INDEPENDENT METERING SPECIALISTS
Extended product range now available

www.mwatechnology.com
Catering for all your metering needs
As the UK’s leading distributor with 20 years of experience, we have developed a comprehensive meter range for the Commercial, Industrial and Domestic market. Moving with the changes in technology has been the mission of the company since its genesis and we are adding products that can support energy sustainability using precision metering; reducing wasted energy and water without compromising building conditions and business operations, as defined in the EU’s Renewable Energy Directive (RED). MWA Technology is leading from the front and our experts are waiting to discuss your metering needs.

We will provide your product to site in a timely manner and keep you informed of progress with your order throughout the whole sales process. Based in Birmingham, we are ideally located to access the motorway network to allow fast and efficient delivery throughout the UK.

PROVIDING ALL YOUR METERING REQUIREMENTS
Our staff have unparalleled technical product knowledge. This enables us to help you service your customers’ metering needs with confidence. Our product range includes:

- Gas Meters - Diaphragm, Rotary, Turbine, Ultrasonic, Variable Area and Insertion
- Water Meters - Mechanical, Electromagnetic, Ultrasonic, Clamp On, Insertion
- Energy Meters - Ultrasonic, Electromagnetic, Clamp On, Mechanical, Insertion, Heat Interface Units, Pre-Payment Systems
- Steam Meters - Variable area, Vortex, Insertion
- Oil Meters - Mechanical, Ultrasonic, Vortex, Insertion
- Electricity Meters - Directly Connected, CT Operated, Wall, Panel and DIN Rail Mounted, Card and Coin Operated Meters and Timers
- Automatic Meter Reading and Billing Systems
- Meter Calibration and Commissioning Services

THE MWA SERVICE PLEDGE
Customer satisfaction is the key to our success. To show our determination to stay the number one independent meter provider for the UK, we would like to share with you our service pledge.

- Ensure that our customers receive the best meter recommendations specific to their requirements
- Provide the fastest and most efficient metering maintenance and testing service in the UK
- Keep an extensive supply of stock items to help increase service levels to our customers
- Supply the highest quality tested products

MWA is Trading

Introducing the TBX Meter 1.5 and confirmed as the only TBX distributor in the UK

Schlumberger Diaphragm Meters are added to the range

Staff doubles. Kumho Gas & Water Meters added

1993

1994

1995

1996

1997

5 YEARS

Worlds biggest airport in the world opens in Hong Kong

The Millennium Dome opens in London

Wikipedia goes online

The Queen Mother Dies

Barack Obama is inaugurated as the 44th President of the United States

First gay marriage performed in Massachusetts

Mother Dies

Dolly the sheep, is cloned successfully

Harry Potter and the Philosopher’s Stone is published

The new Wembley Stadium is completed

5 YEARS

MWA stocks reach 1500 to support R.H.I (Renewable Heat Incentive)

Apple in the smart phone market

Android phones begin to outsell BlackBerry

10 YEARS

Endress+Hauser & Yokogawa

Cyprus and Malta adopt the Euro

15 YEARS

The Prince of Wales and Parker Bowles are married

Common Turbine Meters are added

First order to Wyrley.

Business expands.

Valves to the range

6

10

20
A full 360° service

Send your products to us at our head office in Birmingham for test analysis and repair. If we can’t help, we will coordinate all repairs with the manufacturer on your behalf. You will always be given a full quote before any work is administered.

A technical support person is available, to work in partnership with you, for onsite training, technical issues and project development whether on site or at your client’s location. We will provide you with feedback and advice on a variety of products, services and ideas. Tell us what you need and let us do the rest.

As well as onsite support we can help you with the most common technical meter issues by telephone or by email. Whether you are looking for advice on the most appropriate meter, want to ask about compliance, cost components of metering and advanced metering systems or need installation advice, we are here to help.

We can provide a comprehensive and highly skilled test service to assist you with inspection, test and maintenance checks. Using micro processing technology our test rig equipment is state of the art, if we can’t test it then we can advise you of the best options for all your meter and ancillary products.

Precision metering is vital when planning the implementation of remote and data-logging energy solutions. From the adaptation of old meters to SMART meters or the replacement of new meter, into multi-site locations, we can help. Talk to our technical team for advice on energy consumption and data transfer.

Our training team will deliver a course that is appropriate to your needs. We deliver training across many areas for operatives working in the field or at trade counters. We will help you to develop the knowledge and skills needed for correct installation, exchanging, testing & commissioning of a portfolio of meters plus instruction for on-going checks.

<table>
<thead>
<tr>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Added Magnol Diaphragm Meters to the range</td>
<td>Added Black TK4 Valves to the range</td>
<td>Added ABB Kent Energy Meters</td>
<td>Added Black &amp; Yokogawa Ultrasonic Flow Meters</td>
<td></td>
</tr>
</tbody>
</table>

The highest temperature ever recorded in the UK 38.5°C (101.3°F) at Brogdale

First gay marriage performed in Massachusetts

The Prince of Wales and Camilla Parker Bowles are married

Saddam Hussein is charged and sentenced to death by hanging

The new Wembley Stadium is completed

15 YEARS

2008 | 2009 | 2010 | 2011 | 2012

Cyprus and Malta adopt the Euro

Barack Obama is inaugurated as the 44th President of the United States

Android phones begin to outsell Apple in the smart phone market

Tea tsunami hits Japan with waves 130 feet high

The amazing Olympics reach record high with gold medals

MWA stocks precision metering to support R.H.I (Renewable Heat Incentive)

Launched the service for providing Automatic Meter Reading or A.M.R.

Business Expands at Wharton Industrial Estate

Added Endress+Hauser & Yokogawa Partnership

MWA reach 1500 customers worldwide

Endress+Hauser partnership

At trade counters. We will help you to develop the knowledge and skills needed for correct installation, exchanging, testing & commissioning of a portfolio of meters plus instruction for on-going checks.

As well as onsite support we can help you with the most common technical meter issues by telephone or by email. Whether you are looking for advice on the most appropriate meter, want to ask about compliance, cost components of metering and advanced metering systems or need installation advice, we are here to help.
PRODUCT SECTIONS

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GAS METERS

TBX LOW PRESSURE DROP TURBINE GAS METERS - LCD DISPLAY
- Inline meter takes up less space
- Self supporting in pipework
- 50mm meter same output as 3inch diaphragm meter

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Fitting</th>
<th>Min m³/hr</th>
<th>Max m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBX30L-0.75</td>
<td>Low pressure drop turbine meter</td>
<td>¾” Screwed</td>
<td>1.5</td>
<td>30</td>
</tr>
<tr>
<td>TBX30L-1.0</td>
<td>Low pressure drop turbine meter</td>
<td>1” Screwed</td>
<td>1.5</td>
<td>30</td>
</tr>
<tr>
<td>TBX30L-1.25</td>
<td>Low pressure drop turbine meter</td>
<td>1.75” Screwed</td>
<td>1.5</td>
<td>30</td>
</tr>
<tr>
<td>TBX30L-1.5</td>
<td>Low pressure drop turbine meter</td>
<td>1.5” Screwed</td>
<td>1.5</td>
<td>30</td>
</tr>
<tr>
<td>TBX100L-2</td>
<td>Low pressure drop turbine meter</td>
<td>2” Screwed</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>TBX150F</td>
<td>Low pressure drop turbine meter</td>
<td>2” /50mm Flanged PN6</td>
<td>7.5</td>
<td>150</td>
</tr>
<tr>
<td>TBX-PLUG</td>
<td>TBX plug with 2 metre lead - 4 Pin Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TBZ LOW PRESSURE DROP TURBINE GAS METER - LCD DISPLAY
- Inline meter takes up less space
- Self supporting in pipework
- 50mm meter same output as 3inch diaphragm meter

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Fitting</th>
<th>Min m³/hr</th>
<th>Max m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB300</td>
<td>Low pressure drop turbine meter</td>
<td>3”/80mm Flanged PN6</td>
<td>15</td>
<td>300</td>
</tr>
<tr>
<td>TB300KIT</td>
<td>T8300 Kit PN6 80mm Flanges, Gaskets &amp; BZP M16 Bolts &amp; Nuts</td>
<td>3”/80mm Flanged PN6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBZ150</td>
<td>Low pressure drop turbine meter</td>
<td>2”/50mm Flanged PN6</td>
<td>7.5</td>
<td>150</td>
</tr>
<tr>
<td>TBZ60</td>
<td>Low pressure drop meter</td>
<td>1¼”/40mm Flanged PN6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBZPULSE</td>
<td>T8300 plug with 2 metre lead - 3 Pin Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TRX ULTRASONIC LOW PRESSURE DROP METER - LCD DISPLAY
- For air and gas
- Self supporting in pipework
- 50mm meter same output as 3inch diaphragm meter

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Fitting</th>
<th>Min m³/hr</th>
<th>Max m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRX 40-C</td>
<td>Low pressure drop ultrasonic meter</td>
<td>1½”</td>
<td>1.0</td>
<td>50</td>
</tr>
<tr>
<td>TRX 50-C</td>
<td>Low pressure drop ultrasonic meter</td>
<td>2”</td>
<td>2.4</td>
<td>120</td>
</tr>
<tr>
<td>TRX 80-C</td>
<td>Low pressure drop ultrasonic meter</td>
<td>3”</td>
<td>5.0</td>
<td>250</td>
</tr>
</tbody>
</table>

CPT TURBINE QUANTOMETER RANGE
- Inline turbine gas meters with water connections to suit PN16 flanges
- Fitted with low frequency pulse output as standard - multiple LF + HF options available
- Aluminium body, suitable for natural gas and LPG, -20°C to +40°C
- Biogas option available
- For horizontal or vertical pipelines with 5 x DN straight lengths of pipe up stream
- Nominal rangeability 1:20, meters read in cubic metres, index can be head rotated through 350°

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Pulse Values</th>
<th>Max Pressure</th>
<th>Min m³/hr</th>
<th>Max m³/hr</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT50G40</td>
<td>2”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 0.1 m³/hr</td>
<td>16 bar</td>
<td>6</td>
<td>65.0</td>
<td>3.6kg</td>
</tr>
<tr>
<td>CPT50G65</td>
<td>2”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 0.1 m³/hr</td>
<td>16 bar</td>
<td>10</td>
<td>100.0</td>
<td>5.3kg</td>
</tr>
<tr>
<td>CPT65G65*</td>
<td>2½”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>8</td>
<td>160.0</td>
<td>5.3kg</td>
</tr>
<tr>
<td>CPT80G100</td>
<td>3”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>8</td>
<td>160.0</td>
<td>5.3kg</td>
</tr>
<tr>
<td>CPT80G160</td>
<td>3”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>13</td>
<td>250.0</td>
<td>7.4kg</td>
</tr>
<tr>
<td>CPT100G160</td>
<td>4”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>13</td>
<td>250.0</td>
<td>7.4kg</td>
</tr>
<tr>
<td>CPT100G250</td>
<td>4”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>20</td>
<td>400.0</td>
<td>7.4kg</td>
</tr>
<tr>
<td>CPT100G400</td>
<td>4”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>32</td>
<td>650.0</td>
<td>7.4kg</td>
</tr>
<tr>
<td>CPT150G400</td>
<td>6”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>32</td>
<td>650.0</td>
<td>11.6kg</td>
</tr>
<tr>
<td>CPT150G650</td>
<td>6”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>50</td>
<td>1000.0</td>
<td>11.6kg</td>
</tr>
<tr>
<td>CPT150G1000</td>
<td>6”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 10 m³/hr</td>
<td>16 bar</td>
<td>80</td>
<td>1600.0</td>
<td>11.6kg</td>
</tr>
<tr>
<td>CPT200G650</td>
<td>8”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 1 m³/hr</td>
<td>16 bar</td>
<td>50</td>
<td>1000.0</td>
<td>51kg</td>
</tr>
<tr>
<td>CPT200G1000</td>
<td>8”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 10 m³/hr</td>
<td>16 bar</td>
<td>80</td>
<td>1600.0</td>
<td>51kg</td>
</tr>
<tr>
<td>CPT200G1600</td>
<td>8”</td>
<td>PN16 flanges</td>
<td>Pulse output,1 pulse = 10 m³/hr</td>
<td>16 bar</td>
<td>80</td>
<td>2500.0</td>
<td>51kg</td>
</tr>
</tbody>
</table>

*Rangeability 1:10

Options
- CPT calibration certificates
- CPT 6 pin pulse plug
- CPT 6 pin pulse plug and 2 metre lead
- CPT high frequency pulse output - external
- CPT high frequency pulse output - internal
- CPT Remote 6 digit single LCD display Programmable installed in IP67 enclosure
- CPT Chatterbox - e.Model unit, battery operated, 4 outputs, Atex IS
- CPT Chatterbox - e.Model unit, battery operated, 4 outputs, Atex E. C/W enclosure
GAS METERS

CGR ROTARY GAS METER RANGE
- Inline gas meter with wafer connections to suit PN16 flanges, ANSI 150 alternative
- Fitted with low frequency pulse output as standard
- Aluminium body, suitable for natural gas and LPG. -20 °C to +60 °C
- Nominal rangeability 1:50. Meters read in cubic metres, index can be head rotated through 360°

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Pulse Values</th>
<th>Max Pressure</th>
<th>Min m³/hr</th>
<th>Max m³/hr</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGR40G16</td>
<td>1.5”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>0.5 m³/hr</td>
<td>25.0</td>
<td>10kg</td>
</tr>
<tr>
<td>CGR40G26</td>
<td>1.5”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>0.8 m³/hr</td>
<td>40.0</td>
<td>10kg</td>
</tr>
<tr>
<td>CGR40G40</td>
<td>1.5”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>1.3 m³/hr</td>
<td>65.0</td>
<td>12kg</td>
</tr>
<tr>
<td>CGR50G16</td>
<td>2”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>0.5 m³/hr</td>
<td>25.0</td>
<td>10kg</td>
</tr>
<tr>
<td>CGR50G25</td>
<td>2”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>0.8 m³/hr</td>
<td>40.0</td>
<td>10kg</td>
</tr>
<tr>
<td>CGR50G40</td>
<td>2”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>1.3 m³/hr</td>
<td>65.0</td>
<td>12kg</td>
</tr>
<tr>
<td>CGR50G65</td>
<td>2”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>2.0 m³/hr</td>
<td>100.0</td>
<td>14kg</td>
</tr>
<tr>
<td>CGR80G100</td>
<td>3”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>3.0 m³/hr</td>
<td>160.0</td>
<td>19kg</td>
</tr>
<tr>
<td>CGR80G160</td>
<td>3”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>5.0 m³/hr</td>
<td>250.0</td>
<td>25kg</td>
</tr>
<tr>
<td>CGR100G100</td>
<td>4”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>3.0 m³/hr</td>
<td>160.0</td>
<td>19kg</td>
</tr>
<tr>
<td>CGR100G160</td>
<td>4”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>20 bar</td>
<td>5.0 m³/hr</td>
<td>250.0</td>
<td>25kg</td>
</tr>
<tr>
<td>CGR100G250</td>
<td>4”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 1 m³/hr</td>
<td>20 bar</td>
<td>8.0 m³/hr</td>
<td>400.0</td>
<td>31kg</td>
</tr>
<tr>
<td>CGR100G400</td>
<td>4”</td>
<td>PN16 flanges</td>
<td>Pulse output, 1 pulse = 1 m³/hr</td>
<td>20 bar</td>
<td>13 m³/hr</td>
<td>650.0</td>
<td>42kg</td>
</tr>
</tbody>
</table>

CGR ROTARY GAS METER ANCILLARIES
CGR calibration certificates
CGR 6 pin pulse plug
CGR 6 pin pulse plug and 2 metre lead
CGR high frequency pulse output - external
CGR high frequency pulse output - internal
CGR Remote 6 digit single LCD display Programmable installed in IP67 enclosure
CGR Chatterbox - e.Model unit, battery operated, 4 outputs, Atex S.
CGR Chatterbox - e.Model unit, battery operated, 4 outputs, Atex S. C/W enclosure

ROTOMETER DELTA QD
- Delta QD volumetric meters
- High accuracy and rangeability meter
- Very low pressure loss
- Protection class IP67
- ATEX Directive 94/9/EC
(Intrinsic safety level: Ex i II 3G Ex ia IIC T5 c T6)

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Max Pressure</th>
<th>Min m³/hr</th>
<th>Max m³/hr</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>QD 25</td>
<td>40mm</td>
<td>Screwed</td>
<td>16 bar</td>
<td>0.8 m³/hr</td>
<td>25.0</td>
<td>3.6kg</td>
</tr>
<tr>
<td>QD 40</td>
<td>40mm</td>
<td>Screwed</td>
<td>16 bar</td>
<td>2.0 m³/hr</td>
<td>60.0</td>
<td>3.6kg</td>
</tr>
</tbody>
</table>

WIZIT DIAPHRAGM GAS METERS
- Compact strong aluminium die cast construction
- High sensitivity suitable for low gas flow rates
- Suitable for Natural Gas, LPG, Air, Nitrogen and all inert gases
- Pulse lead supplied & fitted

