



PURE MEASURE

(PTY) Ltd.

Every Drop. Every Watt. Accounted For.



Product Catalogue WATER METERS



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Volumetric Piston Meters



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LXH 15-25mm Volumetric Piston Meter CLASS C ACCURACY

The model LXH is a volumetric piston meter designed to measure the flow of clean potable water in reticulation systems. It is ideally suitable for revenue billing in residential and commercial water supply where high accuracy and low starting flows are required.

FEATURES:

- UV stabilized glass fibre reinforced polymer.
- Easy installation and maintenance.
- Integrated strainer and non-return valve.
- Liquid sealed register for clear manual reading.
- Pulse prepared for AMR integration.
- Low pressure loss.
- Serial number traceability.
- Class C accuracy.

WORKING PARAMETERS:

- Temperature class: T50 (0.1°C ~ 50°C)
- Nominal pressure: PN16
- Orientation: Horizontal, vertical or inclined
- Metrological class: C

STANDARD:

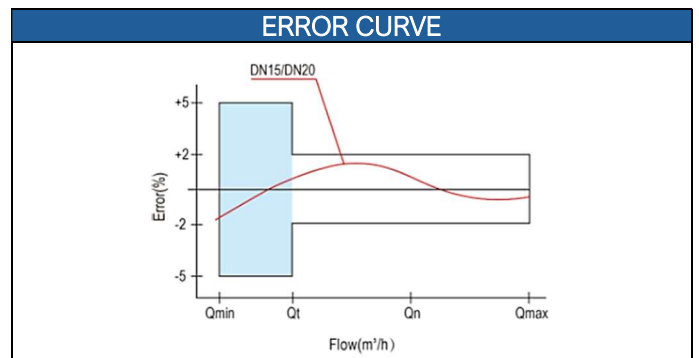
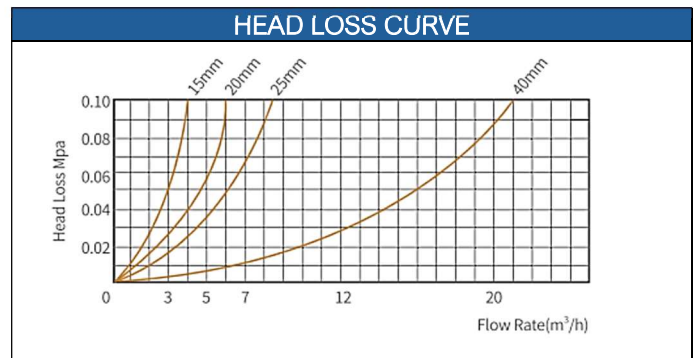
SANS 1529-1; ISO 4064



HYDRAULIC PERFORMANCE				
Size	mm	15	20	25
Metrological class		C	C	C
		R100	R100	R100
Q4 (Qs)	m ³ /h	3	5	7
Q3 (Qp)	m ³ /h	1.5	2.5	3.5
Q2 (Qt)	m ³ /h	0.023	0.038	.0525
Q1 (Qmin)	m ³ /h	0.015	0.025	0.035

TECHNICAL SPECIFICATIONS	
Max. permissible error between Q1 & Q2 (excl)	± 5%
Max. permissible error between Q2 (incl) & Q4	± 2%
Temperature class	T50: 0.1°C ~ 50°C
Nominal pressure	Bar 16
Min. reading	m ³ 0.0002
Max. reading	m ³ 9999,9999
Pulse value	l/imp 0.5

DIMENSIONS				
L	mm	114	165	200
H	mm	89	96	112
Weight	kg	0.36	0.5	0.9
Connecting Thread	BSP	15mm	20mm	25mm



TYPICAL SPECIFICATION

Volumetric piston meter with temperature class T50 meeting class C requirements to fourth decimal accuracy. Liquid sealed register and pulse prepared with integrated strainer and non-return valve. BSP thread connections.

WARRANTY

The company shall at its discretion repair or replace any LXH water meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages, or wear and tear considered normal at the place of installation.

Meter Box Assembly



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Meter Box Assembly 15-25mm

The models B100 & B1000 are lockable meter box assemblies containing the LXH Class C volumetric piston meter and municipal valve with BSP thread connections. It is ideally suitable for revenue billing in residential and commercial water supply.

FEATURES: B100 – Ground level box

- Constructed from high quality UV stabilized polymer
- BSP thread connections
- Easy installation and maintenance
- Lockable



Length	Height	Width-Base Plate (W1)	Width-Lid (W2)	Meter Size
410	170	195	170mm	DN15 / 20 / 25

TYPICAL SPECIFICATION

Meter box made from UV stabilized high quality polymer with lockable lid and base plate. Fitted with Class C volumetric piston meter with temperature class T50, integrated strainer, non-return valve and municipal valve. Fitted with BSP thread connections.

FEATURES: B1000 – Above ground box

- Constructed from high quality UV stabilized polymer
- BSP thread connections
- Modular design
- Lockable with auto closing inspection lid



Length	Height	Width	Meter Size
250	840	120	DN15 / 20

TYPICAL SPECIFICATION

Above ground meter box made from UV stabilized high quality polymer with lockable lid and auto closing inspection lid. Fitted with Class C volumetric piston meter with temperature class T50, integrated strainer, nonreturn valve and stop-cock. Fitted with BSP thread connections. Also available with 3-way trickle flow valve.

WARRANTY

The company shall at its discretion repair or replace any B100 / B1000 meter box which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages, or wear and tear considered normal at the place of installation.

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Single Jet-Super Dry Pre-Equipped for Inductive Modules

Single jet, dry dial, direct reading on 8 numerical rolls. Produced in the versions for cold water and hot water in the diameters DN15 and DN20 mm (1/2" – 3/4"). 360° rotating dial. Inductive pre-equipment for the installation of data communication modules M-BUS wired and wireless M-BUS and LoRa.

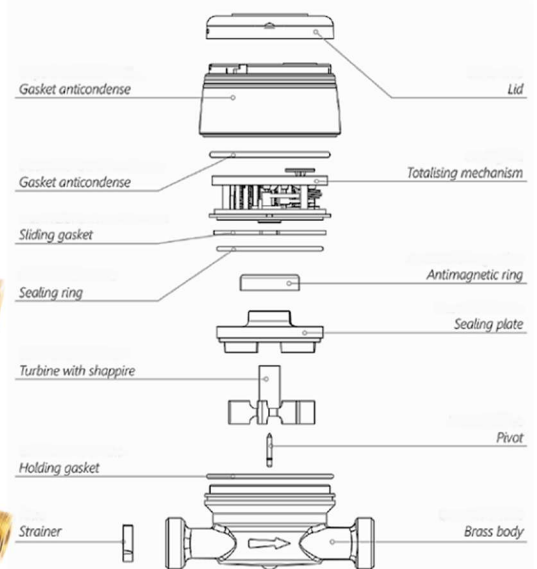
FEATURES

Basic Version

- R100-H ↑ R50-VH →
- Available for cold water 0,1°C-50°C and for hot water 30°C-90°C
- Magnetic transmission
- Direct reading on 8 numeric rolls
- 360° rotating dry dial

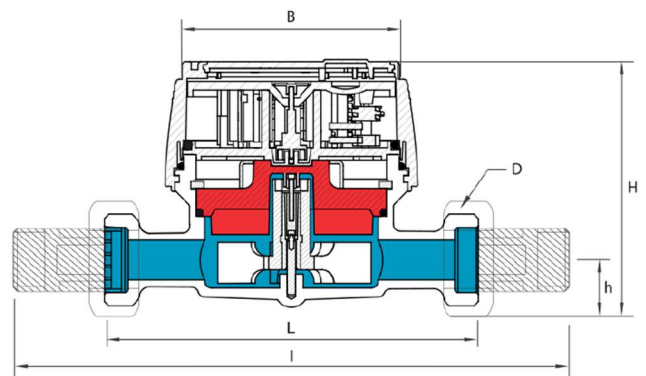
Upon Request

- R160H ↑ R50-VH →
- Pre-equipped for REED pulse emitter device mounting
- Equipped with pulse emitter device
- Lid



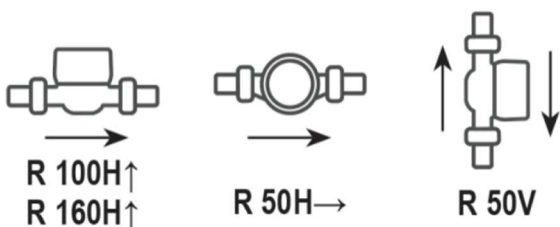
Size		DN (inch)	15 (1/2")	15 (1/2")	20 (3/4")
	Overload flow rate	m³/h	2	3,12	5
	Permanent flow rate	m³/h	1,6	2,5	4
R=100 H ↑	Transitional flow rate	L/h	25,6	40	64
	Min flow rate	L/h	16	25	40
R=160 H ↑	Transitional flow rate	L/h	16	25	40
	Min flow rate	L/h	10	15,63	25
	Min reading	L	0,05		
	Max reading	m³	9.999		
	Max admissible pressure MAP	bar	16		

DIMENSIONS AND WEIGHT



Size	DN (inch)	15 (1/2")	15 (1/2")	15 (1/2")	20 (3/4")	
L	mm	80	110	115	130	
I	mm	160	190	195	228	
H	mm	73	73	73	73	
h	mm	18	18	18	18	
B	mm	74	74	74	74	
D Threading	in	3/4"	3/4"	7/8"-3/4"	1"	
Weight	With unions	kg	0,60	0,65	0,70	0,85
	Without unions	kg	0,45	0,50	0,55	0,60

DIMENSIONS AND WEIGHT



Threading EN ISO 228-1:2003

Split STS Prepaid Hot Water Meter



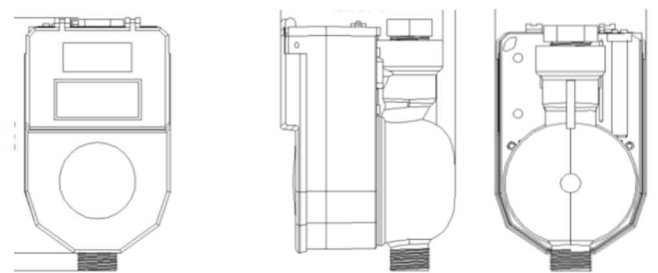
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Split STS Prepaid Hot Water Meter

STS Hot Water Meter is a smart prepaid hot water metering device with prepaid function. It is based on a wet water meter and is composed of a high-reliability automatic control device. And combined with the vending system to achieve prepaid management and control functions; International STS1 and STS2 standard; guaranteeing Token Algorithm security, helping utility eliminate bad debt, and improving cash management. Moreover, it supports AMR/AMI function, by which it could remotely collect meters' data and detect possible water Leakage & Tamper situation.

FEATURES:

- AMR/AMI Ready
- Replaceable battery
- Automatic valve controlling
- Prepaid and postpaid flexibly conversion
- Anti-tamper magnetic field protection
- Emergency Overdraft functionally



TECHNICAL SPECIFICATION

Available Size	DN15, DN20, DN25
Measurement range ratio (Q3/Q1)	R80, R100, R160
Pressure loss grade	$\Delta P63$
Maximum Working Pressure	1.6MPa
Maximum Reading	99999.9m ³
Flow Profile Sensitivity Class	U10D5
Working Temperature	0.1-90°C
Protection Class	IP68
Communication Distance with CIU/DCU	350m/1000m
Battery life	6-8 years (Replaceable battery)
Materials	Brass
Communication	LORA, NB-IoT

INSTALLATION DIMENSION

Nominal Diameter (mm)	L (mm)	B (mm)	H (mm)
DN15	165	91	135
DN20	195	91	135
DN25	225	91	135

FLOW-RATE PARAMETER (R=100)

	DN15 1/2"	DN20 3/4"	DN25 1"
Nominal diameter (mm)	DN15 1/2"	DN20 3/4"	DN25 1"
Dimension (mm)	165X91X135	195X91X135	225X91X135
Connecting Thread	G3/4B	G1B	G1-1/4B
Permanent flow rate Q3	2.5	4	6.3
Minimum flow rate Q1	0.025	0.04	0.063
Transitional flow rate Q2	0.04	0.064	0.1
Overload flow rate Q4	3.13	5	7.87

CUSTOMER INTERFACE UNIT (CIU)

- AMR/AMI Ready
- Replaceable battery
- Automatic valve controlling
- Prepaid and postpaid flexibly conversion
- Anti-tamper magnetic field protection
- Emergency Overdraft functionally



Hexing Ultrasonic Prepaid Meters



LXC – 15mm~20mm ultrasonic prepaid meters CLASS D ACCURACY

The ZLINK LXC model is a prepaid ultrasonic meter designed to measure the flow of water in reticulation systems. It is ideally suitable for revenue billing in residential and commercial water supply where revenue assurance is required.

FEATURES:

- Wide measuring range of R500
- Ultra-low starting flows from 1L/h
- Bi-directional flow measurement
- Large LCD display
- No wearing parts assures long term stable operation
- Stainless steel ball valve with descaling function
- Prepaid and post-paid flexibility
- Leakage and dry pipe detection
- IP68 protection

STANDARD:

- ISO4094
- EN14154
- SANS1529

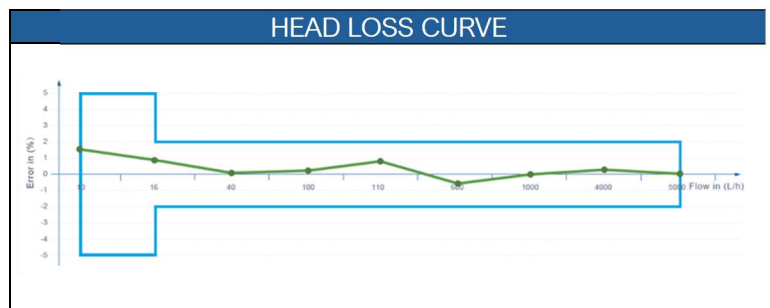
WORKING PARAMETERS:

- Temperature class: T50 (0.1°C ~ 50°C)
- Nominal pressure: PN16
- Orientation: Horizontal, vertical or inclined
- Metrological class: D

HYDRAULIC PERFORMANCE			
Size	mm	15	20
Metrological class		D	D
		R500	R500
Qs	m ³ /h	3.125	5
Qp	m ³ /h	2.5	4
Qt	L/h	8	12.8
Qmin	L/h	5	8
Qstart	L/h	1	2

TECHNICAL SPECIFICATIONS		
Max. permissible error between Q1 & Q2 (excl)		± 5%
Max. permissible error between Q2 (incl) & Q4		± 2%
Temperature class		T50: 0.1°C ~ 50°C
Nominal pressure	Bar	16
Min. reading	m ³	0.0001
Max. reading	m ³	9999

DIMENSIONS			
L	mm	165	195
H	mm	106.5	109
Weight	kg	0.9	1
Connecting Thread	BSP	15mm	20mm



TYPICAL SPECIFICATION

Ultrasonic meter with temperature class T50 meeting class D requirements to fourth decimal accuracy. Wide measuring range (R500) with low starting flow of 1L/h and low pressure loss (25kPa). 8 Year battery life sealed to IP68. BSP thread connections.

WARRANTY

The company shall at its discretion repair or replace any ZLINK LXC water meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages or wear and tear considered normal at the place of installation.

Bulk Meters Class B



Every Drop. Every Watt. Accounted For.

LXLC-B 40mm - 600mm Woltmann Water Meter

The METRON model LXLC-B is a Woltmann-type helical vane water meter designed to measure the bulk flows of cold potable water. It is ideally suitable for industrial or commercial applications and for distribution system management.

FEATURES

- Removable internal mechanism without breaking flange connections
- Easy installation and maintenance.
- Dry dial register with magnetic drive.
- Direct reading register across all meter sizes for easy manual reading.
- Large flow capacity with low pressure loss.
- Cast Iron epoxy coated body.
- Pulse output included for remote reading device.
- Serial number traceability.
- Substantially exceeds class B requirements.

