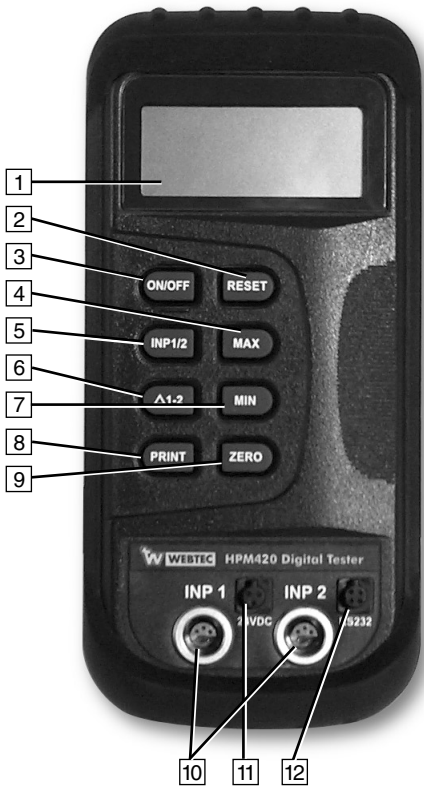


# Operating Instruction

## Multitester

### 420 Series

#### A - C



- 1) **4-digit display** with units, input conditions and battery status.
- 2) **RESET** to delete max/min value memory.
- 3) **ON/OFF switch**
- 4) **Display maximum value.** Before starting measurement, press RESET
- 5) **Channel select button** for input 1 or 2 pressures.
- 6) **Display differential.** Input 1 minus input 2. Neutral balance is requested before calculating differential (see below).
- 7) **Display minimum value.** Before starting measurement, press RESET.
- 8) **Print actual / max / min values** in numeric form\*.
- 9) **ZERO** displayed values
- 10) **Analogue inputs** for 2 sensors
- 11) **Connector** to charge the battery
- 12) **Output plug** for cable to transmit measured values to printer or PC\*  
\*Model HPM 420C only

#### Operation

First make sure the battery is charged (see below). Connect sensors to (10) INPUT1 and INPUT 2. After the readout is switched on by pressing (3) ON/OFF, all functions are shown on the display. The measured value and unit of the connected sensors (sensor recognition) then appears. If no sensor is detected "noSE" appears on the display. Press (4) MAX or (7) MIN button to show maximum or minimum value. Delete memory with (2) RESET button. The (9) ZERO button will 0 the current value. The differential value of input 1 minus input 2 appears on display when button (6)Δ1-2 is pressed (must use identical range sensors).

#### Selecting units:

- Keep (2) RESET key pressed while switching on the readout. (3) as above, "Unit" is displayed.
- Change pressure unit using the (4) MAX and (7) MIN KEYS.
- Press (9) ZERO key to select unit.
- Change settings for flow rate, temperature and RPM the same way.
- After this the readout changes automatically into the measurement mode.

**Note:** RPM / U/MIN both use 1 reflective mark on the shaft.

#### Neutral balance for differential value measurements

- Switch on device and connect two identical sensors to (10) INPUT1 and 2.
- Keep button (6)Δ1-2 and (9) ZERO button pressed until the display shows zero, then connect transducers to the machine.

#### Automatic switch off

The device switches off automatically after approx. 15 minutes. This function is suppressed on HPM420C when the interface output (12) is used.

#### Charging the battery HPM420, HPM420C

If "LOWBAT" is displayed, the internal battery has to be charged. To do so, connect external power supply to (11) (Charging socket). Please assure correct voltage (see label on external power supply). The Multitester is provided with a commercial 9V-NiCd-battery and can be charged while the readout is in use. Recommended charging duration is 12-14 hours. Charging for a longer period will rapidly reduce its service life.

To keep readout in good condition always protect it against shock and moisture.



