

# 'IRT' WATER METERS

**PADDLE WHEEL DESIGN  
AND FREE WATER PASSAGE  
RESULT IN LOW HEADLOSS**



## PRODUCT ADVANTAGES

- Ideal for moderate to dirty water conditions.
- Water is metered with a paddle wheel located at the top of the water passage which provides a free water passage eliminating clogging from debris.
- Low head loss with the ability to accurately measure water with high levels of impurities or debris.
- Bearings are constantly flushed during operation to eliminate deposits of solids.
- Registers are stainless steel encapsulated and guaranteed not to accumulate moisture or fog.
- Simple maintenance with field replaceable calibrated measuring unit.
- High level of accuracy ( $\pm 2\%$ ) is achieved over a wide range of flows.
- Wide selection of register options.

## APPLICATIONS

- For main supply lines in agriculture applications

## SPECIFICATIONS

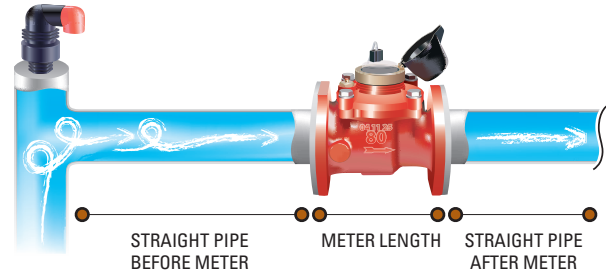
- Sizes: 3", 4", 6", 8" and 10"
- Maximum Working Pressure: 230 psi
- Maximum Liquid Temperature: 140° F
- Body Material: Cast Iron with Polyester Coating
- Connections: Flange
- Register Options: Reed Switch or ER Digital
- Reed Switch Register Pulse Outputs: 10, 100, 32.6 or 325.9
- ER Digital Register Pulse Outputs: Gallons - .1, 1, 10, 100, 1000  
Acre Feet - .0001, .001, .01, .1
- Straight Pipe Installation Requirement: 10 x D upstream and 5 x D downstream (D = meter size)



## 'IRT' WATER METERS

### STRAIGHT PIPE INSTALLATION REQUIREMENT 10 D X 5 D

METER SIZE	UPSTREAM DISTANCE	DOWNSTREAM DISTANCE	METER LENGTH	TOTAL REQUIREMENT
3"	30"	15"	9"	54"
4"	40"	20"	10"	70"
6"	60"	30"	12"	102"
8"	80"	40"	14"	134"
10"	100"	50"	16"	166"



### INSTALLATION REQUIREMENTS

- The meter may be installed in any position. For non-horizontal positions, the flow should be upwards.
- Straight pipe installation requirement of 10 x diameter pipe upstream (before the meter) and 5 x diameter pipe downstream (after the meter).
- Prior to installation of the meter, the pipeline should be thoroughly flushed
- Meter must be installed so that the pipe will be full of water at all times during metering
- To eliminate air in the system, continuous acting air vents of proper size and type are required

### REED SWITCH REGISTERS

METER SIZE	REGISTER TOTALIZER	VOLUME UNIT	PULSE OUTPUT (GALS/PULSE)	POINTER RESOLUTION		
				POINTER 1	POINTER 2	POINTER 3
3 & 4"	GALLON	GALLON x 1,000	10	x 1.0 GALLON	x 10 GALLON	x 100 GALLON
3" & 4"	ACRE FEET	ACRE FEET x 1.00	32.6	x 0.00001	x 0.0001	x 0.001
6" & 8"	GALLON	GALLON x 10,000	100	x 10 GALLON	x 100 GALLON	x 1,000 GALLON
6" & 8"	ACRE FEET	ACRE FEET x 1.00	32.6	x 0.000001	x 0.0001	x 0.001
10"	GALLON	GALLON x 10,000	100	x 10 GALLON	x 100 GALLON	x 1,000 GALLON
10"	ACRE FEET	ACRE FEET x 1.0	325.9	x 0.0001	x 0.001	x 0.01