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Model</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>CRS</th>
<th>Qmin cmh</th>
<th>Qmax cmh</th>
</tr>
</thead>
<tbody>
<tr>
<td>KG2</td>
<td>½” BSP</td>
<td>G1.6</td>
<td>197</td>
<td>126</td>
<td>110</td>
<td>100</td>
<td>0.016</td>
<td>2.5</td>
</tr>
<tr>
<td>KG2P</td>
<td>½” BSP</td>
<td>G1.6P</td>
<td>197</td>
<td>126</td>
<td>110</td>
<td>100</td>
<td>0.016</td>
<td>2.5</td>
</tr>
<tr>
<td>KG3</td>
<td>¾” BSP</td>
<td>G1.6</td>
<td>197</td>
<td>126</td>
<td>110</td>
<td>130</td>
<td>0.016</td>
<td>2.5</td>
</tr>
<tr>
<td>KG3P</td>
<td>¾” BSP</td>
<td>G1.6P</td>
<td>197</td>
<td>126</td>
<td>110</td>
<td>130</td>
<td>0.016</td>
<td>2.5</td>
</tr>
<tr>
<td>KG4</td>
<td>¾” BSP</td>
<td>G2.5</td>
<td>214</td>
<td>164</td>
<td>130</td>
<td>130</td>
<td>0.025</td>
<td>4</td>
</tr>
<tr>
<td>KG4P</td>
<td>¾” BSP</td>
<td>G2.5P</td>
<td>214</td>
<td>164</td>
<td>130</td>
<td>130</td>
<td>0.025</td>
<td>4</td>
</tr>
<tr>
<td>KG6</td>
<td>¾” BSP</td>
<td>G2.5</td>
<td>214</td>
<td>164</td>
<td>130</td>
<td>130</td>
<td>0.025</td>
<td>6</td>
</tr>
<tr>
<td>KG6P</td>
<td>¾” BSP</td>
<td>G2.5P</td>
<td>214</td>
<td>164</td>
<td>130</td>
<td>130</td>
<td>0.025</td>
<td>6</td>
</tr>
</tbody>
</table>

**EUROPEAN DIAPHRAGM GAS METER**
- Manufactured by BS EN ISO 9001 and ISO 14001
- G1.6 to G4 Fireproof up to 650 °C @ 100mbar according to EN1359
- Diaphragm gas meters, for natural gas, propane and butane, max pressure 500 mbar
- P = meters fitted with pulse plug transmitter and 2 metre lead
- Meters read in cubic metres
- Optional M Bus output

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Bosses Distance</th>
<th>Connections Type</th>
<th>Min m³/hr</th>
<th>Nominal m³/hr</th>
<th>Max m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>G4P</td>
<td>110mm</td>
<td>1” bsp unions supplied</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.04</td>
<td>4</td>
</tr>
<tr>
<td>G6P</td>
<td>250mm</td>
<td>1” bsp unions supplied</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.06</td>
<td>6</td>
</tr>
<tr>
<td>G10P</td>
<td>280mm</td>
<td>1.5” bsp unions supplied</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.1</td>
<td>10</td>
</tr>
<tr>
<td>G16P</td>
<td>280mm</td>
<td>1.5” bsp unions supplied</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.16</td>
<td>16</td>
</tr>
<tr>
<td>G25P</td>
<td>335mm</td>
<td>2” bsp unions supplied</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.25</td>
<td>25</td>
</tr>
<tr>
<td>G40P</td>
<td>n/a</td>
<td>65/100 mm flanged PN6</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.4</td>
<td>40</td>
</tr>
<tr>
<td>G65P</td>
<td>n/a</td>
<td>65/100 mm flanged PN6</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.65</td>
<td>65</td>
</tr>
<tr>
<td>G1.6PBS</td>
<td>110mm</td>
<td>1” BS746</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.016</td>
<td>1.6</td>
</tr>
<tr>
<td>G2.5PBS</td>
<td>110mm</td>
<td>1” BS746</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.025</td>
<td>2.5</td>
</tr>
<tr>
<td>G4PBS</td>
<td>110mm</td>
<td>1” BS746</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.04</td>
<td>4</td>
</tr>
<tr>
<td>G6PBS</td>
<td>250mm</td>
<td>1” BS746</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.06</td>
<td>6</td>
</tr>
<tr>
<td>G10PBS</td>
<td>280mm</td>
<td>1.1/4” BS746</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.1</td>
<td>10</td>
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<tr>
<td>G16PBS</td>
<td>280mm</td>
<td>2” BS746</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.16</td>
<td>16</td>
</tr>
<tr>
<td>G25PBS</td>
<td>335mm</td>
<td>2” BS746</td>
<td>Pulse output, 1 pulse = 0.01 m³/hr</td>
<td>0.25</td>
<td>25</td>
</tr>
</tbody>
</table>

* P denotes pulse enabled
GAS METERS

CPT-01 QUANTOMETER

Reliable and inexpensive measuring instruments for secondary flow measurements.

We created the instrument with excellent metrological characteristics and operating performance close to performances of the turbine gas meters designed for custody transfer measurements.

The CPT Quantometers are high quality and easy maintenance with wide range of external devices that can co-operate with the quantometers, e.g., volume correctors, data loggers, data transmission systems. Therefore the CPT Quantometers are well accepted by our domestic and foreign customers.

The basic components of the CPT Quantometer are as follows:

- pressure resistant meter body
- inlet flow conditioner
- measuring cartridge with the turbine wheel
- magnetic coupling as the transferring element between measuring cartridge and the index
- index head
- range extended to include 1 inch, 1¼ inch, 1½ inch, 2 inch screwed options
- meter for Biogas available
- Atex approved index head
- meter tested to 2004/22/EC MID, Annex-MI-002 Class 1.5

MEASUREMENT OUTPUTS

The operating pressure (reference pressure) can be taken from the pressure tap, marked pr, located on the side of the meter body.

PULSE SENSORS

The mechanical index unit indicates the actual volume of the measured gas at operating temperature and operating pressure. It can be rotated axially by 350° in order to facilitate the readings and enable easier connection of pulse sensor plugs. The index unit is provided with one low frequency LFK reed contact pulse transmitter, as a standard.

On request the index may be equipped with:

- LFI inductive pulse sensor (NAMUR)
- HF inductive pulse sensor (NAMUR)

The turbine wheel, as a standard, is made of aluminium. This allows to provide each CPT Quantometer with one HF3 inductive pulse sensor. There are no extra costs due to the replacement of the turbine wheel.

Low Pressure Drop Turbine Gas Meters - Screwed Fitting

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>QMin m³/hr</th>
<th>QMax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT25SG16</td>
<td>25mm</td>
<td>Screwed</td>
<td>2.5</td>
<td>25</td>
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<tr>
<td>CPT25SG25</td>
<td>25mm</td>
<td>Screwed</td>
<td>4</td>
<td>40</td>
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<tr>
<td>CPT32SG25</td>
<td>32mm</td>
<td>Screwed</td>
<td>4</td>
<td>40</td>
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<tr>
<td>CPT40SG40</td>
<td>40mm</td>
<td>Screwed</td>
<td>6</td>
<td>65</td>
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<td>CPT40SG60</td>
<td>40mm</td>
<td>Screwed</td>
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<td>100</td>
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<td>CPT50SG40</td>
<td>50mm</td>
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<td>CPT50SG65</td>
<td>50mm</td>
<td>Screwed</td>
<td>10</td>
<td>100</td>
</tr>
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</table>

Recommended accessories

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPTPLUG</td>
<td>CPT Plug and pulse lead 2 meters</td>
</tr>
<tr>
<td>FM25</td>
<td>25mm inline filter 50 micron</td>
</tr>
<tr>
<td>FM32</td>
<td>32mm inline filter 50 micron</td>
</tr>
<tr>
<td>FM40</td>
<td>40mm inline filter 50 micron</td>
</tr>
<tr>
<td>FM50</td>
<td>50mm inline filter 50 micron</td>
</tr>
</tbody>
</table>

The CPT Quantometers may be provided with up to 7 pulse sensors:

- LFK low frequency reed contact pulse sensor
  - LFK 1, LFK 2
- LFI low frequency inductive pulse sensor
  - LFI 1, LFI 2
- HF inductive pulse sensor in the index unit
  - HF 1, HF 2
- HF inductive pulse sensor over the turbine wheel
  - HF 3
- AFK anti-fraud reed contact
  - AFK

Common CPT Low Pressure Drop Turbine Gas Meters - Flange Fitting

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>QMin m³/hr</th>
<th>QMax m³/hr</th>
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</thead>
<tbody>
<tr>
<td>CPT50G40</td>
<td>50mm</td>
<td>Flanged</td>
<td>6</td>
<td>65</td>
</tr>
<tr>
<td>CPT50</td>
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<td>CPT80G100</td>
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<td>CPT80G160</td>
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<td>Flanged</td>
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<td>250</td>
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<td>CPT80G250</td>
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<td>Flanged</td>
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<td>400</td>
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<tr>
<td>CPT100G160</td>
<td>100mm</td>
<td>Flanged</td>
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<tr>
<td>CPT100G250</td>
<td>100mm</td>
<td>Flanged</td>
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<td>400</td>
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<tr>
<td>CPT100G400</td>
<td>100mm</td>
<td>Flanged</td>
<td>32</td>
<td>650</td>
</tr>
<tr>
<td>CPT150G400</td>
<td>150mm</td>
<td>Flanged</td>
<td>32</td>
<td>650</td>
</tr>
<tr>
<td>CPT150G450</td>
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<td>1600</td>
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<td>CPT200G65</td>
<td>200mm</td>
<td>Flanged</td>
<td>50</td>
<td>1000</td>
</tr>
<tr>
<td>CPT200G100</td>
<td>200mm</td>
<td>Flanged</td>
<td>80</td>
<td>1600</td>
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<tr>
<td>CPT200G160</td>
<td>200mm</td>
<td>Flanged</td>
<td>100</td>
<td>2500</td>
</tr>
</tbody>
</table>

Recommended accessories

- CPT PLUG CPT Plug and pulse lead 2 meters
- FM25 25mm inline filter 50 micron
- FM32 32mm inline filter 50 micron
- FM40 40mm inline filter 50 micron
- FM50 50mm inline filter 50 micron
- CPT-01 G250
- CPT-01 G40

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MWA Code Descriptions

- CPT PLUG CPT Plug and pulse lead 2 meters
- FM25 25mm inline filter 50 micron
- FM32 32mm inline filter 50 micron
- FM40 40mm inline filter 50 micron
- FM50 50mm inline filter 50 micron

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MWA Code Descriptions

- CPT PLUG CPT Plug and pulse lead 2 meters
- FM25 25mm inline filter 50 micron
- FM32 32mm inline filter 50 micron
- FM40 40mm inline filter 50 micron
- FM50 50mm inline filter 50 micron

13
A totaliser to register the measured gas flow.

A magnetic coupling to transmit the movement of the turbine wheel to the totaliser.

A measuring unit including the turbine wheel.

A flow straightener to stabilise and accelerate the flow before the turbine wheel.

A body part containing all the components.

MZ METERS
MZ meters are flow meters. The flow of gas turns the turbine wheel, and thus the rotating speed of the turbine is proportional to the linear speed of the gas. The movement is mechanically transmitted to the totaliser through a magnetic coupling. The MZ meter is composed of five main parts:

- A body part containing all the components
- A flow straightener to stabilise and accelerate the flow before the turbine wheel
- A magnetic coupling to transmit the movement of the turbine wheel to the totaliser
- A totaliser to register the measured gas

MZ meters are suitable for both natural gas and other filtered and non-corrosive gases. They are used to measure low to medium and high flow, at low or medium, or high pressure. Various additional fitting options are available including an oil pump and a PTFE coating version, making them also suitable for heavy duty measurement.

ITRON MZ100b TURBINE GAS METER 50mm
- Flow rate: from 10 m³/h to 100 m³/h
- DN50
- Water: ISO PN10

ITRON M250c TURBINE GAS METER 80mm
- Flow rate: from 16 m³/h to 250 m³/h
- DN80
- Water: ISO PN10

ITRON M2100c TURBINE GAS METER 100mm MZ meters are suitable for both natural gas and other filtered and non-corrosive gases. They are used to measure low to medium and high flow, at low or medium, or high pressure. Various additional fitting options are available including an oil pump and a PTFE coating version, making them also suitable for heavy duty measurement.

ELSTER QUANTOMETERS
Elster Quantometers are highly reliable gas meters which meet the highest standards. By using the quantometers in production and heating processes, it is possible to control flow of gas precisely and therefore optimise the use of energy. They work on the principle of the rotating turbine wheel. The rotation of the turbine wheel is proportional to the volume of the flowing gas.

The QA quantometers are fitted with a 7-digit mechanical totaliser which registers the volume in cubic meters. Besides the normal registration of the total volume, the QAe can also display the flow rate, the volume of a key day and the date of the key day. Meters can be fitted with a high and low frequency pulse output. The Quantometers are available in a number of flow ranges, diameters and pressure ratings. Depending on the version, a low or medium-frequency pulser and an optical readout or an optical readout with additional M-bus output is available. All of the Quantometers are DVGW approved. For special industrial applications, stainless steel versions are also available.

Features & Benefits
- DVGW - approved.
- Compact in size.
- High reliability & standards.
- Optional pulse output facility.
- Suitable for various gases.

Technical Data
- Rangeability: up to 1:20
- Flow ranges: 1.6 - 1,600 m³/h (56 - 56,000 ft³/h)
- Diameeters: DN 25 - 150
- Pressure rates: PN 4, PN 16, ANSI 150
- Gas temperature QA: -10°C to +60°C (14°F to 140°F)
- Ambient temperature QA: -20°C to +70°C (4°F to 160°F)
- Ambient / gas temperature QAe: 0°C to +50°C (32°F to 122°F)

ELSTER DIAPHRAGM METERS
Diaphragm meters are displacement meters where the flow channels are designed to guarantee optimum flow conditions and a low pressure loss. They are suitable for measuring natural gas and a variety of technical gases at up to 0.5 bar. The approved gas temperature range is -20 °C to +50 °C. The diaphragm meters BK-G 1.6 up to G 100 are fitted with a pulse magnet as standard. This allows to retrofit a low-frequency pulser of the IN-Z61 type.

All of the meters are approved for custody transfer measurement by the German PTB and to EN 1359 by German DV/GW.

Domestic Diaphragm Meters, BK-G 1.6 to BK-G6
These meters are available in co-axial or two-pipe versions. The measuring unit operates on the principle of pneumatic control. This guarantees low noise, long-term stability and high accuracy and allows the possibility of including mechanical temperature correction.

Commercial Diaphragm Meters, BK-G10 to BK-G25
These compact meters are available in co-axial or two-pipe versions with a pressed steel housing. The measuring unit operates on the principle of pneumatic control. This guarantees low noise, long-term stability and high accuracy.
### MWA Code Size Connections Max operating

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Bosses Distance</th>
<th>Connections</th>
<th>Type</th>
<th>Max m3/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC6</td>
<td>150mm</td>
<td>¾&quot; BS21</td>
<td>Semi concealed meter</td>
<td>6</td>
</tr>
<tr>
<td>U4</td>
<td>152.4mm</td>
<td>1&quot; BS746</td>
<td>Domestic diaphragm meter</td>
<td>6</td>
</tr>
<tr>
<td>U16</td>
<td>152.4mm</td>
<td>1.¼&quot; BS746</td>
<td>Industrial diaphragm meter</td>
<td>16</td>
</tr>
<tr>
<td>U25</td>
<td>250mm</td>
<td>2&quot; BS746</td>
<td>Industrial diaphragm meter</td>
<td>25</td>
</tr>
<tr>
<td>U40</td>
<td>280mm</td>
<td>2&quot; BS746</td>
<td>Industrial diaphragm meter</td>
<td>40</td>
</tr>
<tr>
<td>U65</td>
<td>335mm</td>
<td>2.½&quot; Flanged PN10</td>
<td>Industrial diaphragm meter</td>
<td>65</td>
</tr>
<tr>
<td>U100</td>
<td>430mm</td>
<td>3&quot; Flanged PN10</td>
<td>Industrial diaphragm meter</td>
<td>100</td>
</tr>
<tr>
<td>U160</td>
<td>430mm</td>
<td>4&quot; Flanged PN10</td>
<td>Industrial diaphragm meter</td>
<td>165</td>
</tr>
</tbody>
</table>

### GSSV15MR ½" ½" bsp female screwed 500 mbar

### GSSV20MR ¾" ¾" bsp female screwed 500 mbar

### GSSV25MR 1" 1" bsp female screwed 500 mbar

### GSSV30MR 1.¼" 1.¼" bsp female screwed 500 mbar

### GSSV40MR 1.½" 1.½" bsp female screwed 500 mbar

### GSSV50MR 2" 2" bsp female screwed 500 mbar

### GSSV65MR 2.½" 2.½" flanged PN16 | 360 mbar

### GSSV80MR 3" 3" flanged PN16 | 360 mbar

### GSSV100MR 4" 4" flanged PN16 | 360 mbar

### GSSV150MR 6" 6" flanged PN16 | 360 mbar

### GSSV200MR 8" 8" flanged PN16 | 360 mbar

### GAS SOLENOID VALVES
- Automatic reset. 230V AC
- Inline connections, horizontal and vertical pipelines
- For natural gas, propane and butane
- Options - Closed Position Indicator Switch, 24v AC, 24v DC, 110v AC

