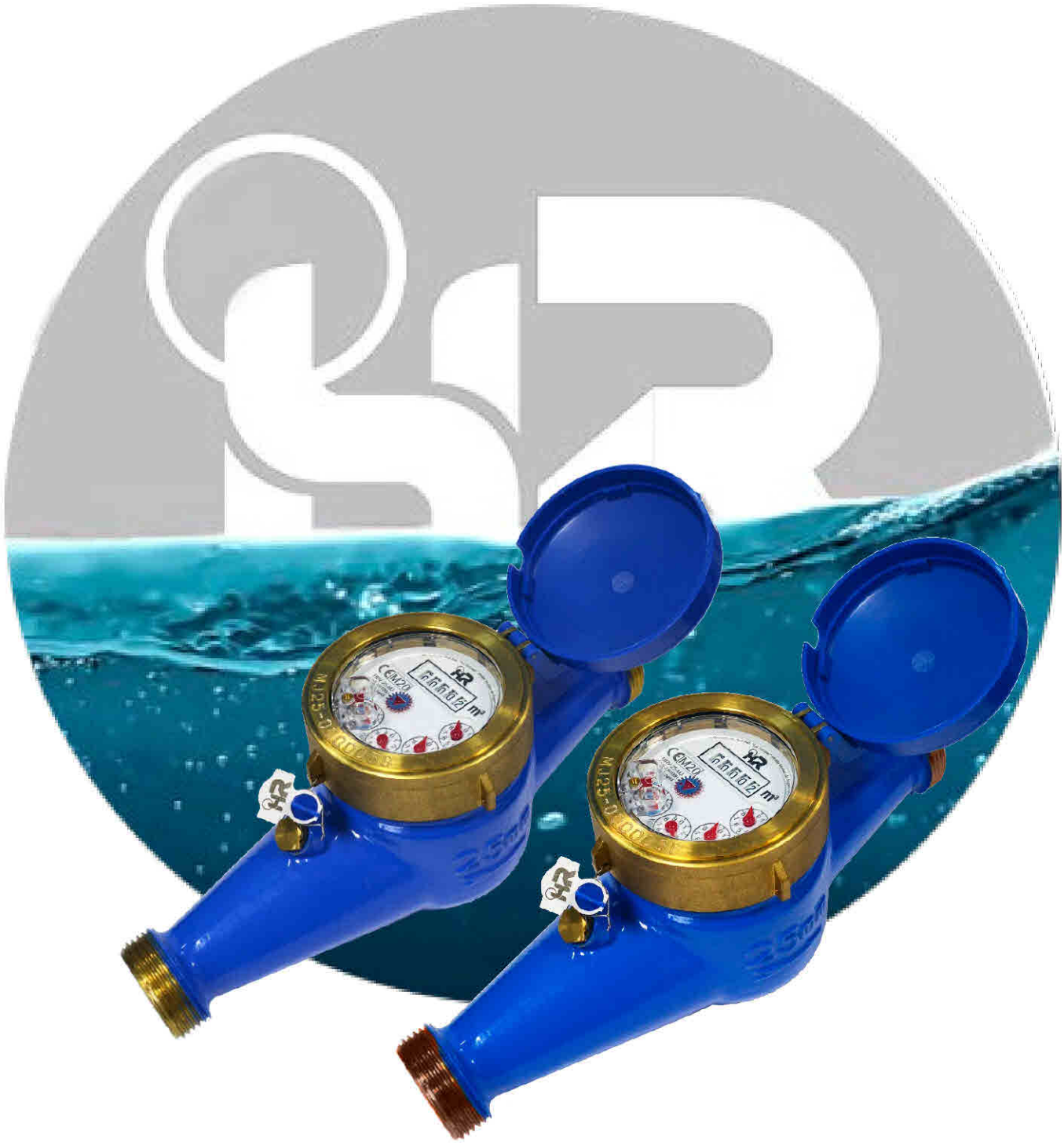
Nova Rocha
SISTEMAS E EQUIPAMENTOS DE REGA



HRV-MJ Casting
HRV-MJ Brass

MULTIPLE JET COUNTER MODEL

HRV-MJ

HRV-MJ:

The HRV-MJ water meter is used for cold water and has a turbine and dry dial, "Super Dry" model, with direct totalization using 5 numbered rollers.

The transmission of movement from the part immersed in water to the dry part is obtained through a special magnetic joint, appropriately protected against magnetic fields.

Emission of pulses for remote reading through Reed contact.

