



**WATER METERS DATAWATER**

 **maddalena**<sup>®</sup>

## THE IMPORTANCE OF PRECISION

The correct measurement of water consumption has a growing importance, especially as the value of water increases. For this reason Maddalena has implemented its already vast product range with a new line of Woltmann meters, which are extremely precise and reliable at both high and low flowrates.

The new **DataWater** line of Woltmann meters with interchangeable mechanisms is made up of the following product families:

- axial helix Woltmann meters denominated DataWater WP in diameters from 50 to 500 mm
- vertical helix Woltmann meters denominated DataWater WS in diameters from 50 to 150 mm

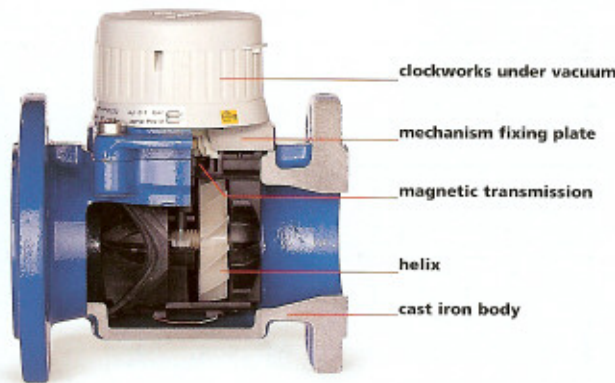


- combination water meters denominated DataWater WPV in diameters from 50 to 150 mm. Furthermore versions for hot water (90°C - 120°C) and high pressures (PN 25 - PN 40) are available as well as a version with inlet and outlet at right angles for the WS range. All meters of the **DataWater** range are covered by EEC homologation and can be supplied with special initial

verification marking. The meters are supplied with pre setting for 3 types of impulse output (2 reed switches and 1 optoelectronic) which can all be activated together and after the installation of the meters. A special dial with LCD display is also available with optoelectronic and/or M-BUS output.



**DATAWATER WP** is a Woltmann meter for cold water at 30°C (working guarantee upto 50°C) of interchangeable mechanism and axial helix type (the axis of the helix coincides with that of the pipeline). The dial is of dry type with magnetic transmission and straight reading on large numbered drums (**AWWA standard**). When constructed with special materials it can be used for the measurement of hot water at 90°C or 120°C or pressures of 25 and 40 bar.



#### STRUCTURAL CHARACTERISTICS

- Body in cast iron with epoxy paint finish flanged according to UNI PN 10 or PN 16 (other pressure ratings on request).
- Helix and measuring chamber in antimagnetic, undeformable and wear resistant plastic material.
- Encapsulated counter of glass/copper protection class IP68: the counter can be rotated by 360°
- Easy to remove shockproof sealable plastic lid.

#### FUNCTIONAL CHARACTERISTICS

- Hydraulic performances in conformity with EEC standards (the meter is covered by EEC homologation in class B).
- On request the meter can be supplied with EEC mark **certifying that initial verification has been carried out**.
- Meter is installable on vertical, horizontal or inclined pipes.
- **Low starting flow.**
- Extremely low wear of moving parts thanks to the **balancing of dynamic forces** which exploits the depression downstream of the helix to compensate the forces present on the helix due to the water flow.
- Highly stable hydraulic performances due to the special form of the bearings.
- Reverse flow: on request the meters can be supplied verified **in class B for reverse flow** (diameters from 50 mm to 200 mm).
- Easy reading (**numbered drums and dial of large dimensions**).
- Totalizer is rotatable through 360° for easy reading.

**DATAWATER WP** is supplied **pre set for 3 impulse outputs** (2 reed switches and 1 optoelectronic) which can be easily activated together and even after the installation of the meter itself. Furthermore a special dial with LCD display and M-BUS output can be supplied.

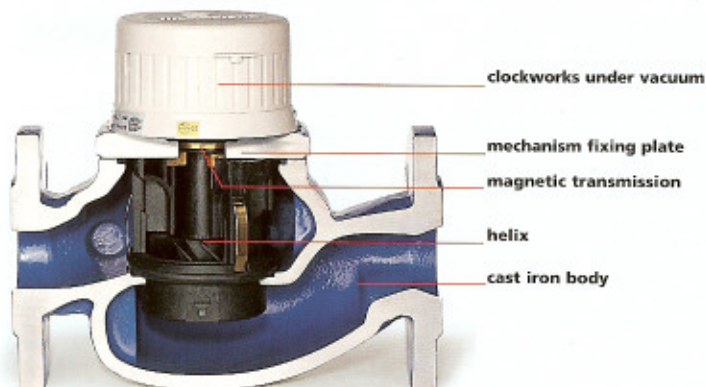


## DATAWATER WP

Size (mm)	50	65	80	100	125	150	200	250	300	400	500
Qmin m <sup>3</sup> /h	0,35	0,45	0,5	0,6	0,6	1,8	4,0	12,0	18,0	30,0	45,0
Qt m <sup>3</sup> /h	1	1,2	0,8	1,8	2	4	6	20	50	50	80
Qn m <sup>3</sup> /h*	15	25	40	60	100	150	250	400	600	1000	1500
Permanent charge m <sup>3</sup> /h	30	50	120	230	250	250	325	600	700	1250	2000
Qmax m <sup>3</sup> /h	90	120	200	300	350	350	650	1200	1500	2800	4200
Starting flowrate m <sup>3</sup> /h	0,09	0,13	0,16	0,19	0,19	1,5	2,5	5	10	15	20
Maximum reading m <sup>3</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>8</sup>	10 <sup>8</sup>
Length (mm)	200	200	(200) 225	250	250	300	350	450	500	500	500

