

AQUILA V5 DIN

Single-Jet Meter

DIEHL
Metering



APPLICATION

AQUILA V5 DIN is a bulk water meter designed for water network management and invoicing of substantial quantities of cold water.

It is characterised by its very high measuring dynamic, insensitivity to disturbance and easy maintenance. Its modular rotating flanges make it easy to install on any type of pipe, even when resizing is necessary.

Developed within the framework of the MID, AQUILA V5 DIN complies with the European regulations and holds sanitary conformity certificates.

AQUILA V5 DIN can be fitted at any time with an IZAR clip-on module converting it into a communicating meter ready for mobile reading (walk-by, drive-by, passive drive-by) or fixed network reading (radio/wired).

FEATURES

- ▶ DN50/80/100
- ▶ $Q_3=25\text{m}^3/\text{h}$ (DN50) / $Q_3=63\text{m}^3/\text{h}$ (DN80) / $Q_3=100\text{m}^3/\text{h}$ (DN100)
- ▶ MID approval up to $R=400$ ($Q_3=25\text{m}^3/\text{h}$ and $Q_3=63\text{m}^3/\text{h}$) and $R=630$ ($Q_3=100\text{m}^3/\text{h}$)
- ▶ Starting flow rate: 18 l/h (DN50) / 30 l/h (DN80) / 41 l/h (DN100)
- ▶ Cast-iron body

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METROLOGICAL DATA

| | | | 50 | 80 | 100 |
|--|--------------------------------|-------------------|-------|-------|--------|
| Nominal diameter | DN | mm | 50 | 80 | 100 |
| Length | L | mm | 270 | 300 | 360 |
| Nominal flow rate | Q ₃ | m ³ /h | 25 | 63 | 100 |
| R standard* | Q ₃ /Q ₁ | | 315 | 315 | 315 |
| Starting flow rate | | l/h | 18 | 30 | 41 |
| Minimum flow rate | Q ₁ | l/h | 79 | 200 | 317 |
| Transition flow rate | Q ₂ | l/h | 127 | 320 | 508 |
| Maximum flow rate | Q ₄ | m ³ /h | 31.25 | 78.75 | 125 |
| Head loss at Q ₃ | | bar | 0.480 | 0.518 | 0.578 |
| Head loss at Q ₄ | | bar | 0.753 | 0.782 | 0.962 |
| kvs (deltaP=Q ² /Kvs ²) | | | 36.01 | 89.05 | 127.44 |

* other values on request

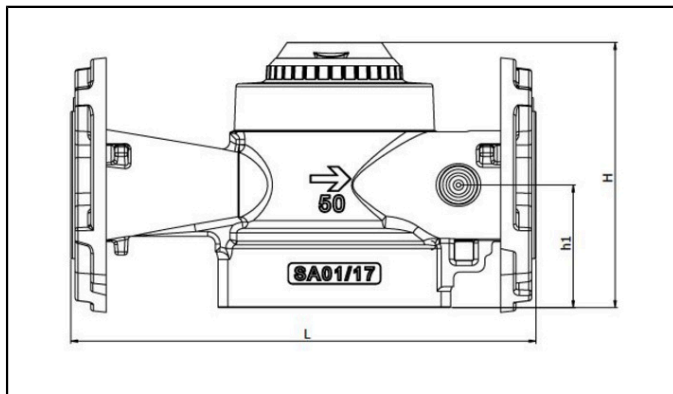
APPROVAL

| AQUILA V5 DIN | |
|---------------------|--------------------------------|
| MID approval | LNE - 10913 C1 type |
| Standards | EN 14154 ISO 4064 OIML R49 |
| Sanitary conformity | ACS PZH |

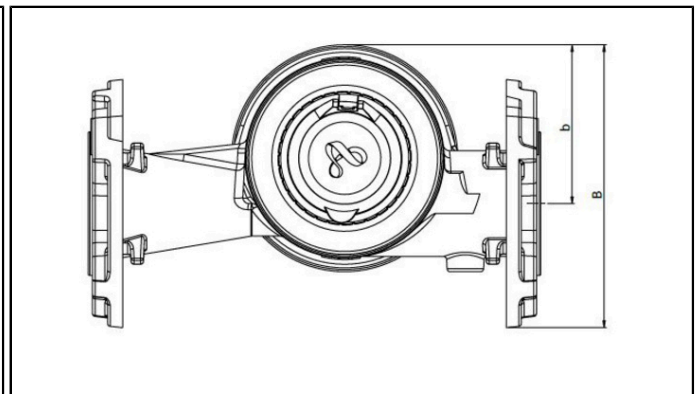
TEMPERATURE AND PRESSURE

| AQUILA V5 DIN | |
|-------------------------------|--------------------------------------|
| Water temperature | °C +0.1 ... +50 |
| Ambient operating temperature | °C +1 ... +55 |
| Storage temperature | °C -10 ... +55 |
| Nominal pressure | PN bar 16 (additional PN20 for DN50) |

