

HySense QT100 / QT110 Flow Turbine



QT100/QT110 (formerly known as RE4)

The HySense QT range (formerly known as RE3,4 & 6) is an axial turbine flow rate meter. The turbine blade wheel is axially driven by the flow stream, rotating in proportion to the mean flow velocity. A non-contacting inductive pickup generates a pulse signal. These pulses are then directly converted into a flow measurement by the associate electronic instrumentation. An advantage of our flow measuring turbine are the integrated test points which enable additional measurements of pressure & temperature.



The QT106 is now available with CANopen sensors fitted for integration in to your existing CAN line opening up further measuring possibilities.

- Output signal analog or frequency
- Developed for mineral oils
- Allows bi-directional volume flow rate measurement
- Supplied with Pressure and Temperature Test Points
- Optional with Hydrotechnik ISDS
- Compact, high pressure design

Features

| | |
|--------------------------------------|---|
| Calibration viscosity | 30 cSt ¹ |
| Output signal | frequency (square wave) / 4 ... 20 mA |
| Electrical meas. connector | 6-pole (ISDS) or 5-pole device plug, M16 x 0.75 |
| Protection type (EN 60529 / IEC 529) | IP 40 |
| Material casing / turbine wheel | Aluminium AlZnMgCu 1.5 / 1.4122 or 1.0718 |
| Material sealing | FKM |

Technical data

| | |
|-------------------------------------|---|
| Mounting orientation | arbitrary |
| Supply voltage U _b | 12 ... 24 VDC |
| Current consumption | 12 ... 15 mA (frequency) / 24 ... 31 mA (4 ... 20 mA) |
| Over-voltage protection | 36 VDC |
| Response time | none (frequency) / 250 ms (4 ... 20 mA) |
| Medium temperature | max. 120 °C |
| Environmental / storage temperature | -20 ... +85 °C |

Options & Ordering Information

| | Output signal | Measuring range | Viscosity range | Measuring connector | Allowed working pressure | | | Error limits | Weight | Order number |
|------------------|--------------------------------|-----------------|--------------------------|---------------------|--------------------------|------------------|-------|----------------------|--------|------------------|
| | | (l/min) | mm ² /s (cSt) | | bar | MPa | PSI | | g | |
| ... with ISDS | QT 100 frequency (square wave) | 1 ... 10 | 1 ... 30 | ISO228-G¼ | 420 | 42 | 6,000 | ± 0.5 % ² | 630 | 31V7-01-S-35.030 |
| | | 2 ... 75 | 1 ... 100 | ISO228-G¾ | | | | | 785 | 31V7-70-S-35.030 |
| | | 9 ... 300 | 1 ... 100 | ISO228-G1 | | | | | 1,125 | 31V7-71-S-35.030 |
| | | 16 ... 600 | 1 ... 100 | ISO228-G1¼ | 1,380 | 31V7-72-S-35.030 | | | | |
| | QT 110 analog 4 ... 20 mA | 1 ... 10 | 1 ... 30 | ISO228-G¼ | 420 | 42 | 6,000 | ± 0.7 % ³ | 740 | 31G7-01-S-35.030 |
| | | 2 ... 75 | 1 ... 100 | ISO228-G¾ | | | | | 895 | 31G7-70-S-35.030 |
| | | 9 ... 300 | 1 ... 100 | ISO228-G1 | | | | | 1,235 | 31G7-71-S-35.030 |
| | | 16 ... 600 | 1 ... 100 | ISO228-G1¼ | 1,490 | 31G7-72-S-35.030 | | | | |
| ... without ISDS | QT 100 frequency (square wave) | 1 ... 10 | 1 ... 30 | ISO228-G¼ | 420 | 42 | 6,000 | ± 2.5 % ² | 630 | 31V7-01-35.030 |
| | | 2 ... 75 | 1 ... 100 | ISO228-G¾ | | | | | 785 | 31V7-70-35.030 |
| | | 9 ... 300 | 1 ... 100 | ISO228-G1 | | | | | 1,125 | 31V7-71-35.030 |
| | | 16 ... 600 | 1 ... 100 | ISO228-G1¼ | 1,380 | 31V7-72-35.030 | | | | |
| | QT 110 analog 4 ... 20 mA | 1 ... 10 | 1 ... 30 | ISO228-G¼ | 420 | 42 | 6,000 | ± 2.7 % ³ | 740 | 31G7-01-35.030 |
| | | 2 ... 75 | 1 ... 100 | ISO228-G¾ | | | | | 895 | 31G7-70-35.030 |
| | | 9 ... 300 | 1 ... 100 | ISO228-G1 | | | | | 1,235 | 31G7-71-35.030 |
| | | 16 ... 600 | 1 ... 100 | ISO228-G1¼ | 1,490 | 31G7-72-35.030 | | | | |

² of current reading ³ of final value