\* Approval value

**DATAWATER WS** is a Woltmann meter for cold water at 30°C (working guarantee upto 50°C) of interchangeable mechanism and vertical helix type (the axis of the helix is at right angles to that of the pipeline). The dial is of dry type with magnetic transmission and straight reading on large numbered drums (**AWWA standard**). When constructed with special materials it can be used for the measurement of hot water at 90°C or 120°C or pressures of 25 and 40 bar. A version with inlet and outlet at right angles is also available.



#### STRUCTURAL CHARACTERISTICS

- Body in cast iron with epoxy paint finish flanged according to UNI PN 10 or PN 16 (other pressure ratings on request) .
- Helix and measuring chamber in antimagnetic, undeformable and wear resistant plastic material.
- Encapsulated counter of glass/copper protection class IP68: the counter can be rotated by 360°
- Easy to remove shockproof sealable plastic lid.

#### FUNCTIONAL CHARACTERISTICS

- Hydraulic performances in conformity with EEC standards (the meter is covered by EEC homologation in class B).
- On request the meter can be supplied with EEC mark **certifying that initial verification has been carried out.**
- Meter is installable on horizontal pipes.
- **Excellent performances at low flowrates.**
- Highly stable hydraulic performances due to the special form of the bearings.
- Extremely low starting flowrates.
- Easy reading (**numbered drums and dial of large dimensions**).
- Totalizer is rotatable through 360° for easy reading.

**DATAWATER WS** is supplied **pre set for 3 impulse outputs** (2 reed switches and 1 optoelectronic) which can be easily activated together and even after the installation of the meter itself. Furthermore a special dial with LCD display and M-BUS output can be supplied.

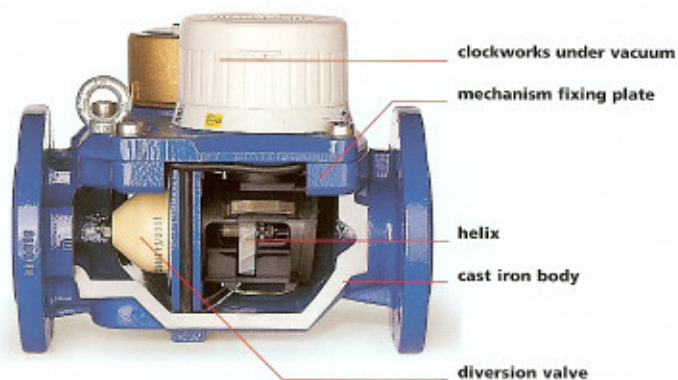


## DATAWATER WS

Size (mm)	50	65	80	100	150
Qmin m <sup>3</sup> /h	0,2	0,2	0,25	0,3	0,8
Qt m <sup>3</sup> /h	1,5	2	2,5	3	10
Qn m <sup>3</sup> /h*	15	25	40	60	150
Permanent charge m <sup>3</sup> /h	25	25	55	90	200
Qmax m <sup>3</sup> /h	50	50	110	180	350
Starting flowrate m <sup>3</sup> /h	0,06	0,06	0,09	0,09	0,15
Maximum reading m <sup>3</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>7</sup>
Length (mm) DIN	270	300	300	360	500
ISO 4064	300	300	350	350	500

\* Approval value

**DATAWATER WPV** is a Woltmann meter for cold water (30°C working guarantee upto 50°C) of combination type. That is formed by an axial helix Woltmann meter (primary meter) model WP connected in parallel to a multi jet coaxial meter (secondary meter). The new, improved version of the meter has both the Woltmann meter and the secondary meter installed on the same plate. The diversion valve, which diverts the flow from the primary meter to the secondary meter depending on the flow rate is also installed on the same plate. This new solution makes the meter much more compact than the traditional version in fact the meter is 20% shorter on average than the previous version thus making the installation and reading operations much easier.



**STRUCTURAL CHARACTERISTICS**  
as specified for the two meters making up WPV meter.

#### FUNCTIONAL CHARACTERISTICS

- Hydraulic performances in conformity with relative ISO standards (the meter is covered by PTB approval **in class B**). The secondary meter can be supplied with class C approval
- On request the meters can be supplied with PTB mark **certifying that initial verification has been carried out.**
- Meter is installable on horizontal and vertical pipes.