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Max operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSSV15MR</td>
<td>½&quot; ½&quot; bsp female screwed</td>
<td>200 mbar</td>
<td></td>
</tr>
<tr>
<td>GSSV20MR</td>
<td>¾&quot; ¾&quot; bsp female screwed</td>
<td>200 mbar</td>
<td></td>
</tr>
<tr>
<td>GSSV25MR</td>
<td>1&quot; 1&quot; bsp female screwed</td>
<td>200 mbar</td>
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</tr>
<tr>
<td>GSSV30MR</td>
<td>1.¼&quot; 1.¼&quot; bsp female screwed</td>
<td>200 mbar</td>
<td></td>
</tr>
<tr>
<td>GSSV40MR</td>
<td>1.½&quot; 1.½&quot; bsp female screwed</td>
<td>200 mbar</td>
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</tr>
<tr>
<td>GSSV50MR</td>
<td>2&quot; 2&quot; bsp female screwed</td>
<td>200 mbar</td>
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</tr>
<tr>
<td>GSSV65MR</td>
<td>2.½&quot; 2.½&quot; flanged PN16</td>
<td>360 mbar</td>
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<tr>
<td>GSSV80MR</td>
<td>3&quot; 3&quot; flanged PN16</td>
<td>360 mbar</td>
<td></td>
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<tr>
<td>GSSV100MR</td>
<td>4&quot; 4&quot; flanged PN16</td>
<td>360 mbar</td>
<td></td>
</tr>
<tr>
<td>GSSV150MR</td>
<td>6&quot; 6&quot; flanged PN16</td>
<td>360 mbar</td>
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<tr>
<td>GSSV200MR</td>
<td>8&quot; 8&quot; flanged PN16</td>
<td>360 mbar</td>
<td></td>
</tr>
</tbody>
</table>

### GAS METERS
- Manufactured by BS EN ISO 9001 and ISO 14001
- G1.6 to G6 Fireproof up to 650°C @ 100mbar according to EN1359
- Diaphragm gas meters, for natural gas, propane and butane, max pressure 500 mbar
- P = meters fitted with pulse plug transmitter and 2 metre lead
- Meters read in cubic metres

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Max m3/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC6</td>
<td>150mm</td>
<td>¾&quot; BS21</td>
<td>6</td>
</tr>
<tr>
<td>U4</td>
<td>152.4mm</td>
<td>1&quot; BS746</td>
<td>6</td>
</tr>
<tr>
<td>U16</td>
<td>152.4mm</td>
<td>1.¼&quot; BS746</td>
<td>16</td>
</tr>
<tr>
<td>U25</td>
<td>250mm</td>
<td>2&quot; BS746</td>
<td>25</td>
</tr>
<tr>
<td>U40</td>
<td>280mm</td>
<td>2&quot; BS746</td>
<td>40</td>
</tr>
<tr>
<td>U65</td>
<td>335mm</td>
<td>2.½&quot; Flanged PN10</td>
<td>65</td>
</tr>
<tr>
<td>U100</td>
<td>430mm</td>
<td>3&quot; Flanged PN10</td>
<td>100</td>
</tr>
<tr>
<td>U160</td>
<td>430mm</td>
<td>4&quot; Flanged PN10</td>
<td>165</td>
</tr>
</tbody>
</table>

### ITRON NATIONAL GRID APPROVED DIAPHRAGM GAS METER
- Manufactured by BS EN ISO 9001 and ISO 14001
- G1.6 to G6 Fireproof up to 650°C @ 100mbar according to EN1359
- Diaphragm gas meters, for natural gas, propane and butane, max pressure 500 mbar
- P = meters fitted with pulse plug transmitter and 2 metre lead
- Meters read in cubic metres

### GAS SOLENOID VALVES
- Automatic reset. 230V AC
- Inline connections, horizontal and vertical pipelines
- For natural gas, propane and butane
- Options - Closed Position Indicator Switch, 24v AC, 24v DC, 110v AC

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Max operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC6</td>
<td>150mm</td>
<td>¾&quot; BS21</td>
<td>6</td>
</tr>
<tr>
<td>U4</td>
<td>152.4mm</td>
<td>1&quot; BS746</td>
<td>6</td>
</tr>
<tr>
<td>U16</td>
<td>152.4mm</td>
<td>1.¼&quot; BS746</td>
<td>16</td>
</tr>
<tr>
<td>U25</td>
<td>250mm</td>
<td>2&quot; BS746</td>
<td>25</td>
</tr>
<tr>
<td>U40</td>
<td>280mm</td>
<td>2&quot; BS746</td>
<td>40</td>
</tr>
<tr>
<td>U65</td>
<td>335mm</td>
<td>2.½&quot; Flanged PN10</td>
<td>65</td>
</tr>
<tr>
<td>U100</td>
<td>430mm</td>
<td>3&quot; Flanged PN10</td>
<td>100</td>
</tr>
<tr>
<td>U160</td>
<td>430mm</td>
<td>4&quot; Flanged PN10</td>
<td>165</td>
</tr>
</tbody>
</table>
## GAS REGULATORS

### INDUSTRIAL GAS REGULATORS J125
- **Medium Pressure Service Governor**
- Inline connections can be mounted vertical or horizontal
- Industrial Gas Governors for natural gas, propane and butane
- Fitted with OPSO 75 mbar and UPSO 25 mbar and pressure relief
- Alternative outlet pressure springs available
- Temperature -20 °C to 70 °C
- Inlet pressures to 8.6 bar available

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Orifice</th>
<th>Size</th>
<th>Connections</th>
<th>Maximum Inlet Pressure</th>
<th>Standard Outlet Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>J125-59-20</td>
<td>5mm</td>
<td>½”</td>
<td>¾” female screwed</td>
<td>8.6 bar</td>
<td>37 mbar</td>
</tr>
<tr>
<td>J125-59-25</td>
<td>5mm</td>
<td>1”</td>
<td>1” female screwed</td>
<td>8.6 bar</td>
<td>37 mbar</td>
</tr>
<tr>
<td>J125-59-40</td>
<td>5mm</td>
<td>1.½”</td>
<td>1.½” female screwed</td>
<td>8.6 bar</td>
<td>37 mbar</td>
</tr>
<tr>
<td>J125-59-50</td>
<td>5mm</td>
<td>2”</td>
<td>2” female screwed</td>
<td>8.6 bar</td>
<td>37 mbar</td>
</tr>
</tbody>
</table>

### INDUSTRIAL REGULATORS J48
- Inline connections, can be mounted in any position
- Industrial Gas Governors, for natural gas, propane and butane
- Alternative outlet pressure springs available
- Also available with angled connections
- Temperature -20 °C to 70 °C

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Maximum Inlet Pressure</th>
<th>Standard Outlet Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>J48-20</td>
<td>¾”</td>
<td>¾” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-25</td>
<td>1”</td>
<td>1” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-30</td>
<td>1.½”</td>
<td>1.½” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-40</td>
<td>1.½”</td>
<td>1.½” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-50</td>
<td>2”</td>
<td>2” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-65S</td>
<td>2.½”</td>
<td>2.½” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-80S</td>
<td>3”</td>
<td>3” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-100</td>
<td>4”</td>
<td>4” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
<tr>
<td>J48-150</td>
<td>6”</td>
<td>6” female screwed</td>
<td>350 mbar</td>
<td>12.5 to 25 mbar</td>
</tr>
</tbody>
</table>

### DRESSER CHATTERBOX ISOLATION UNIT
- Provides an approved barrier for hazardous area to safe area equipment
- 10 year battery life benefit
- Four channels as a standard
- ATEX certified I.S.

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHATT</td>
<td>Chatterbox - Barrier</td>
</tr>
<tr>
<td>CHATTENC</td>
<td>Chatterbox complete with enclosure</td>
</tr>
</tbody>
</table>

### ISKRA P2G INTRINSICALLY SAFE LOGGER & COMMUNICATOR
- For collection and recording pulses from electrical, gas and water meters
- An internal GSM modem is used for remote transmission of data by SMS

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2G</td>
<td>Communicator / Logger</td>
</tr>
<tr>
<td>P2G Enc</td>
<td>Communicator logger complete with enclosure</td>
</tr>
</tbody>
</table>
CAST ALUMINIUM INLINE GAS FILTER
- 50 micron filtration of gases for control applications
- Max pressure 2.0 bar

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Stainless Steel Filter Mesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILTER GAS/25</td>
<td>1&quot;</td>
<td>1&quot; female screwed</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS/30</td>
<td>1.¼&quot;</td>
<td>¼&quot; female screwed</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS/40</td>
<td>1.½&quot;</td>
<td>½&quot; female screwed</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS/50</td>
<td>2&quot;</td>
<td>2&quot; female screwed</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS/100</td>
<td>4&quot;</td>
<td>PN16 flange</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS/125</td>
<td>5&quot;</td>
<td>PN16 flange</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS/150</td>
<td>6&quot;</td>
<td>PN16 flange</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS/200</td>
<td>8&quot;</td>
<td>PN16 flange</td>
<td>250 mesh</td>
</tr>
<tr>
<td>FILTER GAS 300</td>
<td>12&quot;</td>
<td>PN16 flange</td>
<td>250 mesh</td>
</tr>
</tbody>
</table>

PIPELINE GAS FILTERS - TOP HAT CLOSED TYPE
- For installation in gas control system for commissioning only

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Stainless Steel Filter Mesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>THF50</td>
<td>2&quot;</td>
<td>To suit PN16 flanges</td>
<td>250 mesh</td>
</tr>
<tr>
<td>THF65</td>
<td>2.¼&quot;</td>
<td>To suit PN16 flanges</td>
<td>250 mesh</td>
</tr>
<tr>
<td>THF80</td>
<td>3&quot;</td>
<td>To suit PN16 flanges</td>
<td>250 mesh</td>
</tr>
<tr>
<td>THF100</td>
<td>4&quot;</td>
<td>To suit PN16 flanges</td>
<td>250 mesh</td>
</tr>
<tr>
<td>THF150</td>
<td>6&quot;</td>
<td>To suit PN16 flanges</td>
<td>250 mesh</td>
</tr>
<tr>
<td>THF200</td>
<td>8&quot;</td>
<td>To suit PN16 flanges</td>
<td>250 mesh</td>
</tr>
</tbody>
</table>

ALSO AVAILABLE OPEN ENDED SKIRT TYPE

GAS METER HOSE CONNECTIONS

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON22</td>
<td>1&quot; BS746 22mm plain</td>
</tr>
<tr>
<td>CON¼</td>
<td>¼&quot; BS746 to ¼ inch BSP</td>
</tr>
<tr>
<td>CON1</td>
<td>½&quot; BS746 to ½ inch BSP</td>
</tr>
<tr>
<td>CON1½</td>
<td>¾&quot; BS746 to ¾ inch BSP</td>
</tr>
<tr>
<td>CON1/14NT</td>
<td>1.¼&quot; BS746 to 1.¼ inch internal BSP</td>
</tr>
<tr>
<td>CON2</td>
<td>2&quot; BS746 to 2 inch BSP</td>
</tr>
</tbody>
</table>

PIPELINE FLANGE FIXING KITS
- Includes flanges, gaskets, fixing rods, nuts and washers

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Size</th>
<th>Connections</th>
<th>Flanges</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT50</td>
<td>2&quot;</td>
<td>PN16 Screwed</td>
<td>PN16 Flange</td>
</tr>
<tr>
<td>KIT50</td>
<td>2&quot;</td>
<td>PN16 Slip On weld type</td>
<td>PN16 Flange</td>
</tr>
<tr>
<td>THF65</td>
<td>2.¼&quot;</td>
<td>To suit PN16 flanges</td>
<td>PN16 Flange</td>
</tr>
<tr>
<td>THF80</td>
<td>3&quot;</td>
<td>To suit PN16 flanges</td>
<td>PN16 Flange</td>
</tr>
<tr>
<td>THF100</td>
<td>4&quot;</td>
<td>To suit PN16 flanges</td>
<td>PN16 Flange</td>
</tr>
<tr>
<td>THF150</td>
<td>6&quot;</td>
<td>To suit PN16 flanges</td>
<td>PN16 Flange</td>
</tr>
<tr>
<td>THF200</td>
<td>8&quot;</td>
<td>To suit PN16 flanges</td>
<td>PN16 Flange</td>
</tr>
</tbody>
</table>

PULSE CONNECTORS

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>U6PULSE</td>
<td>U6 to U160 pulse module - current models</td>
</tr>
<tr>
<td>G5</td>
<td>5 pulse lead 2m for U6 to U160 module - current models</td>
</tr>
<tr>
<td>PULSEIND</td>
<td>U65 to U160 4 PIN Fisher plug and lead - prior 2009</td>
</tr>
<tr>
<td>DISPC</td>
<td>Remote 6 digit single LCD display. Programmable installed in IP67 enclosure</td>
</tr>
<tr>
<td>SEMIPULSE</td>
<td>SC6 Pulse module</td>
</tr>
</tbody>
</table>

GAS METER HOSE CONNECTIONS

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEX25</td>
<td>1&quot; BS746 x ½ BSP</td>
</tr>
<tr>
<td>FLEX30</td>
<td>1 ¼&quot; BS746 x 1 ¼ BSP</td>
</tr>
<tr>
<td>FLEX50</td>
<td>2&quot; BS746 x 2 BSP</td>
</tr>
<tr>
<td>FLEX65</td>
<td>2 ½&quot; PN10 x 2 ½ PN10</td>
</tr>
</tbody>
</table>

GENERAL GAS ANCILLARIES

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERT</td>
<td>Calibration Certificate(s)</td>
</tr>
<tr>
<td>FREQ</td>
<td>High frequency to Analogue Converter</td>
</tr>
<tr>
<td>PADPlus1</td>
<td>Pulse to M-Bus conversion unit</td>
</tr>
<tr>
<td>EVC1</td>
<td>Electronic Micro Pressure and Temperature Volume Corrector</td>
</tr>
</tbody>
</table>
**ITRON METERS**

**CF-ULTRAMAXX V**

Ultrasonic compact thermal energy meter qp0.6, qp1.5 and 2.5

The new ultrasonic compact thermal energy meter "CF-ULTRAMAXX V" is the result of the consequent evolution of the successful Itron CF-Family series of static flow and thermal energy meters. CF-ULTRAMAXX can be used for the measurement of all relevant billing data in heating and cooling systems.

**FEATURES AND BENEFITS**
- Extended dynamic range covers usual flow rate conditions in residential metering
- Different options for implementation in communication systems
- Versions with 2 indexes for use in combined heating and cooling applications
- Advanced features for field data analysis
- Removable calculator

CF-ULTRAMAXX V equipped with T-Sensors, k-correction cold pipe, LCD in kWh, Li.- Battery 10+1 years lifetime (except UltraMaXX M-Bus PS + 2 WM which is powered by M-Bus 2 ULs), English labels & manuals.

**DYNAMIC RANGE**

Due to it’s wide dynamic range, the CF-ULTRAMAXX V qp1.5 can be used for all applications in residential metering which requires usually two different product versions qp0.6 or qp1.5.

Both UltraMaXX V qp1.5 and 2.5 are approved for a dynamic range of 1/250 (qi/qp).

**PRODUCT VERSIONS**

- **UltraMaXX V Standard S**
- **UltraMaXX V Advanced S**
- **UltraMaXX V M-Bus Standard S**
- **UltraMaXX V M-Bus Advanced S**
- **UltraMaXX V M-Bus + 4WM Advanced L**
- **UltraMaXX V Repetition E & V Advanced S**
- **UltraMaXX V RF Radio Advanced S**

Both UltraMaXX V qp1.5 and 2.5 are approved for a dynamic range of 1/250 (qi/qp).