WORKING PARAMETERS

- 0,1°C < cold water ≤ 50 °C
- Max pressure: PN16
- Orientation: Horizontal

COMPLIANCE

- SANS 1529-1: 2019
- ISO 4064: 2014



HYDRAULIC PERFORMANCE

Size	mm	40	50	80	100	150	200	250	300	350	400	500	600
Metrological class		B	B	B	B	B	B	B	B	B	B	B	B
		R40	R50	R50	R50	R50	R50	R50	R50	R50	R50	R50	R50
Q4 (Qs)	m³/h	20	31.25	78.75	125	312.5	500	787.5	1250	1750	2000	3125	5000
Q3 (Qp)	m³/h	16	25	63	100	250	400	630	1000	1400	1600	2500	4000
Q2 (Qt)	m³/h	0.64	0.8	2.02	3.2	8	12.8	20.16	32	176.4	252	315	504
Q1 (Qmin)	m³/h	0.4	0.5	1.26	2	5	8	12.6	20	28	40	40	80

TECHNICAL SPECIFICATIONS

Max. permissible error between Q1 & Q2 (excl)		± 5%
Max. permissible error between Q2 (incl) & Q4		± 2%
Temperature class		T50 (0.1°C ~ 50°C)
Nominal pressure	Bar	16 (25 Bar on request)
Min. reading	m³	0.0005
Max. reading	m³	999,999
Pulse value	l/imp	100

DIMENSIONS

	mm	200	250	300	350	400	450	500	550	600	650	700	750
L	mm	200	200	225	250	300	350	450	500	500	600	800	800
H	mm	220	250	255	265	310	350	450	480	590	660	760	760
Weight	kg	10	11	13.6	16	23	33	65	85	152	220	350	350

CONNECTING BOLTS

Flange Ø	mm	150	165	200	220	280	340	405	460	520	580	715	715
Bolt circle Ø	mm	110	125	160	180	240	295	355	410	460	515	620	620
Connecting bolts		4-M16	4-M16	4-M16	8-M16	8-M16	8-M16	12-M24	12-M24	16-M24	16-M27	20-M30	20-M30

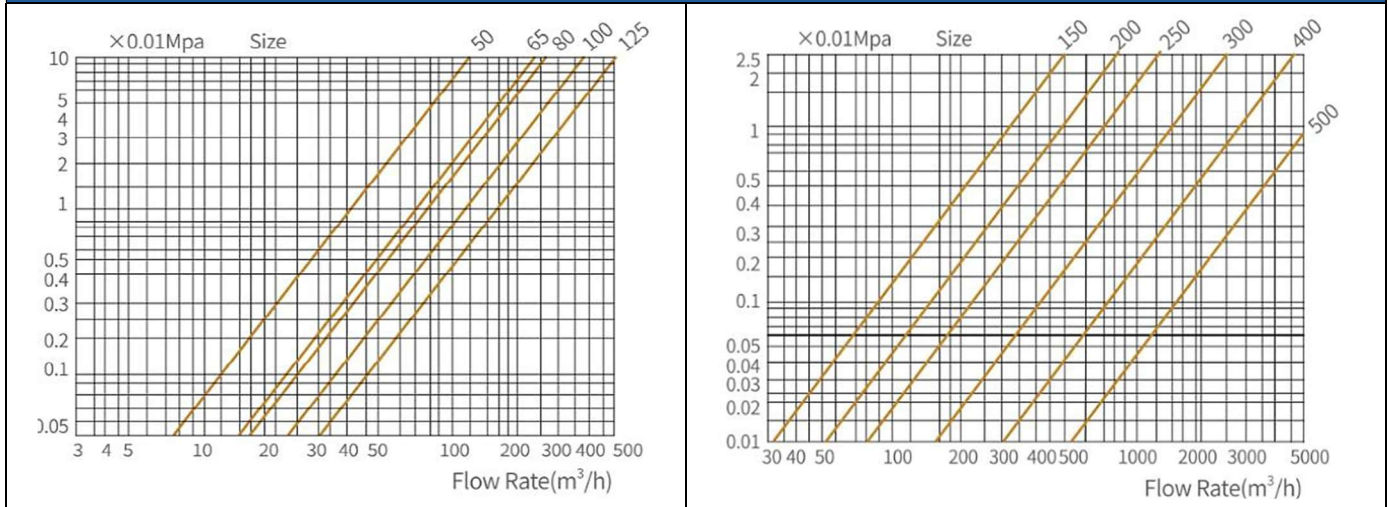
Bulk Meters Class B



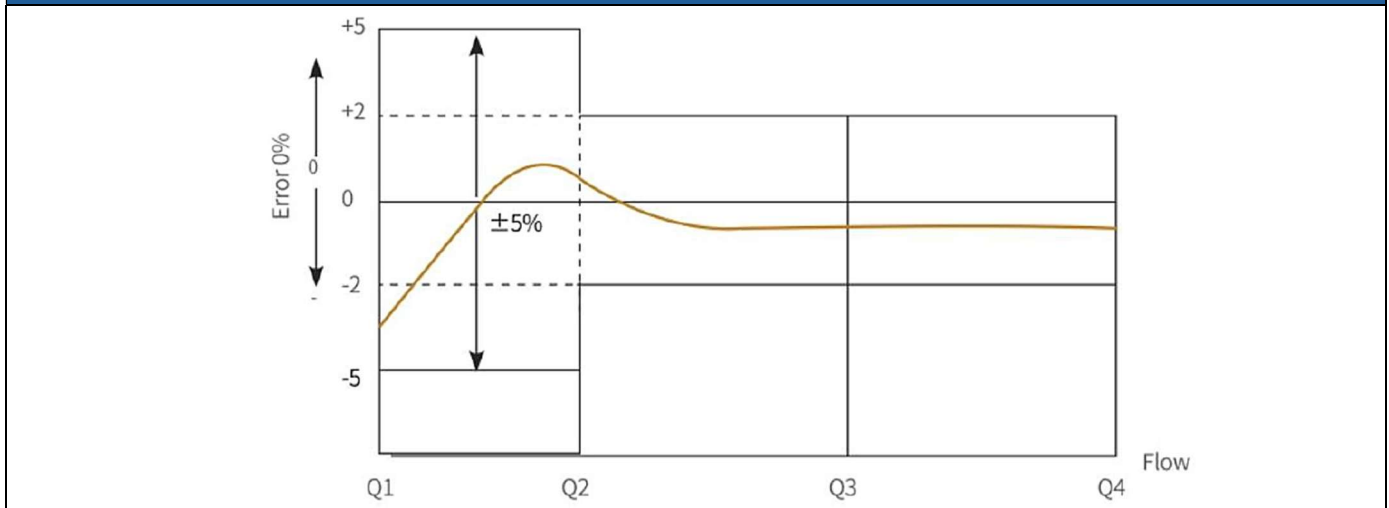
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LXLC-B 40mm - 600mm Woltmann Water Meter

HEAD LOSS DATA



ERROR CURVE



TYPICAL SPECIFICATION

Woltmann type helical vane inferential flow meter substantially exceeding class B accuracy with interchangeable magnetic driven mechanism. Dry dial with direct reading register for all meter sizes, hermetically sealed up to IP68 with built in pulse output. Flange drilled to BS 4504 PN16 or dual drilled to BS 10 table D

WARRANTY

The company shall at its discretion repair or replace any METRON LXLC-B meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages or wear and tear considered normal at the place of installation.

Bulk Meters Class C



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LXLC-C 50mm - 200mm Woltmann Water Meter CLASS C ACCURACY

The METRON model LXLC-B is a Woltmann-type helical vane water meter designed to measure the bulk flows of cold potable water. It is ideally suitable for industrial or commercial applications and for distribution system management.

FEATURES

- Removable internal mechanism without breaking flange connections.
- Easy installation and maintenance.
- Dry dial register with magnetic drive.
- Direct reading register across all sizes for easy manual reading.
- Large flow capacity with low pressure loss.
- Ductile Iron epoxy coated body.
- Pulse output included for remote reading device.
- Dual drilled flanges (BS 4504 PN16 & BS 10 TD)
- Serial number traceability.
- Class C accuracy.

WORKING PARAMETERS

- 0°C < cold water ≤ 50°C
- Max pressure: PN16
- Orientation: Horizontal

STANDARD

- SANS 1529-1: 2019
- ISO 4064: 2014



HYDRAULIC PERFORMANCE

Size	mm	50	65	80	100	150	200
Metrological class		C	C	C	C	C	C
		R160	R160	R160	R160	R160	R160
Q4 (Qs)	m ³ /h	50	78.75	125	200	500	788
Q3 (Qp)	m ³ /h	40	63	100	160	400	630
Q2 (Qt)	m ³ /h	0.4	0.63	1	1.6	4	6.3
Q1 (Qmin)	m ³ /h	0.25	0.39	0.625	1	2.5	3.96

TECHNICAL SPECIFICATIONS

Max. permissible error between Q1 & Q2 (excl)		± 5%					
Max. permissible error between Q2 (incl) & Q4		± 2%					
Temperature class		T50: 0.1°C ~ 50°C					
Nominal pressure	Bar	16					
Min. reading	m ³	0.0005					
Max. reading	m ³	999,999	999,999	999,999	999,999	999,999	999,999
Pulse value	l/imp	100					

DIMENSIONS

	mm	200	250	300	350	400	450
L	mm	200	200	225	250	300	350
H	mm	250	250	255	265	310	350
Weight	kg	11	12.5	13.6	16	23	33

CONNECTING BOLTS

	mm	165	185	200	220	280	340
Flange Ø	mm	165	185	200	220	280	340
Bolt circle Ø	mm	125	145	160	180	240	295
Connecting bolts		8-M16	8-M16	16-M16	16-M16	16-M20	24-M20

Bulk Meters Class C



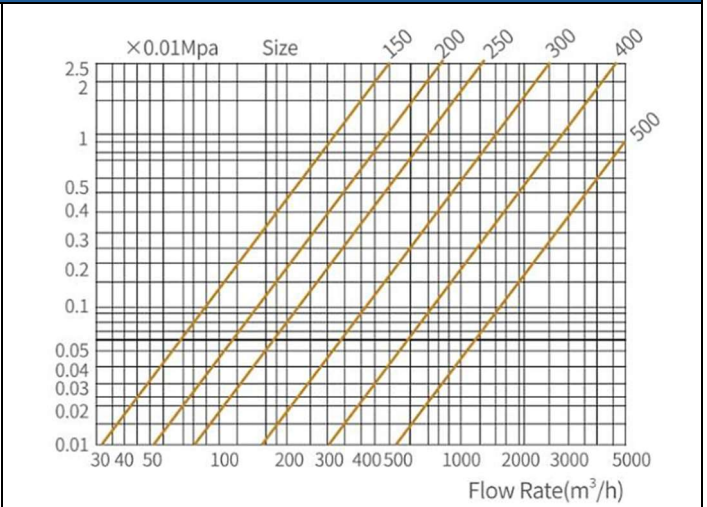
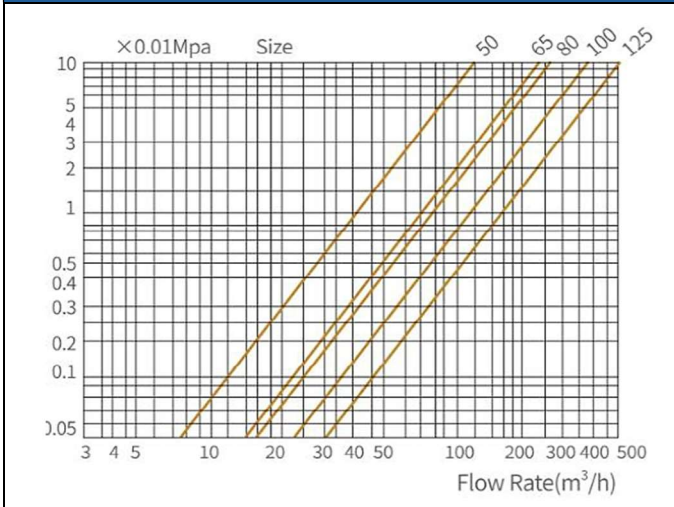
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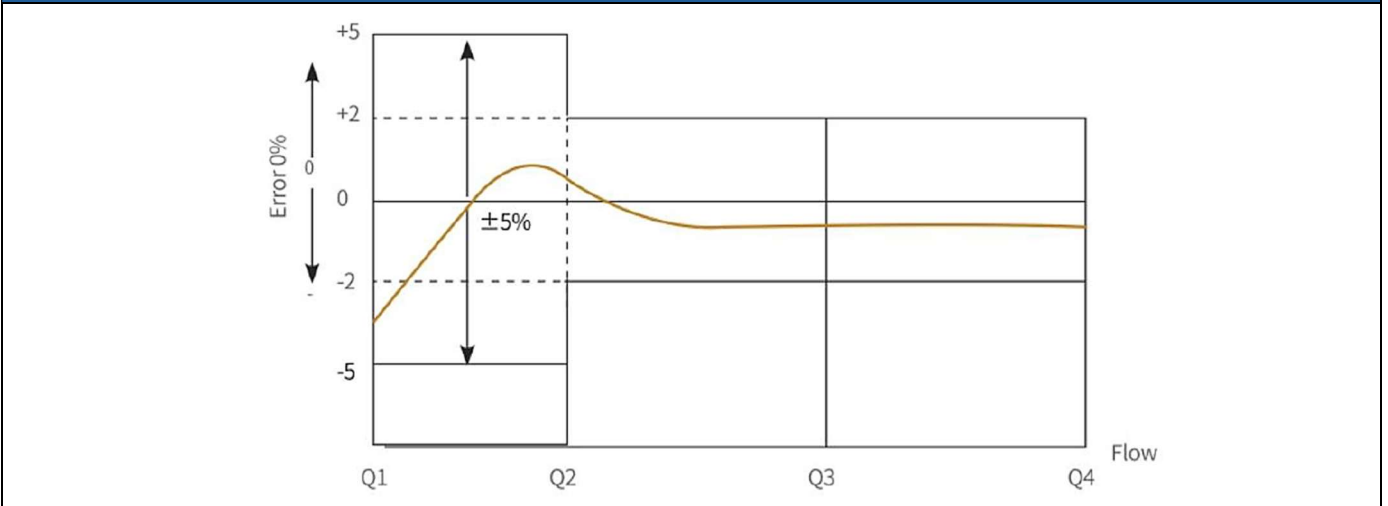


LXLC-C 50mm - 200mm Woltmann Water Meter CLASS C ACCURACY

HEAD LOSS DATA



ERROR CURVE



TYPICAL SPECIFICATION

Woltmann type helical vane inferential flow meter of class C accuracy with interchangeable magnetic driven mechanism. Dry dial register with direct reading across all meter sizes. Hermetically sealed with built-in pulse output. Flange drilled to BS 4504 PN16 or dual drilled BS 10 table D.

WARRANTY

The company shall at its discretion repair or replace any METRON LXLC-C water meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages, or wear and tear considered normal at the place of installation.

Bulk Meters Class C



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WP-SDC 40mm - 200mm Woltmann Water Meter CLASS C ACCURACY

The model WP-SDC is a Woltmann-type helical vane water meter designed to measure the bulk flows of cold potable water with superior accuracy over a wide flow range (R160/R250). Available with magnetic or inductive pulse output and meeting the requirements of Directive 2004/22/EC and EN14154 with MID approval. It is ideally suitable for industrial or commercial applications, and for distribution system management.

FEATURES

- Removable internal mechanism without breaking flange connections.
- Easy installation and maintenance.
- Super dry copper can register with IP68
- Advanced hydrodynamic balancing ensures minimal friction and long service life.
- Greatly improved high and low flow capability permits meter downsizing resulting in significant capital cost savings.
- Double rectifier ensures stable flow profile.
- Can be installed in any position. Horizontal, vertical or inclined.
- Direct reading register across all sizes for easy manual reading.
- Large flow capacity with low pressure loss.
- Ductile Iron epoxy coated body.
- Magnetic or inductive pulse output for AMR integration
- Serial number traceability.
- Class C accuracy.



