Dŵr Cymru
Welsh Water

Meters

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Information for Retailers

Version 3.0
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Meters
Information for Retailers

All our eligible customer sites are supplied by meters so it is vital that we work with our Retailers to ensure that our market data is accurate and that meters can be read when required. This is important both for customers to monitor their water usage and for us to ensure accurate Settlement.

Market Meter Facts

- We have eligible sites that are supplied by a single meter and a site that is supplied by 55 meters (due to the threshold criteria that applies in our area allowing co-located premises to be joined together).
- The 400+ meters we have in the market range in size from the smallest at 15mm to the largest at 450mm.
- The Yearly Volume Estimates for our market meters range from 0m^3 to 4.2million m^3
- 96% of our market meters are located externally
- Our meters record usage for three different types of water: Potable water, Non Potable Partially treated water and Non Potable raw water.

Our Metering Policy

We will determine the location of a meter, requests can be made for a meter to be relocated but the costs of moving the meter will be recharged to the Retailer.

If the property is more than 50 metres from our main distribution pipe, we will install the meter at the start of the supply pipe (this is usually at the highway boundary but there will be exceptions to this especially on larger customer sites and in rural locations).

Water Meters remain our property and under Section 175 of the Water Industry Act 1991, Retailers and non-household customers are not authorised to remove or interfere with our meters or instruct a third party to do so. It is a criminal offence to interfere with, wilfully damage or remove our meters.

Meters should not be obstructed preventing us from accessing our assets. If this happens and we have to remove the obstruction we will recharge our associated costs.

Our Terms and Conditions for a metered supply can be found in Appendix 1 of this document.

Contents

Our Meters

Details of the meters we install and their specifications are included in Appendix 1 of this document.

Meter Readings

Meter readings by Retailers or Third Party Contractors

Where a Retailer undertakes the reading of their non-household customers meter or instructs a third party contractor on their behalf we are not responsible for the actions of the Retailer or their contractors

It is our view that no entry will be required into the meter chambers by Retailers or third party contractors to undertake the meter reading as we use non-intrusive meter reading equipment which mitigates the Health and Safety risk of entering confined spaces.

Should a Retailer or third party contractor need to access a meter chamber they should be aware of the risk involved in undertaking this work and carry out an appropriate risk assessment.

A list of known common hazards which need to be controlled, when working in or near our meter chambers and associated apparatus is included Appendix 3.

Requests for us to read meters on behalf of Retailers

We are able to provide meter reading services to third party retailers on application. Information on our standard terms and conditions can be found here.

Non-Market Meters

We have a small number of non-market meters that are sub meters for meters at eligible premises. We will read these meters monthly or biannually depending on the market requirements.

Retailers can ask us to take an adhoc meter reading of a Non market meter by submitting a B03 request.

Cross Border Meters

We have arrangements in place with neighbouring Wholesalers to ensure that the relevant information is provided to them within the required timescales where customers are in the market for sewerage but not for water.

Data Protection

Any requirement on DCWW to disclose information or data to the Retailer will be considered with reference to the UK Data Protection laws, including the General Data Protection Regulation (GDPR).

Appendix 1 — Meter Specifications

Meter Size – 15 mm						
Description	ALTAIR V4 15/134 + IZAR RC868i W G4	ALTAIR V5 2,5 CONC + IZAR RC868i W G4	Elster V210H (AMR)		Elster V200H (AMR)	
Part Number	3141767	3141741	LUQHB5078	LUQHB5077	LUSHB5787	LUSHB5788
Type	Rotary Piston (Inline)	Rotary Piston (Manifold)	Rotary Piston Hybrid (Manifold)		Rotary Piston Hybrid (In-line)	
S/N Structure	HYRYU#######	HYRYU#######	YYE#######		YYF#######	
Meter Specifications						
Meter Connection	1" Thread	G1 ½"	G 1 ½"		G ¾"	
Meter Length	134mm	NA	N/A		134 mm	
Flow Ratio (Q3/Q1)	R160	R160	R400		R400	
Starting Flow Rate	0.4 l/h	0.4 l/h	1 l/h		1 l/h	
Minimum Flow Rate – Q1	15.62 l/h	15.62 l/h	6.25 l/h		6.25 l/h	
Transitional Flow Rate – Q2	25 l/h	25 l/h	10 l/h		10 l/h	
Permanent Flow Rate – Q3	2.5 m^3/h	2.5 m^3/h	2.5 m^3/h		2.5 m^3/h	
Overload Flow Rate – Q4	3.125 m^3/h	3.125 m^3/h	3.125 m^3/h		3.125 m^3/h	
Number of Max Index Dials	5	5	6		6	
Meter Material	Polymer	Polymer	Polymer		Polymer	
Output Pulse Volume	1 Litre	1 Litre	0.1 Litre		0.1 Litre	
Pulse Unit (Part Number)	Not Included (Pulse I)	Not Included (Pulse I)	Not Compatible	Built In (Wired)	Not Compatible	Built In (Wired)
Is Meter WRAS approved for contaminated land	Yes	Yes	Yes		No (on approval)	
Is Meter MID compliant	Yes	Yes	Yes		Yes	