**ENERGY METERS**

**ITRON CF ECHO II ULTRASONIC COMPACT HEAT METERS**

- **130 °C max**
- 1.5m cable length, mains powered or Battery Operated
- 230V Pt100 temperature sensors
- Heat meter (EN1434 Class 2 & MID) with integrated ultrasonic flow part
- Mbus/pulse output

**US BR 473/CF55 ULTRASONIC HEAT METERS with CF55 CALCULATOR**

- **130 °C max**
- 5.0m cable length, Mbus/pulse output, 1.7m temperature sensors Heat meter
- EN1434 Class 2 & MID with CF55 calculator Battery or 230V operated

**PRODUCT VERSIONS**

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Length</th>
<th>Min Flow litres/hr</th>
<th>Norm Flow m³/hr</th>
<th>Max Flow m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFEOC15</td>
<td>CF-E I qp1.5 Class 2 Heat Meter</td>
<td>½” 15mm with unions</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>CFEOC20</td>
<td>CF-E I qp1.5 Class 2 Heat Meter</td>
<td>¾” 20mm with unions</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>CFEOC25</td>
<td>CF-E II qp2.5 Class 2 Heat Meter</td>
<td>1” 25mm with unions</td>
<td>25</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>CFEOC30</td>
<td>CF-E II qp6.0 Class 2 Heat Meter</td>
<td>1.1/4” 32mm with unions</td>
<td>60</td>
<td>6</td>
<td>12.0</td>
</tr>
<tr>
<td>CFEOC40</td>
<td>CF-E II qp10.0 Class 2 Heat Meter</td>
<td>1.3/4” 40mm with unions</td>
<td>100</td>
<td>10</td>
<td>20.0</td>
</tr>
<tr>
<td>CFEOC50</td>
<td>CF-E II qp15.0 Class 2 Heat Meter</td>
<td>2” 50mm flanged PN25</td>
<td>150</td>
<td>15</td>
<td>30.0</td>
</tr>
</tbody>
</table>

**OPTIONS**

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF-USBUS/2INPUTS</td>
<td>Mbns. pulse output option plug with water meter inputs 6200000006</td>
</tr>
<tr>
<td>CFMBUSBPULSE</td>
<td>Mbns. pulse output option plug 6201000005</td>
</tr>
<tr>
<td>CF-BATTERY</td>
<td>Battery pack - up to 12 years 6207000006</td>
</tr>
<tr>
<td>CF230V</td>
<td>230V AC power supply 6208000006</td>
</tr>
<tr>
<td>CFCSNSORS1.7</td>
<td>Temperature sensor PT100 2 wire without pockets 1.7m length 2960800006</td>
</tr>
</tbody>
</table>

**MBUS CONCENTRATORS WITH DISPLAY**

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF-MINIZE20</td>
<td>Mbns. - data logger for up to 20 meters</td>
</tr>
<tr>
<td>CF-MINIZE60</td>
<td>Mbns. - data logger for up to 60 meters</td>
</tr>
<tr>
<td>CF-MINIZE250</td>
<td>Mbns. - data logger for up to 250 meters</td>
</tr>
</tbody>
</table>

*product delivered with cable 1m length for connection to AMR systems (M-Bus: 2 wires, Rep E&V: 4 wires)
**product equipped with cable clamps for connection to AMR system.
### INTEGRAL V MAXX 90°C MAX

- Compact Turbine Heat Meter
- Max Temperature 90°C
- Battery Operated, 12 PT100 temperature sensors
- EN1434 Class 3 & MID

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Length</th>
<th>Min Flow</th>
<th>Norm Flow</th>
<th>Max Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTMAX15</td>
<td>Class 3 Turbine Heat Meter</td>
<td>½&quot; 15mm 110mm with unions</td>
<td>6</td>
<td>0.6</td>
<td>1.5</td>
</tr>
<tr>
<td>INTMAX15L</td>
<td>Class 3 Turbine Heat Meter</td>
<td>½&quot; 15mm 110mm with unions</td>
<td>15</td>
<td>1.5</td>
<td>2.5</td>
</tr>
<tr>
<td>INTMAX20</td>
<td>Class 3 Turbine Heat Meter</td>
<td>½“ 20mm 130mm with unions</td>
<td>25</td>
<td>2.5</td>
<td>3.8</td>
</tr>
<tr>
<td>INTMAXOP</td>
<td>Energy and Volume pulse output</td>
<td>1 pulse = 1 kWh/10 litres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTMAXMBUS</td>
<td>Mbus output with 4 WM pulse inputs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CF51 HEAT INTEGRATOR

- Calculator EN 1434 MID Heating or cooling
- Battery or 230V AC 1.5m signal cables, PT100 (1.7m, 5m or 10m) temperature sensors and pockets
- Mbus and pulse output.

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Pulse Valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF51K1</td>
<td>CF51 without power supply</td>
<td>1 pulse = 1 litre</td>
</tr>
<tr>
<td>CF51K10</td>
<td>CF51 without power supply</td>
<td>1 pulse = 10 litre</td>
</tr>
<tr>
<td>CF51K100</td>
<td>CF51 without power supply</td>
<td>1 pulse = 100 litre</td>
</tr>
<tr>
<td>CFMBUSPULSE</td>
<td>Mbus / pulse option plug</td>
<td></td>
</tr>
<tr>
<td>CFMBUS/2INPUT</td>
<td>Mbus / pulse option plug with 2 water meters inputs</td>
<td></td>
</tr>
<tr>
<td>CFSENSORS1.7</td>
<td>Temperature sensor PT100 2 wire w/o pockets 1.7m, meters 15 to 50mm</td>
<td></td>
</tr>
<tr>
<td>CFSENSORS5</td>
<td>Temperature sensor PT100 2 wire w/o pockets 5m, meters, 50 to 50mm</td>
<td></td>
</tr>
<tr>
<td>CFSENSORS10</td>
<td>Temperature sensor PT100 2 wire w/o pockets 10m, meters, 50 to 50mm</td>
<td></td>
</tr>
<tr>
<td>CFBATTERY</td>
<td>Battery pack - up to 12 years</td>
<td></td>
</tr>
<tr>
<td>CF230V</td>
<td>230V AC power supply</td>
<td></td>
</tr>
</tbody>
</table>

### CF55 HEAT INTEGRATOR

- Calculator EN 1434 MID Heating or Cooling
- Battery or 230V AC 1.5m signal cables, PT100 (1.7m, 5m or 10m) temperature sensors and pockets

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Pulse Valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF55K1</td>
<td>CF55 without power supply</td>
<td>1 pulse = 1 litre</td>
</tr>
<tr>
<td>CF55K10</td>
<td>CF55 without power supply</td>
<td>1 pulse = 10 litre</td>
</tr>
<tr>
<td>CF55K100</td>
<td>CF55 without power supply</td>
<td>1 pulse = 100 litre</td>
</tr>
<tr>
<td>CFMBUSPULSE</td>
<td>Mbus / pulse option plug</td>
<td></td>
</tr>
<tr>
<td>CFMBUS/2INPUT</td>
<td>Mbus / pulse option plug with 2 water meters inputs</td>
<td></td>
</tr>
<tr>
<td>CFSENSORS1.7</td>
<td>Temperature sensor PT100 2 wire w/o pockets 1.7m, meters 15 to 50mm</td>
<td></td>
</tr>
<tr>
<td>CFSENSORS5</td>
<td>Temperature sensor PT100 2 wire w/o pockets 5m, meters, 50 to 50mm</td>
<td></td>
</tr>
<tr>
<td>CFSENSORS10</td>
<td>Temperature sensor PT100 2 wire w/o pockets 10m, meters, 50 to 50mm</td>
<td></td>
</tr>
<tr>
<td>CFBATTERY</td>
<td>Battery pack - up to 12 years</td>
<td></td>
</tr>
<tr>
<td>CF230V</td>
<td>230V AC power supply</td>
<td></td>
</tr>
</tbody>
</table>

### ENERGY METERS

#### KAMSTRUP MULTICAL 402 HEAT METERS

- Kamstrup Multical 402 heat meter (EN1434 Class 2 & MID ) with integrated ultrasonic flow sensor with 1.5m signal cable
- Standard optical data output, including power supply, a set of short direct or pocket sensors with 1.5m cable stainless pockets and 2 nipples or stainless steel pockets, 65mm or 90mm

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Nominal Bore</th>
<th>Flow Part</th>
<th>Length</th>
<th>Min Flow litres/hr</th>
<th>Norm Flow m³/hr</th>
<th>Max Flow m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCAL402W1</td>
<td>15mm/½ inch BSP c/w unions</td>
<td>402W1</td>
<td>110mm</td>
<td>6</td>
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<tr>
<td>MCAL402W4</td>
<td>15mm/½ inch BSP c/w unions</td>
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<td>MCAL402W5</td>
<td>15mm/½ inch BSP c/w unions</td>
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<td>165mm</td>
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<tr>
<td>MCAL402W6</td>
<td>15mm/½ inch BSP c/w unions</td>
<td>402W6</td>
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<td>MCAL402W7</td>
<td>20mm/¾ inch BSP c/w unions</td>
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<td>MCAL402W9</td>
<td>20mm/¾ inch BSP c/w unions</td>
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<tr>
<td>MCAL402WA</td>
<td>20mm/¾ inch BSP c/w unions</td>
<td>402WA</td>
<td>130mm</td>
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<tr>
<td>MCAL402WB</td>
<td>20mm/¾ inch BSP c/w unions</td>
<td>402WB</td>
<td>190mm</td>
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<td>MCAL402WD</td>
<td>25mm/1 inch BSP c/w unions</td>
<td>402WD</td>
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</tr>
<tr>
<td>MCAL402WF</td>
<td>25mm/1 inch BSP c/w unions</td>
<td>402WF</td>
<td>260mm</td>
<td>60</td>
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<td>12.0</td>
</tr>
<tr>
<td>MCAL402WG</td>
<td>25mm Flanged PN25</td>
<td>402WG</td>
<td>260mm</td>
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<td>6.0</td>
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<tr>
<td>MCAL402WH</td>
<td>40mm/1.1.2 inch BSP c/w unions</td>
<td>402WH</td>
<td>300mm</td>
<td>100</td>
<td>10</td>
<td>20</td>
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<tr>
<td>MCAL402WJ</td>
<td>40mm Flanged PN25</td>
<td>402WJ</td>
<td>300mm</td>
<td>100</td>
<td>10</td>
<td>20</td>
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<tr>
<td>MCAL402WK</td>
<td>50mm Flanged PN25</td>
<td>402WK</td>
<td>270mm</td>
<td>150</td>
<td>15</td>
<td>30</td>
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</table>
**ENERGY METERS**

### MUTCAL 402 COMMUNICATION MODULES

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCAL402X10</td>
<td>Data and pulse inputs</td>
</tr>
<tr>
<td>MCAL402X11</td>
<td>Data and pulse outputs CE/CV</td>
</tr>
<tr>
<td>MCAL402X20</td>
<td>M-Bus with 2 pulse inputs</td>
</tr>
<tr>
<td>MCAL402X42</td>
<td>M-Bus with 2 pulse outputs CE/CV</td>
</tr>
<tr>
<td>MCAL402X40</td>
<td>Wireless M-Bus EU 868 MHz Mode 1</td>
</tr>
</tbody>
</table>

- Radio EU 434 MHz int + ext ant NET0 + 2 pulse inputs
- Radio EU 434 MHz int + ext ant NET1 + 2 pulse inputs
- Radio EU 434 MHz int + ext ant NET2 + 2 pulse inputs
- Radio SE 434 MHz int + ext ant NET0 + 2 pulse inputs
- Radio SE 434 MHz int + ext ant NET1 + 2 pulse inputs
- Radio SE 434 MHz int + ext ant NET2 + 2 pulse inputs

- 6 Year and 12 Year battery options available

### KAMSTRUP 602 ULTRASONIC HEAT METER AND INTERGRATOR

- EN1434 Class 2 & MID for Heating 130 °C max
- Including Calculator, pulse output Module, Power Supply battery or 230v AC, and 1.5M temperature sensors and pockets
- Ultraflow 54 ultrasonic flow sensors with 2.5m signal cable
- Threaded Connection PN16

### MUTCAL 402 POWER SUPPLY MODULES

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCAL402-BATTERY</td>
<td>D-cell battery</td>
</tr>
<tr>
<td>MCAL402-230VAC</td>
<td>230V AC, supply module</td>
</tr>
<tr>
<td>MCAL402-24V</td>
<td>24V AC, supply module</td>
</tr>
</tbody>
</table>

### MUTCAL 402 PT500 SENSORS

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMPSENSOR1.5</td>
<td>Pocket Temp sensor set with 1.5m cable</td>
</tr>
<tr>
<td>TEMPSENSOR3</td>
<td>Pocket Temp sensor set with 3.0m cable</td>
</tr>
<tr>
<td>SHORTTEMP1.5</td>
<td>Short direct Temp sensor set with 1.5m cable</td>
</tr>
<tr>
<td>SHORTTEMP3</td>
<td>Short direct Temp sensor set with 3.0m cable</td>
</tr>
</tbody>
</table>

### SENSORS FITTINGS

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>½NIP</td>
<td>½ nipple for PT500 direct sensor, short probe, brass</td>
</tr>
<tr>
<td>¾NIP</td>
<td>¾ nipple for PT500 direct sensor, short probe, brass</td>
</tr>
<tr>
<td>SOCKET65</td>
<td>65mm x ½ sensor pocket, stainless steel for 5.8mm</td>
</tr>
<tr>
<td>SOCKET90</td>
<td>90mm x ½ sensor pocket, stainless steel for 5.8mm</td>
</tr>
</tbody>
</table>

### MUTCAL 402 COMMUNICATION MODULES

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Nominal Bore</th>
<th>Flow Rate</th>
<th>Length</th>
<th>Min Flow</th>
<th>Norm Flow</th>
<th>Max Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCAL602DN15L</td>
<td>15mm/½ inch BSP c/w unions</td>
<td>65-S-CAAA-XXX</td>
<td>110mm</td>
<td>6</td>
<td>0.6</td>
<td>1.5</td>
</tr>
<tr>
<td>MCAL602DN20L</td>
<td>20mm/¾ inch BSP c/w unions</td>
<td>65-S-CAAD-XXX</td>
<td>130mm</td>
<td>6</td>
<td>0.6</td>
<td>1.5</td>
</tr>
<tr>
<td>MCAL602DN15</td>
<td>15mm/½ inch BSP c/w unions</td>
<td>65-S-CDAA-XXX</td>
<td>110mm</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>MCAL602DN20</td>
<td>20mm/¾ inch BSP c/w unions</td>
<td>65-S-CDAD-XXX</td>
<td>130mm</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
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<tr>
<td>MCAL602DN15H</td>
<td>15mm/½ inch BSP c/w unions</td>
<td>65-S-CDAC-XXX</td>
<td>165mm</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>MCAL602DN20H</td>
<td>20mm/¾ inch BSP c/w unions</td>
<td>65-S-CDAF-XXX</td>
<td>165mm</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
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<tr>
<td>MCAL602DN20</td>
<td>20mm/¾ inch BSP c/w unions</td>
<td>65-S-CDFB-XXX</td>
<td>190mm</td>
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<td>3.0</td>
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<tr>
<td>MCAL602DN20H</td>
<td>20mm/¾ inch BSP c/w unions</td>
<td>65-S-CEAAXX</td>
<td>190mm</td>
<td>25</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>MCAL602DN25F</td>
<td>25mm/1 inch BSP c/w unions</td>
<td>65-S-CGAG-XXX</td>
<td>260mm</td>
<td>35</td>
<td>3.5</td>
<td>7.0</td>
</tr>
<tr>
<td>MCAL602DN25H</td>
<td>25mm/1 inch BSP c/w unions</td>
<td>65-S-ChAG-XXX</td>
<td>260mm</td>
<td>60</td>
<td>6.0</td>
<td>12.0</td>
</tr>
<tr>
<td>MCAL602DN40</td>
<td>40mm/1½ inch BSP c/w unions</td>
<td>65-S-CJAJ-XXX</td>
<td>300mm</td>
<td>100</td>
<td>10.0</td>
<td>20.0</td>
</tr>
<tr>
<td>MCAL602DN20F</td>
<td>20mm Flanged PN25</td>
<td>65-S-CDAXX</td>
<td>190mm</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>MCAL602DN20FH</td>
<td>20mm Flanged PN25</td>
<td>65-S-CEBA-XXX</td>
<td>190mm</td>
<td>25</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>MCAL602DN25F</td>
<td>25mm Flanged PN25</td>
<td>65-S-CGBB-XXX</td>
<td>260mm</td>
<td>35</td>
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<td>7.0</td>
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<tr>
<td>MCAL602DN25FH</td>
<td>25mm Flanged PN25</td>
<td>65-S-ChBB-XXX</td>
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<td>60</td>
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<td>MCAL602DN40F</td>
<td>40mm Flanged PN25</td>
<td>65-S-CJBX-XXX</td>
<td>300mm</td>
<td>100</td>
<td>10.0</td>
<td>20.0</td>
</tr>
<tr>
<td>MCAL602DN50F</td>
<td>50mm Flanged PN25 Stainless Steel</td>
<td>65-S-CKCE-XXX</td>
<td>270mm</td>
<td>150</td>
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<td>30.0</td>
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<tr>
<td>MCAL602DN65</td>
<td>65mm Flanged PN25 Stainless Steel</td>
<td>65-S-CLCXX</td>
<td>300mm</td>
<td>250</td>
<td>25.0</td>
<td>50.0</td>
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<td>MCAL602DN80</td>
<td>80mm Flanged PN25 Stainless Steel</td>
<td>65-S-CMCH-XXX</td>
<td>300mm</td>
<td>400</td>
<td>40.0</td>
<td>80.0</td>
</tr>
<tr>
<td>MCAL602DN100L</td>
<td>100mm Flanged PN25 Stainless Steel</td>
<td>65-S-FACLXXX</td>
<td>360mm</td>
<td>600</td>
<td>60.0</td>
<td>120.0</td>
</tr>
<tr>
<td>MCAL602DN100</td>
<td>100mm Flanged PN25 Stainless Steel</td>
<td>65-S-FBLC-XXX</td>
<td>360mm</td>
<td>1000</td>
<td>100.0</td>
<td>200.0</td>
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<tr>
<td>MCAL602DN15L</td>
<td>150mm Flanged PN25 Stainless Steel</td>
<td>65-S-FCCN-XXX</td>
<td>500mm</td>
<td>1500</td>
<td>150.0</td>
<td>300.0</td>
</tr>
<tr>
<td>MCAL602DN15</td>
<td>150mm Flanged PN25 Stainless Steel</td>
<td>65-S-FDCN-XXX</td>
<td>500mm</td>
<td>2500</td>
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<td>500.0</td>
</tr>
<tr>
<td>MCAL602DN15H</td>
<td>150mm Flanged PN25 Stainless Steel</td>
<td>65-S-FECN-XXX</td>
<td>500mm</td>
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<td>400.0</td>
<td>800.0</td>
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<tr>
<td>MCAL602DN200</td>
<td>200mm Flanged PN25 Stainless Steel</td>
<td>65-S-FECF-XXX</td>
<td>500mm</td>
<td>4000</td>
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<tr>
<td>MCAL602DN250</td>
<td>250mm Flanged PN25 Stainless Steel</td>
<td>65-S-FECR-XXX</td>
<td>600mm</td>
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<td>MCAL602DN250H</td>
<td>250mm Flanged PN25 Stainless Steel</td>
<td>65-S-FFCR-XXX</td>
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<td>6000</td>
<td>600.0</td>
<td>1200.0</td>
</tr>
</tbody>
</table>

