

R1000 (WP-T-M)

Paddle wheel irrigation water meters

Max. Flow Rate (qmax)	m³/h	30	50	80	120	200	300	500	800	1200
Size	mm	50	65	80	100	125	150	200	250	300

The R1000 (WP-T-M) in-line tangential paddle wheel meter is designed for the measurement of high flows of cold water, raw and untreated dirty water, standard agriculture river and lake pumping as well as normal irrigation metering applications. Available in nine sizes from 50mm to 300mm with maximum continuous flow rates of Qmax 30m³/h to 1,200m³/h. A special 50mm screwed in-line DR brass bodied meter as shown at right is also available.

The R1000 (WP-T-M) meter consists of a flanged body, measuring element assembly, magnetically driven register with brass cover and lid. Water passing through the meter drives the paddle wheel rotor in direct proportion to the velocity of the water for accurate register display. Electronic data transfer via an optional pulser assembly can also be provided.

Standard features

- For simplified maintenance, a single measuring element fits all meter sizes.
- Low flow meter accuracy.
- AS 1830/T-250 Grey Cast Iron meter body is finished both inside and out with yellow epoxy coating.
- Each meter is tested and calibrated to comply with the requirements of DIN / ISO 4064 Part 1 - Class A.
- Available with various pulse output options for data collection and management.
- Raised-faced flanges are drilled to Australian Standard AS 2129 Table D.
- Maximum working pressure 1600 kPa.
- Maximum working temperature 50°C.

Measuring Element

The R1000 (WP-T-M) is an inferential meter which utilises a specially designed paddle wheel type rotor that presents a relatively low cross section to the flow. The rotor design combined with the constant area body cross section, results in a very low pressure drop. The unobstrusive and robust design of the rotor, which is located out of the main flow stream also means that this meter is less susceptible to jamming or damage from suspended solids or stringy weed material that can often be encountered in irrigation applications.



Counter

The dry dial counter mechanism incorporates a bold straight reading register, which is dust proof and condensation free. The register housing is completely separate from the measuring element, ensuring a dry environment. The counter is contained within a robust brass metal housing with protective lid, which can be locked to deter tampering.

Remote / Electronic Reading

All R1000 (WP-T-M) meters as standard have a pulse output facility for either opto-electronic or reed switch type pulser operation. The pulse units can easily be retrofitted on site without interrupting the water supply.

Three different pulse rates are available as detailed in the Performance Table on the following page.

Materials

All R1000 (WP-T-M) meters are manufactured from the highest quality materials ensuring maximum resistance to wear and corrosion.

Installation

The meter can be installed in horizontal, vertical, or inclined pipelines. Published accuracy applies for horizontal installation. The meter must be installed with the counter facing up and the direction of flow to be as indicated by the arrow cast on the meter body.

Note: The R1000 (WP-T-M) meter is designed to measure straight flowing water free of disturbances and requires a minimum of 10 and 5 straight pipe sections (of meter NB size) of undisturbed water immediately prior to and after the meter, to ensure meter registers accurately.

Optional Features

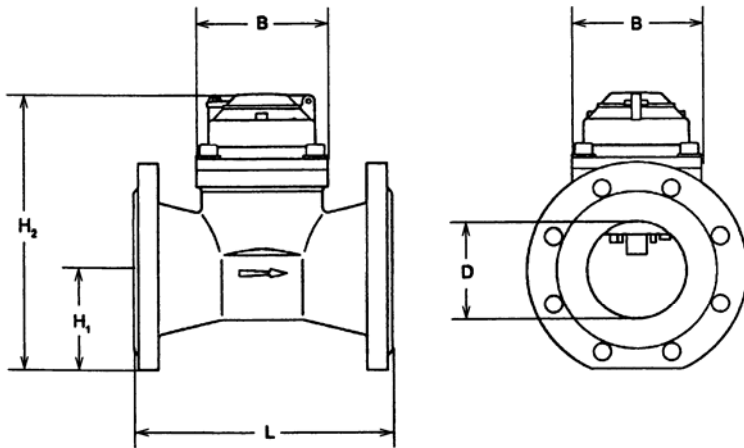
- Reed switch pulse units for use with data loggers, remote counters and process control equipment.
- Opto-electronic pulse units for use with data loggers, rate of flow and process control equipment.
- Remote battery operated totalising counter with LCD display (Scancounter).
- Alternative flange drilling provided on request.

R1000 (WP-T-M) Performance to DIN / ISO 4064 Part 1 - Class A

Nominal Meter Size - (D) mm		50 ①	65	80	100	125	150	200	250	300
Nominal flow rate (q _n)	m ³ /h	15	25	40	60	100	150	250	400	600
Maximum continuous flow rate (q _{max})	m ³ /h	30	50	80	120	200	300	500	800	1200
Transitional flow rate (q _t)	m ³ /h	4.5	7.5	12	18	30	45	75	120	180
Minimum flow rate (q _{min})	m ³ /h	1.2	2.0	3.2	4.8	8	12	20	32	48
Accuracy (q _{min} to q _t)	%	±5	±5	±5	±5	±5	±5	±5	±5	±5
Accuracy (q _t to q _{max})	%	±2	±2	±2	±2	±2	±2	±2	±2	±2
Approx. flow rate with 10 Kpa head loss	m ³ /h	55	100	160	250	400	600	1000	1500	1500
Maximum working pressure	KPa	1600	1600	1600	1600	1600	1600	1600	1600	1600
Maximum working temperature	°C	50	50	50	50	50	50	50	50	50
Maximum counter registration	m ³	999999	999999	999999	999999	999999	999999	999999	999999	999999
Reed switch pulse output (slow position)	L/pulse	1000	1000	1000	1000	1000	10000	10000	10000	10000
Reed switch pulse output (fast position)	L/pulse	100	100	100	100	100	1000	1000	1000	1000
Opto / Namur pulse output	L/pulse	1	1	1	1	1	10	10	10	10
Meter Dimensions										
Overall meter length (L)	mm	200	200	225	250	250	300	350	450	450
Height from bottom to centreline (H ₁)	mm	72	85	95	105	120	135	160	200	230
Height from btm to top, lid closed (H ₂) ②	mm	130	240	250	260	275	290	315	355	385
Measuring element width (B)	mm	130	130	130	130	130	130	130	130	130
Bare meter weight	kg	11	13	15	19	24	30	48	85	100

Notes: ① A special 50mm BSP Male screwed in-line DR brass bodied meter as shown on the front page of this leaflet can also be provided. Approx. bare weight for this meter is 6.1kg and apart from (H₁) = 31.5mm and (H₂) = 191.9mm, all other meter performance and dimensions would be as for the above 50mm flanged unit.
② For height with lid open - Add 91 mm to above (H₂) dimension.

Dimensions



Counter



Standard counter shown with both opto and reed type pulse units fitted



The Company's policy is one of continuous improvement and the right is reserved to modify the specifications without notice.

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Leaflet No: SML006 06/01