

MWA TECHNOLOGY



Metering with Accuracy



INDEPENDENT METERING SPECIALISTS

Extended product range now available



GAS
ENERGY
WATER
ELECTRICITY

OIL
STEAM
COMPRESSED AIR
SPECIALIST METERS

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:

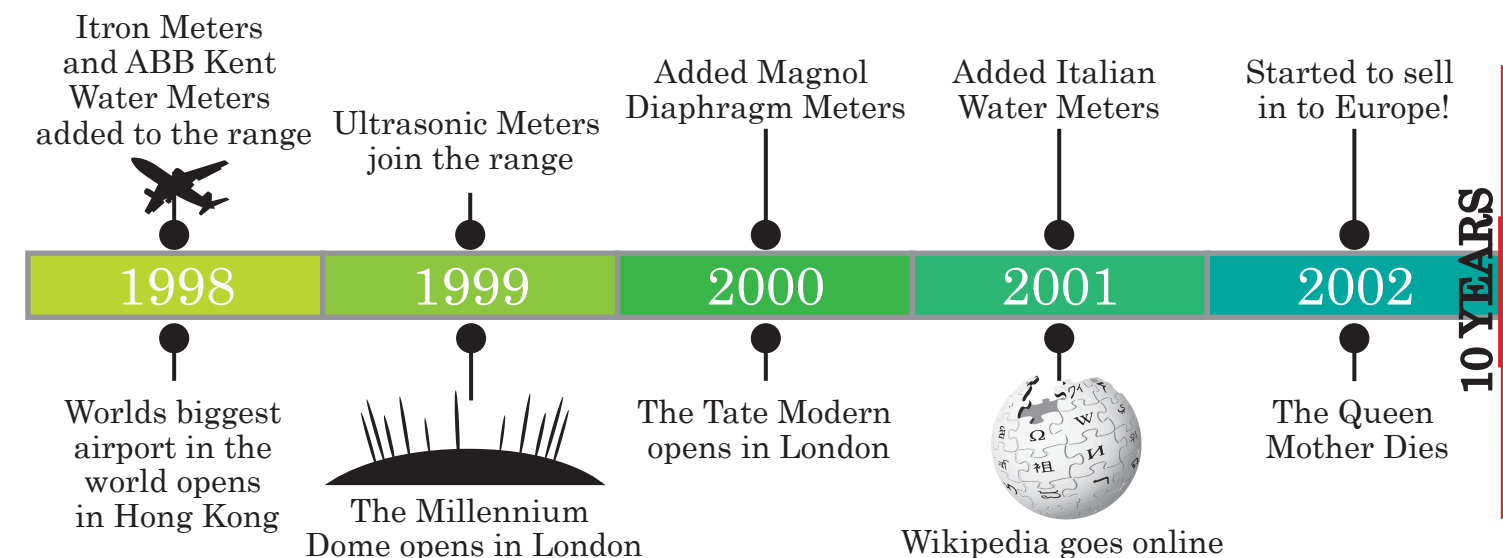
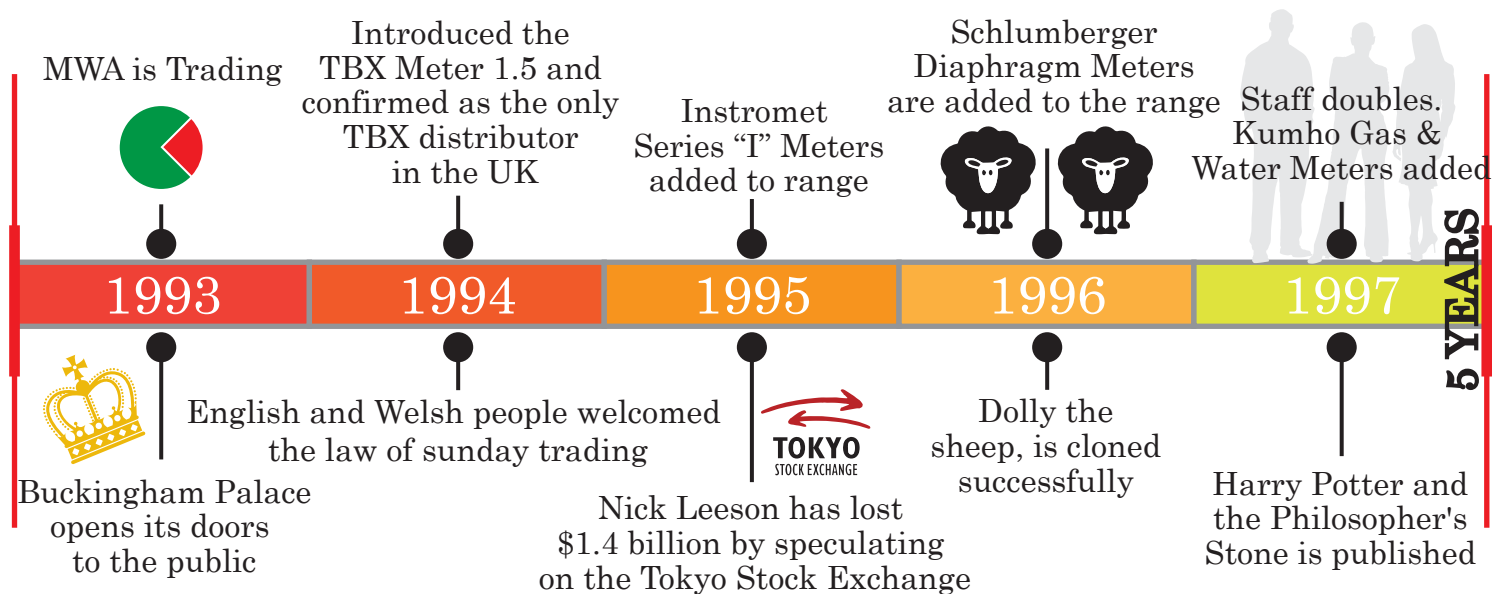
- Gas Meters - Diaphragm, Rotary, Turbine, Ultrasonic, Variable Area and Insertion
- Water Meters - Mechanical, Electromagnetic, Ultrasonic, Clamp On, Insertion
- Energy Meters - Ultrasonic, Electromagnetic, Clamp On, Mechanical, Insertion, Heat Interface Units, Pre-Payment Systems
- Steam Meters - Variable 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



A full 360° service



REPAIR

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.



ONSITE SUPPORT

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.



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.



TESTING

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.



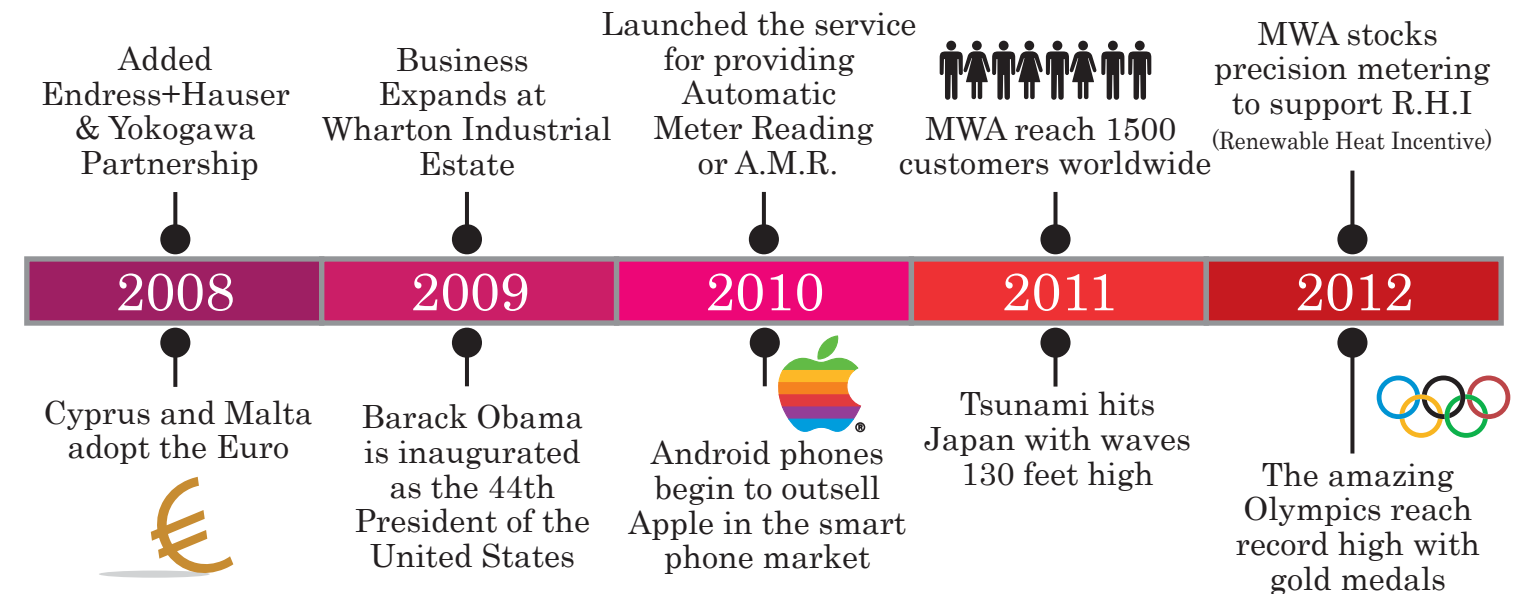
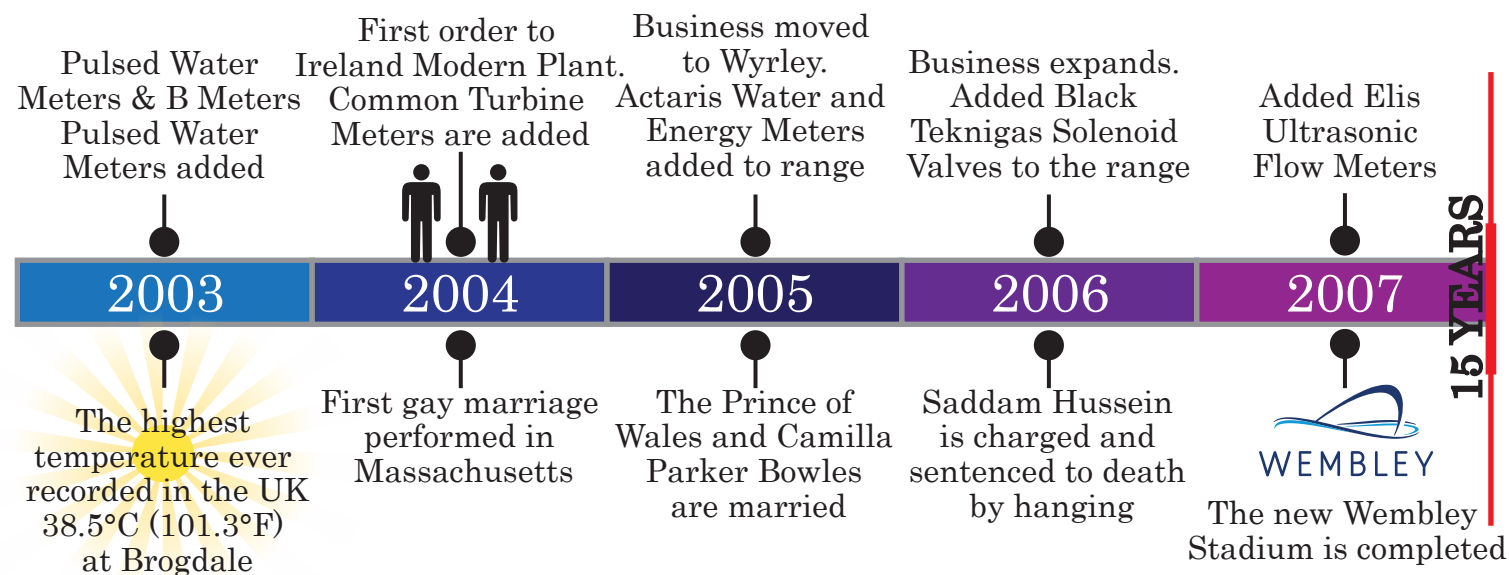
AMR

