

# TURBO-IR-A

## Water Meter

### for Irrigation and Waste Water

### DN50-300; 2"-12"

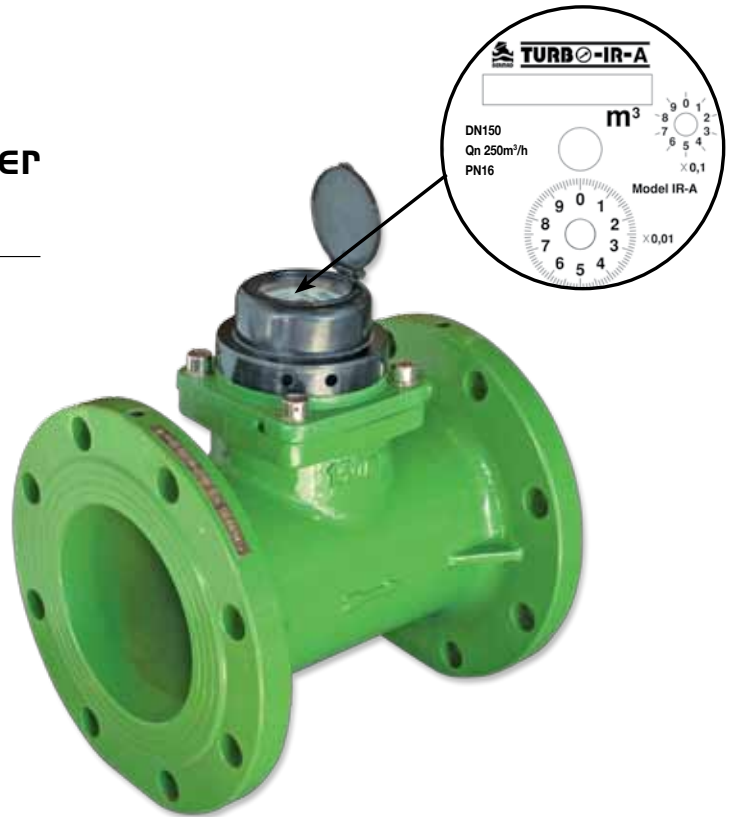
#### Features and Benefits

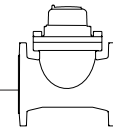
- Magnetic drive
- Dry, vacuum sealed register
- Option for "reed switch" sensor
- Register can rotate 360°
- Paddle wheel design prevents jamming and damage due to solid debris
- Easy maintenance
- Can be installed in any orientation
- Low head loss

#### Operating Conditions

- **Water temperature:** up to 40°C
- **Pressure rating:** PN16

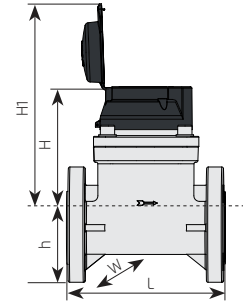
The TURBO-IR-A uses a multi-blade plastic paddle mounted at the top of the water passage, where disturbance from solids suspended in the water is minimal, permitting accuracy of metering in water containing up to 30% solid debris. Ideal for irrigation and waste water applications.





### Dimensions and Weights

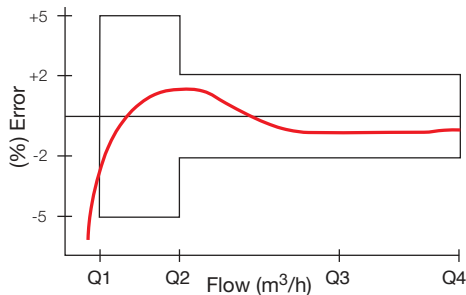
Nominal Size	mm	50	65	80	100	125	150	200	250	300
	Inch	2"	2½"	3"	4"	5"	6"	8"	10"	12"
L, Length (mm)		200	200	225	250	250	300	350	450	500
h, Height (mm)		75	82	95	106	110	135	162	194	220
H, Height (mm)		177	180	185	185	193	198	224	248	274
H1, Height (mm)		247	250	255	255	263	268	294	318	344
W, Width (mm)		125	140	160	180	200	240	295	350	400
Weight (kg)		10.5	11.8	15.5	17.5	19.5	30.5	42.5	60	82.5