WORKING PARAMETERS

- 0°C < cold water ≤ 50°C
- Max pressure: PN16
- Orientation: Horizontal, vertical or inclined

STANDARD

- SANS 1529-1: 2019
- ISO 4064: 2014

HYDRAULIC PERFORMANCE

Size	mm	40	50	80	100	150	200
Q4 (Qs)	m³/h	60	90	200	300	600	1200
Q3 (Qp)	m³/h	40	50	120	230	450	800
Q2 (Qt)	m³/h	0.32	0.4	0.51	0.81	1.6	4
Q1 (Qmin)	m³/h	0.2	0.2	0.2	0.3	0.8	2
Starting Flow	m³/h	0.05	0.05	0.1	0.11	0.3	1.5

HYDRAULIC PERFORMANCE

Metrological class		B	C	C	C	C	C
		R125	R160	R160	R160	R160	R160
Q4 (Qs)	m³/h	31.25	50	78.75	125	312.5	500
Q3 (Qp)	m³/h	25	40	63	100	450	250
Q2 (Qt)	m³/h	0.32	0.4	0.63	1	1.6	2.56
Q1 (Qmin)	m³/h	0.2	0.25	0.39	0.63	0.8	1.6

DIMENSIONS

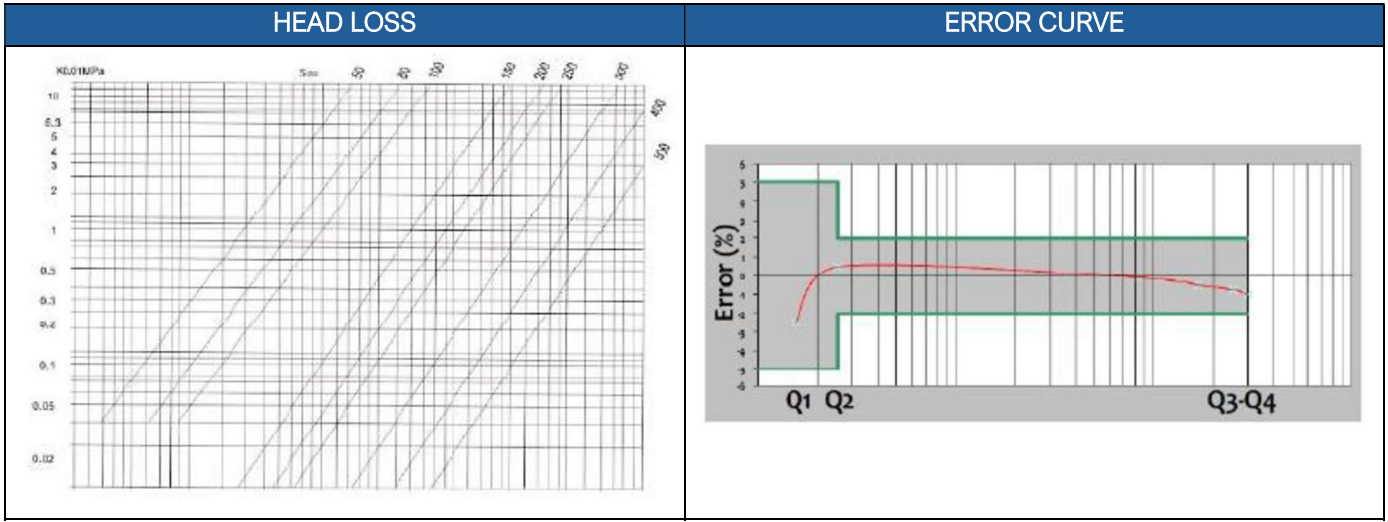
	mm	220	200	220	250	300	350
L	mm	220	200	220	250	300	350
H	mm	210	210	265	270	310	370
Weight	kg	9.3	9.5	11.6	14.5	27.5	48

CONNECTING BOLTS

	mm	165	185	200	220	280	340
Flange Ø	mm	165	185	200	220	280	340
Bolt circle Ø	mm	125	145	160	180	240	295
Connecting bolts		8-M16	8-M16	16-M16	16-M16	16-M20	24-M20

WP-SDC 40mm - 200mm Woltmann Water Meter
CLASS C ACCURACY

		TECHNICAL SPECIFICATIONS					
Size	mm	40	50	80	100	150	200
Max. permissible error between Q1 & Q2 (excl)		± 5%					
Max. permissible error between Q2 (incl) & Q4		± 2%					
Temperature class		T30: 0.1°C ~ 30°C					
Nominal pressure	Bar	16					
Min. reading	m ³	0.0005				0.005	
Max. reading	m ³	999 999,999				9 999 999,999	
Pulse value	l/imp	Variable					



TYPICAL SPECIFICATION

Woltmann type helical vane inferential flow meter exceeding class C accuracy with interchangeable magnetic driven mechanism. Dry dial copper can register with glass lens sealed to IP68. Fitted with double rectifier for stable flow profile. Can be installed in any position. Available with magnetic or inductive pulse output. Flange drilled to BS 4504 table 16. MID approved.

WARRANTY

The company shall at its discretion repair or replace any WP-SDC water meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages or wear and tear considered normal at the place of installation.



Combination Meters



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LXF 50/15mm – 200/50mm

The METRON model LXF is a combination meter used to measure the flows of potable cold water where extremely wide flow ranges are required.

FEATURES

- Woltmann-type main meter (class B)
- Low flow measure to class D accuracy (by-pass meter)
- Removable internal mechanism without removing meter from pipeline.
- Easy installation and maintenance.
- Dry dial register with magnetic drive.
- Direct reading register across all sizes.
- Large flow capacity with low pressure loss.
- Extremely wide measuring range.
- Cast Iron epoxy coated body.
- Serial number traceability



WORKING PARAMETERS

- 0°C < cold water ≤50°C
- Max pressure: PN16
- Orientation: Horizontal

STANDARD

- ISO 4064

HYDRAULIC PERFORMANCE

Size	mm	50 x 15	80 x 20	100 x 20	150 x 40	200 x 50
Metrological class		B	B	B	B	B
Qs Max.	m ³ /h	30	80	120	300	500
Qp Nominal	m ³ /h	15	40	60	150	250
Qt Transitional	m ³ /h	0.12	0.2	0.2	0.8	0.8
Qmin Min.	m ³ /h	0.03	0.05	0.05	0.2	0.2

TECHNICAL SPECIFICATIONS

Max. permissible error between Qmin & Qt (excl)		± 5%				
Max. permissible error between Qt (incl) & Qs		± 2%				
Temperature class		T50 (0.1°C ~ 50°C)				
Nominal pressure	Bar	16				
Min. reading	m ³	0.0001			0.0001	
Max. reading	m ³	999,999 + 99,999				

DIMENSIONS

L	mm	300	370	370	500	560
H	mm	214	279	289	319	375
Weight	kg	14.8	27.5	33	64	114.5

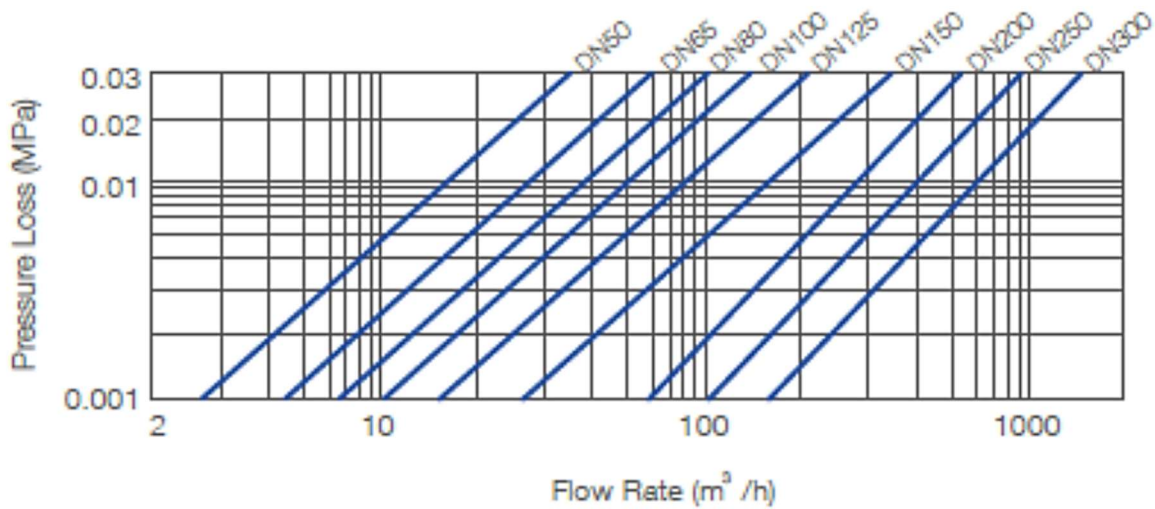
Combination Meters



Every Drop. Every Watt. Accounted For.

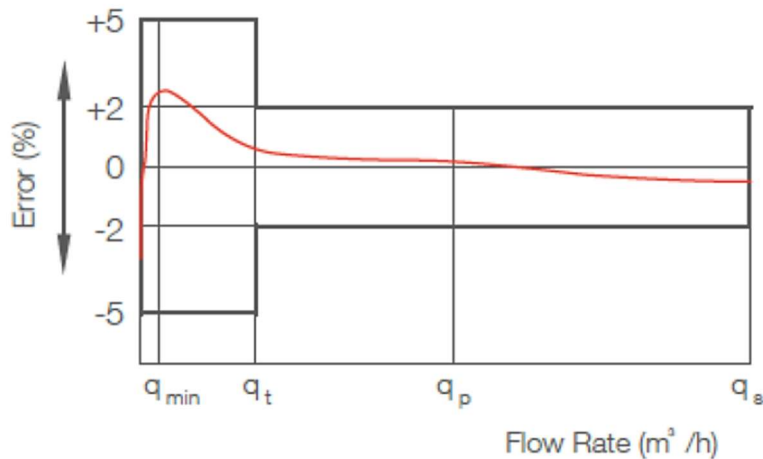
LXF 50/15mm – 200/50mm

HEAD LOSS DATA



HEAD LOSS DATA

Flow Error Curve



TYPICAL SPECIFICATION

Combination meter consisting of Class B main meter and class D accuracy in the lower flow range suitable for measuring extremely wide flow ranges. Dry dial with direct reading register hermetically sealed. Flange drilled to BS 4504 PN16.

WARRANTY

The company shall at its discretion repair or replace any METRON LXF meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages, or wear and tear considered normal at the place of installation.

Multi-Jet Meters Class B



Every Drop. Every Watt. Accounted For.

LXSG Multi-Jet Meter Class B

The model LXSG is a velocity meter designed to measure the flow of cold water through a pipeline with less sensitivity to water quality due to its multi-jet design. Ideally suited to irrigation or industrial applications.

FEATURES

- Brass manifold.
- Magnetic drive, low transmission resistance.
- Vacuum sealed non-fogging register.
- Integrated strainer.
- External magnetic field shielding.
- Low pressure loss.
- Serial number traceability.

WORKING PARAMETERS

- Temperature class: T50 (0.1°C ~ 50°C)
- Nominal pressure: PN16
- Orientation: Horizontal
- Metrological class: B

STANDARD

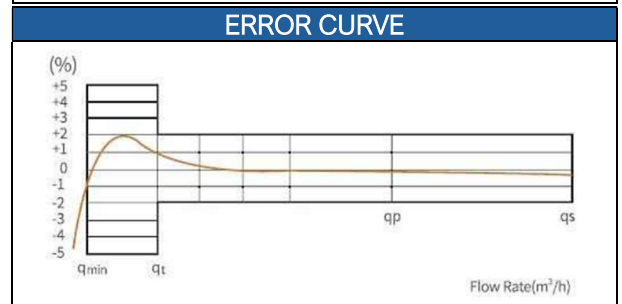
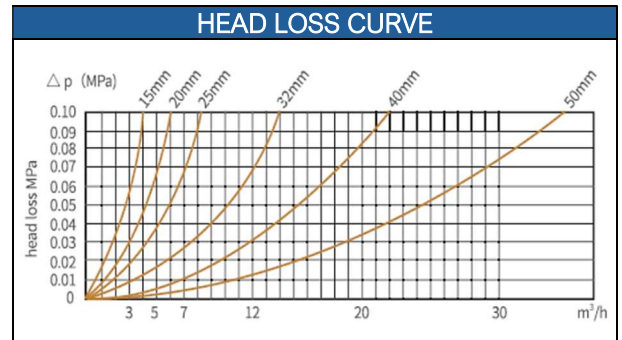
- ISO 4064



HYDRAULIC PERFORMANCE							
Size	mm	15	20	25	32	40	50
Metrological class		B	B	B	B	B	B
Qs	m ³ /h	3	5	7	12	20	30
Qp	m ³ /h	1.5	2.5	3.5	6	10	15
Qt	m ³ /h	0.12	0.2	0.28	0.42	0.8	3
Qmin	m ³ /h	0.03	0.05	0.07	0.12	0.2	0.45

TECHNICAL SPECIFICATIONS	
Max. permissible error between Q1 & Q2 (excl)	± 5%
Max. permissible error between Q2 (incl) & Q4	± 2%
Temperature class	T50: 0.1°C ~ 50°C
Nominal pressure	Bar 16
Min. reading	m ³ 0.00002
Max. reading	m ³ 99999
Pulse value	l/imp 1 or 10 L/Impulse

DIMENSIONS							
L	mm	165	190	260	260	300	300
H	mm	104	106	115	120	153	153
Connecting	BSP	20mm	25mm	31mm	36mm	45mm	57mm



TYPICAL SPECIFICATION

Multi-jet velocity meter with temperature class T50 meeting class B requirements to fifth decimal accuracy. Magnetically shielded dry dial register and inlet strainer. BSP thread connections. Available with pulse output.

WARRANTY

The company shall at its discretion repair or replace any LXSG water meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages, or wear and tear considered normal at the place of installation.

Irrigation Meters



LXXG 50mm - 300mm Irrigation Water Meter

The METRON model LXXG is an irrigation water meter designed to measure the bulk flows of untreated water. It is ideally suitable for irrigation management where minimal intrusion by the measuring mechanism allows for the free flow of water and suspended particles.

FEATURES

- Removable internal mechanism without breaking flange connections
- Easy installation and maintenance.
- Dual-drilled flange for sizes DN50~DN150.
- Dry dial register with magnetic drive.
- Direct reading register across all meter sizes for easy manual reading.
- Large flow capacity with low pressure loss.
- Ductile cast Iron epoxy coated body.
- Pulse output included for remote reading device.
- Serial number traceability.

WORKING PARAMETERS

- 0°C < cold water ≤ 50°C
- Max pressure: PN16
- Orientation: Horizontal

COMPLIANCE

- SANS 1529-1
- ISO 4064: 2014



HYDRAULIC PERFORMANCE

Size	mm	50	80	100	150	200	250	300
Metrological class		A	A	A	A	A	A	A
		R25	R25	R25	R25	R25	R25	R25
Q4 (Qs)	m³/h	31.25	78.75	125	312.5	500	787.5	1250
Q3 (Qp)	m³/h	25	63	100	250	400	630	1000
Q2 (Qt)	m³/h	1.6	4	6.4	16	25.6	40.3	64
Q1 (Qmin)	m³/h	1	2.52	4	10	16	25.2	40

TECHNICAL SPECIFICATIONS

Max. permissible error between Q1 & Q2 (excl)		± 5%							
Max. permissible error between Q2 (incl) & Q4		± 2%							
Temperature class		T50 (0.1°C ~ 50°C)							
Nominal pressure	Bar	16							
Min. reading	m³	0.0005		0.002		0.02			
Max. reading	m³	999,999				9,999,999			
Pulse value	l/imp	100				1,000			

DIMENSIONS

L	mm	200	225	250	300	350	450	500
H	mm	253	284	295	339	382	450	480
Weight	kg	11	13.6	16	23	33	65	85

CONNECTING BOLTS

Flange Ø	mm	165	200	220	280	340	405	460
Bolt circle Ø	mm	125	160	180	240	295	355	410
Connecting bolts		4-M16	8-M16	8-M16	8-M20	8-M20	12-M20	12-M20

Irrigation Meters

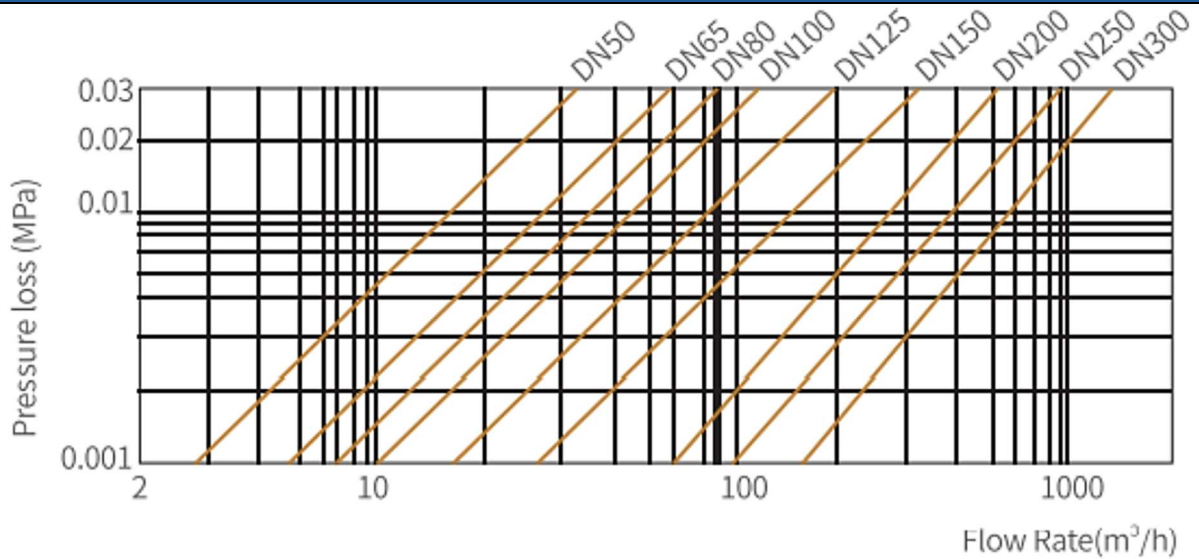


Every Drop. Every Watt. Accounted For.