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.



TRAINING

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.





PRODUCT SECTIONS

GAS METERS, REGULATORS & ANCILLARIES

8-21

IRON METERS

22

ENERGY METERS

23-30

WATER METERS

31-38

ELECTRICITY METERS (including Trumeter)

40-47

OIL METERS & ANCILLARIES

49

STEAM METERS

51

AUTOMATED METER READING - A.M.R & DATA CAPTURE

53-54

VALVES

55-57

GAS INTERLOCK SYSTEM

58-61

GAS DETECTION

63

OIL FILL & LEVEL SYSTEMS

65-66

FIRE FIGHTING

67-68

TERMS & CONDITIONS

70-71

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



MWA Code	Description	Fitting	Min m³/hr	Max m³/hr
TBX30L-0.75	Low pressure drop turbine meter	¾" Screwed	1.5	30
TBX30L-1.0	Low pressure drop turbine meter	1" Screwed	1.5	30
TBX30L-1.25	Low pressure drop turbine meter	1.¼" Screwed	1.5	30
TBX30L-1.5	Low pressure drop turbine meter	1.½" Screwed	1.5	30
TBX100L-2	Low pressure drop turbine meter	2" Screwed	5	100
TBX150F	Low pressure drop turbine meter	2" /50mm Flanged PN6	7.5	150
TBX-PLUG	TBX pug with 2 metre lead - 4 Pin Plug			

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



MWA Code	Description	Fitting	Min m³/hr	Max m³/hr
TBZ300	Low pressure drop turbine meter	3"/80mm Flanged PN6	15	300
TBZ300KIT	TBZ300 Kit PN6 80mm Flanges, Gaskets & BZP M16 Bolts & Nuts	3"/80mm Flanged PN6		
TBZ150	TBZ150 Low pressure drop turbine meter	2"/50mm Flanged PN6	7.5	150
TBZ60	TBZ60 Low pressure drop meter	1½"/40mm Flanged PN6		
TBZPULSE	TBZ300 plug with 2 metre lead - 3 Pin Plug			



TRX ULTRASONIC LOW PRESSURE DROP METER - LCD DISPLAY

- For air and gas
- Self supporting in pipework
- 50mm meter same output as 3inch diaphragm meter

MWA Code	Description	Fitting	Min m³/hr	Max m³/hr
TRX 40-C	Low pressure drop ultrasonic meter	1.½"	1.0	50
TRX 50-C	Low pressure drop ultrasonic meter	2"	2.4	120
TRX 80-C	Low pressure drop ultrasonic meter	3"	5.0	250

CPT TURBINE QUANTOMETER RANGE

- Inline turbine gas meters with wafer 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 +60 °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°

MWA Code	Size	Connections	Pulse Values	Max Pressure	Min m³/hr	Max m³/hr	Weight
CPT50G40*	2"	PN16 flanges	Pulse output,1 pulse = 0.1 m³/hr	16 bar	6	65.0	3.6kg
CPT50G65*	2"	PN16 flanges	Pulse output,1 pulse = 0.1 m³/hr	16 bar	10	100.0	3.6kg
CPT65G65*	2.½"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	10	100.0	5.3kg
CPT65G100	2.½"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	8	160.0	5.3kg
CPT80G100	3"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	8	160.0	5.3kg
CPT80G160	3"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	13	250.0	5.3kg
CPT80G250	3"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	20	400.0	5.3kg
CPT100G160	4"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	13	250.0	7.4kg
CPT100G250	4"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	20	400.0	7.4kg
CPT100G400	4"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	32	650.0	7.4kg
CPT150G400	6"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	32	650.0	11.6kg
CPT150G650	6"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	50	1000.0	11.6kg
CPT150G1000	6"	PN16 flanges	Pulse output,1 pulse = 10 m³/hr	16 bar	80	1600.0	11.6kg
CPT200G650	8"	PN16 flanges	Pulse output,1 pulse = 1 m³/hr	16 bar	50	1000.0	51kg
CPT200G1000	8"	PN16 flanges	Pulse output,1 pulse = 10 m³/hr	16 bar	80	1600.0	51kg
CPT200G1600	8"	PN16 flanges	Pulse output,1 pulse = 10 m³/hr	16 bar	80	2500.0	51kg

*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 IS. 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°

MWA Code	Size	Connections	Pulse Values	Max Pressure	Min m³/hr	Max m³/hr	Weight
CGR40G16	1.5"	PN16 flanges	Pulse output, 1 pulse = 0.01 m³/hr	20 bar	0.5 m³/hr	25.0	10kg
CGR40G26	1.5"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	0.8 m³/hr	40.0	10kg
CGR40G40	1.5"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	1.3 m³/hr	65.0	12kg
CGR50G16	2.5"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	0.5 m³/hr	25.0	10kg
CGR50G25	2"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	0.8 m³/hr	40.0	10kg
CGR50G40	2"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	1.3 m³/hr	65.0	12kg
CGR50G65	2"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	2.0 m³/hr	100.0	14kg
CGR80G100	3"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	3.0 m³/hr	160.0	19kg
CGR80G160	3"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	5.0 m³/hr	250.0	25kg
CGR100G100	4"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	3.0 m³/hr	160.0	19kg
CGR100G160	4"	PN16 flanges	Pulse output, 1 pulse = 0.1 m³/hr	20 bar	5.0 m³/hr	250.0	25kg
CGR100G250	4"	PN16 flanges	Pulse output, 1 pulse = 1 m³/hr	20 bar	8.0 m³/hr	400.0	31kg
CGR100G400	4"	PN16 flanges	Pulse output, 1 pulse = 1 m³/hr	20 bar	13 m³/hr	650.0	42kg

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 IS.
- CGR Chatterbox - e.Model unit, battery operated, 4 outputs, Atex IS. C/W enclosure

ROTARY METER DELTA QD



- Delta QD volumetric meters
 - High accuracy and rangeability meter
 - Very low pressure loss
 - Protection class IP67
 - ATEX Directive 94/9/EC
 - Standard pulse output
- (Intrinsic safety level: II ½G Ex ia IIC T5 c T6)

MWA Code	Size	Connections	Max Pressure	Min m³/hr	Max m³/hr	Weight
QD 25	40mm	Screwed	16 bar	0.8 m³/hr	25.0	3.6kg
QD 60	40mm	Screwed	16 bar	2.0 m³/hr	60.0	3.6kg