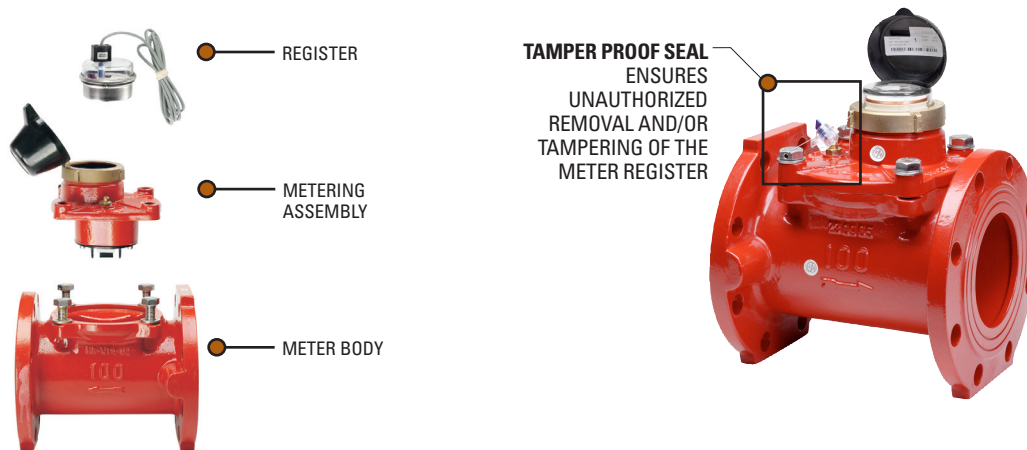


### ELECTRONIC (ER) DIGITAL REGISTERS

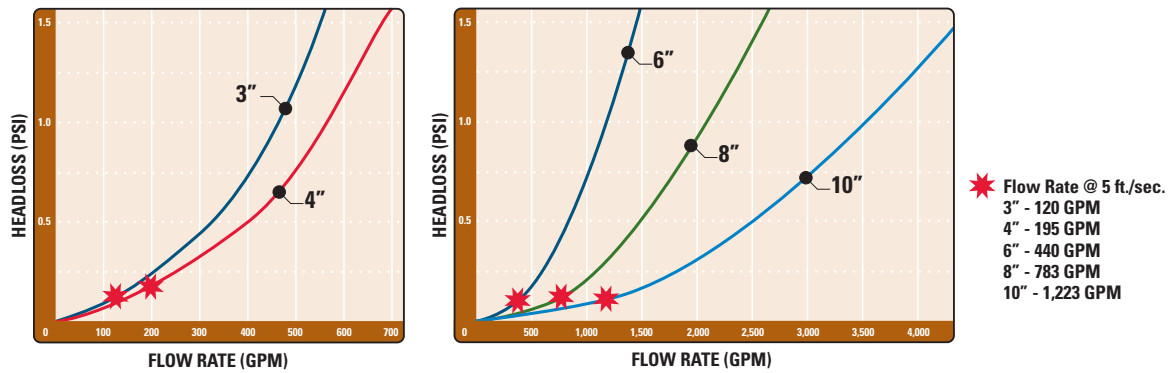
METER SIZE	REGISTER TOTALIZER	PULSE OUTPUT (GALS/PULSE)	FLOW RATE UNITS
3" TO 10" 'IRT'	GALLON	.1, 1, 10, 100, 1000	GPM
3" TO 10" 'IRT'	ACRE FEET	.0001, .001, .01, .1	GPM