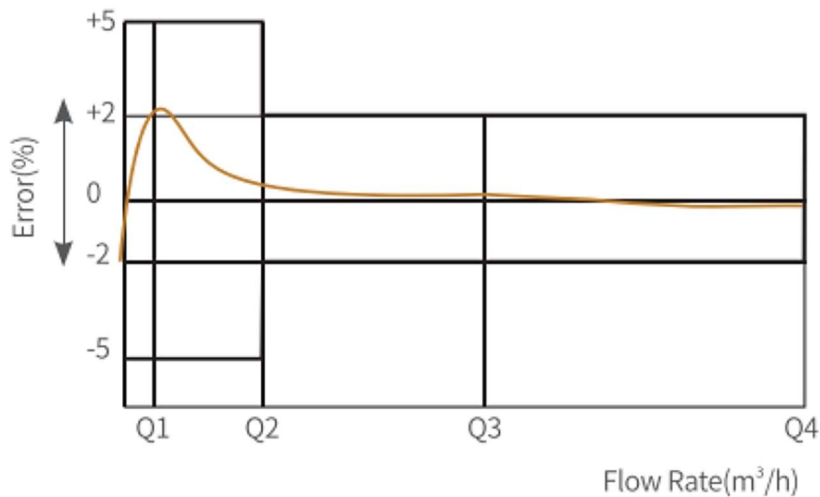


LXXG 50mm - 300mm Irrigation Water Meter

HEAD LOSS DATA



ERROR CURVE



TYPICAL SPECIFICATION

Irrigation type meter with paddle wheel running tangential to the direction of flow. Hermetically vacuum sealed direct reading register with built-in pulse output. Corrosion proof epoxy coated cast ductile iron body. Flange drilled BS 4504 table 16 or dual drilled BS 10 table D

WARRANTY

The company shall at its discretion repair or replace any METRON LXXG meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages or wear and tear considered normal at the place of installation.

Ultrasonic Water Meters



Every Drop. Every Watt. Accounted For.

LXC Flanged Ultrasonic Water Meters

The model LXC is a flanged ultrasonic flow meter designed to measure bulk water flows within a closed pipeline with superior accuracy and reliability. Ideally suited for distribution network management and agricultural irrigation.

FEATURES

- Easy installation
- Digital display with all parts sealed to IP68
- Built-in batch controller, time accumulator and temperature sensor
- Double beam ultrasonic sensor for superior accuracy
- Bi-directional flow measurement with accumulator and net flow
- Various units of measure selectable (L, m³, Gal)
- Smart touch key and infrared interface
- No moving part, no additional pressure loss
- Suitable for wide range of water quality
- 3.6V Lithium-ion battery (min 8 years working life)
- On-board data storage for 512 days
- LCD display
- RF or GPRS wireless meter reading modules available
- Low power consumption.

WORKING PARAMETERS

- Working principle: Ultrasonic transit time
- Working temperature: -10°C ~ 45°C
- Pressure: PN16 or PN25
- Orientation: Horizontal, vertical or inclined
- Pipe length sensitivity: U3D0
- Protection: IP68

COMPLIANCE

- ISO 4064



58X22mm LCD
Display the instantaneous flow, accumulative flow, time and various kinds of working status

Support Bi-directional Flow Measurement
Can measure instantaneous flow and accumulative flow under the forward and backward direction separately

Various of Units Selected
Accumulative flow: m³, ft³, GAL, L
Instantaneous flow: m³/h, GPM, L/m

Smart Touch Key
Easy for operation with finger

Infrared Communication Interface
Support CJ-188 communication, support the M-BUS and MODBUS communication, and support upgrade software

Ultrasonic Water Meter
238658.386 m³
Out1 Out2 Qmax Date 12.98 m³/h
4-20mA Qmin Time

Ultrasonic Water Meters



LXC Flanged Ultrasonic Water Meters

HYDRAULIC PERFORMANCE

Size	mm	50	80	100	150	200	250	300
Metrological class		R200	R200	R200	R200	R200	R200	R200
Q4 (Qs)	m ³ /h	31.25	78.75	125	312.5	500	787.5	1250
Q3 (Qp)	m ³ /h	25	63	100	250	400	630	1000
Q2 (Qt)	m ³ /h	0.2	0.5	0.8	3.2	3.2	5.04	8
Q1 (Qmin)	m ³ /h	0.125	0.32	0.5	2	2	3.15	5
Qstart	m ³ /h	0.03	0.06	0.08	0.125	0.3	0.5	0.6

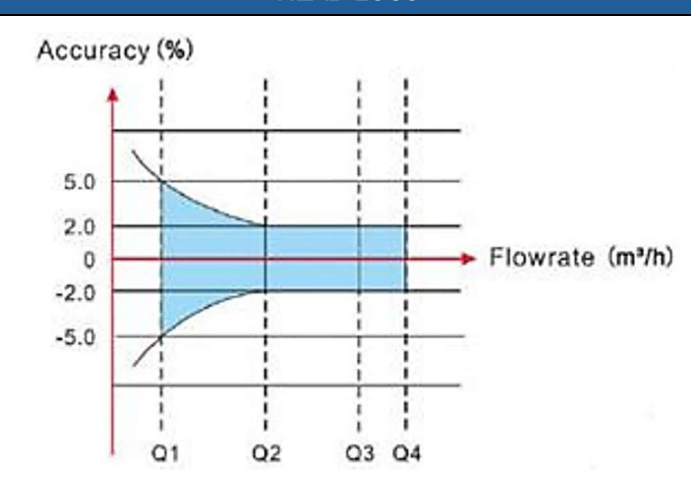
TECHNICAL SPECIFICATIONS

Max. permissible error between Q1 & Q2 (excl)		± 5%						
Max. permissible error between Q2 (incl) & Q4		± 2%						
Temperature class		T30 (0.1°C ~ 30°C)						
Nominal pressure	Bar	16 or 25						
Min. reading	m ³	0.001						
Max. reading	m ³	999,999						

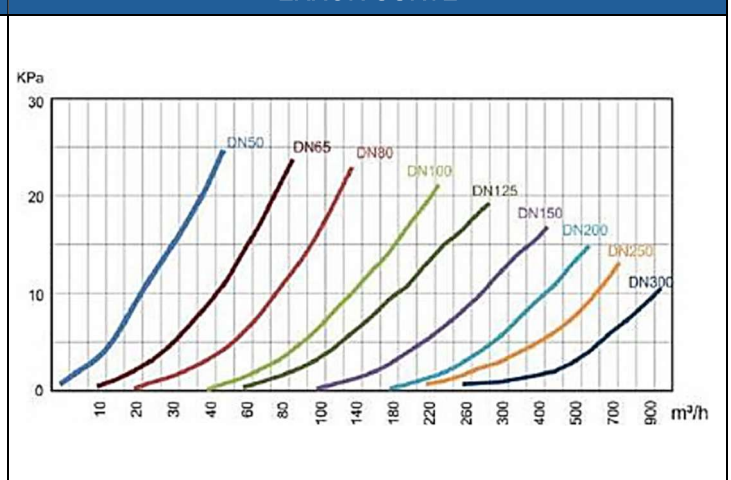
DIMENSIONS

	mm	200	225	250	300	350	450	500
L	mm	200	225	250	300	350	450	500
H	mm	201	226	244	289	419	466	520
Weight	kg	10	13.6	18.6	30	35.5	58	76

HEAD LOSS



ERROR CURVE



TYPICAL SPECIFICATION

Ultrasonic flanged water meter with LCD display and remote communication options. All components sealed to IP68 with double beam sensor for superior accuracy. Built-in temperature sensor, batch & time controller. 3.6V Lithium-ion battery with minimum 8 year working life. Suitable for potable and untreated water.

WARRANTY

The company shall at its discretion repair or replace any LXC meter which proves to be faulty due to poor workmanship or defective materials within a period of 1 year from date of purchase. This warranty does not include consequential damages or wear and tear considered normal at the place of installation.

Bulk Ultrasonic Smart Water



Bulk Ultrasonic Smart Water Meter

ZLink bulk ultrasonic water meter is designed with high accuracy and a wide range of sizes, suitable for applications as key meters in water supply network, DMA flow meter and district aggregate meter. With durable materials, ZLink bulk meter is trustworthy for water measurement in industrial and agricultural processes especially under harsh conditions. Combining with various IoT technologies, ZLink Bulk helps the operator enhance communication coverage and data collection across the water supply network, which paves the way towards intelligent water utility infrastructure and smart city.

FEATURES

- Wide Measurement range of Q3/Q1= R500
- Ultralow starting flow rate avoids apparent losses
- Flexible flanges ensure ease of field installation
- Bi-directional flow measurement prevents water tamper
- Friendly big LCD displays cumulative volume, instantaneous flow and rich information of alarms
- No wearing parts, excellent long-term stability and reliability
- Integrated with pressure monitoring (Optional)
- Vacuuming Electron cavity to prevent glass fogging
- Battery powered with lifetime of more than 10years
- Supports a wide range of communication technologies like wireless GPRS, RS485, NB-IoT, etc.
- Protection level: Submersible-IP68
- Leakage detection and dry pipe detection



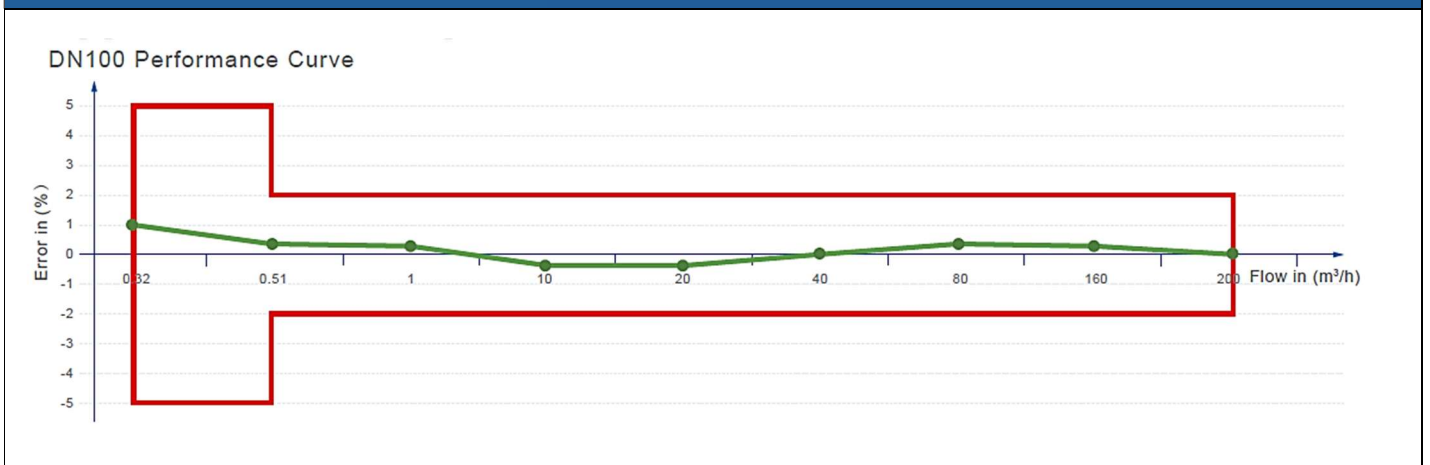
Digital Display



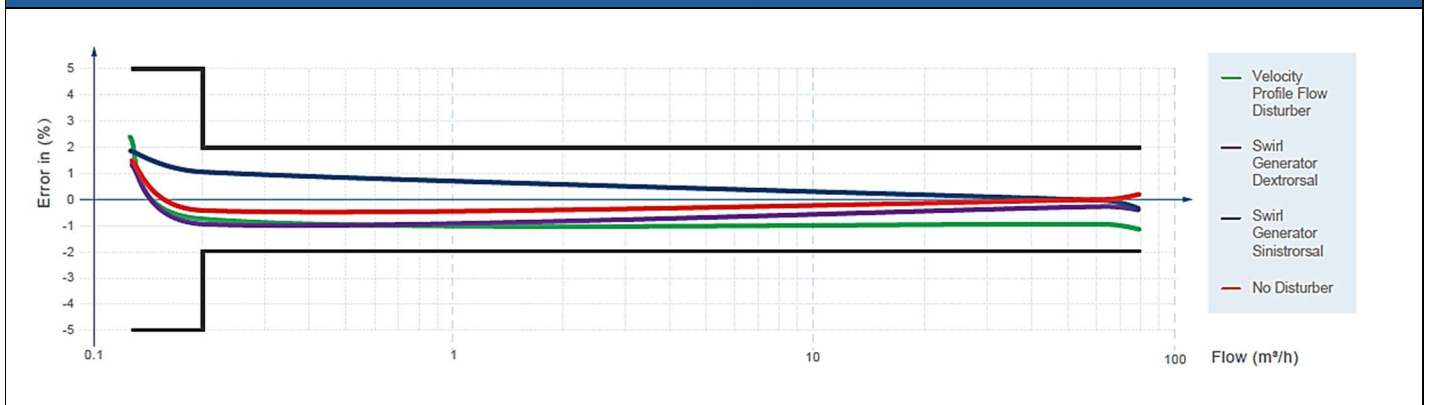
COMMUNICATION INTERFACE

Pulse	Optocoupler high speed pulse, suitable for pulse verification Hall pulse, suitable for the field detection of cumulative volume
4-20mA	4-20mA current loop output corresponding instantaneous flow, The upper limit of flow corresponding to 20mA can be limited
RS485	Low power RS485 communication mode, adopts standard Modbus protocol
M-bus	EN13757 protocol, bus communication
NB-IoT	With narrow band of 180kHz, it can be directly deployed in GSM, UMTS or LTE network to enable smooth upgrade in future
GPRS	2G/3G/4G wireless remote communication, no concentrator is needed for data collection

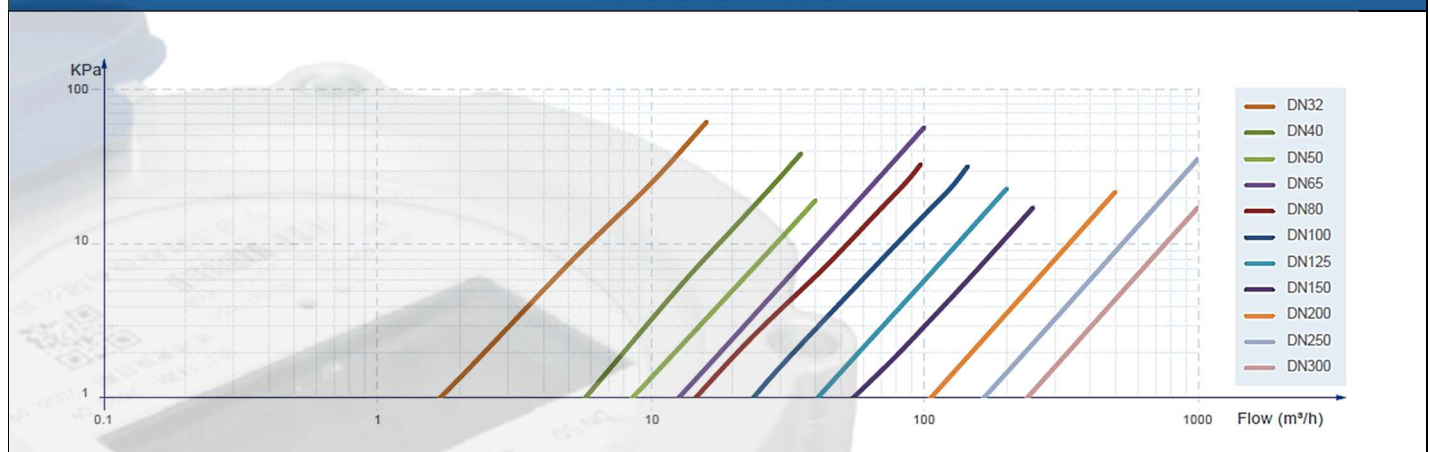
TYPICAL ERROR GRAPH



DN80 U0D0 TESTING ERROR CURVE



HEAD LOSS CURVE



Bulk Ultrasonic Smart Water Meter

TECHNICAL SPECIFICATION

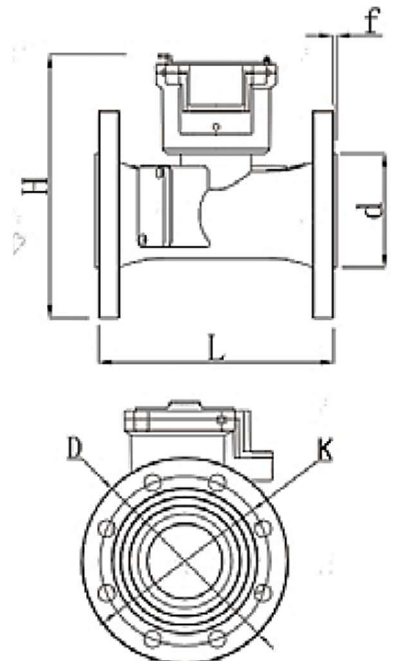
Available Size	DN50-DN600
Standard	ISO4064/EN14154
Q3/Q1=R	500
Precision Class	Class 2
Pressure Loss	$\Delta p16$
Maximum Working Pressure	1.6MPa
Resolution of cumulative volume	0.0001~ 999999999.99999 m ³
Working Environment	Temperature: -25~55 \square , Humidity \leq 100%(RH)
Liquid Temperature Class	T30/T50
Flow profile sensitivity class	U0D0
Climate and mechanical environment safety level	O
Electromagnetic environment class	E2
Power supply	3.6V lithium batteries, Up to 10 years
Protection class	IP68
Construction	Materials: Cast Iron - epoxy coated / stainless steel connections: flanges
Data Storage	For errors, alarms and measuring values, data logging capabilities to record up to 14*24 hourly, 366* daily, 72* monthly value
Communication interfaces	1.M_BUS 2.RS485 3.Pulse 4.NB-IoT 5.4-20mA 6.GPRS

