

M-Bus
wireless

LoRaWAN

M-Bus

PULSE

WATER AND THERMAL ENERGY

Smart monitoring and control
Main product range



Residential
water meters



Thermal energy
BTU meters




Bulk
water meters

mod. GSD8-I



R100
on request
up to:

on request:
 PULSE
REED

Size DN	mm (in)	15 (1/2")	15 (1/2")	20 (3/4")		
Length	mm	80/110/115		130		
R=100H ↑	Overload flow rate	Q ₄	m ³ /h	2	3,12	5
	Permanent flow rate	Q ₃	m ³ /h	1,6	2,5	4
	Transitional flow rate	Q ₂	L/h	25,6	40	64
	Minimum flow rate	Q ₁	L/h	16	25	40
	Minimum reading	L	0,05			
	Maximum reading	m ³	99.999			
	Maximum admissible pressure MAP	bar	16			

Single jet meter, dry dial, direct reading on 8 numerical rolls with anti-fraud ring and 360° rotating lid. Available for both cold water 0÷50°C and hot water 30÷90°C. Magnetic transmission. Inductive predisposition for the installation of **LoRaWAN** e **M-Bus**.

mod. GSD8-RFM



R100
on request
up to:

R200

Size DN	mm (in)	15 (1/2")	15 (1/2")	20 (3/4")		
Length	mm	80/110/115		130		
R=100H ↑	Overload flow rate	Q ₄	m ³ /h	2	3,12	5
	Permanent flow rate	Q ₃	m ³ /h	1,6	2,5	4
	Transitional flow rate	Q ₂	L/h	25,6	40	64
	Minimum flow rate	Q ₁	L/h	16	25	40
	Minimum reading	L	0,05			
	Maximum reading	m ³	99.999			
	Maximum admissible pressure MAP	bar	16			

Single jet meter, dry dial, direct reading on 8 numerical rolls with anti-fraud ring and 360° rotating lid. Available for both cold water 0÷50°C and hot water 30÷90°C. Magnetic transmission. Optical predisposition for the installation of **LoRaWAN**, **M-Bus** and wired **M-Bus**.

mod.



R250
M-Bus
LoRaWAN
on request:
R400

Size DN	mm (in)	15 (1/2")	20 (3/4")		
Length	mm	80/110/145/165	130/190		
R=250H ↑	Overload flow rate	Q ₄	m ³ /h	3,12	5
	Permanent flow rate	Q ₃	m ³ /h	2,5	4
	Transitional flow rate	Q ₂	L/h	16	25,6
	Minimum flow rate	Q ₁	L/h	10	16
	Minimum reading	L	2	3	
	Maximum reading	m ³	99.999		
	Maximum admissible pressure	bar	16		

Digital single jet meter, direct reading on 8 digits LCD display with 360° rotating dial. Available for cold water 0÷50°C and hot water 30÷90°C. Inductive transmission. Real time detection of reverse flow, low battery, leakage & burst. Integrated **M-Bus** and/or **LoRaWAN** data transmission. **IR-MB-Pulse** module predisposition.

mod. HYDROSONIC



R400
M-Bus
LoRaWAN
on request:
R500

Size DN	mm (in)	15 (1/2")	20 (3/4")	25 (1")	32 (1 1/4")	40 (1 1/2")		
Length	mm	110/145/165	130/190	260				
R=250	Overload flow rate	Q ₄	m ³ /h	3,125	5	7,875	12,5	20
	Permanent flow rate	Q ₃	m ³ /h	2,5	4	6,3	10	16
	Transitional flow rate	Q ₂	L/h	10	16	25,2	40	64
	Minimum flow rate	Q ₁	L/h	6,25	10	15,75	25	40
	Minimum reading	L/h	2	3	5	9	17	
	Maximum reading	m ³	99.999					
	Maximum admissible pressure	bar	16					

Ultrasonic meter for counting cold water in homes, buildings and industrial applications. High precision, up to R500. Can be installed in all positions. Excludes measurement of air contained in pipes. Integrated **M-Bus** and/or **LoRaWAN** data transmission. **IR-MB-Pulse** module predisposition.

mod.GMDM-I



on request:

