

# AQUARIUS S / RS / P

SINGLE-JET METER

**DIEHL**  
Metering



## APPLICATION

For measuring consumption in apartments and buildings for billing purposes

## FEATURES

- ▶ Single-jet impeller meter of fully dry-running design with magnetic coupling
- ▶ Modularity with the IZAR system world
- ▶ Excellent starting flow rate
- ▶ Low pressure loss
- ▶ Installation position: horizontal, vertical
- ▶ Compact design
- ▶ Rotatable counter
- ▶ Shield against static magnetic fields according to VDDW standard and EN 14154
- ▶ Working pressure 10 bar according to DIN 2401
- ▶ Protection class IP 54

# AQUARIUS S / RS / P

## SINGLE-JET METER

### GENERAL

| AQUARIUS S / RS / P                 |                      |          |    |
|-------------------------------------|----------------------|----------|----|
| Medium temperature range cold water | °C                   | 0 ... 30 |    |
| Medium temperature range warm water | °C                   | 0 ... 90 |    |
| Nominal pressure                    | PN                   | bar      | 10 |
| Display range                       | 0.1 l ... 9,999 m³/h |          |    |
| EC type approval EO 6 30 °C         | D 98 / 6.131.09      |          |    |
| EC type approval EO 6 90 °C         | D 98 / 6.331.93      |          |    |
| Metrological class                  | A/B•H                |          |    |
| Protection class                    | IP 54                |          |    |

#### Note:

Single-jet impeller meters are delivered calibrated in accordance with the calibration regulations. (AQUARIUS P with 10 l/pulse cannot be calibrated.)

### VERSIONS



AQUARIUS S



AQUARIUS RS



AQUARIUS P

|                                          |                |         |            |            |            |            |
|------------------------------------------|----------------|---------|------------|------------|------------|------------|
| Nominal flow rate                        | Q <sub>n</sub> | m³/h    | 1.5        | 1.5        | 1.5        | 2.5        |
| Overall length                           | L              | mm      | 80         | 110        | 130        | 130        |
| AQUARIUS S - radio segment retrofittable |                |         | •          | •          | •          | •          |
| AQUARIUS RS - radio segment mounted      |                |         | on request | on request | on request | on request |
| AQUARIUS P - pulse output                |                | l/pulse | 10 / 100   | 10 / 100   | -          | 10 / 100   |

#### Note:

AQUARIUS S: radio segment IZAR RS 868 retrofittable

AQUARIUS RS: on request with mounted and configured radio segment IZAR RS 868

AQUARIUS P: pulse output by reed switch, cable length 2 m LiYY 2 x 0.25 mm², contact rating 24 V ~ 0.2 A, max. cable length 20 - 50 m (depending on electrical perturbation). Switching amplifier have to be used at a longer distance.

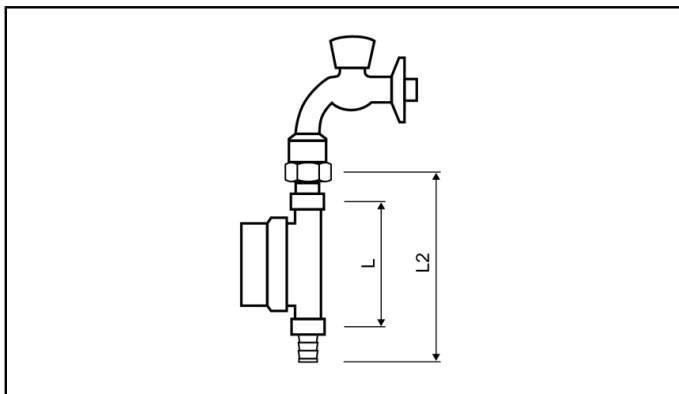
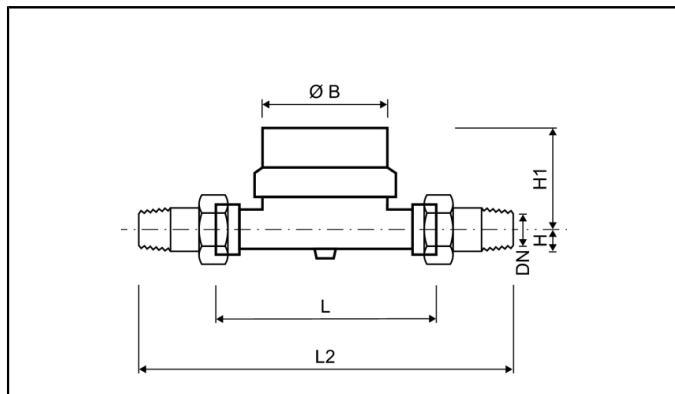
### TECHNICAL DATA