---

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T: +44(0) 121 327 7771    E: sales@mwatechnology.com    W: www.mwatechnology.com
**BEFORE ORDERING YOUR METER, ENSURE YOU HAVE ALL THE ANCILLARIES**

### SIGNAL CABLE

**Description**
- Signal cable for Ultraflow Stainless Steel - 5 metres
- Signal cable for Ultraflow Stainless Steel - 10 metres

### MULTICAL 602 CALCULATOR FOR HEAT EN1434 & MID

**Description**
- Pt 500 2 wire suitable for ultraflow or pulsed water meter Type 602-A
- Pt 500 4 wire suitable for ultraflow or pulsed water meter Type 602-B
- Pt 500 2 wire suitable for ultraflow or pulsed water meter Type 602-C
- Pt 500 2 wire suitable for flow meters with 24v AC active pulses Type 602-D

### TOP MODULES

**Description**
- RTC top module
- RTC top module + energy calculator + hourly data logger
- RTC top module + PQ limiter + hourly data logger
- RTC top module + data output + hourly data logger
- RTC top module + 66-C compatibility and pulse outputs CE and CV
- RTC top module + Mbus - require external supply
- RTC top module + 2 pulse outputs for energy + hourly data logger
- RTC top module + vol calculation and hourly data logger
- RTC top module + hourly data logger + 2 pulse outputs + scheduler
- RTC top module + 2 pulse outputs for CE and CV prog data logger

### BASE MODULES

**Description**
- Data output/pulse inputs module
- M-Bus module with pulse inputs
- Radio Router module with pulse inputs - require external supply
- Prog data logger RTC 4-20 mA outputs - require external supply
- Analog 4-20 mA outputs
- Lonworks module FIT-10AQ with pulse inputs
- Radio module with pulse inputs
- Radio module with pulse inputs - for external antenna
- M-Bus module with pulse inputs - alternative registers

### POWER SUPPLY

**Description**
- Battery, D Cell
- 230v AC supply module
- 24v AC supply module

### TEMPERATURE SENSOR SET PT500

**Description**
- Set of pocket sensors with 1.5 m cable 5.8mm dia
- Set of pocket sensors with 3.0 m cable 5.8mm dia
- Set of pocket sensors with 5.0 m cable 5.8mm dia
- Set of pocket sensors with 10.0 m cable 5.8mm dia
- Set of pocket sensors with short probe 1.5 m cable
- Set of pocket sensors with short probe 3.0 m cable

### SENSOR FITTINGS

**Description**
- ½ nipple for Pt500 direct sensor, short probe, brass
- ¾ nipple for Pt500 direct sensor, short probe, brass
- 65mm x ½ sensor pocket, stainless steel for 5.8mm
- 90mm x ½ sensor pocket, stainless steel for 5.8mm
- 140mm x ½ sensor pocket, stainless steel for 5.8mm

### PULSE TRANSMITTER

**Description**
- Pulse Transmitter box incl supply for prolonged signal cable

### BRACKETS

**Description**
- Flat mounting bracket for wall mounting
- 90° bracket for mounting
KAMSTRUP BD1 INTEGRATOR ONLY FOR HEAT METERING
- Battery, 230V or 24V powered, with pulsed energy output
- 1.5 temperature sensors and 1.5m signal cables & pockets
- Mounting Bracket, standard optical data output
- Pulse value to be advised

Description
Type 67 - P1500 4 wire with 4 analog outputs

COMMUNICATION MODULES

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Bus module</td>
<td>670V</td>
</tr>
<tr>
<td>Radio Router module</td>
<td>670W</td>
</tr>
<tr>
<td>LonWorks module FTI-10A</td>
<td>670Y</td>
</tr>
<tr>
<td>GSM6H module excl external antenna</td>
<td>670Z</td>
</tr>
<tr>
<td>M-Bus module with pulse inputs</td>
<td>670020</td>
</tr>
<tr>
<td>Radio Router module with pulse inputs - require external supply</td>
<td>670021</td>
</tr>
<tr>
<td>Prog data logger RTC 4-20 mA inputs require external supply</td>
<td>670022</td>
</tr>
<tr>
<td>Lon works module FTI-10A with pulse inputs require external supply</td>
<td>670024</td>
</tr>
</tbody>
</table>

TEMPERATURE SENSOR SET P1500

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set of pocket sensors with 1.5m cable 5.8mm dia</td>
<td>670000A</td>
</tr>
<tr>
<td>Set of pocket sensors with 3.0m cable 5.8mm dia</td>
<td>670000B</td>
</tr>
<tr>
<td>Set of pocket sensors with 5.0m cable 5.8mm dia</td>
<td>670000C</td>
</tr>
<tr>
<td>Set of pocket sensors with 10m cable 5.8mm dia</td>
<td>670000D</td>
</tr>
<tr>
<td>Set of pocket sensors with short probe 1.5m cable</td>
<td>670000F</td>
</tr>
<tr>
<td>Set of pocket sensors with short probe 3.0m cable</td>
<td>670000G</td>
</tr>
</tbody>
</table>

SENSOR FITTINGS

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>65mm x ⅜ sensor pocket, stainless steel for 5.8mm</td>
</tr>
<tr>
<td>90mm x ⅜ sensor pocket, stainless steel for 5.8mm</td>
</tr>
<tr>
<td>140mm x ⅜ sensor pocket, stainless steel for 5.8mm</td>
</tr>
</tbody>
</table>

ELECTRO MECHANICAL HEAT METER

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHC2K15</td>
<td>150mm/⅝ inch BSP</td>
<td>For monitoring purposes only</td>
</tr>
<tr>
<td>KHC2K20</td>
<td>200mm/¾ inch BSP</td>
<td>Complete with pulse output</td>
</tr>
<tr>
<td>KHC2K25</td>
<td>250mm/1 inch BSP</td>
<td>Lithium battery powered</td>
</tr>
<tr>
<td>KHC2K30</td>
<td>300mm/1¼ inch BSP</td>
<td>Sensors with 1.5m cable</td>
</tr>
</tbody>
</table>

Designed to detect major leaks and help prevent flood damage caused by leaking pipes and fittings or by vandalism. The WLDS-10 panel is connected to a pulse water meter installed at the main intake point of the building and hence monitors the consumption of water. An alarm output is activated when a continuous flow of water passes through the water meter at a flow rate above a preset maximum for a preset period of time.

A normally open free contact is provided for connection to a BMS (Building Management System) or to activate a local beacon/sounder type alarm.

A normally closed free contact is also provided to shut off the water supply via a solenoid shut off valve if required.

The WDLS-20 has a second pulse water meter installed at the site boundary and in addition can detect a loss of water between the site boundary and the main intake point.

Features
- Multi parameters enables efficient monitoring
- Highly versatile, user friendly interface
- Accepts 1,10,100 L/Pulse meters
- Optional beacon / sounder alarm
- Rugged steel enclosure to IP65
- Shut off valve and BMS options

SPECIFICATIONS:
- Power requirements: Universal input 100 - 260v AC 50/60Hz 1.5A max
- Pulse Meter Input: 24v DC 5mA maximum for reed switch type pulse meter, programmable for 1,10 or 100 LPP
- PSU Output: 24v DC @ 1.1A for powering alarm or solenoid valves
- Alarm Output: Normally open free relay contact rated at 5A resistive load 250v AC / 30v DC
- Valve Output: Normally open free relay contact rated at 5A resistive load 250v AC / 30v DC
- LCD display: 2 lines x 16 character with LED backlight
- Keypad: with tactile feedback 0-9 numeric keys plus navigation keys for parameter setting and monitoring
- Parameters: Litres input range 1 - 32,767, time input range 10 seconds - 45 hrs, time to alarm range 1 min - 45 hrs
- Real time clock: battery backed (10 year life) Connections: via DIN rail terminals, maximum conductor size 2.5mm², cable entry via stuffing glands
- Enclosure: IP65, steel wall mounting overall dimensions 300 x 200 x 150mm (W x H x D) RAL7035 powder coated
- Overall weight: 4.25Kg
WATER METERS

FLONET PN20XX Electromagnetic flowmeters
Suitable for Glycol up to 40% concentration with PTFE lining and stainless steel electrodes. Available with special linings: Hard Rubber, Soft Rubber and PTFE. Suitable for liquids, dirty water and high temperature fluids.

FLOMIC ULTRASONIC FLOW METERS
Designed for clean water. Battery powered units.
FL102X 32mm to 200mm
FL103X 32mm to 300mm
FL3085X 200mm to 1200mm
FL5024.5044 32mm to 200mm
FL5034/5054 32mm to 300mm

ELSTER H4300 WOLTMANN BULK FLOW METER
- Water Meter 50 °C 10 bar Class C
- Inline Meters without pulse lead
- Brass body Volumetric Meters
- Horizontal and Vertical Installation
- WRAS approved

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Manifold</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4300 - 50</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>2&quot; flanged PN16</td>
<td>1</td>
</tr>
<tr>
<td>H4300 - 65</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>2½ flanged PN16</td>
<td>1.6</td>
</tr>
<tr>
<td>H4300 - 80</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>3&quot; flanged PN16</td>
<td>2</td>
</tr>
<tr>
<td>H4300 - 100</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>4&quot; flanged PN16</td>
<td>2.4</td>
</tr>
<tr>
<td>H4300 - 150</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>6&quot; flanged PN16</td>
<td>4</td>
</tr>
<tr>
<td>H4300 - 200</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>8&quot; flanged PN16</td>
<td>8</td>
</tr>
</tbody>
</table>

ELSTER V100 COLD WATER METER
- Water Meter 50 °C 10 bar Class C
- Inline Meters without pulse lead
- Brass body Volumetric Meters
- Horizontal and Vertical Installation
- WRAS approved

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Class C</th>
<th>Connections</th>
<th>Min flow m³/hr</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>V100 - 15</td>
<td>Direct Read</td>
<td>½&quot; brass body with unions</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 20</td>
<td>Direct Read</td>
<td>¾&quot; brass body with unions</td>
<td>25</td>
<td>2.5</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 25</td>
<td>Direct Read</td>
<td>1&quot; brass body with unions</td>
<td>35</td>
<td>3.5</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 30</td>
<td>Direct Read</td>
<td>1½&quot; brass body with unions</td>
<td>60</td>
<td>6.0</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 40</td>
<td>Direct Read</td>
<td>1¾&quot; brass body with unions</td>
<td>100</td>
<td>10.0</td>
<td>20.0</td>
<td></td>
</tr>
</tbody>
</table>

ELSTER V210 MANIFOLD MOUNTED METERS
- WRAS approved
- Meters without pulse lead
- Volumetric Meters - Cold Water 30 °C max
- Horizontal and Vertical Installation
- 16 bar max

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Manifold</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>V210 - 2.5</td>
<td>Direct Read</td>
<td>Polymer Class D</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>V210 - 4.0</td>
<td>Direct Read</td>
<td>Brass Class C</td>
<td>4.0</td>
<td>8.0</td>
</tr>
<tr>
<td>V210 - 6.3</td>
<td>Direct Read</td>
<td>Brass Class C</td>
<td>6.3</td>
<td>12.6</td>
</tr>
</tbody>
</table>

ELSTER (V210) MANIFOLD MOUNTED METERS
- WRAS approved
- Meters without pulse lead
- Volumetric Meters - Cold Water 30 °C max
- Horizontal and Vertical Installation
- 16 bar max

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Connections</th>
<th>Min flow m³/hr</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>V210 - 2.5</td>
<td>Direct Read</td>
<td>½&quot; brass body with unions</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>V210 - 4.0</td>
<td>Direct Read</td>
<td>¾&quot; brass body with unions</td>
<td>25</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>V210 - 6.3</td>
<td>Direct Read</td>
<td>1&quot; brass body with unions</td>
<td>35</td>
<td>3.5</td>
<td>7.0</td>
</tr>
<tr>
<td>V210 - 100</td>
<td>Direct Read</td>
<td>1½&quot; brass body with unions</td>
<td>60</td>
<td>6.0</td>
<td>12.0</td>
</tr>
<tr>
<td>V210 - 150</td>
<td>Direct Read</td>
<td>1¾&quot; brass body with unions</td>
<td>100</td>
<td>10.0</td>
<td>20.0</td>
</tr>
</tbody>
</table>

32

FLONET FN20XX Electromagnetic flowmeters
Suitable for Glycol up to 40% concentration with PTFE lining and stainless steel electrodes. Available with special linings: Hard Rubber, Soft Rubber and PTFE. Suitable for liquids, dirty water and high temperature fluids.

FLOMIC ULTRASONIC FLOW METERS
Designed for clean water. Battery powered units.
FL102X 32mm to 200mm
FL103X 32mm to 300mm
FL3085X 200mm to 1200mm
FL5024.5044 32mm to 200mm
FL5034/5054 32mm to 300mm

ELSTER H4300 WOLTMANN BULK FLOW METER
- Water Meter 50 °C 10 bar Class C
- Inline Meters without pulse lead
- Brass body Volumetric Meters
- Horizontal and Vertical Installation
- WRAS approved

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Manifold</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4300 - 50</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>2&quot; flanged PN16</td>
<td>1</td>
</tr>
<tr>
<td>H4300 - 65</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>2½ flanged PN16</td>
<td>1.6</td>
</tr>
<tr>
<td>H4300 - 80</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>3&quot; flanged PN16</td>
<td>2</td>
</tr>
<tr>
<td>H4300 - 100</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>4&quot; flanged PN16</td>
<td>2.4</td>
</tr>
<tr>
<td>H4300 - 150</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>6&quot; flanged PN16</td>
<td>4</td>
</tr>
<tr>
<td>H4300 - 200</td>
<td>K100</td>
<td>Pulse = 100 litres</td>
<td>8&quot; flanged PN16</td>
<td>8</td>
</tr>
</tbody>
</table>

ELSTER V100 COLD WATER METER
- Water Meter 50 °C 10 bar Class C
- Inline Meters without pulse lead
- Brass body Volumetric Meters
- Horizontal and Vertical Installation
- WRAS approved

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Class C</th>
<th>Connections</th>
<th>Min flow m³/hr</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>V100 - 15</td>
<td>Direct Read</td>
<td>½&quot; brass body with unions</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 20</td>
<td>Direct Read</td>
<td>¾&quot; brass body with unions</td>
<td>25</td>
<td>2.5</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 25</td>
<td>Direct Read</td>
<td>1&quot; brass body with unions</td>
<td>35</td>
<td>3.5</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 30</td>
<td>Direct Read</td>
<td>1½&quot; brass body with unions</td>
<td>60</td>
<td>6.0</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>V100 - 40</td>
<td>Direct Read</td>
<td>1¾&quot; brass body with unions</td>
<td>100</td>
<td>10.0</td>
<td>20.0</td>
<td></td>
</tr>
</tbody>
</table>

ELSTER V210 MANIFOLD MOUNTED METERS
- WRAS approved
- Meters without pulse lead
- Volumetric Meters - Cold Water 30 °C max
- Horizontal and Vertical Installation
- 16 bar max

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Manifold</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>V210 - 2.5</td>
<td>Direct Read</td>
<td>Polymer Class D</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>V210 - 4.0</td>
<td>Direct Read</td>
<td>Brass Class C</td>
<td>4.0</td>
<td>8.0</td>
</tr>
<tr>
<td>V210 - 6.3</td>
<td>Direct Read</td>
<td>Brass Class C</td>
<td>6.3</td>
<td>12.6</td>
</tr>
</tbody>
</table>

ELSTER (V210) MANIFOLD MOUNTED METERS
- WRAS approved
- Meters without pulse lead
- Volumetric Meters - Cold Water 30 °C max
- Horizontal and Vertical Installation
- 16 bar max