PERFORMANCE PARAMETER

Meter Size (mm)	Dynamic	Overload flow rate	Permanent flow rate	Transitional flow rate	Minimum flow rate	Starting flow rate (l/h)
DN (mm)	R	Q4 (m ³ /h)	Q3 (m ³ /h)	Q2 (m ³ /h)	Q1 (m ³ /h)	Q0 (L/h)
50	500	78.75	63	0.2016	0.126	7
65		78.75	63	0.2016	0.126	12
80		125	100	0.32	0.2	18
100		200	160	0.512	0.32	28
125		200	160	0.512	0.32	44
150		312.5	250	0.8	0.5	64
200		500	400	1.28	0.8	113
250		787.5	630	2.016	1.26	177
300		1250	1000	3.2	2	254
400		2000	1600	5.12	3.2	452
500		3125	2500	8	5	707
600		5000	4000	12.8	8	1018

INSTALLATION DIMENSION

Nominal Diameter (mm)	Dimension (mm)		Flange size (mm)					Weight (kg)
	L Length	H Height	D Outer Diameter	K Hole Distance	Hole diameter x holes	Sealing surface		
						d	f	
DN50	200 or 270	253	165	125	18 x 4	99	2	11.2 or 13.2
DN65	200	263	185	145	18 x 4	118	2	14.3
DN80	225 or 300	270	200	160	18 x 8	132	2	16.5 or 18.5
DN100	250 or 360	280	220	180	18 x 8	156	2	20.3 or 23.3
DN125	250	295	250	210	18 x 8	184	2	25.4
DN150	300	313	285	240	22 x 8	231	2	30.5
DN200	350	360	340	295	22 x 8	266	2	43.5
DN250	450	410	395	350	22 x 12	319	2	66.6
DN300	500	445	445	400	22 x 12	370	2	86.3
DN400	600	570	565	515	26 x 16	480	2	127.5
DN500	600	680	670	620	26 x 20	582	2	155.9
DN600	800	790	780	725	30 x 20	682	2	276.7



Smart Bulk Ultrasonic Water Meter with Valve



Smart Bulk Ultrasonic Water Meter with Valve

ZLink smart bulk ultrasonic water meter is equipped with external butterfly valve, the whole device is powered by batteries. The batteries supply for measuring, valve control and remote communication is separated and they are replaceable, this design will guarantee meter with long and stable working life. This series product size range covers from DN50 to DN200, which can meet the requirement of both commercial and industrial users. The meter has internal pressure detection equipment, can detect leakage and burst pipe. With remote valve turn on/off function, the solution can not only reduce water waste when abnormal water usage is detected but also improve the utility cash flow by avoiding long-term arrears. Combining with various IoT technologies, ZLink meter helps the operator enhance communication coverage and data collection across the water supply network, which paves the way towards intelligent water utility infrastructure and smart city.

FEATURES

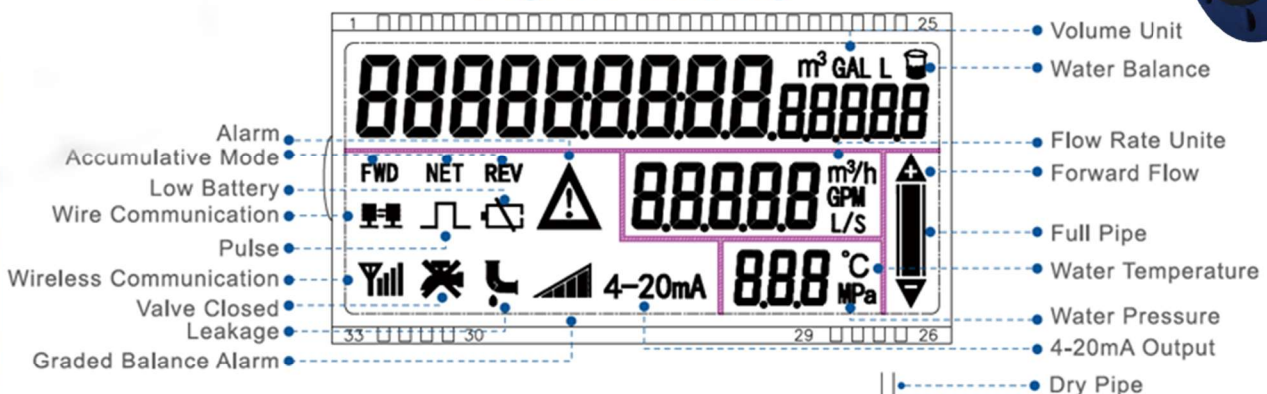
- Wide Measurement range of Q3/Q1= R500
- Ultralow starting flow rate avoids apparent losses
- Flexible flanges ensure ease of field installation
- Bi-directional flow measurement prevents water tamper
- Friendly big LCD displays cumulative volume, instantaneous flow and rich information of alarms
- No wearing parts, excellent long-term stability and reliability
- Integrated with pressure monitoring (Optional)
- Vacuuming Electron cavity to prevent glass fogging
- Battery powered with lifetime of more than 10years
- Protection level: IP68
- Leakage detection and dry pipe detection



Valve Function

- Remove valve control to save water in case of leakage or burst pipe.
- There is a transparent window on the valve casing, which can directly display its opening or closing status.
- Each valve has a manual switch for emergency use.
- The valve control module has two ways for installation: can be wall/pole mounted or can be integrated on the valve directly. Customers can choose the suitable way according to their own needs.
- If an external control box is required, the length of the external cable is determined by the customer.

Digital Display



Smart Bulk Ultrasonic Water Meter with Valve

COMMUNICATION INTERFACE

LoRa	Low-power, long-distance wireless communication technology
NB-IoT	With narrow band of 180kHz, it can be directly deployed in GSM, UMTS or LTE network to enable smooth upgrade in future
GPRS	2G/3G/4G wireless remote communication, no concentrator is needed for data collection

TECHNICAL SPECIFICATION

Available Size	DN50-DN200
Standard	ISO4064/EN14154
Q3/Q1=R	500
Precision Class	Class 2
Pressure Loss	$\Delta p16$
Maximum Working Pressure	1.6MPa
Resolution of cumulative volume	0.0001~ 999999999.99999 m ³
Working Environment	Temperature: -25~55°C, Humidity≤100%(RH)
Liquid Temperature Class	T30/T50
Flow profile sensitivity class	U0D0
Climate and mechanical environment safety level	O
Electromagnetic environment class	E2
Power supply	3.6V Lithium batteries, Up to 10 years
Protection class	IP68
Construction	Materials: Cast Iron - epoxy coated / stainless steel connections: flanges
Data Storage	For errors, alarms and measuring values, data logging capabilities to record up to 14*24 hourly, 366* daily, 72* monthly value
Valve Type	Butterfly valve
Valve Wiring	Valve opening signal line – blue line Valve closing signal line – yellow line Positive pole of the motor – red wire Negative pole of the motor – black wire Public Line – Brown line

MOTOR MATCHING COMPARISON TABLE

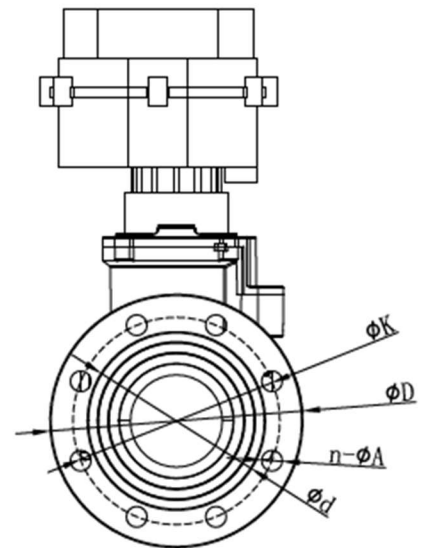
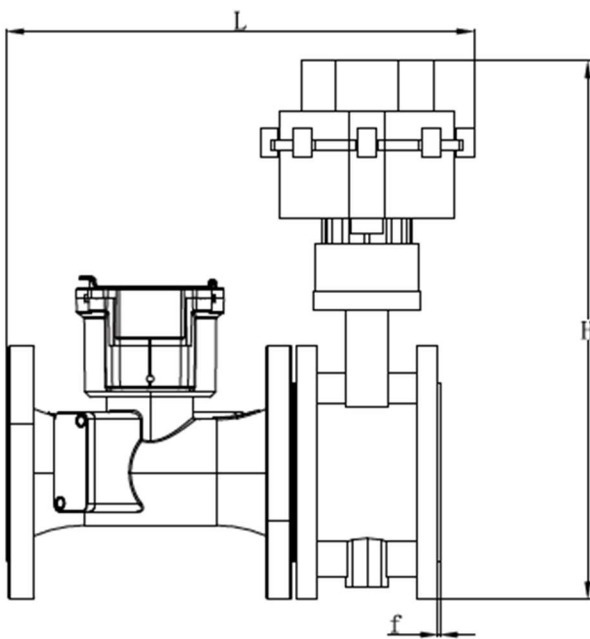
Valve Nominal Diameter	Opening and Closing Valve Time (Seconds)	Pressure at 0.6MPa Motor power	
		Rated Current (A)	Rated Voltage (V)
DN50	200-210	0.1 (Positive and negative 0.05 variation)	3.6V
DN65	200-210	0.1 (Positive and negative 0.05 variation)	3.6V
DN80	200-210	0.15 (Positive and negative 0.03 variation)	3.6V
DN100	180-190	0.4 (Positive and negative 0.1 variation)	3.6V
DN125	180-190	0.4 (Positive and negative 0.1 variation)	3.6V
DN150	180-190	0.45 (Positive and negative 0.1 variation)	3.6V
DN200	200-210	1.1 (Positive and negative 0.3 variation)	3.6V

PERFORMANCE PARAMETER

Meter Size (mm)	Dynamic	Overload Flow Rate	Permanent Flow Rate	Transitional Flow Rate	Minimum Flow Rate	Starting Flow Rate (l/h)
DN (mm)	R	Q4 (m ³ /h)	Q3 (m ³ /h)	Q2 (m ³ /h)	Q1 (m ³ /h)	Q0 (L/h)
50	500	78.75	63	0.2016	0.126	7
65		78.75	63	0.2016	0.126	12
80		125	100	0.32	0.2	18
100		200	160	0.512	0.32	28
125		200	160	0.512	0.32	44
150		312.5	250	0.8	0.5	64
200		500	400	1.28	0.8	113

Smart Bulk Ultrasonic Water Meter with Valve

INSTALLATION DIMENSION								
Nominal Diameter (mm)	Dimension (mm)			Flange size (mm)				Weight (kg)
	L Length	H Height	D Outer Diameter	K Hole Distance	Hole diameter x holes	Sealing surface		
						d	f	
DN50	308/378	397	165	125	18 x 4	99	2	22.2 / 24.2
DN65	312	417	185	145	18 x 4	118	2	27.3
DN80	229/414	439	200	160	18 x 8	132	2	31.5 / 33.5
DN100	377/487	463	220	180	18 x 8	156	2	37.3 / 40.3
DN125	390	488	250	210	18 x 8	184	2	47.4
DN150	440	527	285	240	22 x 8	231	2	59.5
DN200	502	569	340	295	22 x 8	266	2	86.5



Electromagnetic Meters



Every Drop. Every Watt. Accounted For.

MAG1-100 15mm - 3000mm Electromagnetic Flow Meter

The model MAG1-100 is an electromagnetic flow meter designed to measure the volume flow of liquids and slurry in closed pipelines with extremely high accuracy and reliability. Suitable for measuring fresh and wastewater, sea water, sewage, slurry, chemicals, acid and alkali.

FEATURES

- No moving parts, no additional pressure loss.
- Bi-directional flow measurement with accumulator and net flow.
- Multiple outputs: Current, pulse, digital communications & HART.
- Self-diagnostic and alarm outputs.
- Low power consumption.
- Backlit LCD display for easy reading in all light conditions.
- Suitable for automatic meter reading or AMI integration.
- Stainless or carbon steel measuring tube, carbon steel flange.
- Serial number traceability.

WORKING PARAMETERS

- Working principle: Faraday's law of electromagnetic induction
- Nominal diameter: DN15 - DN3000
- Pressure range: 0.6 ~4.0Mpa
- Accuracy: $\pm 0.5\%$ (± 0.3 and ± 0.2 optional)
- Lining: Select for medium type and temperature
- Electrode material: Select for medium type and temperature
- Medium temperature: -20°C ~ 160°C (200°C for split type)
- Flow range: 0.1m/s ~ 15m/s
- Protection: IP65 (integral) / IP68 (optional for split type)
- Power supply: AC220V / DC24V (DC3.6V battery optional)
- Output signal: 4-20mA/Pulse
- Communications: RS232, RS485, HART, GPRS/GSM (optional)



Integral type



Split type

LINING MATERIAL

Material	Performance
Polyurethane rubber (-10°C ~ 60°C ; DN40-DN1600)	Very good wear resistance. Not resistant to acid, alkali or other corrosive or high temperature media.
Neoprene (-10°C ~ 80°C ; DN40-DN3000)	Very good elasticity and wear resistance. Suitable for domestic and industrial sewage.
Teflon F-4 (PTFE) (-20°C ~ 120°C ; DN15-DN1600)	Resistant to boiling hydrochloric acid, sulfuric acid, nitric acid, aqua regia, concentrated alkali. Strong abrasion resistance and excellent adhesion resistance.
F46 (-20°C ~ 120°C ; DN25-DN3000)	Suitable for non-corrosive media.
Fluoropolymer (PFA) (-20°C ~ 120°C ; DN15-DN800)	Superior for chemical and heat resistance. Superior smoothness and adhesion resistance.

ELECTRODE MATERIAL

Material	Performance
SS316L	Application: Water and domestic & industrial sewage.
Hastelloy B	Application: Strong resistance to hydrochloric acid below boiling point. Also resistant to vitriol, hydrofluoric acid and non-oxidizing salt.
Hastelloy C	Application: Resistant to oxidizing acid such as nitric acid, mixed acid, oxidizing salt such as Fe^{+++} , Cu^{++} and sea water.
Titanium	Application: Resistant to sea water, chloride, hypochlorite salt, oxidizing acid (including fuming nitric acid), organic acid, alkali. Not resistant to pure reducing acid.
Tantalum	Application: Strong resistance to corrosive media similar to glass. Suitable for most chemical media except hydrofluoric acid, oleum and alkali.
Platinum-iridium alloy	Application: Suitable for most chemical mediums except aqua fortis, ammonium salt.

Electromagnetic Meters



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MAG1-100 15mm - 3000mm Electromagnetic Flow Meter

SPECIFICATION MATRIX											
Model	LXLE	S	P	L	E	K	F	D	G	C	X
Caliber	DN15-DN3000										
Structure	Integrated	S1									
	Split	S2									
Nominal Pressure	0.6MPa		P1								
	1.0MPa		P2								
	1.6MPa		P3								
	4.0MPa		P4								
Liner Material	PTFE			L1							
	PFA			L2							
	F46			L3							
	Neoprene			L4							
	Polyurethane			L5							
Electrode Material	Stainless steel 316L				E1						
	Hastelloy B				E2						
	Hastelloy C				E3						
	Titanium				E4						
	Platinum-iridium				E5						
	Tantalum				E6						
Shell Material	Carbon Steel					K1					
	Stainless steel 304					K2					
	Stainless steel 316L					K3					
Flange Standard	BS 10 table D						F1				
	BS 4504 table 16						F2				
	Customer specification as per flange schematic						F3				
Power Supply	AC85~250V (mains power)							D1			
	DC20V~36V (mains power or battery with solar charger)							D2			
	3.6V Lithium-ion battery (10-year battery life)							D3			
Signal Output	4~20 mA								G1		
	Pulse								G2		
Communication	RS232									C1	
	RS485									C2	
	Hart									C3	
	Modbus									C4	
	PROFIBUS									C5	
Protection Grade	IP65 - Transmitter & Sensor										X1
	IP65 - IP65 transmitter + IP68 sensor (split type only)										X2
	IP67 - Transmitter & sensor (integral or split configuration)										X3

TYPICAL SPECIFICATION

Electromagnetic flow meter for the measurement of liquids and slurry in closed pipelines with nominal diameter DN15 - DN3000. Accurate to within $\pm 0.5\%$. Bi-directional flow measure with accumulator and net flow. Multiple communication protocols with self-diagnostic and alarm outputs. Backlit LCD display sealed up to IP68 protection. Available in integral or split configuration. Flange drilled to customer specification.