Nuffield Road, St. Ives, Cambridgeshire, PE27 3LZ, UK  
Tel: +44(0)1480 397400 Fax: +44(0)1480 466555

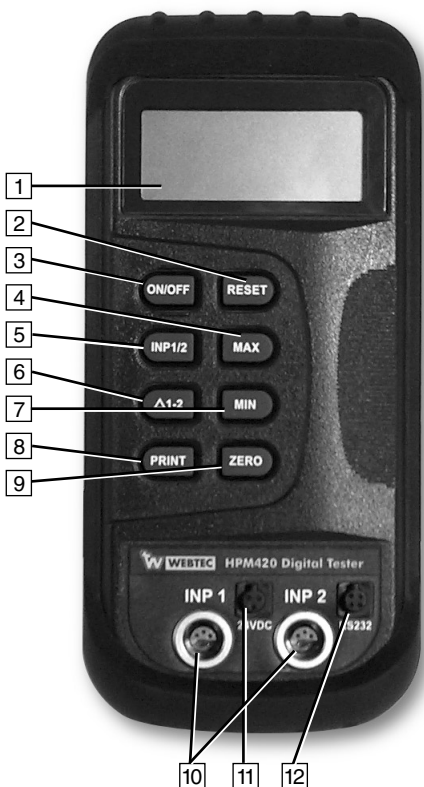
E-mail: [sales@webtec.co.uk](mailto:sales@webtec.co.uk)  
Internet: <http://www.webtec.co.uk>  
HPM-IN-ENG-1490.pdf (04/05)

# Operating Instruction

## Multitester

### 420 Series

#### A - C



- 1) **4-digit display** with units, input conditions and battery status.
- 2) **RESET** to delete max/min value memory.
- 3) **ON/OFF switch**
- 4) **Display maximum value.** Before starting measurement, press RESET
- 5) **Channel select button** for input 1 or 2 pressures.
- 6) **Display differential.** Input 1 minus input 2. Neutral balance is requested before calculating differential (see below).
- 7) **Display minimum value.** Before starting measurement, press RESET.
- 8) **Print actual / max / min values** in numeric form\*.
- 9) **ZERO** displayed values
- 10) **Analogue inputs** for 2 sensors
- 11) **Connector** to charge the battery
- 12) **Output plug** for cable to transmit measured values to printer or PC\*  
\*Model HPM 420C only

#### Operation

First make sure the battery is charged (see below). Connect sensors to (10) INPUT1 and INPUT 2. After the readout is switched on by pressing (3) ON/OFF, all functions are shown on the display. The measured value and unit of the connected sensors (sensor recognition) then appears. If no sensor is detected "noSE" appears on the display. Press (4) MAX or (7) MIN button to show maximum or minimum value. Delete memory with (2) RESET button. The (9) ZERO button will 0 the current value. The differential value of input 1 minus input 2 appears on display when button (6)Δ1-2 is pressed (must use identical range sensors).

#### Selecting units:

- Keep (2) RESET key pressed while switching on the readout. (3) as above, "Unit" is displayed.
- Change pressure unit using the (4) MAX and (7) MIN KEYS.
- Press (9) ZERO key to select unit.
- Change settings for flow rate, temperature and RPM the same way.
- After this the readout changes automatically into the measurement mode.

**Note:** RPM / U/MIN both use 1 reflective mark on the shaft.

#### Neutral balance for differential value measurements

- Switch on device and connect two identical sensors to (10) INPUT1 and 2.
- Keep button (6)Δ1-2 and (9) ZERO button pressed until the display shows zero, then connect transducers to the machine.

#### Automatic switch off

The device switches off automatically after approx. 15 minutes. This function is suppressed on HPM420C when the interface output (12) is used.

#### Charging the battery HPM420, HPM420C

If "LOWBAT" is displayed, the internal battery has to be charged. To do so, connect external power supply to (11) (Charging socket). Please assure correct voltage (see label on external power supply). The Multitester is provided with a commercial 9V-NiCd-battery and can be charged while the readout is in use. Recommended charging duration is 12-14 hours. Charging for a longer period will rapidly reduce its service life.

To keep readout in good condition always protect it against shock and moisture.



Nuffield Road, St. Ives, Cambridgeshire, PE27 3LZ, UK  
Tel: +44(0)1480 397400 Fax: +44(0)1480 466555

E-mail: [sales@webtec.co.uk](mailto:sales@webtec.co.uk)  
Internet: <http://www.webtec.co.uk>  
HPM-IN-ENG-1490.pdf (04/05)