**THREE COMPONENTS FOR QUICK MAINTENANCE**



**'IRT' WATER METERS HEADLOSS CHARTS**

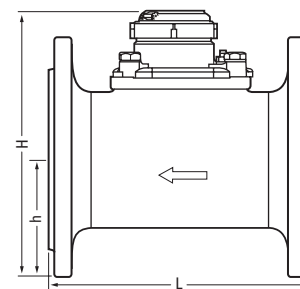


**PERFORMANCE DATA**

METER SIZE	LOWEST FLOW RATE +/- 5% ACCURACY	LOWEST FLOW RATE +/- 2% ACCURACY	NOMINAL FLOW RATE +/- 2% ACCURACY	MAXIMUM FLOW RATE +/- 2% ACCURACY
3"	20 GPM	45 GPM	400 GPM	500 GPM
4"	30 GPM	50 GPM	500 GPM	688 GPM
6"	45 GPM	65 GPM	1,100 GPM	1,375 GPM
8"	80 GPM	130 GPM	1,980 GPM	2,475 GPM
10"	170 GPM	300 GPM	3,300 GPM	4,125 GPM

**DIMENSIONS & WEIGHT**

METER SIZE	H HEIGHT	h HEIGHT	L LENGTH	WEIGHT (LBS.)
3"	9 1/2"	3 1/2"	9"	40
4"	10 1/4"	4 1/4"	9 3/4"	50
6"	12 1/4"	5"	11 3/4"	73
8"	12 1/2"	6 1/4"	13 3/4"	95
10"	13 1/2"	7 3/4"	15 3/4"	125



## 'IRT' WATER METERS

### ORDERING INFORMATION - REED SWITCH REGISTERS

ITEM NUMBER	MODEL NUMBER	METER SIZE	REGISTER TYPE	GALLONS PER PULSE
70261-009200	36IRT3F	3"	REED SWITCH/GALLON	10
70261-009100	36IRT3F-AF		REED SWITCH/ACRE FEET	32.6
70261-009500	36IRT4F	4"	REED SWITCH/GALLON	10
70261-009340	36IRT4F-AF		REED SWITCH/ACRE FEET	32.6
70261-009740	36IRT6F	6"	REED SWITCH/GALLON	100
70261-009720	36IRT63F-AF		REED SWITCH/ACRE FEET	32.6
70261-009920	36IRT8F	8"	REED SWITCH/GALLON	100
70261-009850	36IRT8F-AF		REED SWITCH/ACRE FEET	32.6
70261-010000	36IRT10F	10"	REED SWITCH/GALLON	100
70261-008730	36IRT10F-AF		REED SWITCH/ACRE FEET	325.9



### ORDERING INFORMATION - ER DIGITAL REGISTERS

## 36 IRT

SIZE	REGISTER	VOLUME	FLOW RATE	OUTPUT 1 AND OUTPUT 2 **	FLOW DIRECTION	
3F = 3"	ER = ER DIGITAL REGISTER	1 = GALLONS	1 = GPM	A = NO OUTPUT	F = FORWARD	
4F = 4"		2 = ACRE FEET		C = .1 GALLON PER PULSE	R = REVERSE	
6F = 6"	EM = ER DIGITAL REGISTER W/OUTPUT MODULE			D = 1 GALLON PER PULSE	A = ALTERNATING	
8F = 8"				E = 10 GALLONS PER PULSE	N = NET	
10F = 10"					F = 100 GALLONS PER PULSE	
					G = 1000 GALLONS PER PULSE	
				H = 0.0001 ACRE FT. PER PULSE		
				I = 0.001 ACRE FT. PER PULSE		
				J = 0.01 ACRE FT. PER PULSE		
				K = 0.1 ACRE FT. PER PULSE		

#### ORDERING EXAMPLE:

#### 36IRT3FER11EEF

3" IRT Series Water Meter, ER Register, Volume in Gallons, Flow Rate in Gallons per Minute, Pulse Output 1 is 10 Gallons per Pulse, Pulse Output 2 is 10 Gallons per Pulse, Forward Flow Direction

\*\* Pulse rate is based on volume units.

If volume is in Acre Feet and Option D is chosen for Output 1 or 2, it will result in 1 pulse every acre foot of water that passes through the meter.

To convert Acre Feet to Gallons per Pulse, multiply by 325,850.

### INDUSTRY'S LONGEST WARRANTY

Netafim stands behind our water meters with an unprecedented warranty - the industry's longest - three (3) years on the metering components (register and metering assembly) and five (5) years on the meter body.



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