DIMENSIONS



Side view



Top view

| | | | 50 | 80 | 100 |
|-------------------------------|----|----|-----------|-----------|-----------|
| Nominal diameter | DN | mm | 50 | 80 | 100 |
| Length | L | mm | 270 | 300 | 360 |
| Width at the axis | b | mm | 105 | 150 | 150 |
| Width | B | mm | 187 | 250 | 260 |
| Height | H | mm | 171 | 204 | 204 |
| Height | h1 | mm | 80 | 98 | 98 |
| Flange diameter | | mm | 164 | 200 | 220 |
| Housing | | | cast-iron | cast-iron | cast-iron |
| Weight (meter + flanges PN16) | | kg | 8.2 | 14.4 | 16.2 |

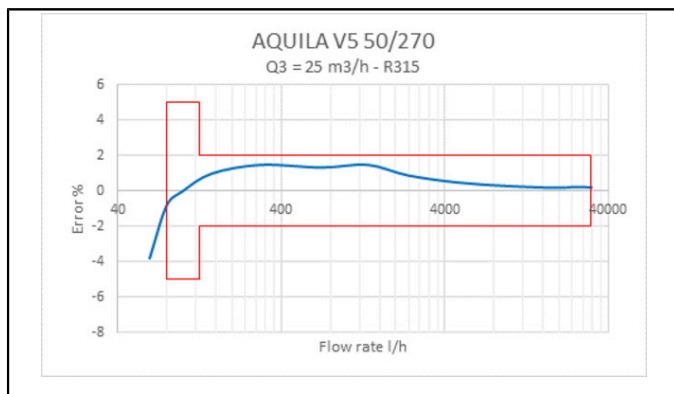
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Single-Jet Meter

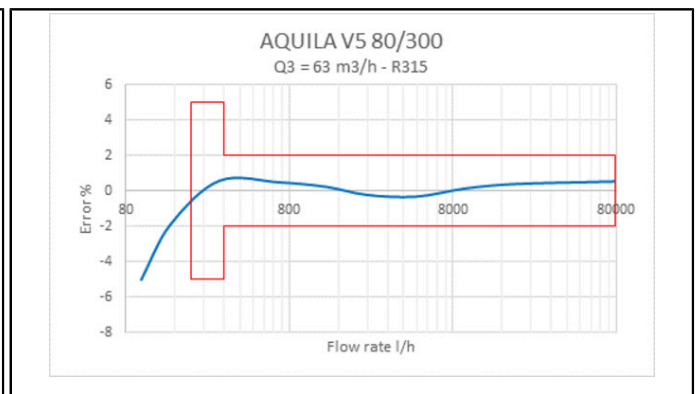
AVAILABLE FLANGES

| Nominal diameter | DN | mm | 50 | 80 | 100 |
|-----------------------|----|-----|-----|-----|-----|
| Length | L | mm | 270 | 300 | 360 |
| Flanges DN50 PN16 | | | • | - | - |
| Flanges DN50 PN20 | | | • | - | - |
| Flanges DN80 PN16 | | | - | • | - |
| Flanges DN100 PN16 | | | - | - | • |
| Number of screw holes | | pcs | 4 | 8 | 8 |

PRECISION CURVE - DN50/80



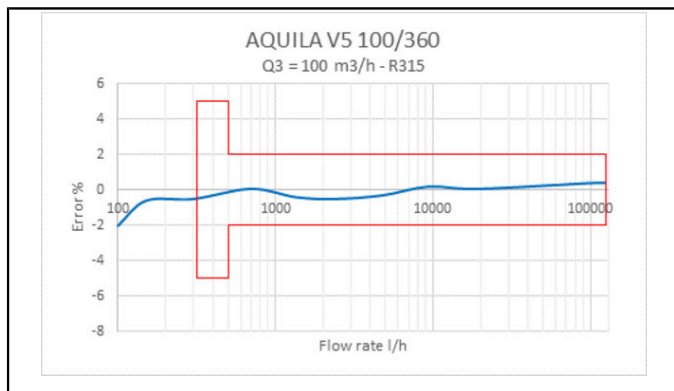
DN50-270



DN80-300

This technology doesn't require straight length.

PRECISION CURVE - DN100



DN100-360

This technology does not require straight length.

OPTIONS

- Different types of flanges