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Connections</th>
<th>Min flow m³/hr</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>V210 - 2.5</td>
<td>Direct Read</td>
<td>½&quot; brass body with unions</td>
<td>15</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>V210 - 4.0</td>
<td>Direct Read</td>
<td>¾&quot; brass body with unions</td>
<td>25</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>V210 - 6.3</td>
<td>Direct Read</td>
<td>1&quot; brass body with unions</td>
<td>35</td>
<td>3.5</td>
<td>7.0</td>
</tr>
<tr>
<td>V210 - 100</td>
<td>Direct Read</td>
<td>1½&quot; brass body with unions</td>
<td>60</td>
<td>6.0</td>
<td>12.0</td>
</tr>
<tr>
<td>V210 - 150</td>
<td>Direct Read</td>
<td>1¾&quot; brass body with unions</td>
<td>100</td>
<td>10.0</td>
<td>20.0</td>
</tr>
</tbody>
</table>

33

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33
ELSTER H4000 WOLTMANN BULK FLOW METER
- Bulk Flow Meters H4000 flanged PN16
- Woltman Type Class B Cold Water 30 °C
- WRAS approved

**MWA Code** | **Type** | **Connections** | **Min flow** l/h | **Qnom** m³/hr | **Qmax** m³/hr
---|---|---|---|---|---
H4000 - 40 | K100 1 pulse = 100 litres | 1½" flanged PN16 | 0.35 | 15 | 30
H4000 - 50 | K100 1 pulse = 100 litres | 2" flanged PN16 | 0.45 | 15 | 30
H4000 - 65 | K100 1 pulse = 100 litres | 2½" flanged PN16 | 0.75 | 25 | 120
H4000 - 80 | K100 1 pulse = 100 litres | 3" flanged PN16 | 1.2 | 40 | 80
H4000 - 100 | K100 1 pulse = 100 litres | 4" flanged PN16 | 1.8 | 60 | 120
H4000 - 150 | K100 1 pulse = 100 litres | 6" flanged PN16 | 4.5 | 150 | 300
H4000 - 200 | K100 1 pulse = 100 litres | 8" flanged PN16 | 7.5 | 250 | 500

**Key Features**
- Dn 15, L = 110 - 170 mm
- MID approval (EN 14154)
- Q3 2.5 m³/h
- R = Q3/Q1 = 315
- MAP 16 bar

**Main Benefits**
- Long-lasting high accuracy
- High Efficiency
- Robust and compact
- Lighter and ergonomic
- Resistant to dezincification

ITRON AQUADIS COLD WATER METER
- Aquadis Cold Water Meter 30 °C 16 bar 2004/22/EC MID/ISO (Class C)
- Rotary piston volumetric Inline Water Meters without pulse lead
- WRAS approved
- Brass body - Horizontal and Vertical Installation. Accuracy +/- 2%

**MWA Code** | **Type** | **Connections** | **Min flow** l/h | **Qnom** m³/hr | **Qmax** m³/hr
---|---|---|---|---|---
AQU20 | Direct Read | ½" brass body with unions | 25 | 2.5 | 5.0
AQU25 | Direct Read | 1" brass body with unions | 40 | 4 | 7.0
AQU30 | Direct Read | 1½" brass body with unions | 50 | 6.3 | 10.0
AQU40 | Direct Read | 1½" brass body with unions | 100 | 10 | 20.0

**Key Features**
- Dn 15, L = 110 - 170 mm
- MID approval (EN 14154)
- Q3 2.5 m³/h
- R = Q3/Q1 = 315
- MAP 16 bar

**Main Benefits**
- Long-lasting high accuracy
- High Efficiency
- Robust and compact
- Lighter and ergonomic
- Resistant to dezincification

ITRON AQUADIS MANIFOLD COMPOSITE COLD WATER

**Key Features**
- Single Jet Inline Water Meters without pulse lead
- WRAS approved

**Main Benefits**
- Single Jet Inline Water Meters without pulse lead
- WRAS approved
- Brass body - Horizontal Class C and Vertical Installation. Accuracy +/- 2%

**MWA Code** | **Type** | **Connections** | **Min flow** l/h | **Qnom** m³/hr | **Qmax** m³/hr
---|---|---|---|---|---
AQU20 | Direct Read | ½" brass body with unions | 10 | 10 | 20.0
AQU25 | Direct Read | 1" brass body with unions | 50 | 15 | 30.0
AQU30 | Direct Read | 1½" brass body flanged PN16 - Vertical Class R | 70 | 15 | 30.0
AQU35 | Direct Read | 2½" brass body flanged PN16 - Vertical Class R | 35 | 25 | 50.0
AQU40 | Direct Read | 3½" brass body flanged PN16 - Vertical Class R | 50 | 40 | 80.0
AQU45 | Direct Read | 4½" brass body flanged PN16 - Vertical Class R | 70 | 60 | 120.0

**Cyble**
Pulse module and lead

**Cyble Mbus**
MBus communication module

ITRON FLOSTAR COLD WATER METER
- Flotstar Cold Water Meter 50 °C 16 bar EEC/ISO Class C

**Key Features**
- Single Jet Inline Water Meters without pulse lead
- WRAS approved
- Brass body - Horizontal Class C and Vertical Installation. Accuracy +/- 2%

**MWA Code** | **Type** | **Connections** | **Min flow** l/h | **Qnom** m³/hr | **Qmax** m³/hr
---|---|---|---|---|---
FLO40 | Direct Read | 1½" inch body screwed - Vertical Class C | 10 | 10 | 20.0
FLO50 | Direct Read | 2" inch body screwed - Vertical Class C | 50 | 15 | 30.0
FLO50F | Direct Read | 2½" inch body flanged PN16 - Vertical Class R | 70 | 15 | 30.0
FLO65F | Direct Read | 3½" inch body flanged PN16 - Vertical Class R | 35 | 25 | 50.0
FLO80F | Direct Read | 4½" inch body flanged PN16 - Vertical Class R | 50 | 40 | 80.0
FLO100F | Direct Read | 6½" inch body flanged PN16 - Vertical Class R | 70 | 60 | 120.0

**Cyble**
Pulse module and lead

**Cyble Mbus**
MBus communication module

ELSTER H4000 WOLTMANN BULK FLOW METER
- Bulk Flow Meters H4000 flanged PN16
- Woltman Type Class B Cold Water 30 °C
- WRAS approved

**ELSTER (V200) INLINE METERS**
- WRAS approved
- Inline Meters without pulse lead
- Volumetric Meters - Cold Water 30 °C max Non Pulse
- 16 bar max

**MWA Code** | **Type** | **Body** | **Qnom** m³/hr | **Qmax** m³/hr
---|---|---|---|---
V200 - 15 | Direct Read | Polymer Class D | 2.5 | 3.0
V200 - 20 | Direct Read | Brass Class C | 4.0 | 5.0
V200 - 25 | Direct Read | Brass Class C | 6.3 |
V200 - 30 | Direct Read | Brass Class C | 10.0 |
V200 - 30 | Direct Read | Brass Class C | 10.0 |

ELSTER H4000 WOLTMANN BULK FLOW METER
- Bulk Flow Meters H4000 flanged PN16
- Woltman Type Class B Cold Water 30 °C
- WRAS approved

**ELSTER H4000 WOLTMANN BULK FLOW METER**
- Bulk Flow Meters H4000 flanged PN16
- Woltman Type Class B Cold Water 30 °C
- WRAS approved

**ELSTER (V200) INLINE METERS**
- WRAS approved
- Inline Meters without pulse lead
- Volumetric Meters - Cold Water 30 °C max Non Pulse
- 16 bar max

**MWA Code** | **Type** | **Body** | **Qnom** m³/hr | **Qmax** m³/hr
---|---|---|---|---
V200 - 15 | Direct Read | Polymer Class D | 2.5 | 3.0
V200 - 20 | Direct Read | Brass Class C | 4.0 | 5.0
V200 - 25 | Direct Read | Brass Class C | 6.3 |
V200 - 30 | Direct Read | Brass Class C | 10.0 |
V200 - 30 | Direct Read | Brass Class C | 10.0 |

**ITRON AQUADIS COLD WATER METER**
- Aquadis Cold Water Meter 30 °C 16 bar MID 2004/22/EN 14154-2005 (Class D)
- Rotary piston volumetric Inline Water Meters without pulse lead
- WRAS approved
- Brass body - Horizontal and Vertical Installation. Accuracy +/- 2%

**MWA Code** | **Type** | **Connections** | **Min flow** l/h | **Qnom** m³/hr | **Qmax** m³/hr
---|---|---|---|---|---
AQU15 | Direct Read | ½" brass body with unions | 16 | 1.6 | 2.0
AQU15MAN | Direct Read | ½" brass body manifold mount | 16 | 1.6 | 2.0

**Cyble**
Pulse module and lead
### UNIMAG COLD WATER METER

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Connections</th>
<th>Min flow l/h</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unimag15</td>
<td>Direct Read</td>
<td>½&quot; brass body with unions</td>
<td>30</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Unimag20</td>
<td>Direct Read</td>
<td>¾&quot; brass body with unions</td>
<td>50</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Cyble</td>
<td>Pulse module</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Cyble</td>
<td>Mbus</td>
<td>MBus communication module</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WDEK 30**
- Horizontal Woltmann with removable insert
- Sealed counter mechanism with magnetic transmission
- Direct reading on numerical rolls
- Rotating ring 360°
- Use for industry and irrigation
- Prepared for impulse switch (mountable even after installation)
- First quality materials resistant to corrosion

### B METERS

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MW30CP</td>
<td>1 ¼&quot; Cold Water Meter Pulsed K = 10</td>
</tr>
<tr>
<td>MW40CP</td>
<td>1 ½&quot; Cold Water Meter Pulsed K = 10</td>
</tr>
<tr>
<td>MW40HP</td>
<td>1 ½&quot; Hot Water Meter Pulsed K = 10</td>
</tr>
<tr>
<td>MW50-IR</td>
<td>50mm Flanged Irrigation Meter Pulsed K100</td>
</tr>
<tr>
<td>MW50CP</td>
<td>2&quot; Cold Water Meter Pulsed K = 10</td>
</tr>
<tr>
<td>MW50HP</td>
<td>2&quot; Screwed Hot Water Meter Pulsed K = 10</td>
</tr>
<tr>
<td>MW50HPF</td>
<td>50mm Flanged Hot Water Meter Pulsed K100</td>
</tr>
<tr>
<td>MW80-IR</td>
<td>80mm Irrigation Meter Flanged K100</td>
</tr>
<tr>
<td>MW80CPF</td>
<td>80mm Flanged Pulsed Cold Water Meter K100</td>
</tr>
</tbody>
</table>

**WDEK30**
- WDE K30 2 ¼/65mm Flanged Pulsed Water Meter K100
- WDE K30 2 ½/65mm Flanged Pulse Output Hot Water Meter K100
- WDEK30 2 50mm Flanged Pulsed Cold Water Meter K100
- WDE K30 3/80mm Flanged Pulsed Hot Meter K100

**WDEK 50**
- Horizontal Woltmann with removable insert
- Sealed counter mechanism with magnetic transmission
- Direct reading on numerical rolls
- Rotating ring 360°
- Use for industry and irrigation
- Prepared for impulse switch (mountable even after installation)
- First quality materials resistant to corrosion

**GSD8-45**
- Single jet dry dial, direct reading with anti-tampering sealing cup. The 45° position of the reading windows and the rotating dial at 360° allow the consumption reading from different angles, always maintaining the meter in horizontal position, thus assuring also the best accuracy and sensibility. The meter can be wall mounted, installed in multi-utility boxes and in positions difficult to be reached.
- Approved according to MID standards R160H - R50V.
GSD8 COLD WATER METER
Single jet, dry dial, direct reading on 8 numerical rolls. Produced in both cold water (30°C) and hot water (90°C) versions, the diameters 15 and 20 mm (½”-¾”). 360° rotating dial. Risks of corrosion and sedimentation are excluded. Long durability and elevated precision guaranteed. Approved according to MID standards R160H - R50V.

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MW15CP8</td>
<td>GSD8-R ¼ AF c/w unions QN 1.5 K1</td>
</tr>
<tr>
<td>MWA15B</td>
<td>GSDS ½” AF Non Pulsed Cold Water Meter QN 1.5 K1</td>
</tr>
<tr>
<td>MWA15BB</td>
<td>GSD8 ½” AF Non Pulsed Water Meter QN 1.5 K1</td>
</tr>
<tr>
<td>MWA15M</td>
<td>GMDX ½” Non Pulsed MultiJet</td>
</tr>
<tr>
<td>MWA20</td>
<td>GMDX ¾” Non Pulsed MultiJet</td>
</tr>
<tr>
<td>MWA20B8</td>
<td>GSD8 ½ AF Cold Non Pulsed Water Meter</td>
</tr>
<tr>
<td>MW25CP</td>
<td>1” GMDX Cold Water Meter Pulsed Qn3.5 K10</td>
</tr>
<tr>
<td>MW25HP</td>
<td>1” GMDX Hot Water Meter Pulsed 90°C QN3.5 K10</td>
</tr>
<tr>
<td>MW30HP</td>
<td>GMDX 1¼Hot Water Meter Pulsed 90C QN6K10</td>
</tr>
</tbody>
</table>

FOR FURTHER DETAILS SEE OUR WEBSITE

GMDX Multi jet, dry dial, direct reading. Produced in the hot water version (90°C) with diameters 15 to 50 mm (½”-2”). Risks of corrosion and sedimentation free. Antimagnetic protection upon request. Long durability and elevated precision guaranteed. Approved according to MID standards R50-H.

GMDX 1¼Hot Water Meter Pulsed 90°C c/w unions H-B

Cold water 15mm screwed, pulsed

TRAINING
TRAIN UP AND IMPROVE YOUR KNOWLEDGE

Our training team will deliver a course that is appropriate to your needs. We deliver training across many areas for operatives working in the field or at trade counters.

We will help you to develop the knowledge and skills needed for correct installation, exchanging, testing & commissioning of a portfolio of meters plus instruction for ongoing checks.

CALL US NOW
0121 327 7771
ELECTRICITY METERS

ACE1000 SINGLE-PHASE ELECTRICITY METER - APPROVED TO EN61036
- Compact and lightweight sealed-for-life design - IP51 - EN60529
- Long-life electromechanical drum register
- Reduced environmental burden
- Accuracy Class 1 or Class 2
- 20 year certification in the UK
- Pulse option available
- MID approved

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE1000</td>
<td>Itron single phase electricity meter</td>
<td>100amp</td>
</tr>
</tbody>
</table>

A100C SINGLE PHASE METER
- Accuracy Class 1 or Class 2
- kWh import or kWh import/export
- 20 years certified life
- Large digit (9.8mm) multilingual display with chevron information indication
- Extensive security data
- High security, compact design (130mm Wide x 97mm High x 47mm Deep)
- MID approved
- Pulse option available

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A100C</td>
<td>Elster single phase electricity meter</td>
<td>100amp</td>
</tr>
</tbody>
</table>

COIN OPERATED MWE100 PREPAID METER
- Credit is added by £1 & £2 coins.
- The default message on the display indicates the remaining credit.
- LED flashes when a load is connected at 1000 pulses per kWh of used energy.
- Additional credit is updated and continues to display the new total.
- The landlord can set the rate and/or credit as required.
- The tenant can find out the rate being charged and the remaining credit.

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWE100</td>
<td>Coin Operated prepaid meter</td>
<td>100amp</td>
</tr>
</tbody>
</table>

ACE3000 TYPE 100/110
- Residential Three-Phase Electronic Meter with active energy measurement
- Single and double tariff drum register
- Import and export measurement
- Compatible with current connection standard
- Anti-tampering registration mode
- Long-term performance
- MID approved

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE3000</td>
<td>Itron three phase electricity meter</td>
<td>100amp</td>
</tr>
</tbody>
</table>

A1100 3 PHASE ELECTRICITY METER
- Accuracy Class 1 or Class 2
- kWh import or kWh import/export
- 3 phase, 4 wire or 3 phase, 3 wire
- Large figure display
- IrDA (Infrared Data Association) output for transmitting billing, security and status data
- Double insulated, glass filled polycarbonate case to DIN43857 Part2 & Part4 (except for top fixing centres)
- Case to IP53 to IEC 60529-89

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Description</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1100</td>
<td>Elster three phase electricity meter</td>
<td>100amp</td>
</tr>
</tbody>
</table>

OTHER METERS AVAILABLE FROM OTHER MANUFACTURERS. PLEASE CALL FOR FURTHER INFORMATION.

+44(0) 121 327 7771  e sales@mwatechnology.com  w www.mwatechnology.com

+44(0) 121 327 7771  e sales@mwatechnology.com  w www.mwatechnology.com
We may not be able to perform a Pirouette but...

...we know everything about precision meter reading.

TRUMETER RANGE

Power, Quality and Energy

MPR-50 3 PHASE NETWORK ANALYSER
Trumeter MPR and EPM series Network Analysers are designed to measure all electrical parameters of the networks in industrial plants.

- LCD Display
- 5A available
- Neutral current
- 8 Pcs. / Carton

EPM-07-DIN 3 PHASE NETWORK ANALYSER
Trumeter MPR and EPM series Network Analysers are designed to measure all electrical parameters of the networks in industrial plants.

- Digital input
- Double energy measurement
- 5A available
- Neutral current
- Energy pulse output available
- 6 different energy measurement direction
- RS-485 Communication
- 12 Pcs. / Carton

EPM-07S-DIN 3 PHASE NETWORK ANALYSER
Trumeter MPR and EPM series Network Analysers are designed to measure all electrical parameters of the networks in industrial plants.