WARRANTY

The company shall at its discretion repair or replace any MAG1-100 electromagnetic meter which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages or wear and tear considered normal at the place of installation.

Bulk Meter Strainers



WP INLINE STRAINER 50mm - 150mm

The METRON WP & WPY strainers are designed to be installed with a Woltmann type flow meter to protect the measuring mechanism from larger particles in the pipeline.

FEATURES

- Stainless steel sieve with 3mm Ø perforation
- Close perforation spacing
- Sieve can be cleaned without breaking flange connections.
- Large flow capacity with low pressure loss.
- Epoxy coated body.

WORKING PARAMETERS

- Working temperature: Hot or cold water $\leq 90^{\circ}\text{C}$.
- 1600 kPa (16 Bar).



IN LINE



Y-TYPE

WP IN-LINE STRAINERS

Size	mm	50	80	100	150	200	250	300
Length	mm	150	170	180	200	220	240	240
Flange Ø	mm	165	200	220	285	340	404	460
Bolt circle Ø	mm	125	160	180	240	295	355	410
Connecting bolts		4xM16	8xM16	8xM16	8xM20	12xM20	12xM24	12xM24
Weight	Kg	7	11	13	22	34	48	67

WPY Y-TYPE STRAINERS

Size	mm	50	80	100	150	200	250	300
Length	mm	230	310	350	480	600	730	850
Flange Ø	mm	165	200	220	285	340	404	460
Bolt circle Ø	mm	125	160	180	240	295	355	410
Connecting bolts		4xM16	8xM16	8xM16	8xM20	12xM20	12xM24	12xM24
Weight	Kg	10	20	34	70	110	117	295

TYPICAL SPECIFICATION

In-line / Y-type strainer made from cast iron epoxy coated body with heavy duty perforated stainless steel sieve securely supported within the strainer body. Sieve element can be accessed through the top cover without breaking flange connections. Flange drilled to BS 4504 PN16.

WARRANTY

The company shall at its discretion repair or replace any METRON WP strainer which proves to be faulty due to poor workmanship or defective materials within a period of 2 years from date of manufacture. This warranty does not include consequential damages, or wear and tear considered normal at the place of installation.



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Product Catalogue ELECTRICITY METERS



HXP100DII

Single Phase
DIN-Rail Split
Prepayment Meter



PURE
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HXP100DII | Single Phase | DIN-Rail Split | Prepayment Meter

HXP100DII is a single phase two wire (1P2W) / three wire (1P3W) residential DIN-rail split prepayment meter. It complies with open standard (STS) and supported by Hexing's AMI system and vending system. With PLC communication, it can be used for energy consumption monitoring and credit charging.



MAIN FUNCTIONALITIES

Measurement

- 1P2W, 1P3W connection
- Import & Export & Total & Net kWh
- Import & Export kvarh (Optional)
- Four-quadrant kvarh (Optional)
- Total & Per tariff

Instantaneous Values

- Power, voltage, Current
- Power factor, Frequency

Power Quality Monitoring

- Under & Over voltage
- Power down

Events & Alarms

- Load and power grid events detection
- Customizable event list
- At least 200 event records
- Internal self-check
- Alarms indicator (LED / LCD)
- Event date and time
- Buzzer alarm

LCD (Optional)

- Display area size 25mm × 15mm
- Display digital size 5mm × 3mm
- Configurable automatic & manual display list
- Test mode
- OBIS codes (According to IEC62056-64)

MAIN FUNCTIONALITIES

RTC (Real Time Clock)

- Quartz crystal time resource
- Gregorian calendar
- DST (Daylight Saving Time, optional)
- Lithium battery (Inner, 10 years support)

Billing Data

- At least 12 monthly billing periods
- At least 62 daily billing periods

Local and Remote Access

- PC software
- HHU
- MDC & Vending system
- CIU (Optional)

Load Profile | Optional

- Up to 16 Megabytes of non-volatile memory
- Over 100 days storage (8 channels, 15 minutes)
- Up to 8 channels
- 8 captured objects per channel
- Capture period (15, 30, 60, ...1440 minutes)
- Energy, power, voltage, current, frequency, etc.
- Maximum / minimum / average value

Tariffs

- Up to 4 tariffs
- Up to 8 day tables
- Up to 12 week tables
- Up to 12 season tables
- Up to 100 holiday & special days tables

Prepaid

- STS / CTS standard (Optional)
- Emergency Credit
- Friendly Mode (Optional)
- Local & Remote charge
- Prepaid & Post-paid

Load Control

- 1 or 2 relay (s) integrated ($I_{max}=100A$)
- Load control according to power threshold (Programmable)
- Local & remote load control
- Relay status indicator (Optional)

Communication

- Optical port: DLMS IEC62056-21E
- HAN port: RS485 / MC171 (Optional)
- Built-in modem: PLC communication

Anti-Tamper

- Mechanical seals (Terminal)
- Ultrasonic welding
- Physical detection (Terminal, body)
- Current reverse
- Strong magnetic field detection (Optional)
- Bypass detection (Optional)

Security

- Different data access levels
- Data access management for all ports
- Metrology data protection

Demand Monitoring | Optional

- Block / Slide mode
- Programmable integration period (Typically 5, 10, 15, 30 or 60 minutes)
- Import & Export kW, kVarh, KVA (Optional)
- Historical consumption value

CIU

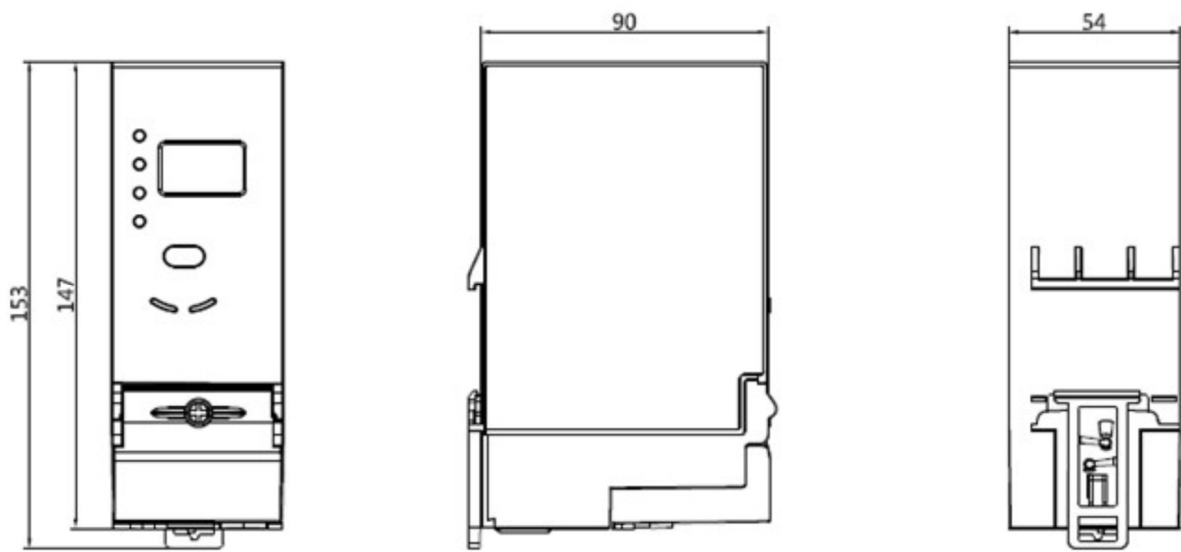
- PLC (BPSK, OFDM, etc.)
- Meter-CIU communication up to 100m
- Remote energy consumption monitoring and credit charging.

HXP100DII | Single Phase | DIN-Rail Split | Prepayment Meter

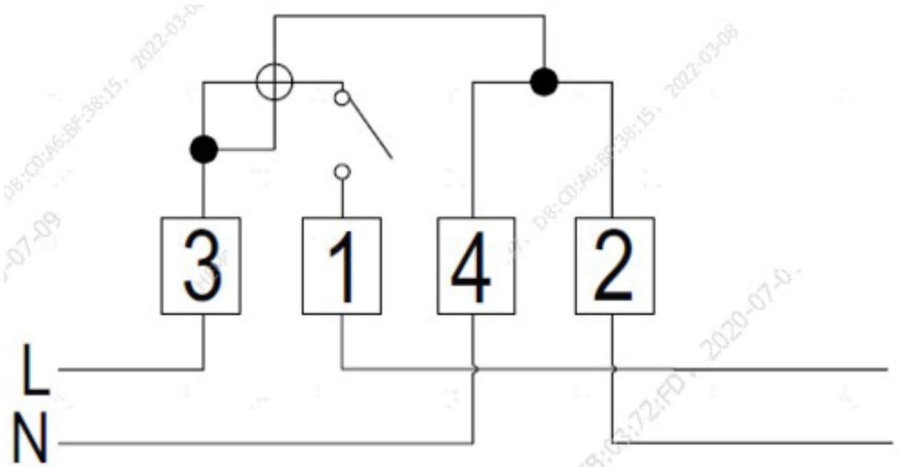
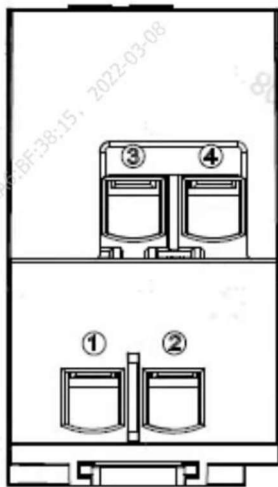
Specifications

APPLICATION		Direct connection
ACCURACY	Active Reactive (Optional)	Class 1 (IEC) / Class B (MID) Class 2 (IEC)
NOMINAL VOLTAGE	1 phase 2 wire 1 phase 3 wire	110V...240V (-20%...15%) 240V (-20%...15%)
CURRENT RANGE	I _b / I _{ref} I _{max}	5A, 10A 80A, 100 A
STARTING CURRENT	According to IEC	0.4%I _b
FREQUENCY		50 / 60Hz, +/- 5%
POWER CONSUMPTION	Phase voltage Voltage circuit Current circuit	230V < 2W, < 10VA < 0.1VA
TEMPERATURE RANGE	Operation Storage	- 10 ° C to +70° C - 25 ° C to +85 ° C
HUMIDITY RANGE		Up to 95%
PROTECTION DEGREE		IP 54 (Indoor)
EMC	Electrostatic discharge Fast transient burst Surge immunity Electromagnetic RF Fields Conducted disturbance Radio interference (Peak value)	Contact discharge 8KV Air discharge 15KV 4KV 6KV Frequency range 80kHz to 2000MHz With current 10V / m Without current 30V / m Frequency range 150kHz to 80MHz Voltage level 10V 30MHz~1GHz < 30dB
INSULATING STRENGTH	Impulse voltage AC voltage	6KV 1.2 / 50 μs 4KV
RTC	Clock Accuracy	< 0.5s / day
STANDARDS	IEC standard MID standard	IEC62052-11 IEC62053-21 IEC62053-23 IEC62055-41 IEC62055-51 IEC62056-46 IEC62056-47 IEC62056-53 IEC62056-61 IEC62056-62 EN54070-1 EN54070-3
COMMUNICATION	Built-in	Optical / PLC / RS485 / MC171
OUTPUT	Energy impulse LED Credit Status LED Alarm / communication status	1 for active energy 1 for credit status 1 for alarm / communication status
DATA STORAGE	Load profile (Optional) Billing data	8 Channels 12 Billing periods
INSTALLATION	Type	Din-Rail
BATTERY		1(One)
DISCONNECTOR	Maximum switch voltage Maximum switch current Short circuit ≤ 10ms	250V 100A 3000A (According to IEC62053-21)
HOUSING MATERIAL		Polycarbonate + GF
CONNECTION	Terminal Size	10 mm x 10 mm
WEIGHT		About.0.54 kg (One relay) About.0.56 kg (Two relays)
DIMENSION	(H x W x D)	153 x 90mm x 54mm

DIMENSIONS



CONNECTION DIAGRAM



HXP100DIP

Single Phase DIN-RAIL
Split Prepayment Meter

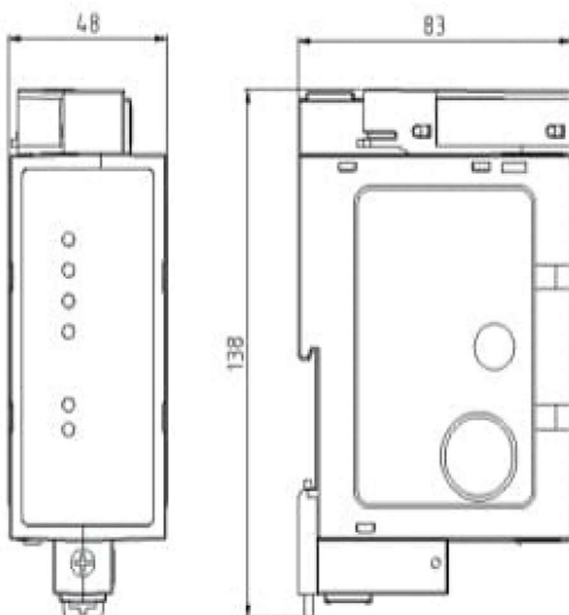


HXP100DIP | SINGLE PHASE DIN-RAIL SPLIT PREPAYMENT METER

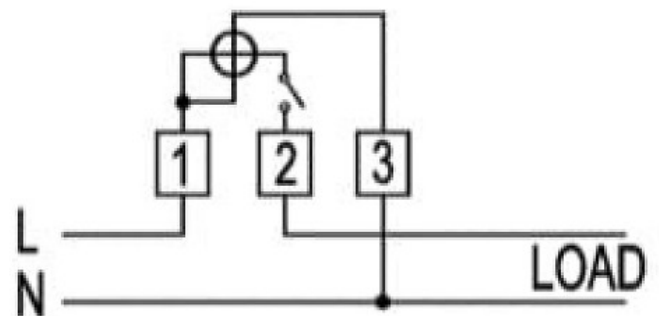
HXP100DIP is a single phase DIN-Rail split prepayment meter. Its compact design enables cost-effective installation.



DIMENSIONS



CONNECTION DIAGRAM



HXP100DIP | SINGLE PHASE DIN-RAIL SPLIT PREPAYMENT METER

Specifications

ACCURACY	Active	Class 1 (IEC) / Class B (MID)
NOMINAL VOLTAGE	1 phase 2 wire	120V, 220V, 230V, 240V
CURRENT RANGE	I _b / I _{ref} I _{max}	5A, 10A 60A, 80A, 100A
STARTING CURRENT	According to IEC	0.4%I _b
FREQUENCY		50 / 60Hz
POWER CONSUMPTION	Phase voltage Voltage circuit Current circuit	230V < 1W, < 5VA < 0.1VA
TEMPERATURE RANGE	Operation Storage	- 25° C to + 55°C - 40° C to +70°C
HUMIDITY RANGE		Up to 95%
PROTECTION DEGREE		IP51
EMC	Surge (1.2 / 50μs) EMC environmental conditions	6KV acc.IEC62052-11
RTC	Clock Accuracy	< 0.5s / day
STANDARDS	IEC Standard MID Standard	IEC62052-11 IEC62053-21 EN54070-1 EN54070-3
COMMUNICATION	Built-in Modules	Optical / RS485 / PLC / RF, MC171 (Optional) N / A
OUTPUT / INPUT		N / A
DATA STORAGE	Load profile (Optional) Billing data	8 Channels 12 Billing periods
TERMINALS		Din-Rail
BATTERY		Unchangeable
DISCONNECTOR	Maximum switch voltage Maximum switch current Short circuit ≤ 10ms Mechanical life Electrical life	250V 100A 3000A (According to IEC62053-21) ≥ 300 000 OPS ≥ 10 000 OPS
HOUSING MATERIAL		Polycarbonate + GF



HXP115-KP

Single Phase Prepayment
Residential Meter
Class 1



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HXE115-KP | Single Phase Prepayment | Residential Meter | Class 1

HXE115-KP is a single-phase prepayment residential meter with keypad to provide local charging and reading. It complies with STS standard and supported by Hexing powerful vending system.

HXE115-KP is a high quality, low cost single phase prepaid / post-paid meter according to STS and BS standard and developed metering requirement.

Utilizing integrated keypad and LCD, it meets vital daily Utility and customer's needs.



