

## HySense® QT 300

### Turbine volume flow sensor



The completely new HySense® QT 300 measures volume flow rates up to 1,000 l/min and is capable of a pressure load up to 420 bar.

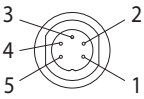
Two MINIMESS® test points serially enable problem-free collection of further measurands (pressure, temperature) simultaneously.

Safe integration into existing pressure systems is possible with the 2" SAE flange connectors delivered with the turbines.

#### Contained in delivery:

- 4 pc. SAE-flange halves 2", straight (420 bar)
- 1 pc. SAE-sealing (O ring) ID 56.74x3.53 90 shore A, NBR
- 8 pc. cylinder screws DIN 912 (ISO 4762) M20 x 70 – 8.8

| Qualities                            |                                       |
|--------------------------------------|---------------------------------------|
| Measuring principle                  | volume flow                           |
| Viscosity range                      | 1 ... 100 mm <sup>2</sup> /s (cSt)    |
| Medium temperature                   | max. +120 °C                          |
| Environmental temperature            | -20 ... +85 °C                        |
| Storage temperature                  | -20 ... +85 °C                        |
| Output signal                        | frequency (rectangular signal)        |
| Supply voltage U <sub>b</sub>        | 6.5 ... 30 VDC                        |
| Error limit                          | ± 3.0 % of current value              |
| Electrical measuring connector       | 5 pole device connector, M16 x 0.75   |
| Protection type (EN 60529 / IEC 529) | IP 40                                 |
| Tightening torque                    | 10 Nm (± 2 Nm)                        |
| Calibration viscosity                | 30 mm <sup>2</sup> /s (cSt)           |
| Material turbine casing              | high-grade steel X10CrNiS189 (1.4305) |
| Material turbine wheel               | 1.4104                                |
| Material sealings                    | FKM                                   |
| Material sensor casing               | 3.1645                                |
| Suitable measuring cable             | MK 01                                 |

| Pin assignment  | Frequency (rectangular signal)            |
|---|---|
|  | Pin 1 = signal +                          |
|   | Pin 2 = - U <sub>b</sub> / signal - / GND |
|   | Pin 3 = + U <sub>b</sub>                  |
|   | Pin 4 = free                              |
|   | Pin 5 = free                              |

| Measuring range | Max. working pressure |     | Error limit | Weight  | Order number   |
|-----------------|-----------------------|-----|-------------|---------|----------------|
|                 | l/min                 | bar |             |         |                |
| 45 ... 1,000    | 420                   | 42  | ± 3.0 %     | 11,440* | 31W7-88-35.030 |

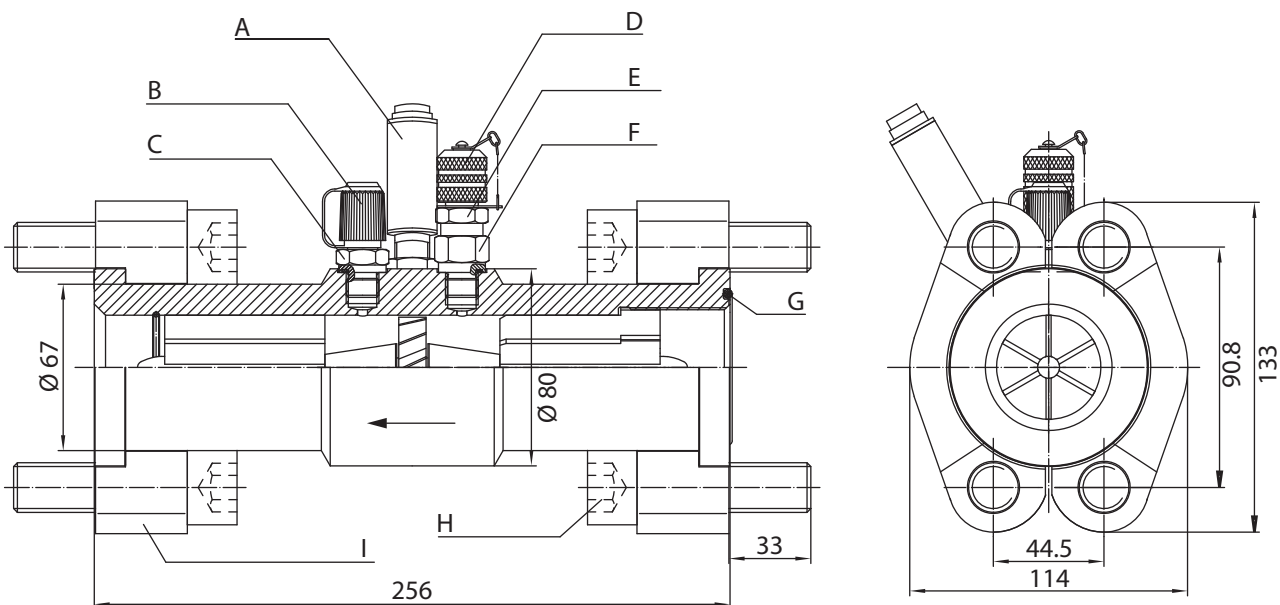
\*: with flanges and cylinder screws



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- A Inductive sensor with amplifier, screw-in thread M14 x 1
- B MINIMESS® test point, series 1620
- C max. tightening torque  $M_{Amax} = 40 \text{ Nm}$
- D MINIMESS® p/T-test point for pressure and temperature, series 1620
- E max. tightening torque  $M_{Amax} = 16 \text{ Nm}$
- F max. tightening torque  $M_{Amax} = 40 \text{ Nm}$
- G SAE sealing (O ring) ID 56.74 x 3.53 90 shore A, NBR
- H 8 pc. hexagon cylinder screws, ISO 4762-M20 x 70 – 8.8
- I 4 pc. SAE flange halves 2", high-pressure version 42 MPa (6,000 PSI)

**Q = 45 ... 1,000 l/min**