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

MWA Code	Size	Model	Height	Width	Depth	CRS	Qmin cmh	Qmax cmh
KG2	½" BSP	G1.6	197	126	110	100	0.016	2.5
KG2P	½" BSP	G1.6P	197	126	110	100	0.016	2.5
KG3	¾" BSP	G1.6	197	126	110	130	0.016	2.5
KG3P	¾" BSP	G1.6P	197	126	110	130	0.016	2.5
KG4	¾" BSP	G2.5	214	164	130	130	0.025	4
KG4P	¾" BSP	G2.5P	214	164	130	130	0.025	4
KG6	¾" BSP	G2.5	214	164	130	130	0.025	6
KG6P	¾" BSP	G2.5P	214	164	130	130	0.025	6

*P denotes pulse enabled



EUROPEAN 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
- Optional M Bus output

MWA Code	Bosses Distance	Connections	Type	Min m³/hr	Nominal m³/hr	Max m³/hr
G4P	110mm	1" bsp unions supplied	Pulse output, 1 pulse = 0.01 m³/hr	0.04	4	6.0
G6P	250mm	1" bsp unions supplied	Pulse output, 1 pulse = 0.01 m³/hr	0.06	6	10.0
G10P	280mm	1.5" bsp unions supplied	Pulse output, 1 pulse = 0.01 m³/hr	0.1	10	16.0
G16P	280mm	1.5" bsp unions supplied	Pulse output, 1 pulse = 0.1 m³/hr	0.16	16	25.0
G25P	335mm	2" bsp unions supplied	Pulse output, 1 pulse = 0.1 m³/hr	0.25	25	40.0
G40P	n/a	65/100 mm flanged PN6	Pulse output, 1 pulse = 0.1 m³/hr	0.4	40	65.0
G65P	n/a	65/100 mm flanged PN6	Pulse output, 1 pulse = 0.1 m³/hr	0.65	65	100.0
G1.6PBS	110mm	1" BS746	Pulse output, 1 pulse = 0.01 m³/hr	0.016	1.6	2.5
G2.5PBS	110mm	1" BS746	Pulse output, 1 pulse = 0.01 m³/hr	0.025	2.5	4.0
G4PBS	110mm	1" BS746	Pulse output, 1 pulse = 0.01 m³/hr	0.04	4	6.0
G6PBS	250mm	1" BS746	Pulse output, 1 pulse = 0.01 m³/hr	0.06	6	10.0
G10PBS	280mm	1.1/4" BS746	Pulse output, 1 pulse = 0.01 m³/hr	0.1	10	16.0
G16PBS	280mm	2" BS746	Pulse output, 1 pulse = 0.1 m³/hr	0.16	16	25.0
G25PBS	335mm	2" BS746	Pulse output, 1 pulse = 0.1 m³/hr	0.25	25	40.0

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 elementbetween measuring
- cartridge and the index
- index head
- range extended to include 1 inch,1.¼ inch, 1.½ 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



CPT-01 G160

Low Pressure Drop Turbine Gas Meters - Screwed Fiting

MWA Code	Size	Connections	QMin m³/hr	QMax m³/hr
CPT25SG16	25mm	Screwed	2.5	25
CPT25SG25	25mm	Screwed	4	40
CPT32SG25	32mm	Screwed	4	40
CPT40SG40	40mm	Screwed	6	65
CPT40SG65	40mm	Screwed	10	100
CPT50SG40	50mm	Screwed	6	65
CPT50G65	50mm	Screwed	10	100

Recommended accessories

MWA Code	Descriptions
CPTPLUG	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

Common CPT Low Pressure Drop Turbine Gas Meters - Flange Fiting

MWA Code	Size	Connections	QMin m³/hr	QMax m³/hr
CPT50G40	50mm	Flanged	6	65
CPT50	50mm	Flanged	10	100
CPT65G65	65mm	Flanged	10	100
CPT65G100	65mm	Flanged	8	160
CPT80SG100	80mm	Flanged	8	160
CPT80SG160	80mm	Flanged	13	250
CPT80SG250	80mm	Flanged	20	400
CPT100G160	100mm	Flanged	13	250
CPT100G250	100mm	Flanged	20	400
CPT100G400	100mm	Flanged	32	650
CPT150G400	150mm	Flanged	32	650
CPT150G650	150mm	Flanged	50	1000
CPT150G1000	150mm	Flanged	80	1600
CPT200G650	200mm	Flanged	50	1000
CPT200G1000	200mm	Flanged	80	1600
CPT200G1600	200mm	Flanged	100	2500

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)



CPT-01 G250



CPT-01 G40

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

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.

GAS METERS

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 measuring unit including the turbine wheel
- A magnetic coupling to transmit the movement of the turbine wheel to the totaliser
- A totaliser to register the measured gas

Features	Detail
Intrinsic safety approval	L.C.I.E. 06 ATEX 6031 X
Flow rate	From 10 m³/h to 100m³/h
Nominal diameters	From DN 2" to 16", 50 to 400mm
Material	Ductile iron, cast steel or welded steel Compliant with the Pressure Equipment Directive 97/23/EC
Maximum working pressure	Up to 100 bar depending on the body material and flanging
Temperature range	Ambient: -30°C to +60°C, Gas:-30 °C to +60°C, Storing temperature: -40 °C to +70 °C
Metrology	The tolerance of acception is +/-1.5% from Qmin to Qmax



Ittron MZ100b – Turbine 50mm

ITRON Mz100b TURBINE GAS METER 50mm

- Flow rate: from 10m³/h to 100m³/h
- DN50
- Wafer: ISO PN10

ITRON MZ100b TURBINE GAS METER 50MM 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.



Ittron MZ250c 80mm

ITRON Mz250c TURBINE GAS METER 80mm

- Flow rate: from 16m³/h to 250m³/h
- DN80
- Wafer: ISO PN10

ITRON MZ100c TURBINE GAS METER 50MM 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)
- Diameters: DN 25 - 150
- Pressure rates: PN 4, PN 16, ANSI 150
- Gas temperature QA: -10°C to +60°C (14° to 140°F)
- Ambient temperature QA: -20°C to +70°C (-4° to 158°F)
- Ambient- / gas temperature QAe: 0°C to +50°C (32° 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 DVGW.

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.



QA10 1inch



QA65 50mm



Elster BK G16 Diaphragm 2"



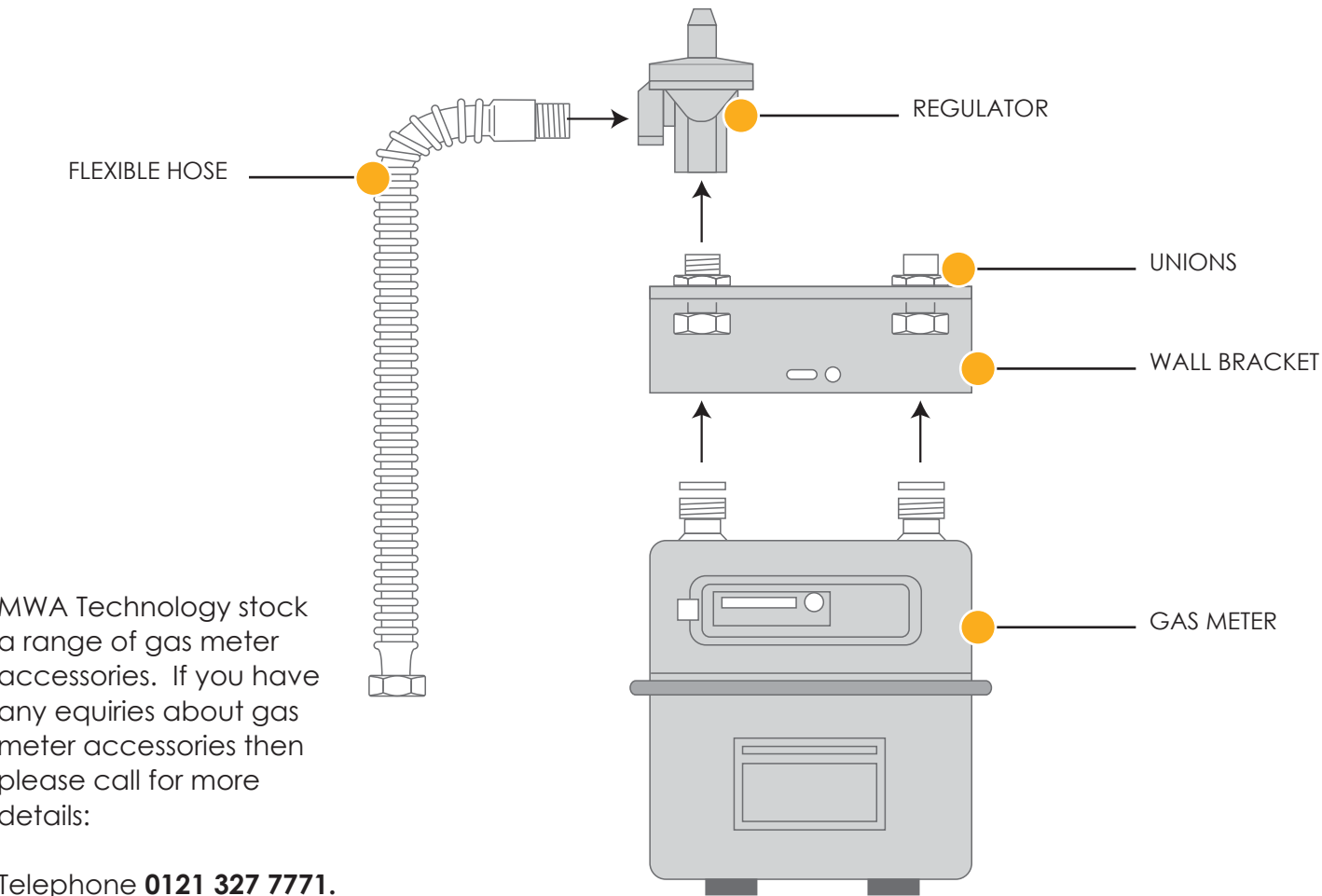
Elster BK G10 Diaphragm 1 1/4"

