Nova Rocha

SISTEMAS E EQUIPAMENTOS DE REGA

TANGENTIAL COUNTER
HRV-WI

TANGENTIAL COUNTER

MODEL HRV-WI

HRV-WI:

It is a counter that uses a tangential turbine, with magnetic transmission and dry sphere, as a speed sensor. Manufactured especially for use in irrigation, agricultural applications and wastewater.

The pressure loss due to measurement effects is minimal. Our tangential counters are characterized by their great robustness and measurement stability.

TECHNICAL CHARACTERISTICS:

- Preinstallation for pulse emitter
- Direct magnetic trnsmission
- Metrology R40
- Nominal pressure PN16
- U10/D5 installation
- IP68 protection
- Pressure loss class Δ10
- Flanges according to UNE 1092 standard

NOTABLE FEATURES:

- Cast iron body
- Baked epoxy paint suitable for drinking wáter
- Easy Reading using dry, vacuum rollers to avoid fogging
- Full removable mechanism without the need to dismantle the pipe
- Direct totalization using numbered rollers
- Interior mechanism made of technical plastic in combintion with stainless steel for the metal parts
- Supports horizontal and vertical installation

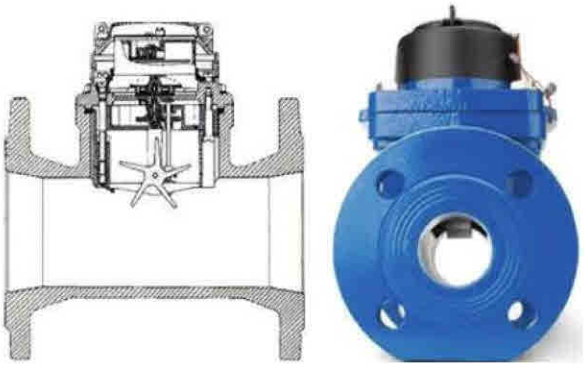
CERTIFICATES

- **MID** approval according to directive **2014/32/EU**

The tangential counter mechanism allows a greater flow rate due to its placement. Furthermore, as the mechanism is more protected, it allows small impurities to pass through.

It is necessary for the pipe to be full in order to rotate the counter mechanism, due to its position at the top of the body.

This model can be repaired without disassembling the pipe body, the entire mechanism can be replaced.



Packaging:

Each counter is delivered in an individual box to protect it from impacts during transport.

Each meter includes the necessary gaskets for installation.

You can find the serial number and model of the meter; as well as other technical information such as measurement, nominal flow rate and flow sensitivity; both on the label which is on the outside of the box, like in their watchmaking.

Installation conditions:

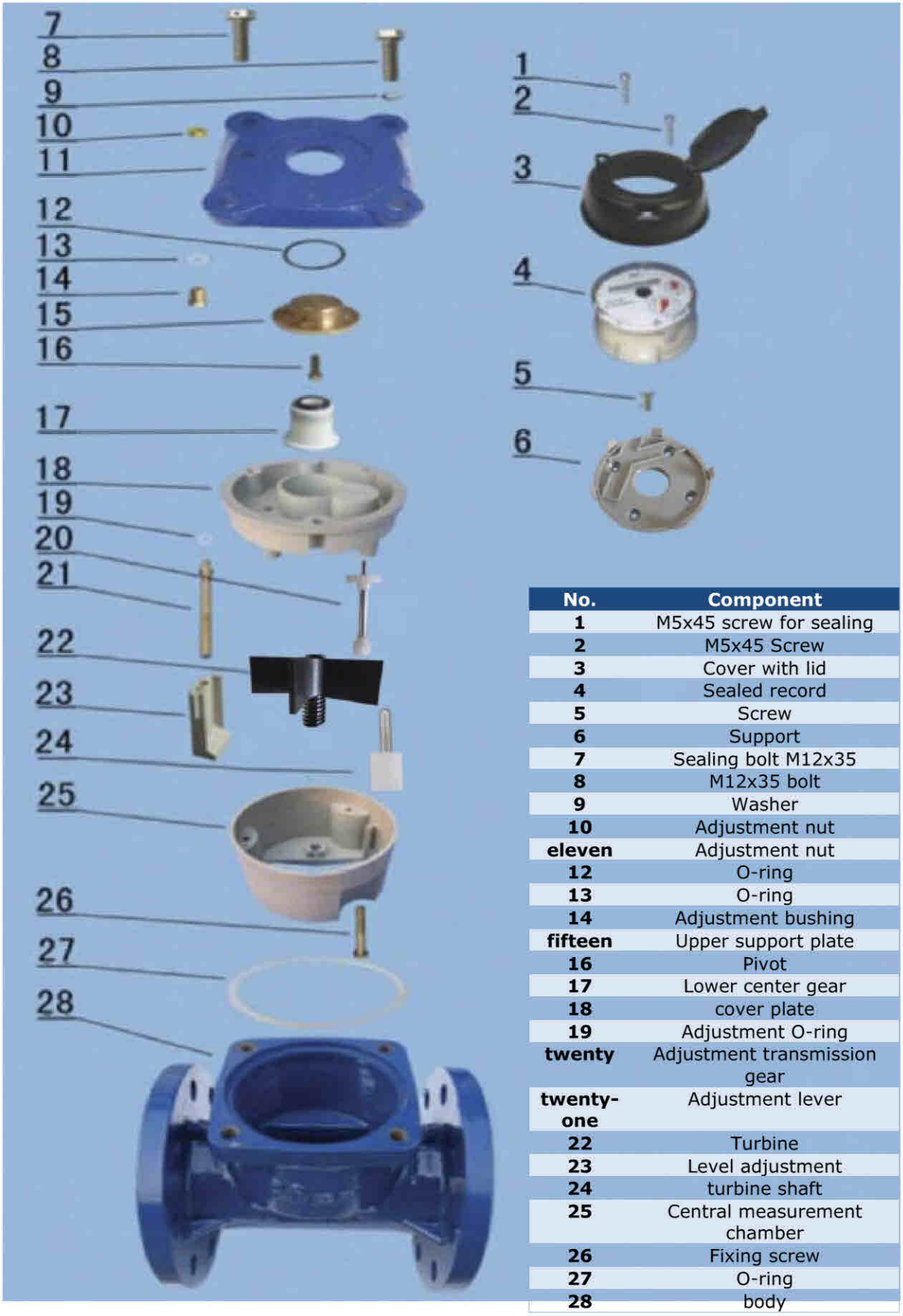
1. The meter must always be permanently filled with water. If a charged pipe cannot be guaranteed, a siphon or gooseneck must be installed downstream of the meter. If these conditions are not met, the counter may not total the volume passing through it correctly.
2. The flow direction arrow marked on the body of the meter must be respected, installing it so that the water flows through it in the same direction as the arrow.
3. The counter should preferably be placed in a position horizontal. However, it can be installed in any position according to the type examination certificate.
4. If the meter is to be installed in frozen areas, it must be protected with some thermal insulation (FOAM type). It is recommended to install it in a place protected from inclement weather such as manholes or sheds.
5. It is recommended to install a stone catcher filter upstream of the counter, to avoid possible impacts of impurities on the mechanism. measurement.
6. Before starting the meter, the pipe must be clean of particles, chips, impurities or sediments.
7. Before starting the meter, the air must be drained from the pipe and the meter.

Warnings:

DO NOT exceed the nominal working conditions of the meter. Ensure that the pressure, flow rate and pipe size are within the parameters defined in the certificate of conformity.