Meter Size – 20 mm					
Description	ALTAIR V5 20/165 + IZAR RC868i W G4	ALTAIR V5 2,5 CONC + IZAR RC868i W G4	HYDRUS 2 4 R800 20/130 50 868/WW	Elster V210H (AMR)	Elster V200H (AMR)
Part Number	3142095	3141741	3142968	LUQHC5172	LUSHC5082
Type	Rotary Piston (Inline)	Rotary Piston (Manifold)	Ultrasonic Static (Inline)	Rotary Piston Hybrid (Manifold)	Rotary Piston Hybrid (In-line)
S/N Structure	HYRYU######	HYRYU######	OMS ID (8 digit serial number)	YYE######	YYF######
Meter Specifications					
Meter Connection	1" Thread	G1 ½"	1" Thread	G 1 ½"	G 1"
Meter Length	165mm	NA	130mm	N/A	165 mm
Flow Ratio (Q3/Q1)	R160	R160	R800	R315	R315
Starting Flow Rate	0.7 l/h	0.4 l/h	1.4 l/h	2 l/h	2 l/h
Minimum Flow Rate – Q1	25 l/h	25 l/h	5 l/h	12.7 l/h	12.7 l/h
Transitional Flow Rate – Q2	40 l/h	40 l/h	8 l/h	20.3 l/h	20.3 l/h
Permanent Flow Rate – Q3	4 m^3/h	4 m^3/h	4 m^3/h	4.0 m^3/h	4.0 m^3/h
Overload Flow Rate – Q4	5 m^3/h	5 m^3/h	5 m^3/h	5.0 m^3/h	5.0 m^3/h
Number of Max Index Dials	5	5	5	6	6
Meter Material	Polymer	Polymer	Polymer	Brass	Brass
Output Pulse Vol.	1 Litre	1 Litre	1 Litre	1 Litre	1 Litre
Pulse Unit (Part Number)	Not Included (Pulse I)	Not Included (Pulse I)	Pulse output built in option	Built In (Wired)	Built In (Wired)
Is Meter WRAS approved for contaminated land	Yes	Yes	Yes	Yes	Yes
Is Meter MID compliant	Yes	Yes	Yes	Yes	Yes

Meter Size – 25 mm					
Description	Elster V210	Elster V200	Elster V210H (AMR)		Elster V200H (AMR)
Part Number	LUQTD4119	LUSTD5607	LUQHD5274	LUQHD5272	LUSHD5082
Type	Rotary Piston (Manifold)	Rotary Piston (In-Line)	Rotary Piston Hybrid (Manifold)		Rotary Piston Hybrid (In-line)
S/N Structure	YYM#######	YYT#######	YYE#######		YYF#######
Meter Specifications					
Meter Connection	G 2"	G 1 ¼"	G 2"		G 1 ¼"
Meter Length	N/A	199 mm	N/A		199mm
Flow Ratio (Q3/Q1)	R250	R160	R250		R160
Starting Flow Rate	6 l/h	6 l/h	6 l/h		6 l/h
Minimum Flow Rate – Q1	25.2 l/h	39.4 l/h	25.2 l/h		39.4 l/h
Transitional Flow Rate – Q2	40.32 l/h	63.0 l/h	40.32 l/h		63.0 l/h
Permanent Flow Rate – Q3	6.3 m^3/h	6.3 m^3/h	6.3 m^3/h		6.3 m^3/h
Overload Flow Rate – Q4	7.875 m^3/h	7.875 m^3/h	7.875 m^3/h		7.875 m^3/h
Number of Max Index Dials	5	5	6		6
Meter Material	Brass	Brass	Brass		Brass
Output Pulse Vol.	1 Litre	1 Litre	1 Litre		1 Litre
Pulse Unit (Part Number)	Not Included (PR6)	Not Included (PR6)	Not Compatible	Built In (Wired)	Built In (Wired)
Is Meter WRAS approved for contaminated land	Yes	Yes	Yes		Yes
Is Meter MID compliant	Yes	Yes	Yes		Yes