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



MWA Code	Bosses Distance	Connections	Type	Max m3/hr
SC6	150mm	¾" BS21	Semi concealed meter	6
U6	152.4mm	1" BS746	Domestic diaphragm meter	6
U16	152.4mm	1.¼" BS746	Industrial diaphragm meter	16
U25	250mm	2" BS746	Industrial diaphragm meter	25
U40	280mm	2" BS746	Industrial diaphragm meter	40
U65	335mm	2.½" Flanged PN10	Industrial diaphragm meter	65
U100	430mm	3" Flanged PN10	Industrial diaphragm meter	100
U160	430mm	4" Flanged PN10	Industrial diaphragm meter	165



MWA Technology stock a range of gas meter accessories. If you have any enquiries about gas meter accessories then please call for more details:

Telephone **0121 327 7771**.

GAS SOLENOID VALVES

- Automatic reset. 230v AC
- Conforms to 90/396/EEC - Gas Directive, 94/9/EC ATEX Directive, 2004/108/ECEC certified to EN161, Electromagnetic Compatibility, 2006/95/EC Low Voltage
- Inline connections, horizontal and vertical pipelines
- For natural gas, propane and butane
- Options - Closed Position Indicator Switch, 24v AC, 24v DC, 110v AC

MWA Code	Size	Connections	Max operating
GSSV15	½"	½" bsp female screwed	200 mbar
GSSV20	¾"	¾" bsp female screwed	200 mbar
GSSV25	1"	1" bsp female screwed	200 mbar
GSSV30	1.¼"	1.¼" bsp female screwed	200 mbar
GSSV40	1.½"	1.½" bsp female screwed	200 mbar
GSSV50	2"	2" bsp female screwed	200 mbar
GSSV65F	2.½"	2.½" flanged PN16	360 mbar
GSSV80F	3"	3" flanged PN16	360 mbar
GSSV100F	4"	4" flanged PN16	360 mbar
GSSV125F	5"	5" flanged PN16	360 mbar
GSSV150F	6"	6" flanged PN16	360 mbar
GSSV200F	8"	8" flanged PN16	360 mbar

GAS SOLENOID VALVES

- Manual reset - 230V AC
- Conforms to 90/396/EEC + 73/23 EEC, IEC730-1
- Inline connections, horizontal and vertical pipelines. Manual reset.230v AC
- For natural gas, propane and butane. Options - 24v AC, 24v DC, 110v AC

MWA Code	Size	Connections	Max operating
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	500 mbar
GSSV80FMR	3"	3" flanged PN16	500 mbar
GSSV100FMR	4"	4" flanged PN16	500 mbar
GSSV150FMR	6"	6" flanged PN16	500 mbar
GSSV200MR	8"	8" flanged PN16	500 mbar

GAS REGULATORS



DOMESTIC GAS REGULATORS 60DJ, 80DJ, 150DJ

- Appliance and Domestic regulators, 90/396/EEC
- Appliance/Pilot Regulator
- Inline connections can be mounted in any position
- Gas regulators for natural gas, propane and butane
- Alternative outlet pressure springs available
- Temperature -20 °C to 70 °C

MWA Code	Size	Connections	Maximum Inlet Pressure	Standard Outlet Pressure
60DJ6	¼"	¼" BS EN 10226	100 mbar	5 to 17.5 mbar
80DJ13	⅜"	⅜" BS EN 10226 parallel	100 mbar	5 to 17.5 mbar
150DJ23	½"	½" BS EN 10226 taper	100 mbar	5 to 17.5 mbar

INDUSTRIAL GAS REGULATORS J78R

- Inline connections, can be mounted in any position, Compact Gas Governors, for natural gas, propane and butane
- Alternative outlet pressure springs available

MWA Code	Size	Connections	Maximum Inlet Pressure	Standard Outlet Pressure
J78R-15	½"	½" female screwed	350 mbar	15 to 23 mbar
J78R-20	¾"	¾" female screwed	350 mbar	15 to 23 mbar
J78R-25	1"	1" female screwed	350 mbar	20 to 24 mbar

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

MWA Code	Size	Connections	Maximum Inlet Pressure	Standard Outlet Pressure
J48-20	¾"	¾" female screwed	350 mbar	12.5 to 25 mbar
J48-25	1"	1" female screwed	350 mbar	12.5 to 25 mbar
J48-30	1.¼"	1.¼" female screwed	350 mbar	12.5 to 25 mbar
J48-40	1.½"	1.½" female screwed	350 mbar	12.5 to 25 mbar
J48-50	2"	2" female screwed	350 mbar	12.5 to 25 mbar
J48-65s	2.½"	2.½" female screwed	350 mbar	12.5 to 25 mbar
J48-80s	3"	3" female screwed	350 mbar	12.5 to 25 mbar
J48-65	2.½"	2.½ inch flanged PN16	350 mbar	12.5 to 25 mbar
J48-80	3"	3 inch flanged PN16	350 mbar	12.5 to 25 mbar
J48-100	4"	4 inch flanged PN16	350 mbar	12.5 to 25 mbar
J48-150	6"	6 inch flanged PN16	350 mbar	12.5 to 25 mbar

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

MWA Code	Orifice	Size	Connections	Maximum Inlet Pressure	Standard Outlet Pressure
J125-S9-20	5mm	¾"	¾" female screwed	8.6 bar	37 mbar
J125-S9-25	5mm	1"	1" female screwed	8.6 bar	37 mbar
J125-S9-40	5mm	1.½"	1.½" female screwed	8.6 bar	37 mbar
J125-S9-50	5mm	2"	2" female screwed	8.6 bar	37 mbar

- Propane low pressure regulators second stage complete with UPSO/OPSO

MWA Code	Orifice	Size	Connections	Maximum Inlet Pressure	Standard Outlet Pressure
FE7	5mm	¾"	¾" female screwed	5 bar	37 mbar
FE25	5mm	1"	1" female screwed	5 bar	37 mbar
FE30	5mm	1.½"	1.½" female screwed	5 bar	37 mbar

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.

MWA Code	Description
CHATT	Chatterbox - Barrier
CHATTENC	Chatterbox complete with enclosure



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

MWA Code	Description
P2G	Communicator / Logger
P2G Enc	Communicator logger complete with enclosure

GAS ANCILLARIES

CAST ALUMINIUM INLINE GAS FILTER

- 50 micron filtration of gases for control applications
- Max pressure 2.0 bar

MWA Code	Size	Connections
FILTER GAS/25	1"	1" female screwed
FILTER GAS/30	1.¼"	1.¼" female screwed
FILTER GAS/40	1. ½"	1. ½" female screwed
FILTER GAS/50	2"	2" female screwed
FILTER GAS/100	4"	PN16 Flange
FILTER GAS/125	5"	PN16 Flange
FILTER GAS/150	6"	PN16 Flange
FILTER GAS/200	8"	PN16 Flange
FILTER GAS 300	12"	PN16 Flange



PIPELINE GAS FILTERS - TOP HAT CLOSED TYPE

- For installation in gas control system for commissioning only

MWA Code	Size	Connections	Stainless Steel Filter Mesh
THF50	2"	To suit PN16 flanges	250 mesh
THF65	2.½"	To suit PN16 flanges	250 mesh
THF80	3"	To suit PN16 flanges	250 mesh
THF100	4"	To suit PN16 flanges	250 mesh
THF150	6"	To suit PN16 flanges	250 mesh
THF200	8"	To suit PN16 flanges	250 mesh

ALSO AVAILABLE OPEN ENDED SKIRT TYPE

GAS METER UNIONS

MWA Code	Description
CON22	1" BS746 22mm plain
CON¾	1" BS746 to ¾ inch BSP
CON1	1" BS746 to 1 inch BSP
CON1INT	1.¼" BS746 to 1 inch BSP
CON1/14INT	1.¼" BS746 to 1.¼ inch internal BSP
CON2	2" BS746 to 2 inch BSP



PIPELINE FLANGE FIXING KITS

- Includes flanges, gaskets, fixing rods, nuts and washers

MWA Code	Size	Connections	Flanges
KIT50s	2"	PN16	Screwed
KIT50	2"	PN16	Slip On weld type
THF65	2.½"	To suit PN16 flanges	Slip On weld type
THF80	3"	To suit PN16 flanges	Slip On weld type
THF100	4"	To suit PN16 flanges	Slip On weld type
THF150	6"	To suit PN16 flanges	Slip On weld type
THF200	8"	To suit PN16 flanges	Slip On weld type