R160

Size DN	mm (in)	15 (1/2")	20 (3/4")	25 (1")	32 (1 1/4")	40 (1 1/2")	50 (2")		
Length	mm	145-165-190	190	260	300				
R=100H ↑	Overload flow rate	Q ₄ m ³ /h	3,125	5	7,875	12,5	20	31,25	
	Permanent flow rate	Q ₃ m ³ /h	2,5	4	6,3	10	16	25	
	Transitional flow rate	Q ₂ L/h	40	64	100,8	160	256	400	
	Minimum flow rate	Q ₁ L/h	25	40	63	100	160	250	
	Sensitivity	L/h	6		10		20		
	Minimum reading	L	0,05						
	Maximum reading	m ³	99.999				999.999		
	Maximum admissible pressure	bar	16						

Multi jets meter, dry dial. Available for both cold water 0+50°C and hot water 30+90°C. Magnetic transmission. Inductive predisposition for the installation of **LoRaWAN**, **M-Bus**, wired **M-Bus** & non-magnetic Pulse modules.

mod.WDE-K50



R100

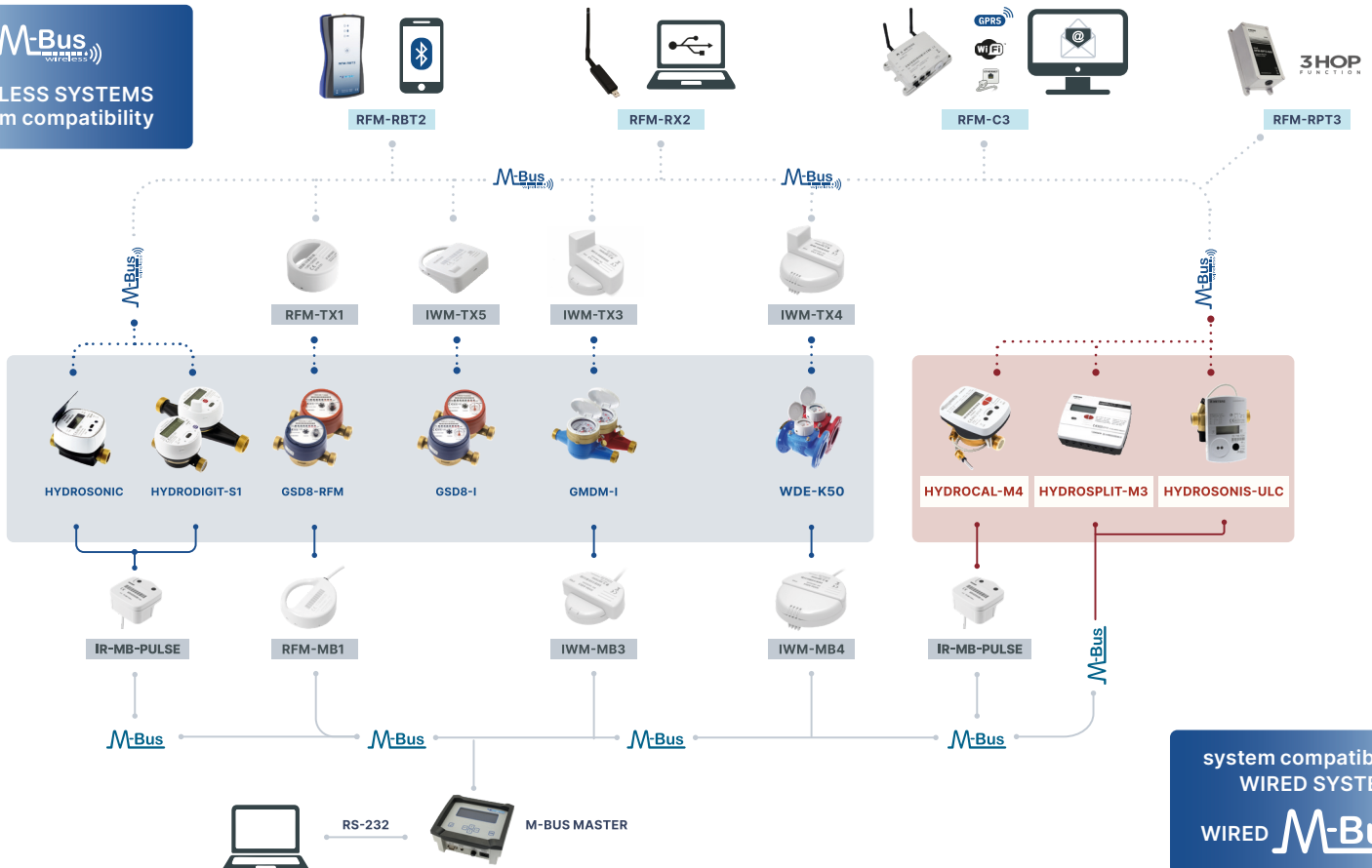
on request up to:

Size DN	mm (in)	50 (2")	65 (2 1/2")	80 (3")	100 (4")	125 (5")	150 (6")	200 (8")		
Length	mm	200	225	250	300	350				
R=100H ↑	Overload flow rate	Q ₄ m ³ /h	50	78,75	125	200	200	312,5	500	
	Permanent flow rate	Q ₃ m ³ /h	40	63	100	160	160	250	400	
	Transitional flow rate	Q ₂ m ³ /h	0,64	1,008	1,60	2,56	2,56	4,00	6,40	
	Minimum flow rate	Q ₁ m ³ /h	0,40	0,63	1,00	1,60	1,60	2,50	4,00	
	Minimum reading	L	0,5					5		
	Maximum reading	m ³	9.999.999					99.999.999		
	Maximum pressure loss at Q ₃	bar	0,25	0,40	0,25	0,40	0,40	0,16	0,40	
	Maximum admissible pressure	bar	16							

Horizontal Woltmann type meter with removable insert and sealed counter mechanism. Available for both cold water 0+50°C and hot water 30+90°C. Magnetic transmission. Inductive predisposition for the installation of **LoRaWAN**, **M-Bus**, wired **M-Bus** & non-magnetic Pulse modules.

M-Bus

WIRELESS SYSTEMS
system compatibility



system compatibility
WIRED SYSTEMS

WIRED **M-Bus**



mod. **RFM-MB1**

Optical Wired M-BUS Module

Standard EN13757-2/3
IP65 protection class
BUS powered (Backup battery included)
Real-time alarms




mod. **RFM-TX1**

Optical WM-BUS Module

Standard EN13757-4 @868 MHz ≤ 10 mW, mode T1
IP68 protection class
10 years lifetime battery
Real-time alarms

For predisposed
single jet water meters



 module also available



mod. **IWM-MB3**

Inductive Wired M-BUS Module

Standard EN13757-2/3
IP68 protection class
BUS powered (Backup battery included)
Real-time alarms
Android mobile devices configurable via NFC



mod. **IWM-TX3**

Inductive WM-BUS Module

Standard EN13757-4 @868 MHz ≤ 25 mW, mode T1
IP68 protection class
10 years lifetime battery
Real-time alarms
Android mobile devices configurable via NFC

For predisposed
multiple jet water meters



mod. **IWM-PL3**

Inductive Pulse Output Module

Non-magnetic Pulse output for incremental/
decremental counting
IP68 protection class
10 years lifetime battery
Android mobile devices configurable via NFC



module also
available



mod. **IWM-MB4**

Inductive Wired M-BUS Module

Standard EN13757-2/3
IP68 protection class
BUS powered (Backup battery included)
Real-time alarms
Android mobile devices configurable via NFC

For predisposed
Woltmann
water meters



mod. **IWM-TX4**

Inductive WM-BUS Module

Standard EN13757-4 @868 MHz ≤ 10 mW, mode T1
IP68 protection class
10 years lifetime battery
Real-time alarms
Android mobile devices configurable via NFC



mod. **IWM-PL4**

Inductive Pulse Output Module

Non-magnetic Pulse output for incremental/
decremental counting
IP68 protection class
10 years lifetime battery
Android mobile devices configurable via NFC



module also
available

mod. IWM-TX5




Inductive WM-BUS module:

Standard EN13757-4 @868 MHz ≤ 10 mW, mode T1
IP65 protection class
10 years lifetime battery
Real-time alarms
Android mobile devices configurable via NFC