Meter Size – 30 mm		
Description	Elster V200	Elster V200H (AMR)
Part Number	LUSTF5213	LUSHF5082
Type	Rotary Piston (In-Line)	Rotary Piston Hybrid (In-line)
S/N Structure	YYT######	YYF######
Meter Specifications		
Meter Connection	G 1 ½"	G 1 ½"
Meter Length	260 mm	260 mm
Flow Ratio (Q3/Q1)	R160	R160
Starting Flow Rate	12 l/h	12 l/h
Minimum Flow Rate – Q1	62.5 l/h	62.5 l/h
Transitional Flow Rate – Q2	100 l/h	100 l/h
Permanent Flow Rate – Q3	10 m^3/h	10 m^3/h
Overload Flow Rate – Q4	12.5 m^3/h	12.5 m^3/h
Number of Max Index Dials	5	6
Meter Material	Brass	Brass
Output Pulse Vol.	1 Litre	1 Litre
Pulse Unit (Part Number)	Not Included (PR6)	Built In (Wired)
Is Meter WRAS approved for contaminated land	Yes	Yes
Is Meter MID compliant	Yes	Yes

Meter Size – 40 mm				
Description	Elster V200	Elster V200H (AMR)	Elster H4000 (Long ISO Body)	ABB Aquamaster4
Part Number	LUSTM5811	LUSHG5082	LUPPA4868	FEW412.R.0040. S2.B.R.E.81.L.B1-RCC.. SC2...AD1
Type	Rotary Piston (In-Line)	Rotary Piston Hybrid (In-line)	Woltmann	Electromagnetic (Battery Powered)
S/N Structure	YYT######	YYF#######	YYW#######	3K##########
Meter Specifications				
Meter Connection	G 2"	G 2"	PN16 Flanged	PN16 Flanged
Meter Length	300 mm	300 mm	300 mm	200 mm
Flow Ratio (Q3/Q1)	R160	R200	R126	R160
Starting Flow Rate	20 l/h			N/A
Minimum Flow Rate – Q1	0.10 m^3/h	0.08 m^3/h	0.5 m^3/h	0.16 m^3/h
Transitional Flow Rate – Q2	0.16 m^3/h	0.13 m^3/h	0.81 m^3/h	0.25 m^3/h
Permanent Flow Rate – Q3	16 m^3/h	16 m^3/h	63 m^3/h	25 m^3/h
Overload Flow Rate – Q4	20 m^3/h	20 m^3/h	79 m^3/h	31 m^3/h
Number of Max Index Dials	5	6	6	7
Meter Material	Brass	Brass	Cast Iron	Carbon Steel
Output Pulse Vol.	1 Litre	1 Litre	1 Litres	Programmable
Pulse Unit (Part Number)	Not Included (PR6)	Built In (Wired)	Not Included (PR7 K1)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	Yes	Yes	Yes	Yes
Is Meter MID compliant	Yes	N/A	Yes	Yes