PULSE CONNECTORS

MWA Code	Description
UPULSE	U6 to U160 pulse module - current models
R5	R5 pulse lead 2m for U6 to U160 module - current models
PULSEIND	U65 to U160 4 PIN Fisher plug and lead - prior 2009
DISP	Remote 6 digit single LCD display. Programmable installed in IP67 enclosure
SEMIPULSE	SC6 Pulse module

GAS METER HOSE CONNECTIONS

MWA Code	Description
FLEX25	1" B5746 x ¾" BSPT
FLEX30	1 ¼" B5746 x 1 ¼" BSPT
FLEX50	2" B5746 x 2" BSPT
FLEX65	2 ½" PN10 x 2 ½" PN10

GENERAL GAS ANCILLARIES

MWA Code	Description
CERT	Calibration Certificate(s)
FREQ	High frequency to Analogue Converter
PADPlus1	Pulse to M-Bus conversion unit
EVC1	Electronic Micro Pressure and Temperature Volume Corrector



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 Pocket Short 1,2m (PS6)	Memory	Calculator Size S	References***	
			qp1.5 - ¾" - 110mm	qp1.5 - ¾" - 130mm
UltraMaXX V	Standard	S	5614 23 0600 37	5618 23 0600 37
UltraMaXX V Advanced	Advanced	S	5614 23 0900 37	5618 23 0900 37
UltraMaXX V M-Bus	Standard	S*	5614 23 1600 37	5618 23 1600 37
UltraMaXX V M-Bus Advanced	Advanced	S*	5614 23 1900 37	5618 23 1900 37
UltraMaXX V M-Bus + 4WM	Advanced	L**	5614 23 2900 37	5618 23 2900 37
UltraMaXX V M-Bus PS + 2WM	Advanced	L**	5614 23 5300 37	5618 23 5300 37
UltraMaXX V Repetition E & V	Advanced	S*	5614 23 4900 37	5618 23 4900 37
UltraMaXX V RF Radio	Advanced	L	5614 23 6900 37	5618 23 6900 37

Product versions Direct Short 1,75m (DS EN1434))	Memory	Calculator Size S	References***	
			qp1.5 - ¾" - 110mm	qp1.5 - ¾" - 130mm
UltraMaXX V	Standard	S	5614 73 0604 37	5618 73 0604 37
UltraMaXX V Advanced	Advanced	S	5614 73 0904 37	5618 23 0904 37
UltraMaXX V M-Bus	Standard	S*	5614 73 1604 37	5618 23 1604 37
UltraMaXX V M-Bus Advanced	Advanced	S*	5614 73 1904 37	5618 23 1904 37
UltraMaXX V M-Bus + 4WM	Advanced	L**	5614 73 2904 37	5618 23 2904 37
UltraMaXX V M-Bus PS + 2WM	Advanced	L**	5614 73 5304 37	5618 23 5304 37
UltraMaXX V Repetition E & V	Advanced	S*	5614 73 4904 37	5618 23 4904 37
UltraMaXX V RF Radio	Advanced	L	5614 73 6904 37	5618 23 6904 37

*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



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

MWACode	Description	Length	Min Flow litres/hr	Norm Flow m³/hr	Max Flow m³/hr
CFECHO15	CF-E II Qp1.5 Class 2 Heat Meter	½" 15mm with unions	15	1.5	3.0
CFECHO20	CF-E II Qp1.5 Class 2 Heat Meter	¾" 20mm with unions	15	1.5	3.0
CFECHO25	CF-E II Qp2.5 Class 2 Heat Meter	1" 25mm with unions	25	2.5	5.0
CFECHO30	CF-E II Qp6.0 Class 2 Heat Meter	1.¼" 32mm with unions	60	6	12.0
CFECHO40	CF-E II Qp10.0 Class 2 Heat Meter	1.½" 40mm with unions	100	10	20.0
CFECHO50	CF-E II Qp15.0 Class 2 Heat Meter	2" 50mm flanged PN25	150	15	30.0

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

MWA Code	Description	Length	Min Flow litres/hr	Norm Flow m³/hr	Max Flow m³/hr
CFECHO65	US-BR473 Class 2 Heat Meter - 300mm face to face	65mm PN25	250	25	50
CFECHO80	US-BR473 Class 2 Heat Meter - 300mm face to face	80mm PN25	400	40	80
CFECHO100	US-BR473 Class 2 Heat Meter - 360mm face to face	100mm PN25	600	60	120

OPTIONS

MWA Code	Description
CFMBUS/2INPUTS	Mbus, pulse output option plug with water meter inputs 6200000006
CFMBUSPULSE	Mbus, pulse output option plug 6201000005
CFBATTERY	Battery pack - up to 12 years 6207000006
CF230V	230V AC power supply 6208000006
CFCENSORS1.7	Temperature sensor PT100 2 wire without pockets 1.7m length 2960830006

MBUS CONCENTRATORS WITH DISPLAY

MWA Code	Description
CF-MINIZE20	Mbus - data logger for up to 20 meters
CF-MINIZE60	Mbus - data logger for up to 60 meters
CF-MINIZE250	Mbus - data logger for up to 250 meters

INTEGRAL V MAXX 90°C MAX

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



MWA Code	Description	Length	Min Flow	Norm Flow	Max Flow
INTMAX15	Class 3 Turbine Heat Meter	½" 15mm 110mm with unions	6	0.6	1.5
INTMAX15L	Class 3 Turbine Heat Meter	½" 15mm 110mm with unions	15	1.5	2.5
INTMAX20	Class 3 Turbine Heat Meter	¾" 20mm 130mm with unions	25	2.5	3.8
INTMAXOP	Energy and Volume pulse output 1 pulse = 1 kWh/10 litres				
INTMAXMBUS	Mbus output with 4 WM pulse inputs				

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.

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

CF55 HEAT INTEGRATOR

- Calculator EN 1434 MID Heating or Cooling
- Mbus and pulse output
- Battery or 230V AC 1.5m signal cables, Pt100 (1.7m, 5m or 10m) temperature sensors and pockets

MWA Code	Description	Pulse Valve
CF55K1	CF55 without power supply	1 pulse = 1 litre
CF55K10	CF55 without power supply	1 pulse = 10 litre
CF55K100	CF55 without power supply	1 pulse = 100 litre
CFMBUSPULSE	Mbus/pulse option plug	
CFMBUS/2INPUT	Mbus/pulse option plug with 2 wm inputs	
CFCENSORS1.7	Temperature sensor PT100 2 wire w/o pockets 1.7m, meters 15 to 50mm	
CFCENSORS5	Temperature sensor PT100 2 wire w/o pockets 5m meters ,50 to 50mm	
CFCENSORS10	Temperature sensor PT100 2 wire w/o pockets 10m meters, 50 to 50mm	
CFBATTERY	Battery pack - up to12 years	
CF230VAC	230V AC power supply	



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

MWA Code	Nominal Bore	Flow Part	Length	Min Flow litres/hr	Norm Flow m³/hr	Max Flow m³/hr
MCAL402W1	15mm/½ inch BSP c/w unions	402W1	110mm	6	0.6	1.5
MCAL402W4	15mm/½ inch BSP c/w unions	402W4	110mm	15	1.5	3.0
MCAL402W5	15mm/½ inch BSP c/w unions	402W5	165mm	15	1.5	3.0
MCAL402W3	15mm/½ inch BSP c/w unions	402W3	190mm	6	0.6	1.5
MCAL402W7	20mm/¾ inch BSP c/w unions	402W7	130mm	15	1.5	3.0
MCAL402W9	20mm/¾ inch BSP c/w unions	402W9	190mm	15	1.5	3.0
MCAL402WA	20mm/¾ inch BSP c/w unions	402WA	130mm	25	2.5	5.0
MCAL402WB	20mm/¾ inch BSP c/w unions	402WB	190mm	25	2.5	5.0
MCAL402WD	25mm/1 inch BSP c/w unions	402WD	260mm	35	3.5	7.0
MCAL402WF	25mm/1 inch BSP c/w unions	402WF	260mm	60	6.0	12.0
MCAL402WG	25mm Flanged PN25	402WG	260mm	60	6.0	12
MCAL402WH	40mm/1.1.2 inch BSP c/w unions	402WH	300mm	100	10	20
MCAL402WJ	40mm Flanged PN25	402WJ	300mm	100	10	20
MCAL402WK	50mm Flanged PN25	402WK	270mm	150	15	30

MULTICAL 402 COMMUNICATION MODULES

MWA Code	Description
MCAL402X10	Data and pulse inputs
MCAL402X11	Data and pulse outputs CE /CV
MCAL402X20	M-Bus with 2 pulse inputs
MCAL402X42	M-Bus with 2 pulse outputs CE/CV
MCAL402X40	Wireless M-Bus EU 868 MHz Mode 1
	Radio EU 434 MHz int + ext ant NET0 + 2 pulse inputs
	Radio EU 434 MHz int + ext ant NET0 + 2 pulse outputs CE/CV
	Radio EU 434 MHz int + ext ant NET1 + 2 pulse inputs
	Radio EU 434 MHz int + ext ant NET1 + 2 pulse outputs CE/CV
	Radio SE 434 MHz int + ext ant NET0 + 2 pulse inputs
	Radio SE 434 MHz int + ext ant NET0 + 2 pulse inputs
	Radio SE 434 MHz int + ext ant NET0 + 2 pulse inputs
	Radio SE 434 MHz int + ext ant NET0 + 2 pulse inputs