TECHNICAL CHARACTERISTICS:

- Pre-installation for pulse emitter.
- Direct magnetic transmission
- Metrology R 100H/ 50V
- Nominal Pressure PN16
- U0/D0 Installation
- IP68 Protection
- Pressure los class ΔP63

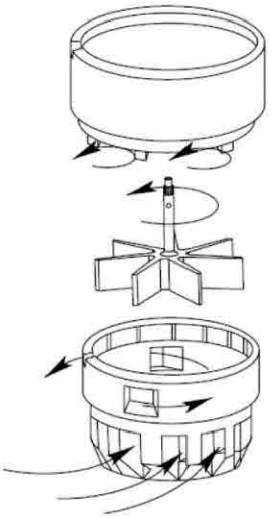
NOTABLE FEATURES:

- **Casting or brass** body
- Baked epoxy paint suitable for drinking wáter
- Easy Reading usinng dry, vacuum rollers to avoid fogging
- Supports horizontal and vertical installation
- Installation of the transmitter cable without the need to unseal
- Rotating casing side, to facilite the exit of the pulse cable

CERTIFICATES

- Approval **m** according to order **ITC/155/2020** in accordance with **RD244/2016**
- **MID** approval according to directive **2014/32/EU**

Operating principle:



The principle of operation of the meter is based on the speed of the water that passes through it, thanks to an internal mechanism perpendicular to the flow and that rotates on its own axis.

The water enters the measuring chamber in several jets, thanks to nozzles that distribute the water. The jets impact the turbine blades throughout the aforementioned measuring chamber. A highly optimized measurement chamber prevents disturbances in flow and turbine rotation, increasing sensitivity and accuracy at low flow rates and at startup. With all this, greater durability of the counter and more balanced operation are achieved.

Packaging:

Each counter is delivered in an individual box to protect it from impacts during transport.
If the order consists of several units, they will be sent in container boxes.

Each meter includes the fittings and gaskets necessary 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:

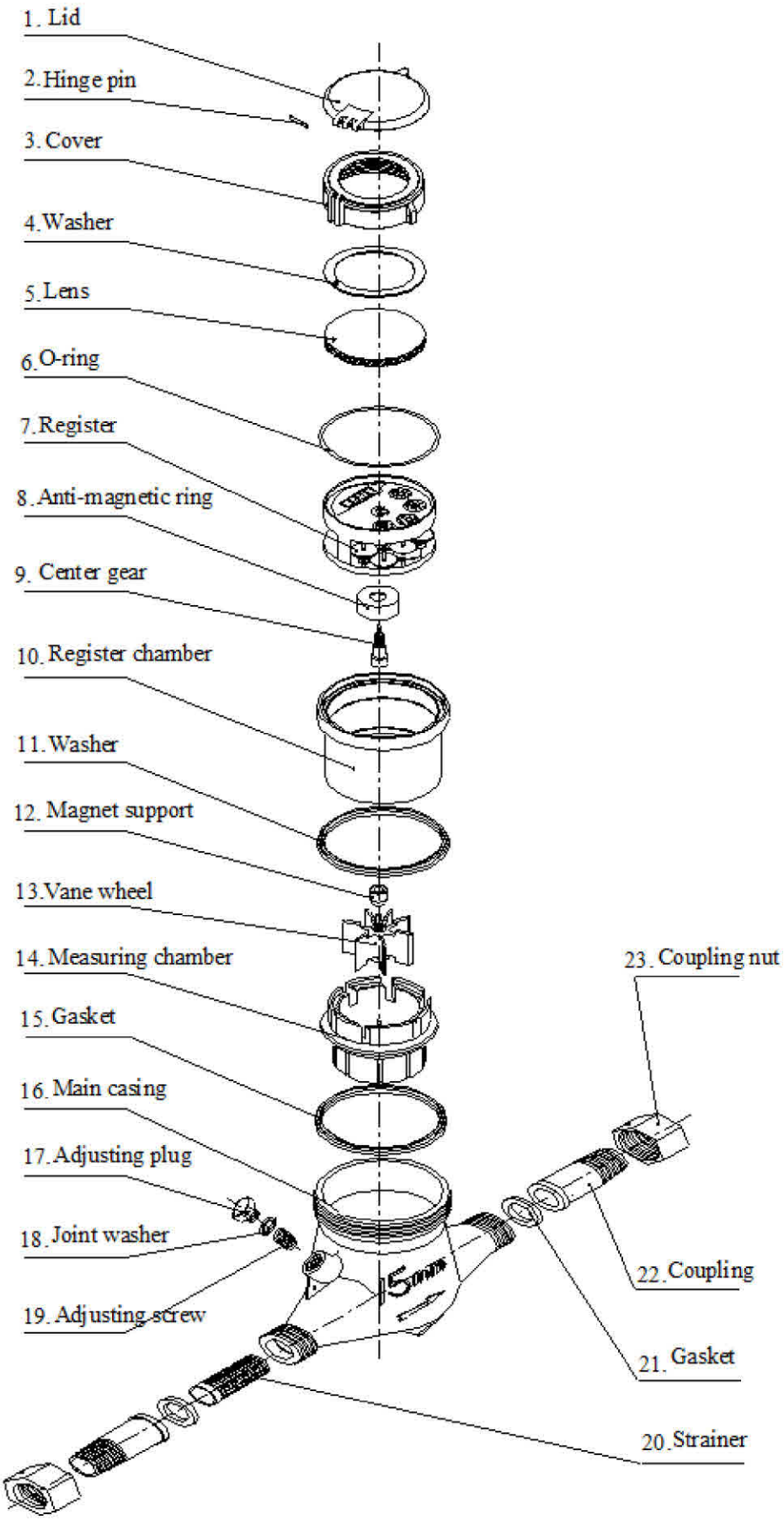
1. The meter must always be permanently filled with water. If a charged pipe cannot be guaranteed, a siphon or gooseneck must be installed downstream of the meter. If these conditions are not met, the counter may not total the volume passing through it correctly.
2. The flow direction arrow marked on 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:

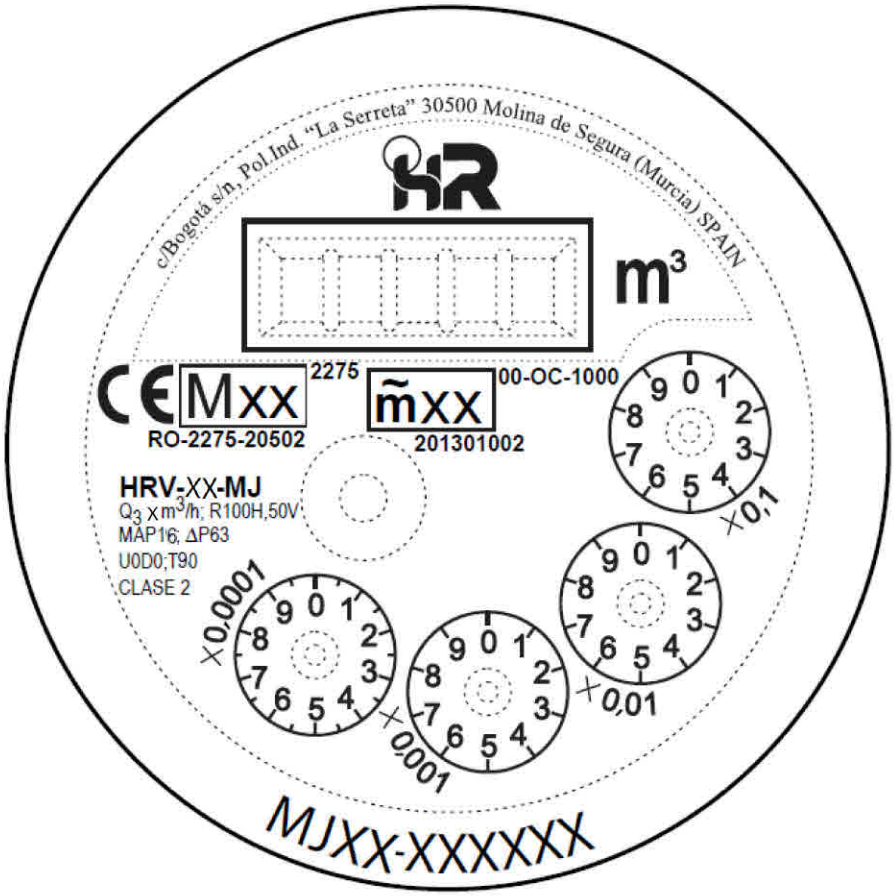
DO NOT exceed the nominal working conditions of the meter. Ensure that the pressure, flow rate and pipe size are within the parameters defined in the certificate of conformity.