Meter Size – 50 mm				
Description	Elster H4000 (Short ISO Body)	Elster H4000 (Long ISO Body)	Elster H4000 (Kent Length)	ABB Aquamaster4
Part Number	LUPPB4854	LUPPB4868	LUPPB4871	FEW412.R.0050. S2.B.R.E.81.L.B1-RCC.. SC2...AD1
Type	Woltmann	Woltmann	Woltmann	Electromagnetic (Battery Powered)
S/N Structure	YYW######	YYW######	YYW######	3K##########
Meter Connection	PN16 Flanged	PN16 Flanged	PN16 Flanged	PN16 Flanged
Meter Specifications				
Meter Length	200 mm	300 mm	311 mm	200 mm
Flow Ratio (Q3/Q1)	R126	R126	R126	R160
Minimum Flow Rate – Q1	0.5 m^3/h	0.5 m^3/h	0.5 m^3/h	0.25 m^3/h
Transitional Flow Rate – Q2	0.81 m^3/h	0.81 m^3/h	0.81 m^3/h	0.40 m^3/h
Permanent Flow Rate – Q3	63 m^3/h	63 m^3/h	63 m^3/h	40 m^3/h
Overload Flow Rate – Q4	79 m^3/h	79 m^3/h	79 m^3/h	50 m^3/h
Number of Max Index Dials	6	6	6	7
Meter Material	Cast Iron	Cast Iron	Cast Iron	Carbon Steel
Output Pulse Vol.	1 Litres	1 Litres	1 Litres	Programmable
Pulse Unit (Part Number)	Not Included (PR7 K1)	Not Included (PR7 K1)	Not Included (PR7 K1)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A	N/A	N/A	N/A
Is Meter MID compliant	Yes	Yes	Yes	Yes

Meter Size – 80 mm				
Description	Elster H4000 (Short ISO Body)	Elster H4000 (Long ISO Body)	Elster H4000 (Kent Length)	ABB Aquamaster4
Part Number	LUPPD4854	LUPPD4868	LUPPD4871	FEW412.R.0080. S2.B.R.E.81.L.B1-RCC.. SC2...AD1
Type	Woltmann	Woltmann	Woltmann	Electromagnetic (Battery Powered)
S/N Structure	YYW######	YYW######	YYW######	3K##########
Meter Connection	PN16 Flanged	PN16 Flanged	PN16 Flanged	PN16 Flanged
Meter Specifications				
Meter Length	200 mm	350 mm	413 mm	200 mm
Flow Ratio (Q3/Q1)	R125	R125	R125	R160
Minimum Flow Rate – Q1	1.28 m^3/h	1.28 m^3/h	1.28 m^3/h	0.63 m^3/h
Transitional Flow Rate – Q2	2.05 m^3/h	2.05 m^3/h	2.05 m^3/h	1.0 m^3/h
Permanent Flow Rate – Q3	160 m^3/h	160 m^3/h	160 m^3/h	100 m^3/h
Overload Flow Rate – Q4	200 m^3/h	200 m^3/h	200 m^3/h	125 m^3/h
Number of Max Index Dials	6	6	6	7
Meter Material	Cast Iron	Cast Iron	Cast Iron	Carbon Steel
Output Pulse Vol.	1 Litres	1 Litres	1 Litres	Programmable
Pulse Unit (Part Number)	Not Included (PR7 K1)	Not Included (PR7 K1)	Not Included (PR7 K1)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A	N/A	N/A	N/A
Is Meter MID compliant	Yes	Yes	Yes	Yes

Meter Size – 100 mm				
Description	Elster H4000 (Short ISO Body)	Elster H4000 (Long ISO Body)	Elster H4000 (Kent Length)	ABB Aquamaster4
Part Number	LUPPE4854	LUPPE4868	LUPPE4871	FEW412.R.0080. S2.B.R.E.81.L.B1-RCC.. SC2...AD1
Type	Woltmann	Woltmann	Woltmann	Electromagnetic (Battery Powered)
S/N Structure	YYW######	YYW######	YYW######	3K##########
Meter Connection	PN16 Flanged	PN16 Flanged	PN16 Flanged	PN16 Flanged
Meter Specifications				
Meter Length	250 mm	350 mm	483 mm	250 mm
Flow Ratio (Q3/Q1)	R125	R125	R125	R160
Minimum Flow Rate – Q1	1.28 m^3/h	1.28 m^3/h	1.28 m^3/h	1.0 m^3/h
Transitional Flow Rate – Q2	2.05 m^3/h	2.05 m^3/h	2.05 m^3/h	1.6 m^3/h
Permanent Flow Rate – Q3	160 m^3/h	160 m^3/h	160 m^3/h	160 m^3/h
Overload Flow Rate – Q4	200 m^3/h	200 m^3/h	200 m^3/h	200 m^3/h
Number of Max Index Dials	6	6	6	7
Meter Material	Cast Iron	Cast Iron	Cast Iron	Carbon Steel
Output Pulse Vol.	1 Litres	1 Litres	1 Litres	Programmable
Pulse Unit (Part Number)	Not Included (PR7 K1)	Not Included (PR7 K1)	Not Included (PR7 K1)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A	N/A	N/A	N/A
Is Meter MID compliant	Yes	Yes	Yes	Yes