MULTICAL 402 POWER SUPPLY MODULES

MWA Code	Description
MCAL402-BATTERY	D - cell battery
MCAL402-230VAC	230v AC, supply module
MCAL402-24V	24v AC, supply module

- 6 Year and 12 Year battery options available

MULTICAL 402 PT500 SENSORS

MWA Code	Description
TEMPSENSOR1.5	Pocket Temp sensor set with 1.5m cable
TEMPSENSOR3	Pocket Temp sensor set with 3.0m cable
SHORTTEMP1.5	Short direct Temp sensor set with 1.5m cable
SHORTTEMP3	Short direct Temp sensor set with 3.0m cable

SENSORS FITTINGS

MWA Code	Description
½NIP	½ nipple for Pt500 direct sensor, short probe, brass
¾NIP	¾ nipple for Pt500 direct sensor, short probe, brass
SOCKET65	65mm x ½ sensor pocket, stainless steel for 5.8mm
SOCKET90	90mm x ½ sensor pocket, stainless steel for 5.8mm

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



MWA Code	Nominal Bore	Flow Part	Length	Min Flow litres/hr	Norm Flow m³/hr	Max Flow m³/hr
MCAL602DN15L	15mm/½ inch BSP c/w unions	65-5-CAAA-XXX	110mm	6	0.6	1.5
MCAL602DN20L	20mm/¼ inch BSP c/w unions	65-5-CAAD-XXX	130mm	6	0.6	1.5
MCAL602DN15	15mm/½ inch BSP c/w unions	65-5-CDAA-XXX	110mm	15	1.5	3.0
MCAL602DN20	20mm/¼ inch BSP c/w unions	65-5-CDAD-XXX	130mm	15	1.5	3.0
MCAL602DN15H	15mm/½ inch BSP c/w unions	65-5-CDAC-XXX	165mm	15	1.5	3.0
MCAL602DN20ML	20mm/¼ inch BSP c/w unions	65-5-CDAE-XXX	165mm	15	1.5	3.0
MCAL602DN20H	20mm/¼ inch BSP c/w unions	65-5-CDAF-XXX	190mm	15	1.5	3.0
MCAL602DN20	20mm/¼ inch BSP c/w unions	65-5-CEAF-XXX	190mm	25	2.5	5.0
MCAL602DN25F	25mm/1 inch BSP c/w unions	65-5-CGAG-XXX	260mm	35	3.5	7.0
MCAL602DN25H	25mm/1 inch BSP c/w unions	65-5-CHAG-XXX	260mm	60	6.0	12.0
MCAL602DN40	40mm/1.½ inch BSP c/w unions	65-5-CJAJ-XXX	300mm	100	10	20.0
MCAL602DN20F	20mm Flanged PN25	65-5-CDBA-XXX	190mm	15	1.5	3.0
MCAL602DN20FH	20mm Flanged PN25	65-5-CEBA-XXX	190mm	25	2.5	5
MCAL602DN25F	25mm Flanged PN25	65-5-CGBB-XXX	260mm	35	3.5	7
MCAL602DN25FH	25mm Flanged PN25	65-5-CHBB-XXX	260mm	60	6	12
MCAL602DN40F	40mm Flanged PN25	65-5-CJBD-XXX	300mm	100	10	20
MCAL602DN50F	50mm Flanged PN25 Stainless Steel	65-5-CKCE-XXX	270mm	150	15	30
MCAL602DN65	65 mm Flanged PN25 Stainless Steel	65-5-CLCG-XXX	300mm	250	25	50
MCAL602DN80	80mm Flanged PN25 Stainless Steel	65-5-CMCH-XXX	300mm	400	40	80
MCAL602DN100L	100mm Flanged PN25 Stainless Steel	65-5-FACL-XXX	360mm	600	60	120
MCAL602DN100	100mm Flanged PN25 Stainless Steel	65-5-FBCL-XXX	360mm	1000	100	200
MCAL602DN150L	150mm Flanged PN25 Stainless Steel	65-S-FCCN-XXX	500mm	1500	150	300
MCAL602DN150	150mm Flanged PN25 Stainless Steel	65-S-FDCN-XXX	500mm	2500	250	500
MCAL602DN150H	150mm Flanged PN25 Stainless Steel	65-S-FECN-XXX	500mm	4000	400	800
MCAL602DN200	200mm Flanged PN25 Stainless Steel	65-S-FECP-XXX	500mm	4000	400	800
MCAL602DN250	250mm Flanged PN25 Stainless Steel	65-S-FECP-XXX	600mm	4000	400	800
MCAL602DN200H	200mm Flanged PN25 Stainless Steel	65-S-FFCP-XXX	500mm	6000	600	1200
MCAL602DN250H	250mm Flanged PN25 Stainless Steel	65-S-FFCR-XXX	600mm	6000	600	1200



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 + volume + 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 FTT-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 801 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 - Pt500 4 wire with 4 analog outputs

COMMUNICATION MODULES

Description

M-Bus module	670V
Radio Router module	670W
LonWorks module FTT-10A	670Y
GSM6H module excl external antenna	670Z
M-Bus module with pulse inputs	670020
Radio Router module with pulse inputs - require external supply	670021
Prog data logger RTC 4-20 mA inputs and pulse inputs-require external supply	670022
Lon works module FTT-10A with pulse inputs - require external supply	670024

TEMPERATURE SENSOR SET PT500

Description

Set of pocket sensors with 1.5m cable 5.8mm dia	6700000A
Set of pocket sensors with 3.0m cable 5.8mm dia	6700000B
Set of pocket sensors with 5.0m cable 5.8mm dia	6700000C
Set of pocket sensors with 10m cable 5.8mm dia	6700000D
Set of pocket sensors with short probe 1.5m cable	6700000F
Set of pocket sensors with short probe 3.0m cable	6700000G

SENSOR FITTINGS

Description

65mm x ½ sensor pocket, stainless steel for 5.8mm	65-57-324
90mm x ½ sensor pocket, stainless steel for 5.8mm	65-57-327
140mm x ½ sensor pocket, stainless steel for 5.8mm	65-57-314

ELECTRO MECHANICAL HEAT METER

MWA Code Description

KHC2K15	15mm/½ inch BSP	● For monitoring purposes only
KHC2K 20	20mm/¾ inch BSP	● Complete with pulse output
KHC2K 25	25mm/1" inch BSP	● Lithium battery powered
KHC2K 30	30mm/1.¼" inch BSP	● Sensors with 1.5m cable



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 WLDS-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 interfac
- 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 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



ELIS FL5034 AND 5054



ELIS FL303X



ELIS FL5024 AND 5044



ELIS FL3085



ELIS FLFN20XX



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

MWA Code	Type	Class C	Connections	Min flow l/h	Qnom m³/hr	Qmax m³/hr
V100 - 15	Direct Read		½" brass body with unions	15	1.5	3.0
V100 - 20	Direct Read		¾" brass body with unions	25	2.5	5.0
V100 - 25	Direct Read		1" brass body with unions	35	3.5	7.0
V100 - 30	Direct Read		1.¼" brass body with unions	60	6.0	12.0
V100 - 40	Direct Read		1.½" brass body with unions	100	10.0	20.0
Pulse			Pulse plug and lead			

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



MWA Code	Type	Manifold	Qnom m³/hr	Qmax m³/hr
V210 - 2.5	Direct Read	Polymer Class D	2.5	5.0
V210 - 4.0	Direct Read	Brass Class C	4.0	8.0
V210 - 6.3	Direct Read	Brass Class C	6.3	12.6
Pulse		Pulse module and lead		

ELSTER H4300 WOLTMANN BULK FLOW METER

- H4300 Flanged PN16
- Woltman Hot Water 130 °C - Pulse Output
- Horizontal and Vertical Installation
- 16 bar



MWA Code	Type	Connections	Min flow m³/hr	Qnom m³/hr	Qmax m³/hr
H4300 - 50	K100 1 pulse =100 litres	2" flanged PN16	1	15	30
H4300 - 65	K100 1 pulse =100 litres	2.½" flanged PN16	1.6	25	60
H4300 - 80	K100 1 pulse =100 litres	3" flanged PN16	2	40	90
H4300 -100	K100 1 pulse =100 litres	4" flanged PN16	2.4	60	140
H4300 - 150	K100 1 pulse =100 litres	6" flanged PN16	4	150	300
H4300 - 200	K100 1 pulse =100 litres	8" flanged PN16	8	250	500

WATER METERS

ELSTER H4000 WOLTMANN BULK FLOW METER

- Bulk Flow Meters H4000 Flanged PN16
- Woltman Type Class B Cold Water 30 °C
- Horizontal and Vertical Installation, 16 bar
- WRAS approved



MWA Code	Type	Connections	Min flow m³/hr	Qnom m³/hr	Qmax m³/hr
H4000 - 40	K100 1 pulse =100 litres	1.½" 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	2.½" 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
PR7	Pulse output module and 5 metre lead				

ELSTER (V200) INLINE METERS

- WRAS approved
- Inline Meters without pulse lead
- Volumetric Meters - Cold Water 30 °C max Non Pulse
- Horizontal and Vertical Installation
- 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/ EN14154-2005 (Class D)
- Rotary piston volumetric Water Meters without pulse lead
- WRAS approved
- Brass body - Horizontal & 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				



ITRON AQUADIS COLD WATER METER

- Aquadis Cold Water Meter 30 °C 16 bar 2004/22/EC MIDEEC/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	¾" brass body with unions	25	2.5	5.0
AQU25	Direct Read	1" brass body with unions	40	4	7.0
AQU30	Direct Read	1.¼" brass body with unions	50	6.3	10.0
AQU40	Direct Read	1.½" brass body with unions	100	10	20.0
Cyble	Pulse module and lead				

ITRON AQUADIS MANIFOLD COMPOSITE COLD WATER

Aquadis+ is a world-class piston type volumetric cold water meter approved in accordance with MID (Measurement Instrument Directive) and designed for the best metering in residential applications.