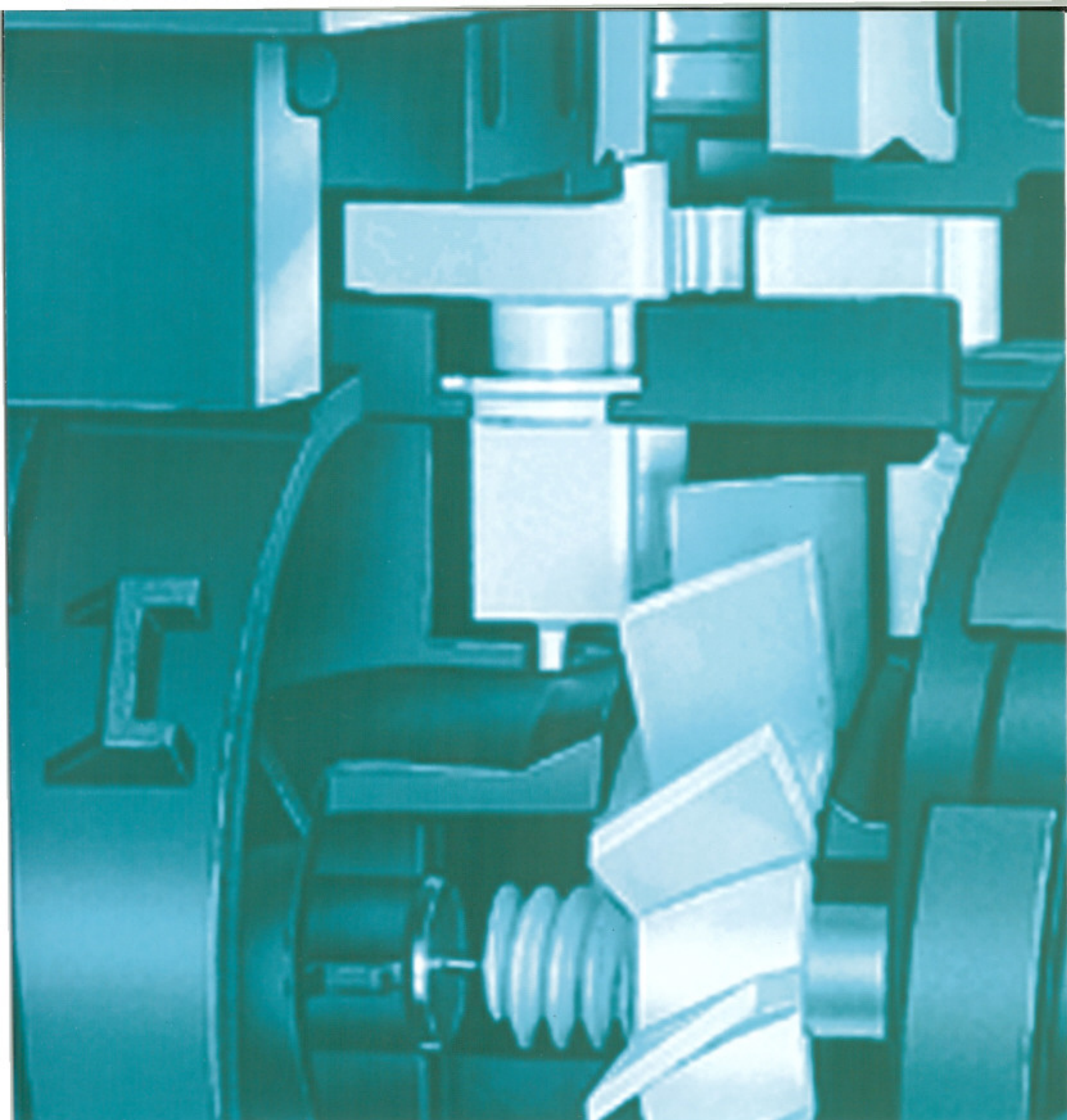
- Simple installation and maintenance operations due to the solution with both meters on the same plate.
  - **Low starting flow.**
  - Extremely wide range of flow rates: the meter can measure flow rates starting from the Qmin of the secondary meter up to the Qmax of the primary meter. For this reason the meter is suitable for measurement of consumption on large pipelines which have high variations of flow rate and a wide flow range (schools, shopping centers, hospitals fire hydrants, swimming pools etc.)
- More details regarding the functional and structural characteristics as well as the impulse outputs available can be seen on the specific leaflets of the two meters.



## DATAWATER WPV

Size (mm)	50x20	65x20	80x20	100x20	150x40
Qmin m <sup>3</sup> /h	0,020	0,020	0,020	0,020	0,080
Qt m <sup>3</sup> /h	0,0375	0,0375	0,0375	0,0375	0,15
Qn m <sup>3</sup> /h*	15	40	40	60	150
Permanent charge m <sup>3</sup> /h	35	120	120	230	425
Qmax m <sup>3</sup> /h	90	200	200	300	565
Maximum reading m <sup>3</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>7</sup>
Length (mm) DIN	270	300	300	360	500
ISO 4064	270	300	300	350	500

\* Approval value



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