Meter Size – 150 mm			
Description	Elster H4000 (Short ISO Body)	Elster H4000 (Long ISO Body)	ABB Aquamaster4
Part Number	LUPPG4854	LUPPG4868	FEW412.R.0150.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Woltmann	Woltmann	Electromagnetic (Battery Powered)
S/N Structure	YYW######	YYW######	3K##########
Meter Connection	PN16 Flanged	PN16 Flanged	PN16 Flanged
Meter Specifications			
Meter Length	300 mm	500 mm	300 mm
Flow Ratio (Q3/Q1)	R200	R200	R160
Minimum Flow Rate – Q1	2.0 m^3/h	2.0 m^3/h	2.5 m^3/h
Transitional Flow Rate – Q2	3.2 m^3/h	3.2 m^3/h	4.0 m^3/h
Permanent Flow Rate – Q3	400 m^3/h	400 m^3/h	400 m^3/h
Overload Flow Rate – Q4	500 m^3/h	500 m^3/h	500 m^3/h
Number of Max Index Dials	6	6	7
Meter Material	Cast Iron	Cast Iron	Carbon Steel
Output Pulse Vol.	1 Litres	1 Litres	Programmable
Pulse Unit (Part Number)	Not Included (PR7 K1)	Not Included (PR7 K1)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A	N/A	N/A
Is Meter MID compliant	Yes	Yes	Yes

Meter Size – 200 mm	
Description	ABB Aquamaster4
Part Number	FEW412.R.0200.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Electromagnetic (Battery Powered)
S/N Structure	3K##########
Meter Specifications	
Meter Connection	PN16 Flanged
Meter Length	350 mm
Flow Ratio (Q3/Q1)	R160
Minimum Flow Rate – Q1	3.9 m^3/h
Transitional Flow Rate – Q2	6.3 m^3/h
Permanent Flow Rate – Q3	630 m^3/h
Overload Flow Rate – Q4	788 m^3/h
Number of Max Index Dials	7
Meter Material	Carbon Steel
Output Pulse Vol.	Programmable
Pulse Unit (Part Number)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A
Is Meter MID compliant	Yes

Meter Size – 250 mm	
Description	ABB Aquamaster4
Part Number	FEW412.R.0250.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Electromagnetic (Battery Powered)
S/N Structure	3K##########
Meter Specifications	
Meter Connection	PN16 Flanged
Meter Length	450 mm
Flow Ratio (Q3/Q1)	R160
Minimum Flow Rate – Q1	6.3 m^3/h
Transitional Flow Rate – Q2	10 m^3/h
Permanent Flow Rate – Q3	1000 m^3/h
Overload Flow Rate – Q4	1250 m^3/h
Number of Max Index Dials	7
Meter Material	Carbon Steel
Output Pulse Vol.	Programmable
Pulse Unit (Part Number)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A
Is Meter MID compliant	Yes

Meter Size – 300 mm	
Description	ABB Aquamaster4
Part Number	FEW412.R.0300.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Electromagnetic (Battery Powered)
S/N Structure	3K##########
Meter Specifications	
Meter Connection	PN16 Flanged
Meter Length	500 mm
Flow Ratio (Q3/Q1)	R160
Minimum Flow Rate – Q1	10 m^3/h
Transitional Flow Rate – Q2	16 m^3/h
Permanent Flow Rate – Q3	1600 m^3/h
Overload Flow Rate – Q4	2000 m^3/h
Number of Max Index Dials	7
Meter Material	Carbon Steel
Output Pulse Vol.	Programmable
Pulse Unit (Part Number)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A
Is Meter MID compliant	Yes

