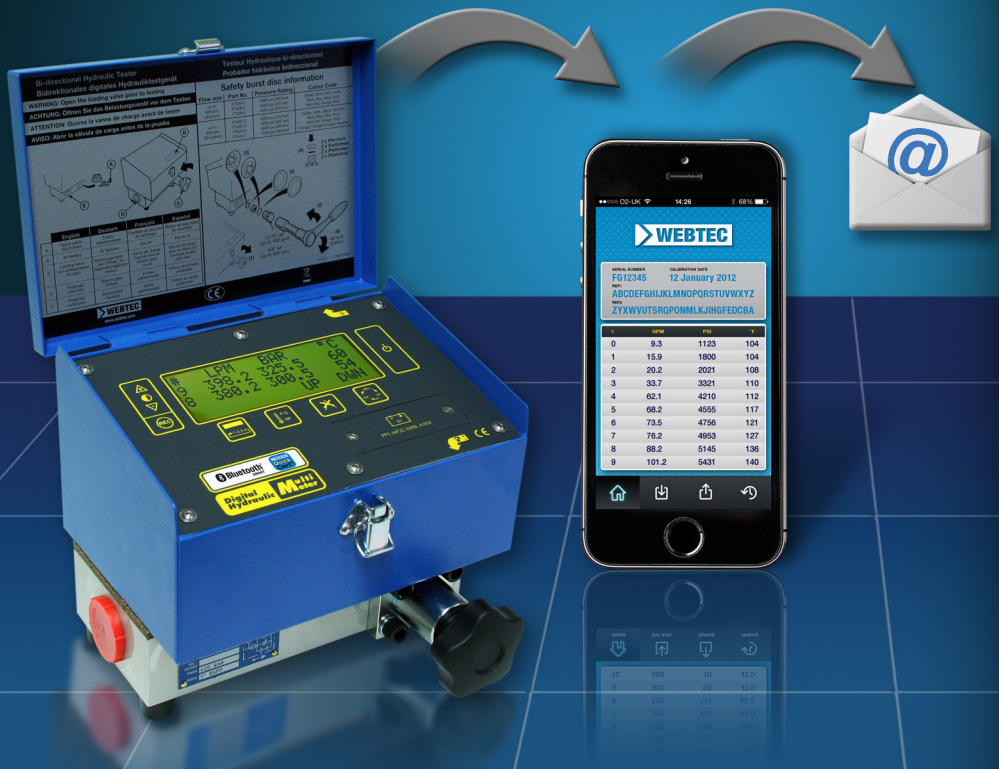
DHM 4 Series

Digital Hydraulic Multimeter

Measure Flow, Pressure, Peak Pressure, Temperature, Power and Volumetric Efficiency.

Record Data & Wireless Transfer

Up to
- 800 lpm, 210 US gpm
- 480 bar, 7000 psi



Bluetooth® SMART

Free WEBTEC Quick Cert™ app available from:

Download on the App Store

Hydraulic measurement and control

WEBTEC

Milwaukee, WI 53235, USA
Tel: +1 (414) 769-6400
sales-us@webtec.com

St. Ives, Cambs. PE27 3LZ, UK
Tel: +44 (0) 1480 397 400
sales-uk@webtec.com

www.webtec.com

Features

- **PRODUCE** an electronic report for immediate email to the customer
- **FLOW** 10-800 lpm, 2.5-210 US gpm
- **PRESSURE** 480 bar, 7000 psi
- **PEAK PRESSURE** capture at 1000 times/s
- **ACCURATE** measurements and FAST response bar graphs to aid diagnosis.
- **BUILT-IN** loading valve.
- **BI-DIRECTIONAL** operation.
- **INTERNAL** oil by-pass protects the meter and system against overpressure.
- **AUTOMATIC** calculation of hydraulic power and volumetric efficiency.
- **RECORD** data to robust, non-volatile memory.
- **PORTABLE**, robust and sealed to IP54.

nqa. ISO 9001 Registered — UKAS QUALITY MANAGEMENT 015

Certificate No.8242

DHMBLU-BU-ENG-3190.pdf 02/16
(Version 3)