|                                   |                  |      |      |      |      |      |
|-----------------------------------|------------------|------|------|------|------|------|
| Nominal flow rate                 | Q <sub>n</sub>   | m³/h | 1.5  | 1.5  | 1.5  | 2.5  |
| Overall length                    | L                | mm   | 80   | 110  | 130  | 130  |
| Nominal diameter                  | DN               | mm   | 15   | 15   | 15   | 20   |
| Maximum flow rate (short-term)    | Q <sub>max</sub> | m³/h | 3    | 3    | 3    | 5    |
| Transition flow rate horizontal   | Q <sub>t</sub>   | l/h  | 120  | 120  | 120  | 200  |
| Transition flow rate any position | Q <sub>t</sub>   | l/h  | 150  | 150  | 150  | 250  |
| Minimum flow rate horizontal      | Q <sub>min</sub> | l/h  | 30   | 30   | 30   | 50   |
| Minimum flow rate any position    | Q <sub>min</sub> | l/h  | 60   | 60   | 60   | 100  |
| Starting flow rate horizontal     |                  | l/h  | 8    | 8    | 8    | 12   |
| Starting flow rate any position   |                  | l/h  | 14   | 14   | 14   | 18   |
| Pressure loss at Q <sub>n</sub>   |                  | bar  | 0.19 | 0.19 | 0.19 | 0.25 |

# AQUARIUS S / RS / P

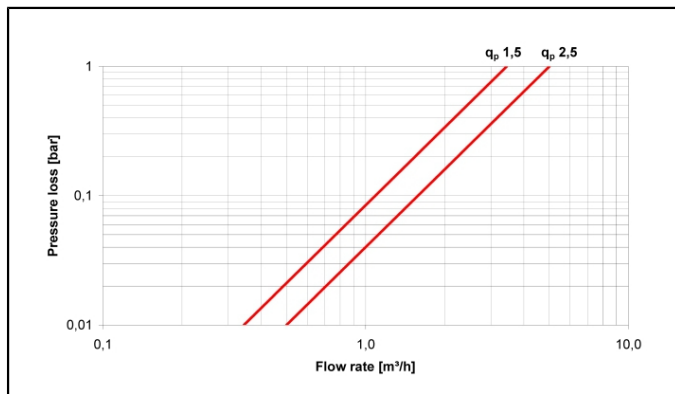
## SINGLE-JET METER

### DIMENSIONS

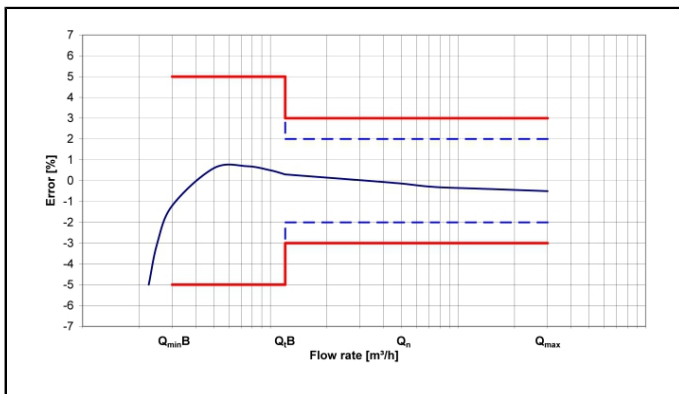


| Nominal flow rate                | $Q_n$ | $m^3/h$ | 1.5               | 1.5               | 1.5               | 2.5             |
|----------------------------------|-------|---------|-------------------|-------------------|-------------------|-----------------|
| Overall length                   | L     | mm      | 80                | 110               | 130               | 130             |
| Overall length with coupling     | L2    | mm      | 160               | 190               | 210               | 228             |
| Overall length with tap coupling | L2    | mm      | 138               | 168               | 188               | -               |
| Connection thread on meter       |       | Inch    | G $\frac{3}{4}$ B | G $\frac{3}{4}$ B | G $\frac{3}{4}$ B | G1B             |
| Connection thread of coupling    |       | Inch    | R $\frac{1}{2}$   | R $\frac{1}{2}$   | R $\frac{1}{2}$   | R $\frac{3}{4}$ |
| Height                           | H     | mm      | 14                | 14                | 14                | 17              |
| Height (AQUARIUS S / P)          | H1    | mm      | 52                | 52                | 52                | 52              |
| Height (AQUARIUS RS)             | H1    | mm      | 69                | 69                | 69                | 69              |
| Diameter                         | Ø B   | mm      | 64                | 64                | 64                | 64              |
| Weight without coupling          |       | kg      | 0.4               | 0.44              | 0.54              | 0.54            |
| Weight with coupling             |       | kg      | 0.58              | 0.64              | 0.72              | 0.72            |

### PRESSURE LOSS GRAPH / TYPICAL ERROR GRAPH



Pressure loss graph



Typical error graph