Meter Size – 350 mm	
Description	ABB Aquamaster4
Part Number	FEW412.R.0350.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Electromagnetic (Battery Powered)
S/N Structure	3K##########
Meter Specifications	
Meter Connection	PN16 Flanged
Meter Length	550 mm
Flow Ratio (Q3/Q1)	R160
Minimum Flow Rate – Q1	10 m^3/h
Transitional Flow Rate – Q2	16 m^3/h
Permanent Flow Rate – Q3	1600 m^3/h
Overload Flow Rate – Q4	2000 m^3/h
Number of Max Index Dials	7
Meter Material	Carbon Steel
Output Pulse Vol.	Programmable
Pulse Unit (Part Number)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A
Is Meter MID compliant	Yes

Meter Size – 400 mm	
Description	ABB Aquamaster4
Part Number	FEW412.R.0400.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Electromagnetic (Battery Powered)
S/N Structure	3K##########
Meter Specifications	
Meter Connection	PN16 Flanged
Meter Length	600 mm
Flow Ratio (Q3/Q1)	R160
Minimum Flow Rate – Q1	15.6 m^3/h
Transitional Flow Rate – Q2	25.0 m^3/h
Permanent Flow Rate – Q3	2500 m^3/h
Overload Flow Rate – Q4	3125 m^3/h
Number of Max Index Dials	7
Meter Material	Carbon Steel
Output Pulse Vol.	Programmable
Pulse Unit (Part Number)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A
Is Meter MID compliant	Yes

Meter Size – 450 mm	
Description	ABB Aquamaster4
Part Number	FEW412.R.0450.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Electromagnetic (Battery Powered)
S/N Structure	3K##########
Meter Specifications	
Meter Connection	PN16 Flanged
Meter Length	700 mm
Flow Ratio (Q3/Q1)	R160
Minimum Flow Rate – Q1	15.6 m^3/h
Transitional Flow Rate – Q2	25.0 m^3/h
Permanent Flow Rate – Q3	2500 m^3/h
Overload Flow Rate – Q4	3125 m^3/h
Number of Max Index Dials	7
Meter Material	Carbon Steel
Output Pulse Vol.	Programmable
Pulse Unit (Part Number)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A
Is Meter MID compliant	Yes

Meter Size – 500 mm	
Description	ABB Aquamaster4
Part Number	FEW412.R.0500.S2.B.R.E.81.L.B1-RCC..SC2...AD1
Type	Electromagnetic (Battery Powered)
S/N Structure	3K##########
Meter Specifications	
Meter Connection	PN16 Flanged
Meter Length	770 mm
Flow Ratio (Q3/Q1)	R160
Minimum Flow Rate – Q1	25.0 m^3/h
Transitional Flow Rate – Q2	40.0 m^3/h
Permanent Flow Rate – Q3	4000 m^3/h
Overload Flow Rate – Q4	5000 m^3/h
Number of Max Index Dials	7
Meter Material	Carbon Steel
Output Pulse Vol.	Programmable
Pulse Unit (Part Number)	Not Included (WABC2010/01)
Is Meter WRAS approved for contaminated land	N/A
Is Meter MID compliant	Yes

Domestic Fire Sprinkler Meter	
Description	Diehl Hydrus 2.0 DN20 R800
Part Number	TBC
Type	Ultrasonic (Battery Powered)
S/N Structure	########
Meter Specifications	
Meter Connection	G1B
Meter Length	130mm
Flow Ratio (Q3/Q1)	R800
Minimum Flow Rate – Q1	3.13 l/h
Transitional Flow Rate – Q2	5 l/h
Permanent Flow Rate – Q3	4 m^3/h
Overload Flow Rate – Q4	5 m^3/h
Number of Max Index Dials	6
Meter Material	Brass
Output Pulse Vol.	Not Compatible
Pulse Unit (Part Number)	N/A
Is Meter WRAS approved for contaminated land	No
Is Meter MID compliant	Yes (MID DE-19-MI001-PTB012)