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

EXPLODED:


1. Lid
2. Hinge pin
3. Cover
4. Washer
5. Lens
6. O-ring
7. Register
8. Anti-magnetic ring
9. Center gear
10. Register chamber
11. Washer
12. Magnet support
13. Vane wheel
14. Measuring chamber
15. Gasket
16. Main casing
17. Adjusting plug
18. Joint washer
19. Adjusting screw
20. Strainer
21. Gasket
22. Coupling
23. Coupling nut

WATCHMAKING:



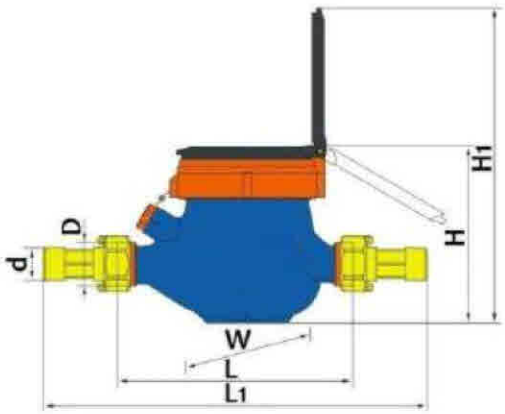
CARACTERISTICAS:

- R100H / R50V
- PN 16
- Δp63
- T30/T90
- IP68
- Magnetic **anti-fraud** protection
- Climatic class 90ºC / E1 / M1 / Class 2

PULSOS:

- Pre-equipped for pulse emission.
- Reed type impulse option.
- Pulse values : 1 pulse every 1 / 10 / 100 (standard) / 1000 liters.
- Direct totalization using numbered rollers

DIMENSIONAL DATA:



Model HRV-MJ	WEIGHT AND MEASUREMENTS						
	D.N. INCH	50 ½"	20 ¾"	25 1"	32 1 ¼"	40 1 ½"	50 2"
Length (L)	mm	165	190	260	260	300	300
Height (H)	mm	124	124	135	135	163	170
Width (W)	mm	90	90	100	100	123	123
Body thread (D)		¾"	1"	1 ¼"	1 ½"	2"	2 ½"
Union thread (d)		½"	¾"	1"	1 ¼"	1 ½"	2"
Total Length (L1)	mm	260	291	381	383	431	448
Body material	Casting / Brass						
Cast Weight	kg	1.20	1.35	2.10	2.20	4.30	5.00
Brass Weight	kg	1.15	1.25	1.80	2.00	3.40	4.30
Fitting Weight	kg	0.20	0.30	0.50	0.80	1.05	1.80

OPTIONAL LENGTH*		15	20	25	32	40	50
Length (L)	mm	-	195	225	230	245	280

**On request*

WORKING CONDITIONS:

Model HRV-MJ	WORKING CONDITIONS
Flow profile	U0/D0
Maximum pressure (Bar)	16
Maximum temperature (ºC)	T30/T90
Body	Casting / Brass
Model approval	RO-2275-20502 and 201301002

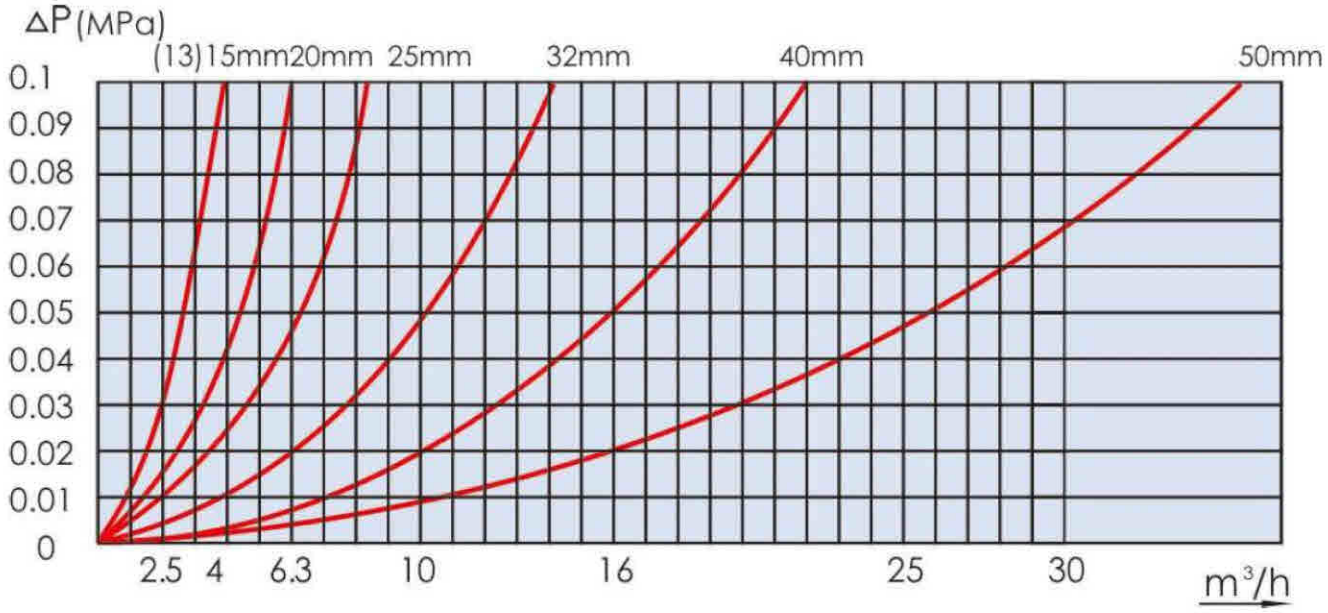
MAXIMUM ALLOWED ERROR:

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

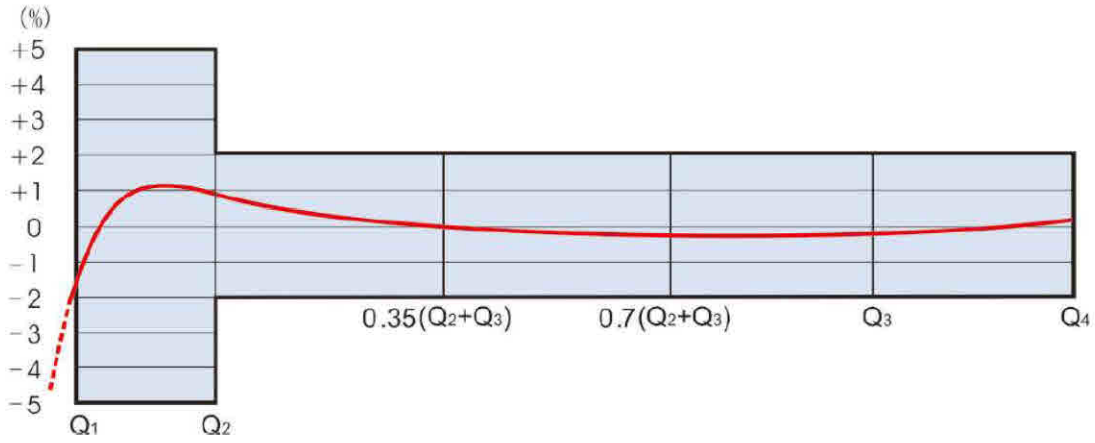
METROLOGICAL DATA:

Model HRV-MJ		Unit	fifteen	twenty	25	30	40	fifty
			½"	¾"	1"	1 ¼"	1 ½"	2"
Overload flow	Q_4	m^3/h	3,125	5	7,875	12.5	20	31.25
Permanent flow	Q_3	m^3/h	2.5	4	6.3	10	16	25
Transition flow	Q_2	l/h	40	63	100	160	250	400
Minimum flow	Q_1	l/h	25	40	63	100	160	250
Dynamic range	Q_3/Q_1		R100H/R50V					
Model approval			RO-2275-20502 / 201301002					
Minimum reading		l	0.05	0.05	0.05	0.05	0.5	0.5
Maximum reading		m^3	99,999.999					
Temperature range			T30/T90					

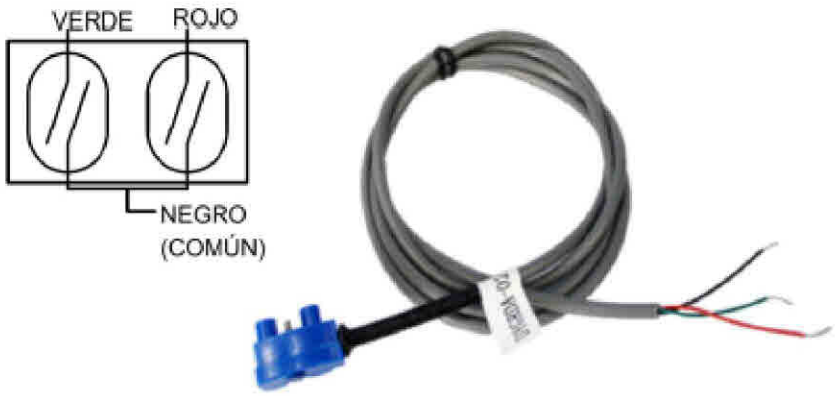
LOAD LOSS:



ERROR CURVE:



Installation instructions for the "REED" type pulse emitter:



- Available flow direction
- Black wire connects to ground.
- The red wire and the green wire connect to the control system
- If you want pulses without flow direction, connect the red or green cable either way.

Model HRV-MJ	K	Position	fifteen	twenty	25	30	40	fifty
REED	1	X0.0001	*	*	*	*	*	*
	10	X0.001	*	*	*	*	*	*
	100	X0.01	*	*	*	*	*	*
	1000	X0.1	*	*	*	*	*	*

Note: To vary the pulse value it must be requested at the time of ordering the material.

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