- Digital input
- Double energy measurement
- 5A available
- Neutral current
- Energy pulse output available
- 6 different energy measurement direction
- RS-485 Communication
- 12 Pcs. / Carton

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Leading independent metering specialists
TRUMETER RANGE

Electrical Measurement

EPR-04S-96 3 PHASE POWER & ENERGY METER
Trumeter EPR series Power and Energy Meters are designed to measure the active, reactive and apparent power values and active and reactive energy values of a network.
- COS available
- VAr Reactive Power
- \( \Sigma W \)
- \( \Sigma VA \)
- kVAh Reactive Energy
- 6 different energy measurement direction
- RS-485 Communication
- 12 Pcs. / Carton

EPR-04S-96 DIN PHASE POWER & ENERGY METER
Trumeter EPR series Power and Energy Meters are designed to measure the active, reactive and apparent power values and active and reactive energy values of a network.
- COS available
- VAr Reactive Power
- \( \Sigma W \)
- \( \Sigma VA \)
- kVAh Reactive Energy
- Demand
- Energy pulse output available
- W active power
- VA apparent power
- \( \Sigma VAr \)
- kWh active energy
- 2 separate energy logs
- Digital input
- 5A available
- RS-485 communication
- 12 Pcs. / Carton

EPR-04S-96 3 PHASE MULTIMETER
Trumeter EPM and EVM series Multimeters are designed to measure the electrical parameters such as current, voltage, frequency and cosφ in industrial plants.
- 3 Phase Voltage
- Neutral Current
- Max Values
- Optional CT-25 (120A)
- 3 Phase Current
- Hz
- Demand
- Min Values
- SA
- Flush Mount
- 12 Pcs. / Carton

ES-32L SINGLE PHASE POWER & ENERGY METER
Trumeter ES series Watt-Hour Meters measure the active watt-hour (kWh) consumption directly.
- Energy pulse output
- kWh Active Energy
- 10 Pcs. / Carton

EPM-34-96 3 PHASE AMMETER
Entes EPM series Ammeters are designed to measure the current values of networks in industrial plants.
- 3 Phase Current
- 1A available
- 5A available
- Flush Mount
- Ring Type Current Connector
- Dual Demand
- 24-250V AC/DC
- 12 Pcs. / Carton

EPM-4C-96 SINGLE PHASE AMMETER
Entes EPM series Ammeters are designed to measure the current values of networks in industrial plants.
- CT-25 (200A)
- Demand
- Flush Mount
- 1 Phase Current
- 5A available
- Contact Output
- 12 Pcs. / Carton

+44(0) 121 327 7771
sales@mwatechnology.com
www.mwatechnology.com

T +44(0) 121 327 7771 E sales@mwatechnology.com W www.mwatechnology.com
TRUMETER RANGE

EVM-35-96 3 PHASE VOLTMETER
Entes EVM series Voltmeters are designed to measure the voltage values of systems in industrial plants.
- 24-250V AC/DC
- 3 Phase Voltage
- Flush Mount
- 12 Pcs. / Carton

EVM-35-48 3 PHASE VOLTMETER
Entes EVM series Voltmeters are designed to measure the voltage values of systems in industrial plants.
- 3 Phase - Selectable
- Flush Mount
- 20 Pcs. / Carton

Protection and Control

DTR-10/20 ASTRONOMIC TIMER RELAY
Trumeter DTR series Astronomic Time Relays are smart time relays which are capable of automatically calculating the sunrise and sunset times and have internal real time clocks. They are designed to control the devices which are connected to output contacts in user defined times, sunrise and sunset times.
- 24 Hours Time Setting
- Geographical Coordinate Programing (Astronomic)
- 15 Programs
- Addition Reserve (Super Capacitor 10 hours)
- 2 Relay Output (8A)
- 10 hour Battery Life
- 5 Pcs. / Carton

GKRC-02F 3 PHASE VOLTAGE MONITORING RELAY
Trumeter GKRC Series Voltage Monitoring Relays are designed to protect the motors and networks against undervoltage and overvoltage conditions.
- 3 Phase Current
- Under Current Protection : can be disabled
- Phase Failure Relay
- ON-Delay
- DIN2 Rail Mount
- Over Current : can be disabled
- Phase Sequence Protection
- 10 Pcs. / Carton

MCB-9 TIME DELAY RELAY
Trumeter Time Relays are designed to enable control in desired time intervals.
- Time Frame: 0.1 sec-30 hours
- ON-Delay
- ON Flasher
- 24V AC/DC
- OFF Delay
- OFF Flasher
- 230V AC
- 10 Pcs. / Carton

We may not sell power but... ...we know the right meters for your energy consumption

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Leading independent metering specialists

mwa TECHNOLOGY Metering with Accuracy
CELEBRATING 20 YEARS OF METERING KNOWLEDGE

Leading independent metering specialists

ELSTER KENT OIL METERS - NON PULSED

- All suitable for light and medium grade heating oil and diesel oil.
- Maximum temperature 60 °C to ½", 180 °C to 2", horizontal and vertical pipes
- Accuracy +/- 1%, with inbuilt strainer

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Connections</th>
<th>Minimal Litres/hr</th>
<th>Normal Litres/hr</th>
<th>Maximum Litres/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC4</td>
<td>Direct Read</td>
<td>¼&quot; brass body without unions</td>
<td>1</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>FC8</td>
<td>Direct Read</td>
<td>¼&quot; brass body without unions</td>
<td>4</td>
<td>135</td>
<td>200</td>
</tr>
<tr>
<td>FC4 BAUNO</td>
<td></td>
<td>FC4 angle banjo connections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC8 BAUNO</td>
<td></td>
<td>FC8 angle banjo connections</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ELSTER OIL METERS - PULSED

- All suitable for light and medium grade heating oil and diesel oil. ½" - 2" for heavy grade oil
- Maximum temperature 60 °C to ½", 130 °C to 2", horizontal and vertical pipes
- Accuracy +/- 1%, with inbuilt strainer

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Connections</th>
<th>Minimal Litres/hr</th>
<th>Normal Litres/hr</th>
<th>Maximum Litres/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC4P</td>
<td>Pulsed output,1/0.1</td>
<td>¼&quot; brass body without unions</td>
<td>1</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>FC8P</td>
<td>Pulsed output,1/0.1</td>
<td>¼&quot; brass body without unions</td>
<td>4</td>
<td>135</td>
<td>200</td>
</tr>
<tr>
<td>FB15P</td>
<td>Pulsed output,1/1</td>
<td>½&quot; brass body with unions</td>
<td>15</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>FB20P</td>
<td>Pulsed output,1/1</td>
<td>½&quot; brass body with unions</td>
<td>20</td>
<td>1000</td>
<td>1500</td>
</tr>
<tr>
<td>FB25P</td>
<td>Pulsed output,1/1</td>
<td>1&quot; brass body with unions</td>
<td>25</td>
<td>2000</td>
<td>3000</td>
</tr>
<tr>
<td>FA40P</td>
<td>Pulsed output,1/10</td>
<td>1½&quot; flanged</td>
<td>40</td>
<td>6000</td>
<td>9000</td>
</tr>
<tr>
<td>FA50P</td>
<td>Pulsed output,1/10</td>
<td>2&quot; flanged</td>
<td>50</td>
<td>20000</td>
<td>30000</td>
</tr>
<tr>
<td>FC4 BAUNO</td>
<td></td>
<td>FC4 angle banjo connections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC8 BAUNO</td>
<td></td>
<td>FC8 angle banjo connections</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BRAUN NON PULSED DOMESTIC OIL METER HZ5

- 0.7 - 40 litres per hour
- 1/8" BSP female connections

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Connections</th>
<th>Minimal Litres/hr</th>
<th>Normal Litres/hr</th>
<th>Maximum Litres/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Braun HZ5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TECHNICAL SUPPORT

As well as onsite support we can help you with the most common technical meter issues by telephone or by email.

Whether you are looking for advice on the most appropriate meter, want to ask about compliance, cost components of metering and advanced metering systems or need installation advice, we are here to help.

CALL US NOW

0121 327 7771

KROHNE VORTEX FLANGED STEAM FLOW METER

- Series Optiswirl Vortex Steam Flowmeter 200 °C max
- Pulse output and 4-20 mA Output

<table>
<thead>
<tr>
<th>MWA Code</th>
<th>Type</th>
<th>Connections</th>
<th>Qnom m³/hr</th>
<th>Qmax m³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEAM15</td>
<td>Optiswirl</td>
<td>½&quot; PN16 stainless steel</td>
<td>11.4</td>
<td>111.7 at 8 bar</td>
</tr>
<tr>
<td>STEAM25</td>
<td>Optiswirl</td>
<td>1&quot; PN16 stainless steel</td>
<td>42.6</td>
<td>698.0 at 8 bar</td>
</tr>
<tr>
<td>STEAM40</td>
<td>Optiswirl</td>
<td>1.5&quot; PN16 stainless steel</td>
<td>85</td>
<td>1815.0 at 8 bar</td>
</tr>
<tr>
<td>STEAM50</td>
<td>Optiswirl</td>
<td>2&quot; PN16 stainless steel</td>
<td>114</td>
<td>2327.0 at 8 bar</td>
</tr>
<tr>
<td>STEAM80</td>
<td>Optiswirl</td>
<td>3&quot; PN16 stainless steel</td>
<td>249</td>
<td>4992 at 8 bar</td>
</tr>
<tr>
<td>STEAM100</td>
<td>Optiswirl</td>
<td>4&quot; PN16 stainless steel</td>
<td>530</td>
<td>8840 at 8 bar</td>
</tr>
<tr>
<td>STEAM150</td>
<td>Optiswirl</td>
<td>6&quot; PN16 stainless steel</td>
<td>1060</td>
<td>20940 at 8 bar</td>
</tr>
<tr>
<td>STEAM200</td>
<td>Optiswirl</td>
<td>8&quot; PN16 stainless steel</td>
<td>2260</td>
<td>45090.0 at 8 bar</td>
</tr>
<tr>
<td>STEAM250</td>
<td>Optiswirl</td>
<td>10&quot; PN16 stainless steel</td>
<td>2870</td>
<td>65610 at 8 bar</td>
</tr>
</tbody>
</table>

We may not be able to do a right upper cut... but we know which meters packs the biggest punch

0121 327 7771 www.mwatechnology.com

Leading independent metering specialists
Automated Meter Reading is the application of today and tomorrow with the correct meter and communications technology you can manage your operational resources, financial management and utility and fuel costs.

The versatility of this technology means it can be applied across a number of locations and sites. AMR saves utility providers the expense of periodic trips to each physical location to read a meter.

Another advantage is that billing can be based on near real-time consumption rather than on estimates based on past or predicted consumption. This timely information coupled with analysis can help both utility providers and customers’ better control the use and production of electric energy, gas usage, or water consumption.

Suitable Meters and Communications
- Gas – Pulse
- Water – Pulse
- Heat Meters – Pulse and or Mbus
- Electricity – Pulse, Modbus, CT’s (Current Transformers)

From Meter to Reader
- Data stored and displayed locally
- Data stored locally and viewed over the web
- Data stored locally and read by “Walk by”
- Two Way data collection and control
- Communications, SIM, Radio, Hard wired

AMR - Precision metering is vital when planning the implementation of remote and data-logging energy solutions. From the adaptation of old meters to SMART meters or the replacement of new meter, into multi-site locations, we can help.

Talk to our technical team for advice on energy consumption and data transfer.
**AUTOMATIC METER READING**
- aM&T solution
- No on-going user/software licence fees
- Unlimited users
- Direct monitoring of energy and utilities
- Live time energy data displayed onsite
- Dedicated web portal
- Data download options
- Scheduled reporting
- Export to energy and billing software
- Simple web based configuration
- No specialist tool or software
- Integration with BMS and Open Systems

**DATA LOGGING**
- Modbus and M-Bus wired metering network support
- Pulsed input module for gas, oil, and water meters
- Local data storage on microSD card
- Automatic data-logging to remote cloud based server
- Remote management via smartphone or web browser
- System can be extended to add extra functions e.g. electrical load shedding, temperature monitoring

**SITE SURVEYS**
**INSTALLATION**
**COMMISSIONING**

**KEY FEATURES**
- CAST EFFECTIVE aM&T SOLUTION
- No on-going user/software licence fees
- Unlimited users
- Direct monitoring of energy and utilities
- Live time energy data displayed onsite
- Dedicated web portal
- Data download options
- Scheduled reporting
- Export to energy and billing software
- Simple web based configuration
- No specialist tool or software
- Integration with BMS and Open Systems

**GAS SOLENOID VALVES AUTO or MANUAL RESET CLASS A EN161**
- Class A EN161 DIN3391 to 3394 IP54
- Gas solenoid valves suitable for natural gas, propane and LPG
- 8mm Tapping for pressure gauge or connection to a gas proving or interlock system with the gas solenoid valve
- Available in 230vAc, 24v AC gas solenoid valves
- Class F coil
- Open / Close <1 second
- Die cast aluminium body with steel mesh filter
- Auto reset gas solenoid valves, manual reset gas solenoid valves available
- the ‘Auto reset’ meets EN161 but the ‘manual reset’ doesn’t
- Easy fit cpi switch for closed indication

**M-LOG RANGE**
In addition to traditional metering MWA now offer data capture solutions with the new M-LOG product range.

**M-LOG IND 1**

**M-LOG COM 1**

**KEY FEATURES**
- Highly cost effective sub-metering system
- Ideal for both multi-dwelling residential and commercial applications
- Web services and CSV data exports formats supported
- Seamless integration with web browser based tenant billing application
- IP connected for electrical and heat metering applications
- Supports wireless meters for ease of installation

**DATA CAPTURE**

**MWA TECHNOLOGY**

**VALVES**

**GAS SOLENOID VALVES AUTO or MANUAL RESET CLASS A EN161**

**CLASS A EN161 DIN3391 to 3394 IP54**
- Gas solenoid valves suitable for natural gas, propane and LPG
- 8mm Tapping for pressure gauge or connection to a gas proving or interlock system with the gas solenoid valve
- Available in 230vAc, 24v AC gas solenoid valves
- Class F coil
- Open / Close <1 second
- Die cast aluminium body with steel mesh filter
- Auto reset gas solenoid valves, manual reset gas solenoid valves available
- the ‘Auto reset’ meets EN161 but the ‘manual reset’ doesn’t
- Easy fit cpi switch for closed indication

**SIZE**

<table>
<thead>
<tr>
<th>Size</th>
<th>Connection</th>
<th>Max pressure mbar</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>½” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>¾” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>1” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>1 ¼” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>1 ½” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>2” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>2 ¼” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>2 ½” BSP</td>
<td></td>
<td>200</td>
<td>IP54</td>
</tr>
<tr>
<td>3” BSP</td>
<td></td>
<td>350</td>
<td>IP54</td>
</tr>
<tr>
<td>65mm PN16</td>
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<td>350</td>
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<tr>
<td>80mm PN16</td>
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<tr>
<td>100mm PN16</td>
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<td>350</td>
<td>IP54</td>
</tr>
<tr>
<td>150mm PN16</td>
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<td>350</td>
<td>IP54</td>
</tr>
<tr>
<td>200mm PN16</td>
<td></td>
<td>350</td>
<td>IP54</td>
</tr>
</tbody>
</table>

**FREE FALL FIRE VALVES**
MWA Technology free fall fire valves comply to BS799 and are for use on gas or oil line installations. These valves are often referred to as either ‘dead weight valves’ or ‘drop arm valves’. The free fall fire valve can be used as an emergency shut off valve or oil dump line valve and can be used in a number of different configurations which can be operated by heat, electrically or manually.

**FULL BMS AND FIRE ALARM INTEGRATION**
Can be very easily achieved through various different types of switching methods depending on specification requirements.

**VALVE KITS**
- Complete with valve body, weight, arm, pulleys, fusible link and cable connectors.
- Valve sizes available ½” to 3” bsp 15mm to 200mm flanged PN16

**RELEASE MECHANISMS AND SWITCHES**
- Electro magnetic release mechanism 24vDC
- Electro magnetic release mechanism 110vAc
- Electro magnetic release mechanism 230vAc
- Electro magnetic release mechanism 24vDC with auxiliary switch
- Electro magnetic release mechanism 110vAc with auxiliary switch
- Electro magnetic release mechanism 230vAc with auxiliary switch
- Valve arm lift switch 1ph and Valve arm lift switch 3ph
- Manual quick release mechanism
- Electro thermal link
- Emergency panic button twist to reset
- Emergency panic button key to reset
NORMALLY CLOSED DIRECT ACTING SOLENOID VALVES
MWA range of direct acting solenoid valves are suitable for water, air and oil at temperatures of -10 °C to +160 °C. The direct acting solenoid valve is ideal for smaller pipe sizes where there is no pressure differential across the solenoid valve. This means that the solenoid valve will operate if there is equal pressure on the up stream and down stream of the solenoid valve.