Aquadis+ is now available in a composite case, a special thermoplastic material with the highest technical characteristics suitable to replace the traditional brass and bronze materials, without any constraints in term of metrology or resistance to pressure.

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 FLOSTAR COLD WATER METER

- Flostar Cold Water Meter 50 °C 16 bar EEC/ISO Class C
- 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	1.½" inch body screwed - Vertical Calss C	10	10	20.0
FLO50	Direct Read	2" inch body screwed - Vertical Calss C	50	15	30.0
FLO50F	Direct Read	2" inch body flanged PN16 - Vertical Class R	70	15	30.0
FLO65F	Direct Read	2.½" inch body flanged PN16 - Vertical Class R	35	25	50.0
FLO80F	Direct Read	3" inch body flanged PN16 - Vertical Class R	50	40	80.0
FLO100F	Direct Read	4" inch body flanged PN16 - Vertical Class R	70	60	120.0
Cyble	Pulse module and lead				
Cyble Mbus	Mbus communication module				

UNIMAG COLD WATER METER

MWA Code	Type	Connections	Min flow l/h	Qnom m³/hr	Qmax m³/hr
Unimag15	Direct Read	½" brass body with unions	30	1.5	3.0
Unimag20	Direct Read	¾" brass body with unions	50	2.5	5.0
Cyble		Pulse module and lead			
Cyble Mbus		Mbus communication module			

MWA Code	Product Name
MW65CPF	WDEK30 2-½/65mm Flanged Pulsed Water Meter K100
MW65HPF	WDE K30 2-½/65mm Flanged Pulse Output Hot Water Meter K100
MW50CPF	WDEK30 2 50mm Flanged Pulsed Cold Water Meter K100
MW80HPF	WDE K30 3/80mm Flanged Pulsed Hot Meter K100

- 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

MWA Code	Product Name
MW30CP	1 ¼" Cold Water Meter Pulsed K = 10
MW40CP	1 ½" Cold Water Meter Pulsed K = 10
MW40HP	1 ½" Hot Water Meter Pulsed K = 10
MW50-IR	50mm Flanged Irrigation Meter Pulsed K100
MW50CP	2" Cold Water Meter Pulsed K = 10
MW50HP	2" Screwed Hot Water Meter Pulsed K = 10
MW50HPF	50mm Flanged Hot Water Meter Pulsed K100
MW80-IR	80mm Irrigation Meter Flanged K100
MW80CPF	80mm Flanged Pulsed Cold Water Meter K100

MWA Code	Product Name
MW250CPF	250mm Cold Water Meter Pulsed K100
MW250HPF	250mm Hot Water Meter Pulsed K100

MWA Code	Product Name
MWA15M	GMDX ½" Non Pulsed Multijet
MWA20	GMDX ¾" Non Pulsed Multijet
MWA20B8	GSD8 ¾ AF Cold Non Pulsed Water Meter
MWA25	GMDX 1" Non Pulsed
MWA30	1-¼ Cold Water Meter c/w Unions GMDX
MWA40	1-½ Multijet c/w Unions GMDX
MWA50	2 Multijet c/w Unions GMDX



GSD5/GSD8 COLD WATER METER

- Direct read and pulsed
- Single Jet – Cold Water 30°C max Class B
- Horizontal & Vertical Installation
- 16 bar

GSD8-45 Single jet dry dial, direct reading with antitampering 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.

MWA Code	Product Name
MW15CP8	GSD8-R ½" AF c/w unions QN 1.5 K1
MWA15B	GSD5 ½" AF Non Pulsed Cold Water Meter QN 1.5 K1
MWA15B8	GSD8 ½" AF Non Pulsed Water Meter QN 1.5 K1
MWA15M	GMDX ½" Non Pulsed Multijet
MWA20	GMDX ¾" Non Pulsed Multijet
MWA20B8	GSD8 ¾" AF Cold Non Pulsed Water Meter
MW25CP	1" GMDX Cold Water Meter Pulsed Qn3.5 K10
MW25HP	1" GMDX Hot Water Meter Pulsed 90C QN3.5 K10
MW30HP	GMDX 1.¼Hot Water Meter Pulsed 90C QN6K10



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.

FOR FURTHER DETAILS SEE OUR WEBSITE



GMDX 1.¼Hot Water Meter
Pulsed 90°C c/w unions H-B



Cold water 15mm
screwed, pulsed

TALK TO US
ABOUT...



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 on-going 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

MWA Code	Description	Current Rating
ACE1000	Iron single phase electricity meter	100amp



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

MWA Code	Description	Current Rating
A100C	Elster single phase electricity meter	100amp



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.

MWA Code	Description	Current Rating
MWE100	Coin Operated prepaid meter	100amp



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

MWA Code	Description	Current Rating
ACE3000	Iron three phase electricity meter	100amp



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

MWA Code	Description	Current Rating
A1100	Elster three phase electricity meter	100amp



TRUMETER RANGE

We may not be able to perform a Pirouette but...



...we know everything about precision meter reading.



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

0121 327 7771 www.mwatechnology.com

MWA TECHNOLOGY

Metering with Accuracy



Leading independent metering specialists

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
 - ΣW
 - ΣVA
 - kVArh 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
 - ΣW
 - ΣVA
 - kVArh Reactive Energy
 - Demand
 - Energy pulse output available
 - W active power
 - VA apparent power
 - ΣVAr
 - kWh active energy
 - 2 seperate energy logs
 - Digital input
 - 5A available
 - RS-485 communication
 - 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-04-96 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
 - 5A
 - Flush Mount
 - 12 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

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-3S-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

We may not sell
power but...

...we know the right meters
for your energy consumption



0121 327 7771 www.mwatechnology.com

MWA TECHNOLOGY

Metering with Accuracy



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

Leading independent metering specialists

CELEBRATING THE PAST,
SUPPORTING YOU IN THE FUTURE

CELEBRATING 20 YEARS OF METERING KNOWLEDGE



0121 327 7771

www.mwatechnology.com

mwa TECHNOLOGY

Metering with Accuracy



Leading independent metering specialists

OIL METERS & ANCILLARIES

ELSTER KENT OIL METERS - NON PULSED

- All suitable for light and medium grade heating oil and diesel oil. ¾" - 2" for heavy grade oil
- Maximum temperature 60 °C to ¾", 180 °C to 2", horizontal and vertical pipes
- Accuracy +/- 1%, with inbuilt strainer



MWA Code	Type	Connections	Minimal Litres/hr	Normal Litres/hr	Maximum Litres/hr
FC4	Direct Read	½" brass body without unions	1	50	80
FC8	Direct Read	¾" brass body without unions	4	135	200
FC4 BANJO		FC4 angle banjo connections			
FC8 BANJO		FC8 angle banjo connections			



MWA Code	Type	Connections	Minimal Litres/hr	Normal Litres/hr	Maximum Litres/hr
FB15	Direct Read	½" brass body with unions	10	400	600
FB20	Direct Read	¾" brass body with unions	30	1000	1500
FB25	Direct Read	1" brass body with unions	75	2000	3000
FA40	Direct Read	1½" flanged	225	6000	9000
FA50	Direct Read	2" flanged	750	20000	30000

ELSTER OIL METERS - PULSED

- All suitable for light and medium grade heating oil and diesel oil. ¾" - 2" for heavy grade oil
- Maximum temperature 60 °C to ¾", 130 °C to 2", horizontal and vertical pipes
- Accuracy +/- 1%, with inbuilt strainer

MWA Code	Type	Connections	Minimal Litres/hr	Normal Litres/hr	Maximum Litres/hr
FC4P	Pulsed output, 1/0.1	½" brass body without unions	1	50	80
FC8P	Pulsed output, 1/0.1	¾" brass body without unions	4	135	200
FB15P	Pulsed output, 1/1	½" brass body with unions	15	400	600
FB20P	Pulsed output, 1/1	¾" brass body with unions	20	1000	1500
FB25P	Pulsed output, 1/1	1" brass body with unions	25	2000	3000
FA40P	Pulsed output, 1/10	1½" flanged	40	6000	9000
FA50P	Pulsed output, 1/10	2" flanged	50	20000	30000
FC4 BANJO		FC4 angle banjo connections			
FC8 BANJO		FC8 angle banjo connections			

BRAUN NON PULSED DOMESTIC OIL METER HZ5

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

MWA Code

Braun HZ5



TALK TO US ABOUT...



