	Carrying Case	PFM6BD-200
F1614-7500	Pressure Relief Disc, 7500 PSI (2 per Tester)	All PFM6BDs
F001109	5-Point Calibration Certificate ¹	All PFM6BDs
F001110	10-Point Calibration Certificate ¹	All PFM6BDs

¹ Certificates are traceable to NIST, ISO 9001.