Images


Elster V210 Polymer


Elster V200 Polymer


Elster V210 Brass


Elster V200 Brass


Elster V210 Hybrid Polymer


Elster V200 Hybrid Polymer


Elster V200 Hybrid Brass


Elster H4000


Elster H5000


ABB Aquamaster


Hydrus 2 DN20


Altair V4 Inline


Altair V5 Concentric

Manuals

Elster V200/V210

Specifications Sheet	ELS10119_V200_V210_Specsheet_V3_HW.pdf
Brochure	ELS10139_V200_V210_Brochure_V2_INT.pdf

Elster V200H (AMR)/V210H (Hybrid)

Specifications Sheet	V200H (AMR)_210H_868 wMBus ELS10098_Specsheet_V1_BM.pdf

Elster H4000

Specifications Sheet	ELS10138_H4000_Specsheet_V2_NK.pdf
Brochure	ELS10139_H4000_Brochure_V2_HW.pdf
Accuracy & Headloss Curves	H4000 Typ Acc & HL curves.pdf

Arad sonata DN20 R500

https://arad.co.il/wp-content/uploads/SONATA-DN20_DN25-ENG-December-23-REV3-.pdf

ABB Aquamaster4

Specifications Sheet	OI_FER100_FER200-EN_D.pdf
Installation Guide	OI_FET200-EN_M.pd.pdf
Framework User Guide	Welsh Water USER GUIDE DCWW 177 2015 Rev. 02.pdf

Appendix 2 – Standard Terms and Conditions for a Metered Supply

At all times the meter remains the property of Dŵr Cymru Welsh Water. it is your responsibility to ensure that it is kept in a safe environment and that access is allowed to Welsh Water employees and/or their representatives so that they can read and maintain the meter.

Dŵr Cymru Welsh Water (hereinafter called 'the Company') will supply water by meter subject to the following terms and conditions:

1. The customer shall take the supply subject to The Water Supply (Water Fittings) Regulations 1999 made under the Water Industry Act 1999 currently in force or any regulations from time to time made by the Secretary of State under the Water industry Act 1991 or any Statutory modification or re-enactment thereof for preventing the waste, undue consumption, misuse or contamination of water, and shall abide by, observe and comply with such byelaws and regulations.

2. For the purpose of ascertaining the quantity of water supplied, the Company will provide a meter of such size and description as it may prescribe and shall maintain and replace the same as it may consider necessary. The said meter or any substituted meter shall belong to the Company and shall not be removed or in any way disturbed or interfered with except by an official of the Company, except under Clause 12 below. Unauthorised tampering with a meter is an offence under S175 of the Water Industry Act 1991 and carries a fine on summary conviction.

3. If water escapes from an internal meter installation for whatever reason, the customer is responsible for any resulting damage. The customer is responsible for ensuring that any internal meter installation is protected from freezing whilst still allowing easy reading of the meter.

4. The meter consumption will form the basis of any charges to be levied. Should any doubt arise on either side as to the correctness of the meter register of the water supplied, the Company may, and at the written request of the customers Retailer remove and test the meter in accordance with the Water (Meters) Regulations 1988 and the Measuring Equipment Cold-water Meter) Regulations 1988 and the Measuring Instruments (Cold-water Meters) Regulations 2006 or such other Regulations as may be made. The customer is responsible for ensuring that any internal meter installation is protected from freezing whilst still allowing easy reading of the meter.

5. The customer shall be responsible for all water after it has passed through the meter and shall pay therefore notwithstanding for any loss or leakage, waste or misuse. This responsibility shall not be relieved by any repairs to pipes and fittings which are the customer's responsibility to maintain being carried out by the Company or any other person. Consequently it is in the customer's own interest to read the meter at frequent and regular intervals in order that any unaccountable increase in consumption will not continue without investigation.

6. The Company reserves the right to require the customer to install a stop valve on the customer's part of the service pipe within his own land as near as is reasonably practical to the meter. It should be noted that the customer is responsible for the maintenance of all pipes and fittings (which term, by virtue of Clause 2 above, does not include the meter) on the customer's part of the service pipe irrespective of the position of the meter. The customer's part of the service pipe extends from the Company stop valve generally at the highway boundary into the customer's premises. The responsibility for some parts of the service pipe is sometimes shared with other customers.