- ¾” 0 - 8.5 bar pressure rated solenoid valve
- ½” 0 - 8.5 bar pressure rated solenoid valve
- ¼” 0 - 8.5 bar pressure rated solenoid valve
- 1” 0 - 5.0 bar pressure rated solenoid valve
- 1 1/2” 0 - 7 bar pressure rated solenoid valve
- 1 1/8” 0 - 7 bar pressure rated solenoid valve
- 2” 0 - 7 bar pressure rated solenoid valve

Power supply available for solenoid valves
24V AC 50/60Hz, 110V AC 50/60Hz, 230V AC 50/60Hz, 12V DC and 24V DC solenoid coils

NORMALLY CLOSED SERVO ASSISTED SOLENOID VALVES
MWA range of servo assisted solenoid valves are suitable for water, air and oil at temperatures of -10 °C to +120 °C. The servo assisted solenoid valve has a far higher pressure rating as it uses the differential pressure across the solenoid valve to help it to open with the solenoid operator. There must be a difference of 0.5 bar from the up stream and down stream pressures across the solenoid valve.

- ¾” 0.5 - 10 bar pressure rated solenoid valve
- ½” 0.5 - 10 bar pressure rated solenoid valve
- ¼” 0.5 - 10 bar pressure rated solenoid valve
- 1” 0.5 - 10 bar pressure rated solenoid valve
- 1 1/2” 0.5 - 10 bar pressure rated solenoid valve
- 1 1/8” 0.5 - 10 bar pressure rated solenoid valve
- 2” 0.5 - 10 bar pressure rated solenoid valve

Power supply available for solenoid valves
24V AC 50/60Hz, 110V AC 50/60Hz, 230V AC 50/60Hz, 12V DC and 24V DC solenoid coils

NORMALLY CLOSED SERVO ASSISTED SOLENOID VALVES
MWA range of servo assisted solenoid valves are suitable for water, air and oil at temperatures of -10 °C to +120 °C. The servo assisted solenoid valve has a far higher pressure rating as it uses the differential pressure across the solenoid valve to help it to close with the solenoid operator. There must be a difference of 0.1 bar from the up stream and down stream of the solenoid valve.

- ⅜” 0 - 8.5 bar pressure rated solenoid valve
- ½” 0 - 8.5 bar pressure rated solenoid valve
- ¼” 0 - 8.5 bar pressure rated solenoid valve
- 1” 0 - 5.0 bar pressure rated solenoid valve
- 1 1/2” 0 - 7 bar pressure rated solenoid valve
- 1 1/8” 0 - 7 bar pressure rated solenoid valve
- 2” 0 - 7 bar pressure rated solenoid valve

Power supply available for solenoid valves
24V AC 50/60Hz, 110V AC 50/60Hz, 230V AC 50/60Hz, 12V DC and 24V DC solenoid coils

ACTUATORS FOR ROTARY SHOE VALVE
The 3 port rotary shoe valve is used in heating and cooling systems to control and distribute the operating medium. The 3 port rotary shoe valve can be used as a mixing valve or diverting valve.

- The bsp female threaded valve is available DN20/50.
- The PN6 flanged valve is available DN20/150.

PLUG AND SEAT VALVES FOR MIXING & DELIVERING
Motorised plug & seat valves for control of heating and cooling systems. Valves and actuators are important products in heating, cooling and air-conditioning systems. They must operate reliably in rapidly changing conditions.

MWA Technology supply high-quality linear actuators. Our actuated valves are used in applications for heating systems, cooling and domestic hot water. The plug and seat valve have been developed based on market requirements to maximize on safe and accurate regulation for problem-free operation. The valves have a design which makes them self cleaning, resulting in a long trouble free service life. 2 and 3 port control valves are available in a wide range, which are very cost effective due to low service requirements and a long service life. Valves are also available with a pressure-balanced plug, allowing them to be regulated with low thrust even with large pressure drops. The design of the valve plug prevents particles in the medium from getting caught. It also offers excellent resistance to erosion and corrosion damage. The plug is guided into the seat to prevent vibrations. The patented design also helps minimise flow noise. The valve’s flow characteristic has been modified by an equal percentage, providing good regulating control for the installation. This gives a high level of precision even with small flow rates. The motorised plug and seat valves can be used as a mixing valve or diverting valve.

MWA Technology actuators for plug and seat valves are all self stroking (no need for limit switch adjustment) for easy on site commissioning. Available in either 230V AC, 24V AC, 24V DC & 24V DC 0-10V.
GAS INTERLOCK SYSTEM

INTELLIGAS 100 SERIES GAS INTERLOCK
The MWA Series 100 is an interlock between the ventilation system and the gas solenoid valve. The gas solenoid valve will not operate unless the fans are on or the air flow is below set levels. The interlock system complies with all Gas Safe regulations for commercial kitchens and BS6173. The gas interlock comes complete with air differential pressure switch’s & fitting kits for two fans and an emergency stop button.

INTELLIGAS EGI-1 GAS INTERLOCK SYSTEMS
The Intelligas EGI-1 interlock system is powered by a built-in microprocessor, which gives it zero fail rate. Furthermore, because it is software-driven, this system can be adapted to perform additional functions. Consult our team to see how this system can be adapted for your needs.

INTELLIGAS MCS101 MULTI FUNCTIONAL CONTROLLER
The MSC101 is a microprocessor based multi services & multi function controller. It provides not only the control of building services but also compliance with building bulletin 101 (carbon dioxide levels in classrooms).

KEY FEATURES
- Provides the user with complete control over electric water and gas supplies.
- Automatic gas proving as standard.
- Keyswitch authorisation required for all changes to isolated/active services.
- BB101 (carbon dioxide levels in classrooms) compliant. Choose between either switched detector inputs or 0 - 10v input.
- Ventilation speed control 0 - 10v output can be appended to either the switched BB101 input or to the 0 - 10v input.
- Completely BMS compatible.
- Fascia mounted emergency stop and emergency stop indicated on the panel fascia. Additional Remote emergency stop terminals are provided.
- Kit includes control panel, 2 air pressure switches, emergency stop button, gas pressure switch and installation instructions
- Complete Gasafe technical bulletin 130 compliant, key switch start and BS6173 compliant
- Adjustable purge and prove time (purge 5s/10s and prove 30s/60s)
- Automatic detection of downstream leaks and open gas valves to prevent dangerous gas leak situations
- System automatically purges and proves the gas line for integrity, and gas is only made available when full prove is carried out
- No complicated LCD display driver chips to go wrong in the heat of a kitchen
- Compliance with CORGI’s TB130 and BS6173 - the system needs the manager’s keyswitch to start and low gas pressure monitoring, even after start-up
- Low voltage: sensor outputs and interlocks are all 24v, electrically isolated supply, safer wiring and safer for service personnel
EGIP - 1E GAS PROVING & ELECTRICAL ISOLATION SYSTEM
The Intelligas EGIP gas proving system is easy to install, with a straightforward tri-colour LED display. All interlock wiring is a safe but detectable 24vdc, this makes future service or extension work safer and easier to perform.

KEY FEATURES
- Complete Corgi technical bulletin 130 compliant, key switch start and BS6173 compliant.
- Adjustable purge and prove time (purge 5s/10s and prove 30s / 60s).
- Automatic detection of downstream leaks and open gas valves to prevent dangerous gas leak situations.
- System automatically purges and proves the gas line for integrity, and gas is only made available when full prove is carried out.
- System provides control of electrical systems such as bench sockets via an emergency stop interfaced keyswitch on the panel fascia.
- System only uses a main gas solenoid valve (not included) so no need for an unsightly proving valve and bulky arrangement.
- Compliance with Corgi’s TB130 and BS6173 - the system needs the manager’s keyswitch to start and low gas pressure monitoring, even after start-up.

Low voltage: sensor outputs and interlocks are all 24v, electrically isolated supply, safer wiring and safer for service personnel.

EC1000 GAS INTERLOCK
The MWA EC1000 is an interlock between the ventilation system and the gas solenoid valve. The gas solenoid valve will not open unless the fans are on or the air flow is below set levels. Complies with all Corgi gas regulations for commercial kitchens and provides complete compliance with BS6173.

The EC1000 comes complete with the gas interlock unit, air differential pressure switch’s & fitting kits for two fans and an emergency panic button.

EC4000 GAS INTERLOCK
The MWA EC4000 gas interlock has the same features as the EC1000 gas interlock but with up to four fan connections for the larger commercial kitchen.

GAS PROVING SYSTEM WITH VENTILATION INTERLOCK
The gas proving & fan interlock system ensures that the ventilation is on and there is no gas escaping before the gas solenoid valve is opened. Very easy to use with an LCD display on the gas proving panel giving the operator solutions and not just LED indications. The LCD panel tells the operator the status and what to do in the event of any failures or problems. This gas proving system utilises a true differential pressure across the gas solenoid valve and fan failure bypass to meet Corgi & HSE guidance.

The unit has electronic pressure measuring technology, measuring true differential pressure on both sides of the gas solenoid valve.

INTELLIGAS 100P GAS PROVING SYSTEM
The Intelligas 100P gas proving system meets the requirements of IGE/UP/11 and it’s easy to install.

KEY FEATURES
- Full system status indication
- Easy wipe clean fascia
- Fire alarm interlock
- 2 year guarantee
- Simple, effective entry level gas proving system
- Supplied complete with remote emergency stop button and gas pressure switch
- On board emergency stop button (that doubles as a system on/off switch)
- All connections on front panel, leaving the complete enclosure for cable entry
- Clearly-marked terminals for easy installation
- 1 additional emergency stop button can be connected directly to the PCB

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- Clearly-marked terminals for easy installation
- 1 additional emergency stop button can be connected directly to the PCB
SIGN UP TODAY
AND GET YOUR FREE COPY

Simply email us requesting your copy and we will post you a copy out or if you prefer, we can send you an electronic copy every quarter.

sales@mwatechnology.com

GAS DETECTION

P60 STAND ALONE GAS DETECTOR
A high sensitivity sensor for the detection of gas concentration. The stand alone gas detector is available in two models. P60 for use on natural gas detection and the P60 used for LPG and cylinder liquid gas.

- Pre-alarm LED signal when below the L.E.L
- Internal audible alarm
- Automatic gas solenoid valve shut off
- Continual sensor diagnostic tests
- Fault indication
- Mute override for 10 minutes
- Insulated shock resistant enclosure
- Complies with UNI CEI 70028 standards
- IMQ homologation
- 230v 50Hz

3 ZONE GAS DETECTION
The P30 gas detection electronic control centre is used for the detection of gas within industrial environments. Natural gas, town gas. LPG and cylinder gas can be detected using the various sensors available. This unit will provide gas detection for three separate zones.

- Visual LED indication for three separate zones
- Internal audible alarm
- Adjustable alarm time delay
- IP40 protection
- Wall or panel front mounting
- Insulated enclosure
- Two SPDT relays for use of closing the gas solenoid valve and BMS alarms
- Alarm delay setting - up to 60 seconds
- Complies with CEI EN 60730-1 standards
- 230v 50Hz or 12vDc

4 ZONE GAS DETECTION
The P82 gas detection electronic control centre is used for the detection of gas within industrial environments. Natural gas, town gas, LPG and cylinder gas can be detected using the various sensors available.

- Visual LED indication for four separate zones
- Internal audible alarm
- Adjustable alarm time delay
- Din Mounting
- Insulated enclosure
- Two SPDT relays for use of closing the gas solenoid valve and BMS alarms
- Alarm delay setting - up to 60 seconds
- Complies with CEI EN 60730-1 standards
- 230v 50Hz

DETECTION HEADS
These gas sensor heads are to be used with either P30 or P82 gas detection units. There are two types available, the S81 for natural gas and light gas, the S82 for LPG heavy gases. The sensor for alarm is set below the L.E.L level (Lower Explosion Limit) however there is internal regulation for the sensitivity if required.

- Green LED for power on indication
- Red LED for gas presence indication
- Amber LED for fault indication
- Anti-shock casing material
- IP54
TESTING

HAVE YOU A PRODUCT THAT NEEDS LOOKING AT, UNSURE OF ITS OUTPUT OR POWER?

We can provide a comprehensive and highly skilled test service to assist you with inspection, test and maintenance checks.

Using micro processing technology our test rig equipment is state of the art, if we can’t test it then we can advise you of the best options for all your meter and ancillary products.

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OIL FILL & LEVEL SYSTEMS

OIL FILL POINT CABINETS AND OIL FILL VALVES

The oil fill cabinet is designed to house all of the standard oil fill equipment used whilst filling the oil tank. The oil fill cabinet can accommodate the oil fill valve assembly, oil contents gauge, overfill alarm, BMS integration and door activated lighting. Oil fill point cabinets are available with or without the inspection window fitted in the door panel. All oil fill cabinets are complete with a locking handle and drip tray as standard.

The three standard sizes of oil fill cabinets are:-

- Single point oil fill cabinet
- Twin point oil fill cabinet
- Triple point oil fill cabinet
- All oil fill valves are complete with support tube, valve, fill cap and chain.

The sizes available are:-

- 50mm oil fill valve assembly
- 65mm oil fill valve assembly
- 80mm oil fill valve assembly
- 100mm oil fill valve assembly

OVERFILL ALARMS

The overfill alarm panel when used with the high level float switch will prevent overfilling of the oil tank. This is an essential component when the oil tank is remote from the oil fill point cabinet. This panel is compatible with two oil tanks giving audible and visual alarm for individual oil tanks. Test and mute buttons ensure easy testing of the oil fill alarm system.

High and low level alarms are available upon request.
HYDROSTATIC CONTENTS LEVEL GAUGES
MWA Technology hydrostatic contents level gauges are manufactured from stainless steel and are of the highest quality. Each hydrostatic contents level gauge is manufactured and calibrated to each individual oil storage tank to ensure the system can maintain high accuracy and a long service life. The standard system will comprise of three components, the hydrostatic tank sensor, capillary tube and the hydrostatic contents level gauge. Relays and switches are available to fully integrate with BMS systems.

Hydrostatic contents level gauges available:
- 100mm dial hydrostatic oil contents level gauge wall mounting
- 160mm dial hydrostatic oil contents level gauge wall mounting
- 250mm dial hydrostatic oil contents level gauge wall mounting
- 100mm dial hydrostatic oil contents level gauge flush panel mounting
- 160mm dial hydrostatic oil contents level gauge flush panel mounting

Hydrostatic tank level sensors available:
- External hydrostatic tank sensor
- Internal hydrostatic tank sensor
- Hygienic hydrostatic tank sensor

Transmitter and repeater gauges:
- 100mm dial oil level gauge wall mounting
- 160mm dial oil level gauge wall mounting
- 100mm dial oil level gauge flush panel mounting
- 160mm dial oil level gauge flush panel mounting

Level relays
- Single level relay
- Two level relay
- Two level relay with latching relay
- Single level relay with test buttons
- Two level relay with test buttons

Ultrasonic and Capacitance equipment is available upon request, please contact our technical support team.

FOAM INLET CABINETS AND ADAPTORS
Cabinet Specifications
Cabinet and Door 16swg Zintec Steel.
Colour As Standard Red Ral 3002.
Architrave 30mm Wide All Round.
Glass 6mm Georgian Wired, PRV Lettering.
Lock Yale Slam Lock Keyed Alike.
Hinge Stainless Steel Piano Hinge.
Conforms To BS 5041 Part 5

Options:
Full cabinet manufactured from 16swg zintec steel polyester powder coated to your colour specifications. Available in full stainless steel all front faces satin polished finish.
FOAM INLET ADAPTORS

- Foam inlet adaptor (Instantaneous)
  - Inlet 2½” Inst. Male BS336 - Outlet 2¼” BSP Female.
  - Inlet 2½” Inst. Male BS336 - Outlet 3” BSP Female.

- Taper foam inlet
  - Inlet Taper Bore to accept Branchpipe - Outlet 2¾” BSP Female
  - Inlet Taper Bore to accept Branchpipe - Outlet 3” BSP Female

- Foam spreader
  - Straight type Inlet 2½” BSP Female
  - Straight type Inlet 3” BSP Female

- Foam spreader
  - Elbow type Inlet 2½” BSP Female
  - Elbow type Inlet 3” BSP Female

HOSES

Fire hoses manufactured to fully meet with JCDD/I and British Standards BS6391:1983 type 3.

They are available with either a screwed thread or instantaneous couplings.

BRANCHPIPES AND NOZZLES

Available with screw thread or instantaneous inlets, including:

- Straight stream branchpipes with screw on or integral nozzles
- Diffuser branchpipes with jet/spray/shut-off functions

STANDPIPES

Standpipes are used to connect delivery hose to underground hydrant valves. They are available with single or double head 2½” instantaneous female outlets. The standpipes have an integral 2½” female BS750 round thread inlet.

Options include:

- Anti-syphon configuration with integral check valves.
- Contractors version with bib tap outlets.
- Anti-freezing standpipes for fixed installations.
- Keys and bars for hydrant valve operation are available.

HOSE REELS

- Hose reels conform to BS EN 671-1 1995 and are available in a wide range
- Automatic or manual in 19mm and 25mm hose
- Surface mount fixed
- Surface mount swinging
- Recessed swinging
Customer satisfaction is the key to our success. Our staff has unparalleled technical product knowledge. This enables us to help you service your customers’ metering needs with confidence.

Martin Wardell, Managing Director

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