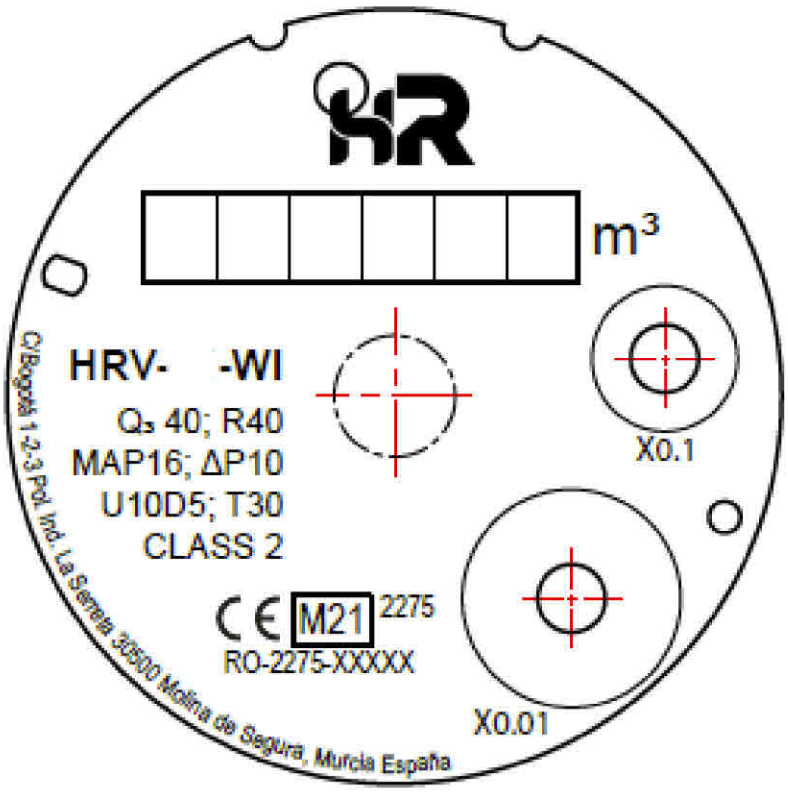
An installation that does not comply with the characteristics of the meter can reduce its useful life.

EXPLODED:



No.	Component
1	M5x45 screw for sealing
2	M5x45 Screw
3	Cover with lid
4	Sealed record
5	Screw
6	Support
7	Sealing bolt M12x35
8	M12x35 bolt
9	Washer
10	Adjustment nut
eleven	Adjustment nut
12	O-ring
13	O-ring
14	Adjustment bushing
fifteen	Upper support plate
16	Pivot
17	Lower center gear
18	cover plate
19	Adjustment O-ring
twenty	Adjustment transmission gear
twenty-one	Adjustment lever
22	Turbine
23	Level adjustment
24	turbine shaft
25	Central measurement chamber
26	Fixing screw
27	O-ring
28	body

WATCHMAKING:



CARACTERISTICAS:

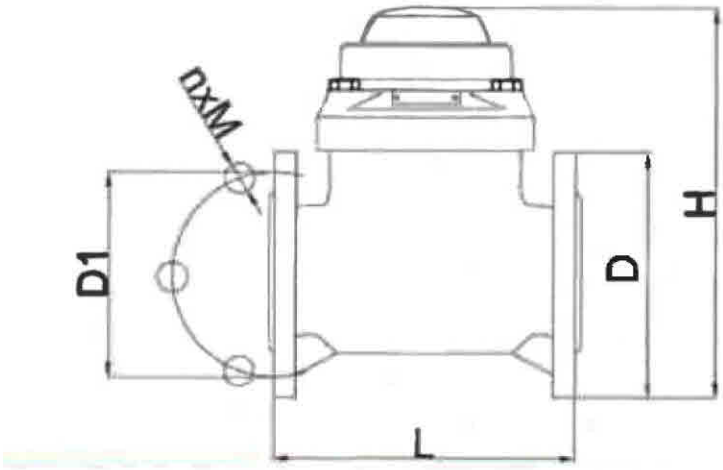
- PN 16
- Δp 10
- T30
- IP68
- Magnetic **anti-fraud** protection

PULSOS:

- Pre-equipped for pulse emission.
- Option of reed type and opto-electric impulses
- 1 pulse every cada 100 / 1000 liters (depending on installation)

	DN50-200	DN250-300
TO	1 Pulse / 100 liters	-
b	1 Pulse / 1000 liters	1 Pulse / 1000 liters

DIMENSIONAL DATA:



Model HRV-WI		WEIGHT AND MEASUREMENTS								
	D.N. *inches*	50 *2"*	65 *2 ½"*	80 *3"*	100 *4"*	125 *5"*	150 *6"*	200 *8"*	250 *10"*	300 *12"*
Length (L)	mm	200	200	225	250	250	300	350	450	500
Height (H)	mm	253	268	284	295	310	339	382	433	483
Weight	kg	15	15	17.50	20	22	33	45	94	114
d	mm	165	185	200	220	240	285	340	395	445
D1	mm	125	145	160	180	210	240	295	350	400
nxM		4xM16	4x16	8x16	8x16	8x16	8x20	8/12x20	12x20	12x20

WORKING CONDITIONS:

Model HRV-WI	WORKING CONDITIONS
Flow profile	U10/D5
Maximum pressure (Bar)	16
Maximum temperature (ºC)	T30
Body	Foundry
Model approval	RO-2275-21560

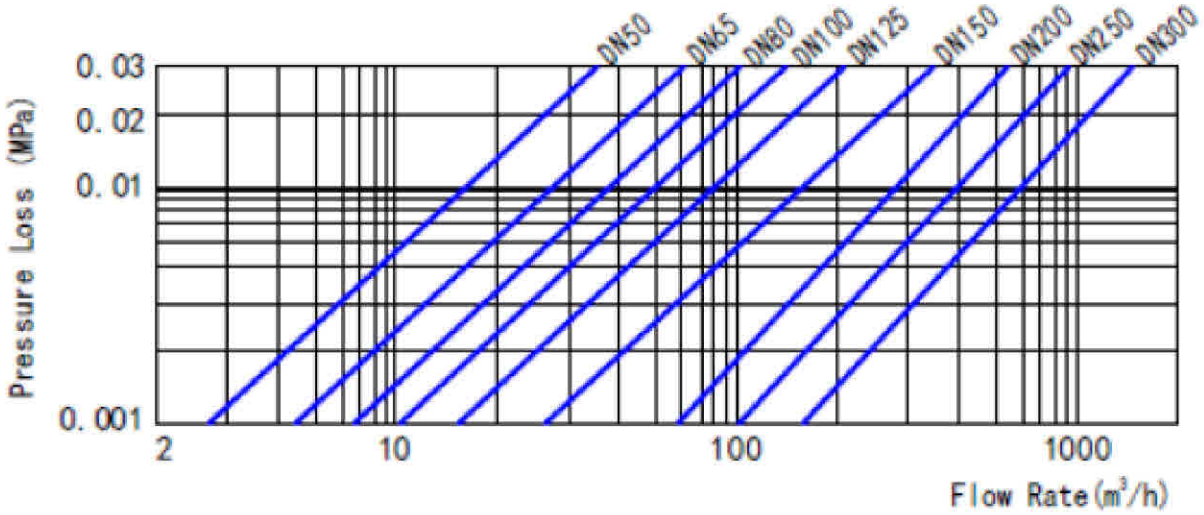
MAXIMUM ALLOWED ERROR:

Maximum allowed error	
	Mistake (%)
Q1 < Q < Q2	**±5%**
Q2 < Q < Q4	**±2%**

METROLOGICAL DATA:

Model HRV-WI		D.N. inches	fifty 2"	65 2 ½"	80 3"	100 4"	125 5"	150 6"	200 8"	250 10"	300 12"
Overload flow	Q_4	m^3/h	fifty	fifty	78.75	125	200	312.50	500	787	1250
Permanent flow	Q_3	m^3/h	40	40	63	100	160	250	400	630	1000
Transition flow	Q_2	m^3/h	1.60	1.60	2.52	4	6.40	10	16	25.20	40
Minimum flow	Q_1	m^3/h	1.00	1.00	1.58	2.5	4	6.25	10	15.75	25
Maximum service pressure		Bar	16								
Dynamic range	Q_3/Q_1		R40								
Flow profile			U10/D5								
Minimum reading		m^3	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.02	0.02
Maximum reading		m^3	999,999							9,999,999	
Pulse transmitter (REED TYPE IP67)		m^3	0.1 1	0.1 1	0.1 1	0.1 1	0.1 1	0.1 1	0.1 1	1 -	1 -

LOAD LOSS:



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