MAIN FUNCTIONALITIES

Measurement

- 1 / 2 elements
- Import & Export KWh
- Total & Per tariff (Optional)
- Cumulative & Delta energy
- Absolute

Demand Monitoring | Optional

- Block / Slide mode
- Programmable integration period (Typically 5, 10, 15, 30 or 60 minutes)
- Import & Export KW
- Maximum value
- Pre-set time (automatic) reset

Events & Alarms

- Load and power grid events detection
- Customizable event list
- 200 event records
- Internal self-check
- Alarms indicator (LED / LCD)
- Event date and time
- Buzzer alarm

Instantaneous Values

- Power, Voltage, Current
- Power Factor, Frequency

MAIN FUNCTIONALITIES

Power Quality Monitoring

- Under & Over voltage
- Power down
- Current reverse

Billing Data

- 12 Billing periods
- Automatic reset

Clock

- Quartz crystal time resource
- Gregorian calendar
- DST (Daylight Saving Time)
- Local synchronization
- RWP (Read Without Power)
- Lithium Battery (10 year support)

Communication

- 2 independent communication ports
- Simultaneous individual operation
- Optical port: IEC62056-21E
- MC171port
- RS485: DLMS_HDLC (optional)

Installation

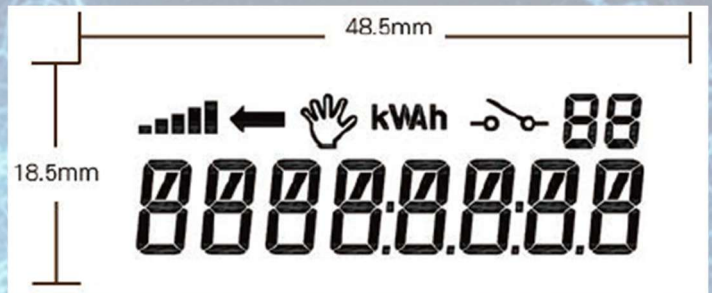
- Wall-mounted
- Suitable meter box by Hexing
- 3 Individual fixing screws (1 top, 2 bottom)

Prepaid

- STS standard
- Emergency Credit
- Friendly mode
- Local charge
- Prepaid / Post-paid

LCD

- Display digit size: 8mm x 4mm
- Backlight (Optional)
- Configurable automatic & manual display list
- Test mode



Load Control

- One 80A (I_{max}) relay integrated (≥ 10000 times under normal current)
- Load control according to power threshold
- Max power threshold programmable
- Relay status indicator
- Relay malfunction indicator

Anti-Tamper

- 3 sealing positions (terminal, body)
- Main & Terminal cover removal detection
- Reverse current
- Strong magnetic field detection (Optional)
- By-pass detection (Optional)

Local and Remote Access

- PC software
- HHU

Security

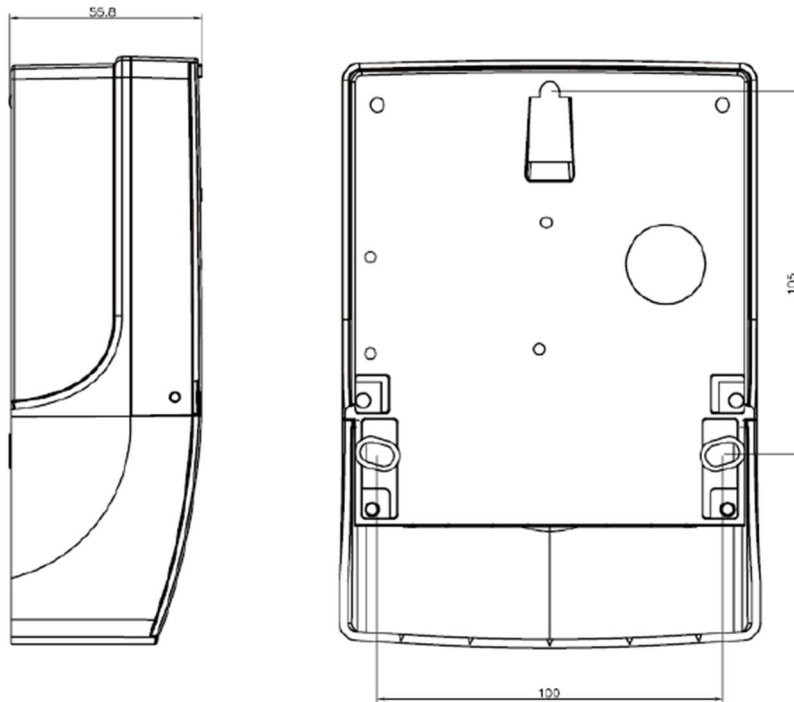
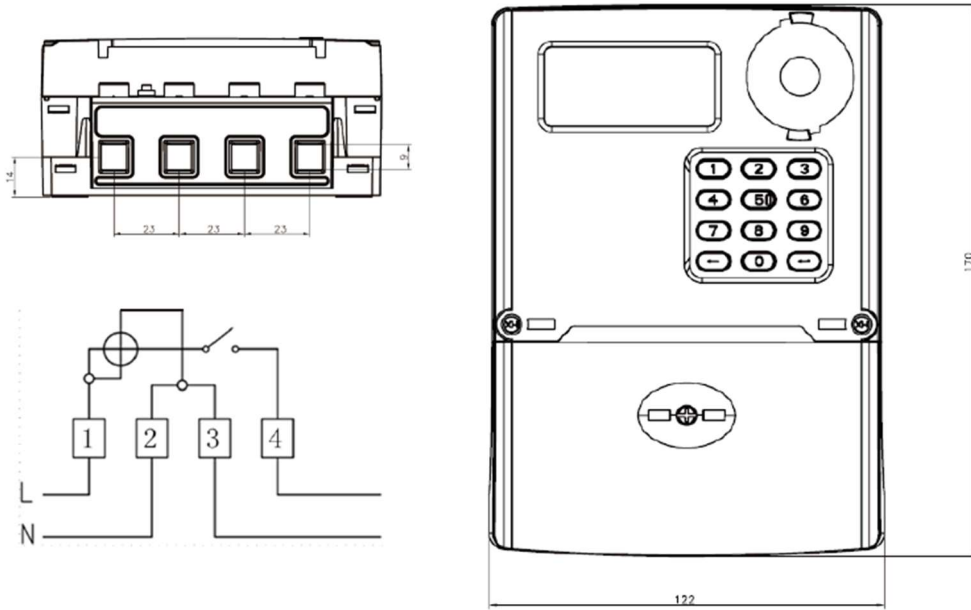
- 3 data access levels (Lowest, LLS and HLS)
- Data access management for all port
- Metrology data protection

HXE115-KP | Single Phase Prepayment | Residential Meter | Class 1

Specifications

APPLICATION		Direct connection	
ACCURACY	Active	Class 1 (IEC) / Class B (MID)	
NOMINAL VOLTAGE			
CURRENT RANGE	Lb/Iref	5A, 10A	
	I _{max}	60A, 80A	
STARTING CURRENT	According to IEC	0.4% I _b	
FREQUENCY		50 / 60Hz	
POWER CONSUMPTION	Phase voltage	230V	
	Voltage circuit:	<1.5W, <10VA	
	Current circuit	<0.1VA	
TEMPERATURE RANGE	Operation	-25°C to +55°C	
	Storage	-40°C to +70°C	
HUMIDITY RANGE		Up to 95%	
PROTECTION DEGREE		IP54	
EMC	Electrostatic discharge	Contact discharge	8KV
		Air discharge	15KV
	Fast transient burst	4KV	
	Surge immunity	6KV	
	Electromagnetic RF fields	Frequency range	80kHz to 2000MHz
		With current	10V / m
		Without current	30 V/m
	Conducted disturbance	Frequency range	150kHz to 80MHz
		Voltage level	10V
	Radio interference (peak value)	30MHz ~ 1GHz	<30dB
INSULATING STRENGTH	Impulse voltage	6KV 1.2/50 μs	
	AC voltage	4KV	
RTC	Clock Accuracy	<0.5s / day	
STANDARDS	IEC standard	IEC 62052-11	
		IEC 62053-21	IEC62053-23
		IEC62055-41	IEC62055-51
		IEC62056-46	IEC62056-47
		IEC62056-53	IEC62056-61
		IEC62056-62	
	MID standard	EN54070-1	EN54070-3
COMMUNICATION	Built-in	Optical, MC171, RS485 (Optional)	
	Modules	N/A	
INDICATOR	Energy impulse LED	1 for active energy	
	Alarm / Credit status LED	1 for credit status indicator	
		1 for alarm indicator	
OUTPUT / INPUT		N/A	
DATA STORAGE	Load profile	N/A	
	Biling data	12 Biling periods	
TERMINALS	Type	BS7856	
	Material	Copper-Brass	
BATTERY		Unchangeable	
AUXILIARY RELAY		N/A	
DISCONNECTOR	Maximum switch voltage	250V	
	Maximum switch current	80A	
	Short circuit <10ms	2400A (according to IEC62053-21)	
	Mechanical life	>300000 OPS	
	Electric life	>10000 OPS	
HOUSING MATERIAL		Polycarbonate + GF	
CONNECTION	Terminal	Ø 8mm	
WEIGHT		About 0.51kg	
DIMENSION		122mm x 170mm x 56mm (W x H x D)	

DIMENSIONS



HXP130

Single Phase
Smart Keypad
Prepayment Meter



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HXE130 | Single Phase | Smart Keypad | Prepayment Meter

HXE130 is a new generation of single-phase smart keypad prepayment post payment meter which migrating STS/CTS with AMI functions. It provides local and remote credit charging. The meter is supported by Hexing's AMI and vending system software. The meter can be designed by integrated type or split type.



MAIN FUNCTIONALITIES

Measurement

- 1 P2W connection
- Import & Export & Total & Net kWh
- Import & Export kvarh (optional)
- Four quadrant kvarh (optional)
- Total Per tariff

Instantaneous Values

- Power, Voltage, Current
- Power Factor, Frequency

Power Quality Monitoring

- Under & Over voltage
- Power down

Events & Alarms

- Load and power grid events detection
- Customizable event list
- At least 2 00 event records
- Internal self check
- Alarms indicator (LED/LCD)
- Event date and time
- Buzzer alarm

LCD

- Display area size 66mm × 23mm
- Display digital size 10mm×6mm
- Backlight (optional)
- Configurable automatic & manual display list
- Test mode
- OBIS codes (according to IEC62056 64)

MAIN FUNCTIONALITIES

RTC (Real Time Clock)

- Quartz crystal time resource
- Gregorian calendar
- DST (Daylight Saving Time, optional)

- Lithium battery
(exchangeable/inner, 10 years support)

Billing Data

- At least 12 monthly billing periods
- At least 62 daily billing periods
- Automatic reset/ Manual reset

Local and Remote Access

- PC software
- HHU
- MDC & Vending system
- CIU(optional)

Load Profile (Optional)

- Up to 16 Megabytes of non volatile memory
- Over 100 days storage (8 channel, 15 minutes)
- Up to 8 channels
- 8 captured objects per channel
- Capture period (15, 30, 60, ... 1440 min)
- Energy , power, voltage, current, frequency,
- Maximum /minimum/average value

Tariffs (Optional)

- Up to 4 tariffs
- Up to 8 day tables
- Up to 12 week tables
- Up to 12 season tables
- Up to 100 holiday & special days tables

Prepaid

- STS/CTS standard(optional)
- Emergency Credit
- Friendly Mode(optional)
- Local Remote charge
- Prepaid Post paid

Keypad

- Optional keypad integrated into meter or split type.

Load Control

- 80A/ 100A (Max) relay integrated , UC2
- Load control according to power threshold (programmable)
- Local & remote load control
- Relay status indicator

Communication

- Optical port DLMS IEC62056 21E/ HDLC
- HAN port:RS485(RJ12)/M bus/MC171(optional)
- Modular plug play 2G/3G/PLC /RF communication

Anti-Tamper

- Mechanical seals (terminal, body, module)
- Physical detection (terminal, body, module)
- Current reverse
- Strong magnetic field detection (optional)
- Bypass detection (optional)
- Optical port sealable (optional)

Security

- Different data access levels
- Data access management for all ports
- Metrology data protection

Demand Monitoring (optional)

- Block/Slide mode
- Programmable integration period (typically 5, 10, 15, 30 or 60 minutes)
- Import & Export kW, kVarh, KVA(optional)
- Historical consumption value
- Pre-set time (automatic) /Manual reset (button/ communication)

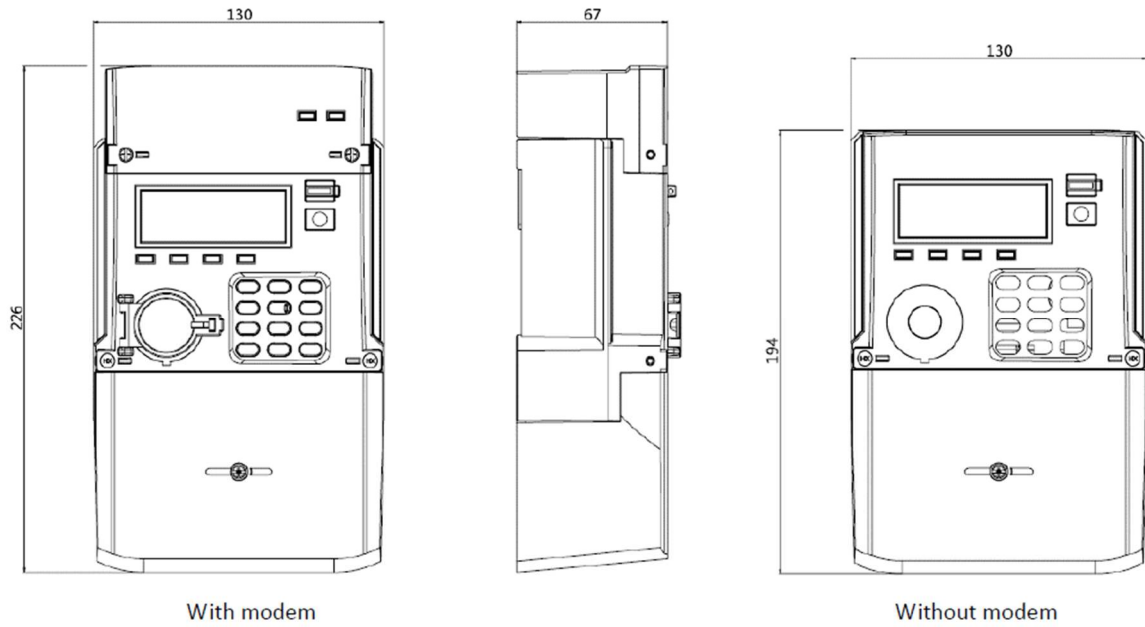
HXE130 | Single Phase | Smart Keypad | Prepayment Meter

Specifications

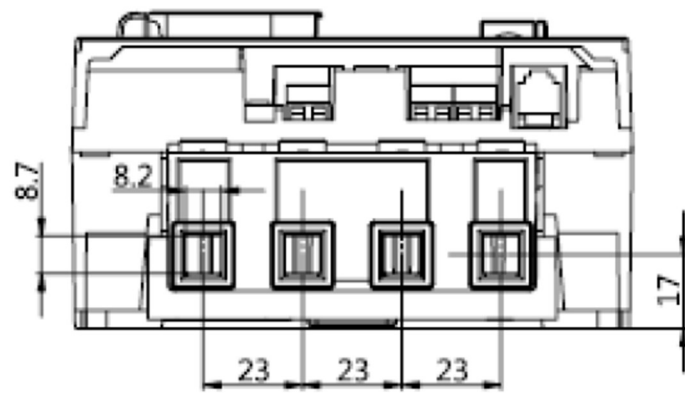
APPLICATION		Direct connection
ACCURACY	Active	Class 1 (IEC)
	Reactive (Optional)	Class 2 (IEC)
NOMINAL VOLTAGE	1 phase 2 wire	120V...240V (- 20%...20%)
CURRENT RANGE	Ib/ Iref	5A, 10A
	I _{max}	80A, 100 A
STARTING CURRENT	According to IEC	0.4%I _b
FREQUENCY		50 / 60Hz, +/-5%
POWER CONSUMPTION	Phase voltage	230V
	Voltage circuit	< 2W, < 10 VA
	Current circuit	<0 .1VA
TEMPERATURE RANGE	Operation	-25 ° C to +55° C
	Storage	-40 ° C to +70 ° C
HUMIDITY RANGE		Up to 95%
PROTECTION DEGREE		IP 54(Indoor)
EMC	Electrostatic discharge	Contact discharge 8KV Air discharge 15KV
	Fast transient burst	4KV
	Surge immunity	6KV
	Electromagnetic RF Fields	Frequency range 80kHz to 2000MHz With current 10V / m Without current 30V / m
	Conducted disturbance	Frequency range 150kHz to 80MHz Voltage level 10V
	Radio interference (peak value)	30MHz~1GHz < 30dB
INSULATING STRENGTH	Impulse voltage	6KV 1.2 / 50 μs
	AC voltage	4KV
RTC	Clock Accuracy	< 0.5s / day
STANDARDS	IEC standard	IEC6205211 IEC62053 21 IEC6205323 IEC62055 41 IEC6205551 IEC62056 46 IEC6205647 IEC62056 53 IEC6205661 IEC62056 62
COMMUNICATION	Built in	Optical / RS485/ MC171/M Bus
	Modules (optional)	2G / 3G / PLC/ RF Mesh
OUTPUT / INPUT	Energy impulse LED	1 for active energy 1 for reactive energy
	Alarm / Status LED	1 for credit status indicator 1 for alarm indicator
OUTPUT/INPUT	1 x Electronic output (optional)	acc. IEC 62053-31
DATA STORAGE	Load profile (optional)	8 Channels
	Billing data	12 Billing periods
INSTALLATION	Type	BS7856
BATTERY		Exchangeable
DISCONNECTOR	Maximum switch voltage	250V
	Maximum switch current	80A/ 100A
	Short circuit <= 10ms	2400A/ 3000A (according to IEC62053 21)
HOUSING MATERIAL		Polycarbonate + GF
CONNECTION	Terminal Size	8.7 mm x 8.2 mm
WEIGHT		About.0.81 kg(without module) About.0.87 kg(with module)
DIMENSION	(H x W x D)	(164 mm 254mm)x 130mmx 67mm

