

## R1200

**Product Specification** 

# **Irrigation Meter**

The R1200 is a paddle wheel irrigation water meter designed to withstand harsh agricultural conditions and comply with strict European standards.

It is the latest range of irrigation meters from Elster. Unlike a Woltmann meter, the paddle wheel rotor is located out of the main flow stream. This allows the free passage of water, reducing the risk of jamming and damage from stones and other suspended solids that are common in irrigation water. The unconstricted cross-section also delivers a lower pressure loss than a Woltmann meter.

The R1200's removable mechanism is made from durable plastic with a steel pivot and synthetic sapphire bearing, while the corrosion-resistant housing is built from epoxy resin-coated cast iron. The hermetically sealed, dry dial register features a tempered mineral glass lens for clear readability and a tamper-proof shroud and lid.

The R1200 has been approved to the latest European Directive 2004/22/EC and has a certified Q3/Q1 = R40. The meter is available in seven sizes from DN50 to DN200, and operates at temperatures up to  $50^{\circ}$ C and a maximum working pressure of 16 bar.

#### **R1200 APPLICATIONS**

- · Irrigation water
- · Raw water
- Untreated water
- · Waste water
- · Borehole water
- · Agriculture, river and lake pumping





#### MID TYPE APPROVAL CERTIFICATE

0119-SJ-A010-08

### **KEY FEATURES**

- Paddle wheel design for unhindered flow
- Long-lasting, wear-resistant materials
- Tamper-proof dry dial register (IP68)
- Removable mechanism for easy maintenance
- Suitable for horizontal and vertical installation
- · Optional reed switch single pulser
- Maximum operating temperature: 30°C.
  Operation guaranteed up to 50°C
- · Nominal pressure (PN): 10 or 16 bar
- Approved to the latest European Directive 2004/22/EC



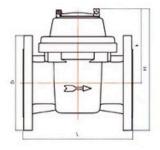
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### HYDRAULIC PERFORMANCE

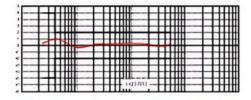
| SUE  | IN IN             | 50<br>2*          | 65<br>25° | 3°<br>80 | 100  | 125<br>5* | 150<br>6* | 200<br>8* |  |  |
|--|-------------------|-------------------|-----------|----------|------|-----------|-----------|-----------|--|--|
| MODULE B NO.   |                   | TCM 142/13-5129   |           |          |      |           |           |           |  |  |
| MODULE D NO.   | 1 -               | 0119·SJ·A010·08   |           |          |      |           |           |           |  |  |
| METROLOGICAL CLASS (MID)                               |                   | R(Q3/Q1) < 40 H·V |           |          |      |           |           |           |  |  |
| PERFORMANCE IN ACCORDANCE<br>WITH DIRECTIVE 2004/22/EC |                   | R 40 H-V          |           |          |      |           |           |           |  |  |
| Q3   | m <sub>1</sub> /h | 40                | 63        | 63       | 100  | 160       | 250       | 400       |  |  |
| 04   | m;/h              | 50                | 78.8      | 78.8     | 125  | 200       | 313       | 500       |  |  |
| Q1   | m;/h              | 1                 | 1.58      | 1.58     | 3.13 | 4         | 6.25      | 10.0      |  |  |
| Q2   | m <sub>3</sub> /h | 16                | 2.52      | 2.52     | 5.0  | 6.4       | 10.0      | 160       |  |  |

| TECHNICAL SPECIAL CATIONS                                 |        |            |            |            |                     |            |              |              |  |  |
|---|--------|------------|------------|------------|---------------------|------------|--------------|--------------|--|--|
| MAXIMUM PERMISSIBLE ERROR<br>BETWEEN Q, AND Q, (INCLUDED) | : 51/1 |            |            |            |                     |            |              |              |  |  |
| MAXIMUM PERMISSIBLE ERROR<br>BETWEEN Q, (EXCLUDED) AND Q  |        |            |            |            | ± 2 <sup>4</sup> /1 |            |              |              |  |  |
| TEMPERATURE CLASS   |        | 130        |            |            |                     |            |              |              |  |  |
| FLOW PROFILE SENSITIVITY<br>CLASSES                       |        | U10 - D5   |            |            |                     |            |              |              |  |  |
| STARTING FLOW RATE  | ₩      | 125        | 190        | 320        | 450                 | 700        | 1200         | 1800         |  |  |
| PRESSURE LOSS CLASS (AP@Q)                                |        | ΔΡ10       |            |            |                     |            |              |              |  |  |
| NOMINAL PRESSURE  | bar    | 10/16      | 10/16      | 10/16      | 10/16               | 10/16      | 10/16        | 10/16        |  |  |
| MAXIMUM REGISTRATION                                      | m,     | 10,000,000 | 10,000,000 | 10.000,000 | 10.000.000          | 10.000.000 | 100,000,000  | 100.000.000  |  |  |
| MINIMUM REGISTRATION                                      | m,     | 0.002      | 0.002      | 0.002      | 0.002               | 0.002      | 0.02         | 0.02         |  |  |
| TURBINE REVOLUTIONS/LITRE                                 |        | 0.63       | 0.38       | 0.23       | 0.18                | 0.13       | 0.08         | 0.05         |  |  |
| WEIGHT  | lg .   | 10.9       | 12.7       | 14         | 16.2                | 21.5       | 29.1         | 42.6         |  |  |
| PULSE OPTIONS   | Vp     | 10 - 1000  | 10 - 1000  | 10-1000    | 10 - 1000           | 10-1000    | 100 - 10,000 | 100 - 10,000 |  |  |

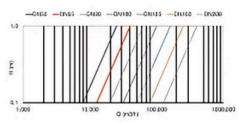
| L | mm | 200 | 200 | 225 | 250 | 250 | 300 | 350 |
|---|----|-----|-----|-----|-----|-----|-----|-----|
| н | mm | 250 | 264 | 280 | 292 | 312 | 338 | 378 |
| h | mm | 136 | 136 | 186 | 186 | 186 | 186 | 206 |
| D | mm | 165 | 165 | 200 | 220 | 250 | 280 | 340 |



## TYPICAL ERROR CURVE



### **HEAD LOSS**



Optional read switch single pulser