Specifications

Model number	Flow range	Pressure range	Fluid temp. range	Inlet/outlet ports
DHM404-B-6	10 - 400 LPM	0 - 420 bar	0 - 105°C	1" BSPP
DHM404-S-6	2.5 - 100 US gpm	0 - 6000 psi	32 - 220 °F	1-5/16" -12UN #16 SAE ORB
DHM804-S-7-L*	20 - 800 LPM	0 - 480 bar	0 - 105 °C	1-7/8" -12UN #24 SAE ORB
DHM804-S-7*	5 - 210 US gpm	0 - 7000 psi	32 - 220 °F	1-7/8" -12UN #24 SAE ORB

** DHM804 has limited pressure control below 86 lpm (23 US gpm). The maximum controllable pressure in this region is calculated by: max pressure (in bar) = 5 x flow (lpm) + 30*

Functional specification

Ambient temperature: 5 to 40°C (41-104°F)
Fluid type: Hydraulic oil
Accuracy:
Flow: ± 1% of indicated reading (15 to 100% of range)
Pressure: ± 0.5% full scale
Temperature: ± 1°C (± 2°F)
Power: Below 100KW (134HP) ± 3KW (± 4HP)
Above 100KW (134HP) ± 5KW (± 6.7HP)
Volumetric efficiency: ± 1%

Data Recording: up to 12 sets of data points can be saved to internal memory
Peak Pressure: is sampled 1000 times/second.
Battery Life: approximately 15hours continuous with high capacity Alkaline unit.
IP54 Internal Protection of electrical circuits**.**

Dimensions in mm (inches)

DHM404 240 (9.45") wide, 200 (7.87") deep, 200 (7.87") high
DHM804 245 (9.65") wide, 225 (8.86") deep, 225 (8.86") high

Weight
DHM404 Unpacked 6.5Kg (14lbs)
DHM804 Unpacked 10Kg (22lbs)

Construction materials

Case: Powder coat painted mild steel
Flow block: High tensile aluminium
Seals: Viton as standard - EP seals on request

iOS App'

Application programs are only available for iOS operating systems.
Handheld devices must support Bluetooth® Smart (v4.1) or greater.
For Apple iPhone® 5S upwards

Operation

The DHMx04 has four screens that can be toggled by a panel button to display:

1. Digital flow, pressure, peak pressure and temperature. Update time of 0.7seconds.
2. Digital flow, pressure, peak pressure and temperature plus rapid bar graphs. Update times of digital = 0.7s, bar graphs = 0.07seconds.

1&2. On screens 1 & 2 pressing the P-Q/HP button toggles the bottom line display between temperature and power.

3. Digital flow, pressure and power plus rapid bar graphs – update times as above. Additionally, by pressing the P-Q/HP button volumetric efficiency is displayed as a percentage of the set point recorded when the button was pressed.
4. Recorded data review of all logged points. Records can be deleted from here.

NB. Peak pressure is sampled 1000 times/sec to capture the fastest peaks!

Data points can be recorded while in live display screens 1, 2 or 3 (as memory allows). Data points can be deleted through screen 4 following the on-screen prompts. Recorded data can be retrieved from the meter with a Bluetooth Smart enabled device running the QuickCert App'.

Once retrieved, the data can easily be converted in to a pdf format certificate and forwarded to a customer email.

Operational Features
The DHM has an auto power off feature that turns the unit off if unused for more than 15 minutes. The standard 9-volt battery enables more than 6 months normal testing time. The 9V battery is available worldwide.

The turbine block, manufactured from high tensile aluminium, houses a six blade turbine rotating on a stainless steel bearing and shaft. Built-in flow straighteners reduce flow turbulence and allows repeatable and accurate flow measurement in both directions.

The integral loading valve gives progressive pressure loading in either flow direction. Replaceable safety discs relieve to internally by-pass the oil if the maximum pressure is exceeded by ~ 5%. Replacement safety discs are stored in an internal holder machined in the rear of the flow block. Safety discs with different pressure ranges up to 480 bar are available. Consult sales office for further information.

Calibration
All testers are calibrated with 21cSt oil as standard. Calibration certificates are available on request - this is a chargeable option.

Installation
It is recommended to connect the flow block with flexible hoses 1-2 metres (3-6ft) long. All connections should be made by suitable qualified personnel.

CE

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www.aroflex.ch ¦ info@aroflex.ch ¦ Phone +41 71 657 19 28 ¦ Fax +41 71 657 21 51