



Badger Meter Europa

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MC4000

Handheld hydraulic system analyzer



Features

- Handheld hydraulic analyzer offers instant and recordable diagnostics
- Hydraulic horsepower calculations
- Measures fast transients
- Flow sensor linearization
- 2.5 MB data logging capacity
- Five sensor inputs, including:
 - Turbine flow sensor
 - Two pressure sensors
 - Temperature sensor
 - RPM speed indicator

Description

The Flo-tech MC4000 handheld hydraulic system analyzer has inputs for two pressure sensors, one temperature sensor, one flow sensor and one active pick-up for RPM* measurements. Four sensors can be connected at the same time and the measurements displayed in four windows of the LCD display in preselected process units according to US or DIN norms. The display supports English, French, German, Italian and Spanish languages, selected when ordering. When operating in the datalogger mode, measurement results are stored in an internal 2.5 MB memory space. Each stored measurement also contains the day, date, and time derived from an internal real-time clock. Stored measurements are available at the meter's USB data port and can be uploaded to a Windows® PC using the MC4CON software utility. The

MC4CON program permits bi-directional communication for downloading the records to the PC and for uploading the commands from the PC to MC4000. All parameters can be set using the keys on the front panel. Pressure units can be programmed in bar or psi. The flow and RPM measurements are scaled by using programmable constants. Additionally, three-point flow calibration for the turbine sensors is available. For offset adjustment, the tare function can be activated to set the display to zero at non-zero inputs. Hydraulic horsepower is automatically calculated from the measured pressure and the flow. The horsepower units are displayed as either hp or kW, depending on menu selection.

*RPM = Revolution per minute



Technical data

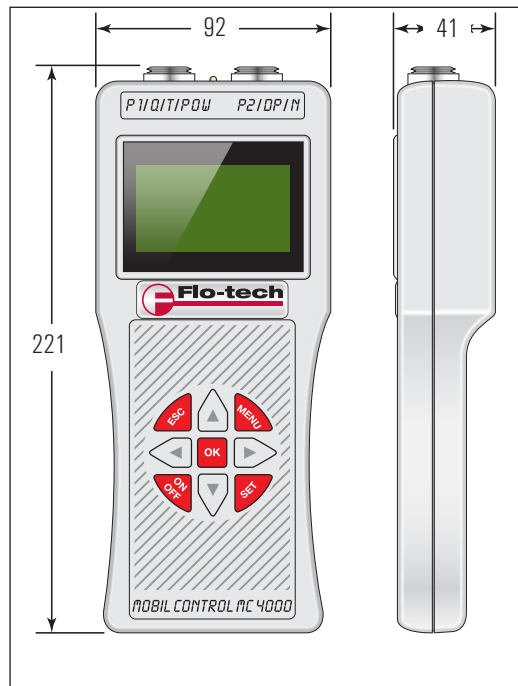
Accuracy	± 0.1% + 1 digit from reading
A to D	16-bit, linearity ± (1 LSB + 1 digit)
Display	Graphic LCD display with back light, 128 x 64 pixels Back light auto-off function
Inputs	Flow (Q): 10mV...5V P-P sine wave from turbine Pressure: (P1/P2): dual 4...20 mA Temperature (T): Pt-100 -50...500° C RPM: 5...24V active pickup. Range 30...60,000 rpm
Keypad	9 keys on the front. With backlight activated, the display is illuminated for 30 second after any key is pressed.
Power	Battery: 6V, 2 Ah Charger: 100 to 240V AC A fully charged battery permits about 4 hours of operation with two pressure sensors connected and the backlight switched off..
Memory	2.5 MB datalogger stores up to 80,000 samples in all four signal channels, calculated power, date, and time. The sampling rate is selectable from 1sec to 120 min. Peak & valley stores the maximum and the minimum of P1 and P2 2 fast transients recorders with a sampling rate of 1 ms and a capacity of 240,000 measurements reading pressure P1. The start level of the recording threshold is programmable between 0 to 100%.
Tare	Pressure channels P1 and P2 can be independently set to zero.

Part number construction

MFC4 -	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
Language	<ul style="list-style-type: none"> 1) German and English 2) English and Spanish 3) English and French 							Pressure sensor 2 0) none 1) 60 bar 2) 100 bar 3) 250 bar 4) 400 bar 5) 600 bar
Power	<ul style="list-style-type: none"> 1) EU - Power cord 65 to 240V, 50/60Hz 2) US - Power cord 100 to 240 VAC 							Temperature sensor 0) none 1) -50 °C to +200 °C
Turbine flow sensor	<ul style="list-style-type: none"> 0) none 1) 1,5 to 25 l/min G ¼ ports 2) 4 to 150 l/min G ¾ ports 3) 15 to 300 l/min G 1 ports 4) 30 to 600 l/min G 1¼ ports 							Pressure sensor 1 0) none 1) 60 bar 2) 100 bar 3) 250 bar 4) 400 bar 5) 600 bar

HD_FT-MC4000_DB_02_1408

Dimensions (in mm)



Accessories

The MFC4 handheld analyzer is including:

- 3-fold-cable flow, pressure and temperature L: 2,5 m
- USB cable A/B for PC connection
- Windows®-based MC4-software on CD

A comprehensive set of accessories is available for the MC4000. Use these accessories to expand the capabilities of the MC4000. For a complete list of available accessories, see the MC4000 Parts List.