### Metrological Data

	Accuracy	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	
		2"	2½"	3"	4"	5"	6"	8"	10"	12"	
Qmin (Minimum flow), m³/h	±5%	2.8	4	6	10	14	20	36	48	64	
Qt (Transitional flow), m³/h	±2%	10.5	15	22.5	37.5	52.5	75	135	180	240	
Qn (Permanent flow), m³/h	±2%	35	50	75	125	175	250	450	600	800	
Qmax (Peak flow, short time), m³/h	±2%	70	100	150	250	350	500	900	1,200	1,600	
Min reading unit (m³)		0.01	0.01	0.01	0.01	0.01	0.01	0.1	1	1	
Max register capacity (m³)		99,999.999 - 999,999.99 - 9,999,999.9 - 99,999,999									
Kv=Q/√Δp		115	192	219	402	584	1,059	1,826	2,373	4,017	

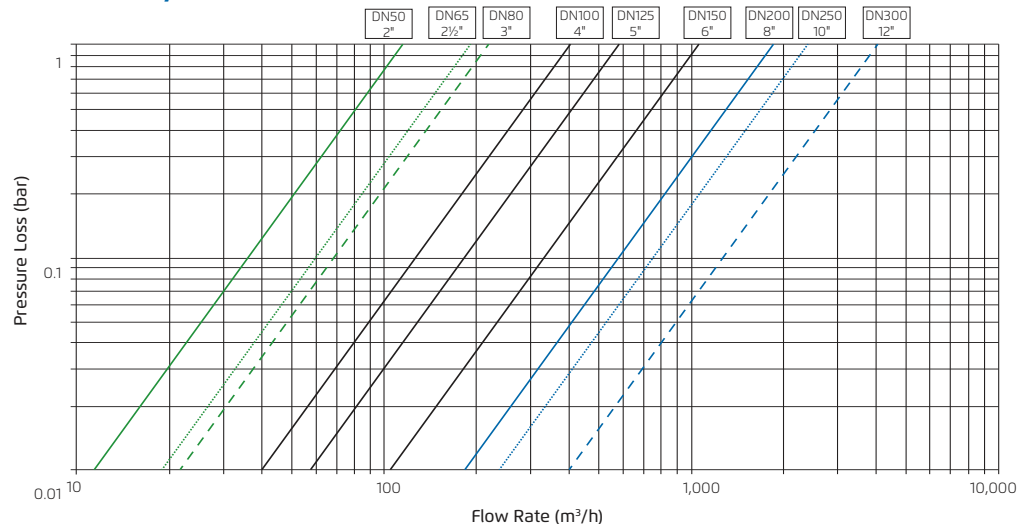
### Accuracy Curve

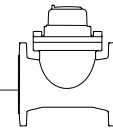


### Technical data

- **Body, Cover:** Ductile Iron
- **Coating:** Polyester Green
- **End Connections - Flanged:** ISO PN16, ANSI Class 150
- **Pressure Rating:** ISO PN 16
- **Operating Temperature:** water up to 50°C / 122°F

### Turbo-IR-E/M Flow Chart





### Pulse Output Option - Magnetic Register

Cubic Meter Pulse Output Magnetic transmission							
Models	Size		Dry contact Reed Switch				Dual pulse output
			Pulse for Each 1				
	In	mm	100 liter	1 m <sup>3</sup>	10 m <sup>3</sup>	100 m <sup>3</sup>	
Turbo-IR-M	1½"-5"	40-125	S3	S2			S23
	6"-8"	150-200		S2	S1		S12
	10"-12"	250-300			S1	S8	S81

Gallon Pulse Output Magnetic transmission							
Model	Size		Dry contact Reed Switch				Dual pulse output
			Pulse for Each 1				
	In	mm	10 gal	100 gal	1,000 gal	10,000 gal	
Turbo-IR-M	1½"-5"	40-125	S3	S2			S23
	6"-8"	150-200		S2	S1		S12
	10"-12"	250-300			S1	S8	S81

### Installation Recommendation

- The water meter can be installed in any orientation without interfering with metering performance.
- The arrow on water meter body must be in the same direction with the flow.
- To avoid turbulence that may interfere with accurate measurement, it is recommended to have 10 diameters of straight pipe upstream and 5 diameters downstream from the water meter.
- Prior to installation, flush the line to remove debris.
- The TURBO-IR-E/M must be filled with water to operate.