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

MWA Code	Type	Connections	Qnom m³/hr	Qmax m³/hr
STEAM15	Optiswirl	½" PN16 stainless steel	11.4	111.7 at 8 bar
STEAM25	Optiswirl	1" PN16 stainless steel	42.6	698.0 at 8 bar
STEAM40	Optiswirl	1.½" PN16 stainless steel	85	1815.0 at 8 bar
STEAM50	Optiswirl	2" PN16 stainless steel	114	2327.0 at 8 bar
STEAM80	Optiswirl	3" PN16 stainless steel	269	4992 at 8 bar
STEAM100	Optiswirl	4" PN16 stainless steel	530	8840 at 8 bar
STEAM150	Optiswirl	6" PN16 stainless steel	1060	20940 at 8 bar
STEAM200	Optiswirl	8" PN16 stainless steel	2260	45090.0 at 8 bar
STEAM250	Optiswirl	10" PN16 stainless steels	2870	65610 at 8 bar

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

MWA TECHNOLOGY

Metering with Accuracy





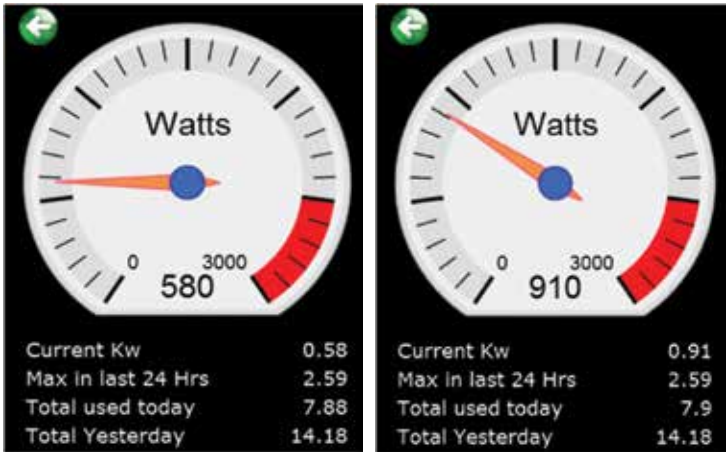
CELEBRATING 20 YEARS OF METERING KNOWLEDGE

“We provide expert advice and assist customers resolve their business challenges with high quality and innovative technical solutions. This requires strong technical leadership and integration with the extended metering and ancillary industry.”

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.

KEY FEATURES

- Cost 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



M-LOG IND 1

M-LOG RANGE

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



M-LOG COM 1

AUTOMATIC METER READING
aM&T

DATA LOGGING
SITE SURVEYS

INSTALLATION
COMMISSIONING

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
- 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

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's 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	Connection	Max pressure mbar	Protection
1/2"	BSP	200	IP54
3/4"	BSP	200	IP54
1"	BSP	200	IP54
1.1/4"	BSP	200	IP54
1.1/2"	BSP	200	IP54
2"	BSP	200	IP54
2.1/2"	BSP	350	IP54
3	BSP	350	IP54
65mm	PN16	350	IP54
80mm	PN16	350	IP54
100mm	PN16	350	IP54
150mm	PN16	350	IP54
200mm	PN16	350	IP54

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 numerous amount 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 are complete with the valve body, weight, arm, pulleys, fusible link and cable connectors. Valve sizes available 1/2" 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 tilt switch 1ph and Valve arm tilt switch 3ph
- Manual quick release mechanism
- Electro thermal link
- Emergency panic button twist to reset
- Emergency panic button key to reset



VALVES

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.



- 3/8" 0 - 8.5 bar pressure rated solenoid valve
- 1/2" 0 - 8.5 bar pressure rated solenoid valve
- 3/4" 0 - 8.5 bar pressure rated solenoid valve
- 1" 0 - 5.0 bar pressure rated solenoid valve
- 1 1/4" 0 - 7 bar pressure rated solenoid valve
- 1 1/2" 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.

- 3/8" 0.5 - 10 bar pressure rated solenoid valve
- 1/2" 0.5 - 10 bar pressure rated solenoid valve
- 3/4" 0.5 - 10 bar pressure rated solenoid valve
- 1" 0.5 - 10 bar pressure rated solenoid valve
- 1 1/4" 0.5 - 10 bar pressure rated solenoid valve
- 1 1/2" 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 OPEN 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 pressures across the solenoid valve.

- 3/8" 0.5 - 10 bar pressure rated solenoid valve
- 1/2" 0.5 - 10 bar pressure rated solenoid valve
- 3/4" 0.5 - 10 bar pressure rated solenoid valve
- 1" 0.5 - 10 bar pressure rated solenoid valve
- 1 1/4" 0.5 - 10 bar pressure rated solenoid valve
- 1 1/2" 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



VALVES

ROTARY SHOE VALVE - 3 port valve for mixing and diverting

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.



ACTUATORS FOR ROTARY SHOE VALVE

The 5Nm actuator is a compact design for operating rotary mixing valves and diverting valves DN15/50. The motor is reversible with fixed limit switches for an operating range of 90 °C and has manual override facility. Available in 230vAc or 24vAc.

The 15Nm actuators are for operating rotary mixing valves and diverting valves up to DN150 with high torque ratings. Power supply can be either 230V AC or 24V AC to suit all building management systems.



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 actuated valves. 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.



ACTUATORS FOR PLUG AND SEAT VALVES

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 open 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



KEY FEATURES

- Supplied complete with air pressure switches
- Full fan and gas valve status indication
- On board emergency stop button (that doubles as a system on/off switch)
- Fire alarm interlock
- Up to 2 additional emergency stop buttons can be connected directly to the PCB
- Available in airflow proving and current sensing versions, also available with integral speed controllers (KVM version)

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.

KEY FEATURES

- Microprocessor controlled gas interlock system
- Software-driven processor ensures virtually zero failure rate
- Supplied complete with air pressure switches; software deals with any aps flutter issues
- On board emergency stop button that doubles as system on/off switch
- Up to 2 additional emergency stop buttons can be connected directly to the PCB
- Fire alarm interlocks to facilitate connection to the buildings system and an Ansuls system if required
- Auxiliary interlocks to connect gas detection equipment or noxious gas detectors
- Remote emergency stop terminals for up to 2 emergency stops and 1 on board e stop included



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

- Fire alarm interface terminals separately indicated on front panel fascia.
- Auxiliary interlock terminals are provided for the connection of gas or carbon monoxide detectors.
- The system fascia can be mounted remotely from the main wiring PCB and linked with a 6-core alarm cable.



INTELLIGAS EGIP AUTOMATIC GAS PROVING SYSTEM

The Intelligas EGIP gas proving system is easy to install, with a straightforward LED display. It's connections are mains rated - making wiring easier and data cabling unnecessary. This means installation is about 30% quicker than alternative systems, saving on labour.

KEY FEATURES

- 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 manger'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



GAS INTERLOCK SYSTEM

EGIP - 1E GAS PROVING & ELECTRICAL ISOLATION SYSTEM

The intelligas EGIP gas proving system is easy to install, with a straight forward 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 manger'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



We may not be able to perform brain surgery, but...

...our metering knowledge is second to none



0121 327 7771 www.mwatechnology.com

MWA TECHNOLOGY
Metering with Accuracy



Leading independent metering specialists

READ ALL ABOUT IT...

- ✓ PRODUCT LAUNCHES
- ✓ METER REVIEWS
- ✓ EXHIBITION DATES
- ✓ NEW TECHNOLOGY
- ✓ INDUSTRY COMMENT



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

TALK TO US ABOUT...



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.



CALL US NOW
0121 327 7771

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.

DRY RISER CABINET SPECIFICATIONS

Cabinet & 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



DRY RISER

An inlet breeching at ground level provides the connection to the water supply of the dry riser system. The dry riser system is normally dry and is charged by the fire brigade in an emergency. Breeching inlets to the dry riser have either 2 or 4 inlet connections complete with 2.5" male instantaneous inlets to BS336 fitted with non-return valves and with a 1" drain valve.

- 100mm (4") dry rising main uses a 2- way inlet breeching in a vertical or horizontal position.
- 150mm (6") dry rising main uses a 4-Way inlet breeching.
- Dry riser equipment complies with the requirements of BS 5041 Part 3.
- The Breechings are normally housed in dry riser inlet cabinets, normally recessed into the external wall of the building and the outlet valves are housed in dry riser outlet cabinets on every floor of the building.
- Dry riser landing valves are available with bsp or PN16 connections

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 2½" BSP Female.
- Inlet 2½" Inst. Male BS336 - Outlet 3" BSP Female.

Foam Inlet adaptor (Instantaneous)

- Inlet 2½" Inst. Male BS336
- Outlet flanged to your specifications.

Taper foam Inlet

- Inlet Taper Bore to accept Branchpipe - Outlet 2½" 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 JCDDI/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 2.5" instantaneous female outlets, the standpipes have an integral 2.5" 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

Go online now and discover



Go online and browse our site, go through
MWA's capabilities and also:

SPECIAL OFFERS

DOWNLOAD DATA SHEETS

LIST OF SERVICES

MEET OUR TEAM OF EXPERTS

KEEP UP TO DATE WITH OUR DAILY BLOG

CASE HISTORIES

www.mwatechnology.com

INDEPENDENT METERING SPECIALISTS



“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

M.W.A. Technology Limited
(incorporating Empire Controls)

Offices & Workshop
Units 2 & 3 Wharton Street Industrial Estate
Birmingham
West Midlands B7 5TR

Tel: +44 (0)121 327 7771
Fax: +44 (0)121 327 1117

info@mwaterchology.com
www.mwaterchology.com



mwa TECHNOLOGY

Metering with Accuracy