For predisposed
single jet water meters



 module also available

DATA ACQUISITION SYSTEMS



WIRELESS DEVICES



mod. RFM-RX2

WM-BUS Configurator & Receiver

Reads the consumption data of the WM-BUS devices
Programming software & drivers included
Pc connection via USB port



mod. RFM-RBT2

WM-BUS Receiver for Android devices

Collects the consumption data of the WM-BUS devices
Free B METERS app downloadable from Google Play
Android mobile devices connection via Bluetooth



mod. RFM-C3

WM-BUS to GPRS/Ethernet/LAN/WiFi Concentrator

Collects the consumption data from the WM-BUS devices
Sends the acquired telegrams up to 5 e-mail recipients and/or FTP server
Daily/Weekly/Monthly transmission frequency
Programming software included
Device powered by the mains



mod. RFM-RPT3

WM-BUS signal Repeater

Repeats the signal from the WM-BUS devices
3 HOP Function, up to 3 levels of repeating chains
Battery powered, predisposed for external energy supply



mod. MB-MASTER

Wired M-BUS Concentrator for 60/250 slaves

Collects the consumption data of the wired M-BUS devices
Suitable for network branches up to 1200 m of length
Storage of up to 12 month historical values
Direct reading via high-contrast display
Pc connection via USB port



WIRED DEVICES



mod. MB-LV32

M-BUS level converter

Suitable for up to 32 M-BUS wired devices

mod.HYDROCAL-M4

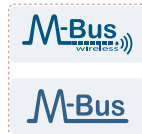


Size DN	mm (in)	15 (G 3/4")		20 (G 1")
Length	mm	110		130
Nominal flow rate	m³/h	0.6	1.5	2.5
Temperature range	°C	1÷90 🔥 / 0.2÷90 ❄️		
Temperature difference	K	3÷90 🔥 / 0.2÷90 ❄️		
Energy units		J, MJ, GJ, KWh, MWh		
Accuracy class		2 (EN1434)		
Protection class		IP65		
Power supply		10+1 years lifetime battery		

Version for installing on the return pipe or flow pipe configurable during installation

Smart and compact thermal energy/BTU meter capable of measuring the amount of energy used for heating/cooling individual utilities served by a centralised system. The data processing related to the flow and return temperature difference, along with the volume data, allows the calculation of the exact amount of energy consumed.

mod.HYDROSONIS-ULC

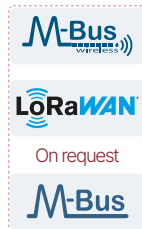


Size DN	mm (in)	15 (G 3/4")		20 (G 1")
Length	mm	110		130
Nominal flow rate	m³/h	0.6	1.5	2.5
Temperature range	°C	5÷105		
Temperature difference	K	3÷80		
Energy units		MJ/GJ ou KWh/MWh		
Accuracy class		2-3 (EN1434)		
Protection class		IP54		
Power supply		10+1 years lifetime battery		

Standard version for the installation on return pipe - Flow pipe installation version available on request

Ultrasonic thermal energy/BTU meter designed to measure heating/cooling energy consumption in commercial utilities like dwelling houses, office buildings, energy plants and similar applications

mod.HYDROSPLIT-M3



Technical features				
Temperature range	°C	5÷180 🔥 / 2÷24 ❄️		
Temperature difference	K	3÷150 🔥 / 3÷20 ❄️		
Temperature sensor		PT 1000		
Input Pulse rate (flow sensor)	Litres	0.1 - 0.25 - 1.0 - 2.5 - 10 - 25 - 100 - 250		
Energy units		MJ/GJ ou KWh/MWh		
Accuracy class		2 (EN1434)		
Protection class		IP52		
Power supply		10+1 years lifetime battery		

Standard version for the installation on return pipe - Flow pipe installation version available on request

Separate thermal energy/BTU calculator, used for measuring the amount of energy used for heating/cooling. The data processing related to the flow and return temperature difference, along with the volume data, allows the calculation of the exact amount of energy consumed. Connectable to external volume measurement devices with pulse output : mod.CMC-R, mod.Hydrosonis-UP e mod.WDC-R.

mod.HYDROSONIS-UP + HYDROSPLIT-M3



Size DN	mm (in)	25 (1")	40 (1 1/2)	50 (2")	65 (2 1/2)	80 (3")	100 (4")
Maximum flow rate	m³/h	7	12	20	30	50	120
Nominal flow rate	m³/h	3.5	6	10	15	25	60
Minimum flow rate	L/h	35	60	100	150	250	600
Pressure lost at Qp	mbar	60	240	110	110	105	115
Operating limit	L/h	14	24	40	60	100	240
Temperature range	°C	5 ÷ 130					

Standard version for the installation on return pipe - Flow pipe installation version available on request

Ultrasonic flow sensor without internal moving parts that ensures maximum measurement accuracy, no maintenance requirement and constant functionality over time even in the presence of debris and deposits in the fluid. It allows the installation in any position with ascending or descending flow.