7. The Company reserves the right to require the customer to install cold water storage facilities having a volume considered adequate by the Company in relation to the use of water at the site to be connected.

8. The supply of water may be interrupted or suspended for the purposes of carrying out any necessary works subject to any safeguards relating to prior notification under the Company's Service Guarantee.

9. Subject to the Company's Service Guarantee the Company shall not be responsible for any damage or loss that the customer may sustain or any accident to any of the customer's employees by reasons of any interruption or suspension of the supply or any excess or deficiency of pressure or any failure of any employees, works, machinery, pipes or apparatus of the Company, save that the Company does not exclude or restrict liability for death or personal injury caused by its negligence.

10. The supply of water may also be discontinued at the request of the customer in accordance with S.62 of the Water Industry Act 1991. Provided the customers Retailer has given notice to the Company under S.62 of the Water Industry Act 1991 for the supply of water to be disconnected. If the arrangements to supply water by meter are discontinued for any reason and the meter is within the curtilage of the customer's premises, the customer will be required at his/her expense to remove and to deliver the meter to the Company in good condition, unless the customer and the Company agree that the meter becomes the property and liability of the customer.

11. Any notice from the Company under these terms and conditions may be served by leaving it for the customer at the premises to be supplied or at the customer's last known address or place of business or (in the case of a company) at its registered office or by putting it into the general post addressed to the customer at such premises, and Shall be sufficiently authenticated if it bears or purports to bear, in print or otherwise, the signature of the Director or any other authorised officer of the Company. Any notice from the customer to the Company shall be signed by or on behalf of the customer, and shall be sent to: Dŵr Cymru Welsh Water, P.O. Box 690, Cardiff, CF3 5WL by post or otherwise.

12. The Company will specify details of the meter location, type, size and installation arrangements, in accordance with S.47(2) and S.162 of the Water Industry Act 1991 subject to any overriding statutory regulations. If the meter is not located in the highway, and not on the customer's own premises, the customer must have a legal right of access thereto for the benefit of himself and the Company.

Appendix 3 – Known common hazards

Known common hazards which need to be controlled, when working in or near Dŵr Cymru's (DCWW's) meter chambers and associated apparatus.

(The list of hazards below is not exhaustive. Third parties are required to undertake a suitable and sufficient specific risk assessment of each site, prior to any work commencing; DCWW shall take no responsibility for supervising third parties).

Hazard	Risk	Controls
Working in the highway	Personal / third party injury. Hit by moving vehicles	Streetworks accreditation. Signing lighting and guarding.
Lifting and moving Chamber covers	Personal injury. Damage to apparatus if dropped.	Visual check of the condition of the cover. Cleaning and removal of any detritus within hinge or other mechanisms before opening. Tools suitable for the activity. Manual handling training. Fit and Capable staff.
Confined spaces	Asphyxiation. Personal Injury	Confined spaces training to City &Guilds standard 6150. Gas Monitors and 2 man working if necessary following risk assessment and safe system of work.
Needle sticks / Sharps / Bio Hazard	Infection	Suitable PPE and training in needle stick awareness. If not trained in removal then contact DCWW to arrange removal.
Work at Height / access and egress in chambers	Falls from height / personal injury	Suitable and sufficient work at height training / Personal protective equipment. Portable ladders appropriate for the task.
Poor hygienic practices	Contamination of water supply	Training in Water Hygiene practices. Water Hygiene card holder. Provision of Chloros solution to disinfect all fittings.
High pressure water pipe lines	Personal injury / damage to key apparatus (PRV etc.)	Understanding of pressurised pipelines and associated risks. Consultation with operational staff if an entry to the chamber is to be made.
General Working Environment	Personal and third party injuries	Training in risk assessment. Suitable and sufficient risk assessments and method statements for the activity.
Adjacent or close industrial processes	Contamination of the working area / chamber. Ingress of contaminant either physical or atmospheric. Personal injury	Dynamic risk assessment of working area. Stop entry if conditions are found to be problematic. Escalate to DCWW as asset owner.