HXE130 | Single Phase | Smart Keypad | Prepayment Meter

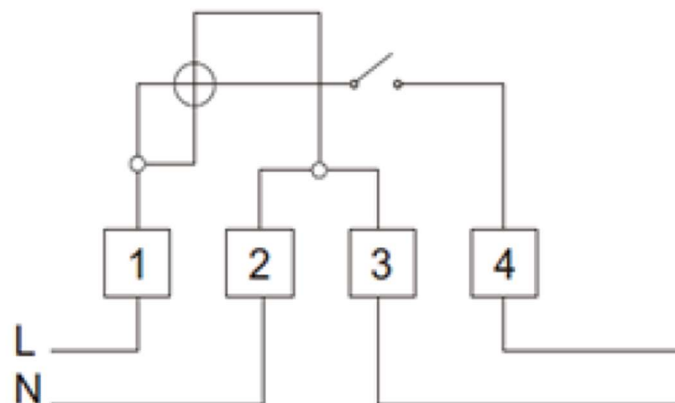
Typical Dimensions



Terminal drawing



Connection Diagram



HXE330

Three Phase
Directly Connected
Prepayment Meter



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HXE330 | Three Phase | Directly Connected | Prepayment Meter

HXE330 is a new generation of three phase directly connected prepayment meter. It is designed according to international Standard Transfer Specification and supported by Hexing or third party vending system. With PLC/RF communication, it can be used for energy consumption monitoring and credit charging.



Highlights

- Optional ultrasonic structure with high security and protection degree.
- STS/CTS standard protocol ensures an open and secure operating system
- Optical communication, open protocol: DLMS/COSEM (E mode)
- Internal switch relay for load demand control
- Prepayment and post-payment mode switchable.
- A plug-and-play module (PLC/RF) with CIU communication
- Built-in RS485 communication

MAIN FUNCTIONALITIES

Measurement

- Unidirectional Measurement
- Record active energy.
- Instantaneous value measurement
- 12-month billing data and other frozen data for inquiry
- Prepayment is made via a numeric token with extended ways of recharging

LCD Display

- Balance display configurable
- Large digit LCD display, easy for reading
- LCD backlights to increase readability in low light conditions(optional)
- Scrolling display configurable for instant information enquiry
- Display readable without main power (RWP)
- LCD backlights to increase readability in low light conditions

Tampering Proof

- Module Cover open detection and record
- Meter terminal detection and record
- Bypass detection
- Large magnetic event(optional)

Demand

- Demand Interval configurable
- Block or slide mode configurable

RTC

- Clock accuracy (daily deviation): 0.5s (23°C), 62054-21
- Day light saving time configurable

Event Record

- Fraud protection function. The relay will be disconnected for fraud protection once detects the cover open and terminal cover open events
- Multiple event detections and records with categories of operation, power grid and tampering
- RS485 Communication with interface in accordance to DLMS standard
- Emergency Credit
- Forward and reverse active/apparent MD

Load Profile

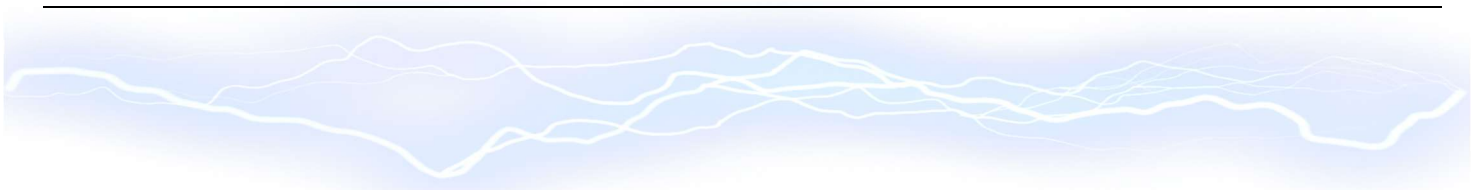
- Channel quantity customized before leaving the factory; up to 8 channels
- Data for load profile record configuration



HXE330 | Three Phase | Directly Connected | Prepayment Meter

Specifications

ACCURACY		Active class 1 Reactive class 2 (optional)
VOLTAGE	Basic current	5A
	Maximum current	60A 100A
	Starting current	<0.4%I _b
FREQUENCY		50Hz or 60Hz
TEMPERATURE	Operation range	-25 to + 55
	Limit range for storage and transport	-40 to + 75
HUMIDITY		Up to 95%
POWER CONSUMPTION	Power consumption in voltage circuit (active)	≤2 W
	Power consumption in voltage circuit (apparent)	≤10 VA
	Power consumption in current circuit	≤1 VA
INSULATION STRENGTH	AC voltage test	4kV during 1min
	Impulse voltage test	1.2/50μs mains connections 6kV
EMC	Electrostatic discharges(Contact discharges)	8kV
	Electrostatic discharges(Air discharges)	15kV
	Surge immunity test	4kV
	Fast transient burst test	4kV
	Electromagnetic RF fields (80MHz to 2000MHz)	10V/m(with current), 30V/m(without current)
CONNECTION TERMINALS		∅ 8mm
HOUSING	Protection degree	IP54
	Meter cove	Opaque PC+ fibre glass with a transparent window
	Meter base	Opaque PC+ fiber glass
	Terminal cover	Opaque PC+ fiber glass
DISPLAY	Digit size	10mm x 6mm
	Number of digits	8
COMMUNICATION INTERFACE	Optical communication	DLMS/COSEM
	RS485 communication	DLMS/COSEM
	A plug and play communication module	DLMS/COSEM
WEIGHT	Net weight	Approx.1.73 kg(+PLC communication module) Approx.1.77 kg(+GPRS communication module)
DIMENSION		257mm ×174 mm× 90 mm (Long terminal cover)

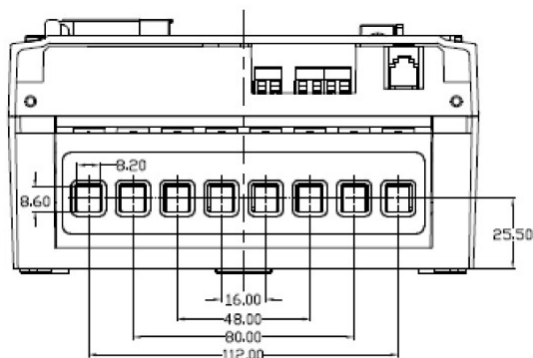
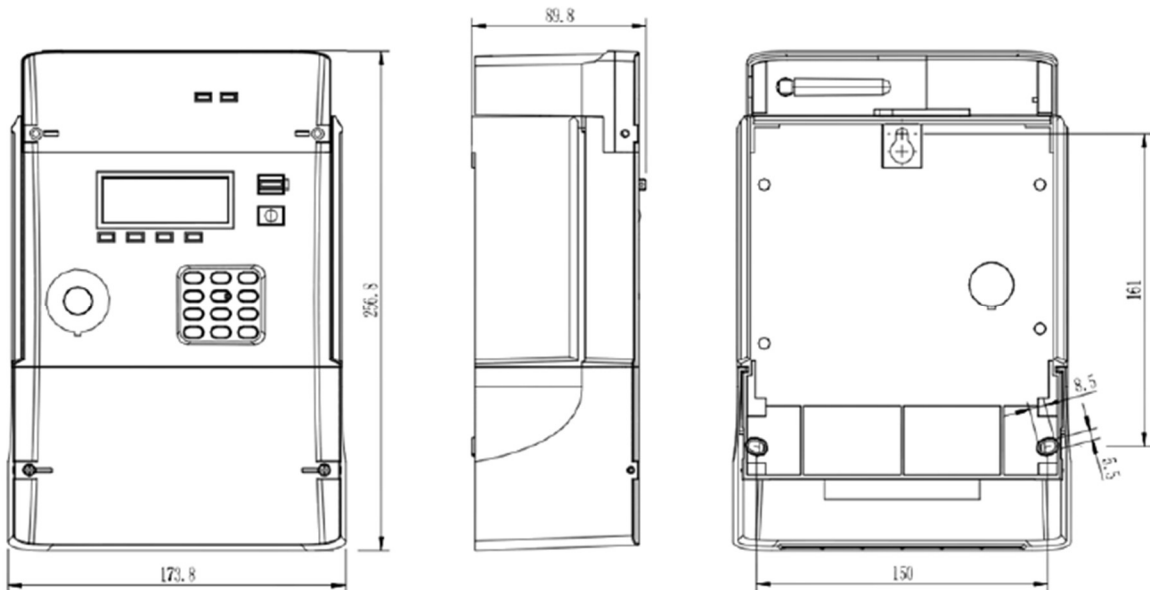


HXE330 | Three Phase | Directly Connected | Prepayment Meter

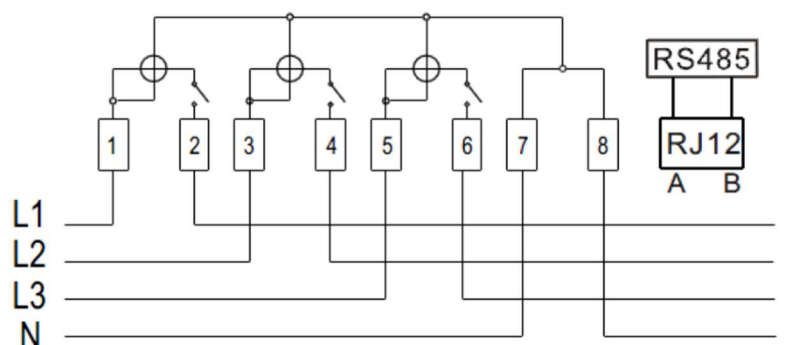
Standard

IEC62052-11	Electricity metering equipment (a.c.) General requirements, tests and test conditions – Part 11: Metering equipment
IEC62053-21	Electricity metering equipment (a.c.) Particular requirements –Part 21: Static meters for active energy(classes 1 and 2)
IEC62053-23	Electricity metering equipment (a.c.) Particular requirements –Part 23: Static meters for reactive energy(classes 2and 3)
IEC62054-21	Electricity metering (AC) -Tariff and load control -Part 21: Particular requirements for time switches
IEC62056-46	Electricity metering –Data exchange for meter reading, tariff and load control –Part 46: Data link layer using HDLC protocol
IEC62055-31	Electricity metering –Payment systems–Part 31: Particular requirements –Static payment meters for active energy(classes 1 and 2)
IEC62055-41	Electricity metering –Payment systems-Part 41: Standard transfer specification (STS) —Application layer protocol for one-way token carrier systems
IEC62056-21	Electricity metering –Data exchange for meter reading, tariff and load control –Part 21: Direct local data exchange
IEC62056-46	Electricity metering –Data exchange for meter reading, tariff and load control –Part 46: Data link layer using HDLC protocol
IEC62056-47	Electricity metering –Data exchange for meter reading, tariff and load control –Part 47: COSEM transport layer for IP network
IEC62056-53	Electricity metering –Data exchange for meter reading, tariff and load control –Part 53: COSEM Application layer
IEC62056-61	Electricity metering –Data exchange for meter reading, tariff and load control –Part 61: OBIS Object identification system
IEC62056-62	Electricity metering –Data exchange for meter reading, tariff and load control –Part 62: Interface classes
EN50470-1	Electricity metering equipment (a.c.) —Part 1: General requirements, tests and test conditions —Metering equipment (class indexes A, B and C)
EN50470-3	Electricity metering equipment (a.c.) —Part 3: Particular requirements —Static meters for active energy (class indexes A, B and C)

Dimensions



Connection Diagram

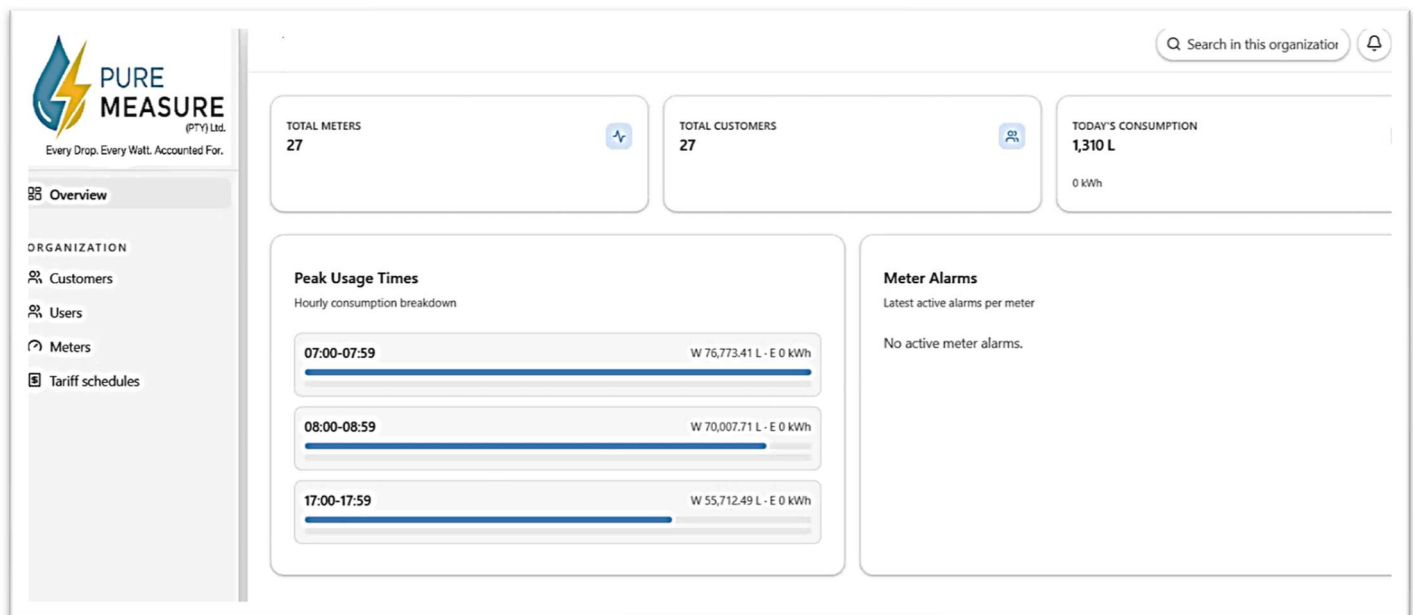


Head End System (HES)



Head End System (HES)

Head End System (HES) — a centralized platform designed to collect, validate, and store detailed consumption data, enabling accurate billing, improved visibility, and efficient utility management.



Key Capabilities

- Automated meter reading (AMR/AMI)
- Historical usage tracking and reporting
- Tariff configuration and billing support
- Leak detection and abnormal usage alerts
- Remote monitoring and system diagnostics
- Remote blocking of water or electricity smart meter

Inclusions

- Head End System (HES) access
- Data collection and storage
- Communication Fees
- Meter integration and configuration
- System monitoring and support
- White labelled and API options available

Prepaid STS vending services for electricity, water and gas meters using a Smart Wallet system.

Head End System (HES)

Key Benefits of Vending Integration

- Improved cash flow through prepaid revenue collection
- Reduced risk of non-payment
- Automated revenue tracking and reconciliation
- Enhanced customer convenience

Additional Inclusions (Vending Services)

- Prepaid token generation and management
- Smart Wallet system – Token sent directly to meter
- Revenue management and reporting
- Customer transaction history
- Support for tariff-based vending (Fixed, Time of Use & Step tariff)

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- Prepaid token generation and management
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Conclusion

Our proposed solution delivers a scalable, future-proof smart metering platform that enables accurate data collection, operational efficiency, and enhanced revenue management.

We welcome the opportunity to discuss your requirements and tailor the solution to your specific needs.



Every Drop, Every Watt, Accounted For...