The 104D Rate Totaliser is designed to display the flow rate and total of your process liquid. You can use it for monitoring, controlling, dispensing, blending or filling of any liquid when used with a wide variety of flowmeters.

**Operation**

The flowrate and resettable total are displayed simultaneously. The 104D also stores a non-resettable total to monitor long term consumption.

**Setup**

The rate and totals can be displayed in any engineering units, for example litres per minute and barrels. The setup is easy via the front keypad and it can be preset for your requirements.

**Installation**

The 104D can be mounted directly on to your flowmeter, wall mounted or pipe mounted. Cables are installed via waterproof cable glands.

**Application**

The 104D Rate Totaliser is designed to display the flow rate and total of your process liquid. You can use it for monitoring, controlling, dispensing, blending or filling of any liquid when used with a wide variety of flowmeters.

**Easy to use**

- Quick and easy to setup
- Preset to your requirements
- Displays rate, total & accumulated total

**Loop powered 4-20mA output**

**High & low alarms**

**10 point linearisation**

**Highly accurate**

- Improve product quality
- Reduce waste and save money

**Versatile**

- Works with most flowmeters
- Waterproof enclosure
- Mounts on the pipe, wall or flowmeter
- Battery or DC powered

**Additional Features**

1. **Analogue 4-20mA output**
   
   A two wire loop powered 4-20mA output is available for transmitting to other instruments or control equipment. It is scaleable to your requirements and provides a fast response to changes in flowrate. The operating power is drawn from the 4-20mA loop so that the batteries will last indefinitely.

2. **High and low flow alarms**
   
   Two flow rate alarms are available for monitoring the flow. The output will trigger when the flow rises above or falls below the high and low alarm levels. This option requires a DC power supply.

3. **Pulse Output**
   
   In place of the high alarm option, the 104D can be programmed to give a scaleable pulse output for transmitting to remote instrumentation.

**Construction**

The instrument is housed in a polycarbonate enclosure that is completely watertight.
**Specifications**

- **Display:** LCD which is continuously powered
- **Resettable total:** 7 digits 10mm high
- **Accumulated total:** Displayed when the ACCUMTOT button is pressed
- **Rate:** 4 digits 8.5 mm high
- **K-factor:** The pulses per unit of measurement (eg pulses/litre) is programmable in the range 0.0000001 to 999,999
- **Decimal points:** Decimal point positions are selectable for both rate and total
- **Timebase:** Rate can be displayed in units per second minute, hour or day
- **Frequency range:** 0.01 to 5 kHz
- **Signal type:** Switch settable for sinewave (15mV peak to peak min), open collector, reed switch or pulse.

**Batteries**

- **Type:** Two lithium battery packs
- **Battery life:** Battery life is dependent on the percentage of time that the instrument is totalising flow.

<table>
<thead>
<tr>
<th>Time Totalising</th>
<th>Typical Battery Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% of the time</td>
<td>5 years</td>
</tr>
<tr>
<td>50% of the time</td>
<td>3 Years</td>
</tr>
<tr>
<td>Continuously</td>
<td>2 Years</td>
</tr>
<tr>
<td>4-20 mA option installed</td>
<td>indefinitely</td>
</tr>
</tbody>
</table>

**4-20mA Option**

- **Scale:** The 4mA and 20mA points are selectable
- **Accuracy:** 0.1% of span
- **Update Time:** 0.5 seconds
- **Connection:** Two wire
- **Loop Power Supply:** 9-28V dc

**DC Power & Flow Alarms / Pulse Output Option**

- **Outputs:** Two open collector outputs are available for high and low flow alarms or pulse output and low alarm.
- **Switching power:** 200mA, 30V DC Max
- **DC power input:** 9-28V at 4mA

**Physical**

- **Temperature:** -20°C to 60°C
- **Mounting:** Universal mounting bracket supplied for mounting on wall or panel.
- **Mounting options available:**
  1. Pipe mounting kit to fix the unit on to a pipe.
  2. Adapter for mounting the instrument on to flowmeters.
- **Protection:** Sealed to IP67
- **Cable entry:** Via cable glands.

**Dimensions**

```
152 16
98
87
43
141
```

All dimensions in mm.

Contact our flow measurement specialists for advice on your application

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CE Compliant

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