

Flowmeter

TDH...-25.../PP



OVERVIEW

Operation

- Turbine flowmeter

Application

- Medical engineering
- Pharmaceutical industry
- Chemical industry
- Research & Development

Features

- Universal orientation
- High quality sapphire bearings
- High measuring accuracy
- Wide measuring range
- Pulse output
- Device body of PP

Installation information

- The operating instructions for TDH...-25.../PP must be observed!
- **Download: www.meister-flow.com**

OPERATING DATA

| | |
|--|-------------------------------|
| Sensor | Hall-Sensor |
| Nominal diameter | DN 25 |
| Nominal pressure | PN 10 (see media temperature) |
| Pressure drop | see diagram on page 5 |
| Media temperature, max. | at 10 bar 30 °C |
| | at 5 bar 60 °C |
| | at 2 bar 80 °C |
| Ambient temperature | 0 - 75 °C |
| Measuring accuracy ⁽¹⁾ | ±5 % of measured value |
| Repeatability | ±0,5 % |
| Start of signal output | 1 l/min |
| Maximum size of solids in medium | < 0,63 mm |

⁽¹⁾ up to 5 l/min ±7 % of measured value

MATERIALS

| | |
|---------------------|----------------------|
| Wetted parts | |
| Measuring tube: | PP |
| Turbine chamber: | PPO Noryl GFN 1630V |
| Impeller: | PPO Noryl GFN 1520V |
| Impeller magnets: | Hard ferrite magnets |
| Axle: | 1.4539 |
| Bearing: | Sapphire / PA |
| Sensor housing: | PPO Noryl GNF 1630V |
| O-Ring: | EPDM |
| Spacer: | PP |

MEASURING RANGES

| | | |
|-----------------|---|--|
| Type | Measuring range for H₂O at 20 °C ⁽²⁾ | |
| | l/min | |
| TDH...-25.../PP | 4 – 160 ⁽³⁾ | |

⁽²⁾ The measurement of fluids with higher viscosities is possible with deviation of stated values.

⁽³⁾ At continuous operation max. 80 l/min

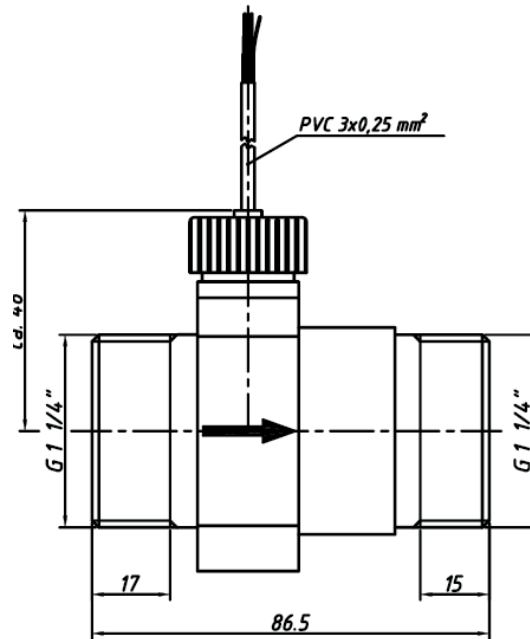
VERSIONS

| | | |
|---------------------------------------|-----------------------------------|---------------|
| Versions with connection cable | | |
| Type | Measured value acquisition | Output |
| TDHK-25l/PP | Hall sensor | Pulse output |

2,0 m PVC cable, shielded

T_{max} = 75 °C

TECHNICAL DRAWING



SUMMARY OF TYPES

| Type | Sensor | Output | Technical data | | |
|-------------|-------------|--------------|------------------|----|-------------------|
| | | | G ⁽⁴⁾ | DN | PN |
| TDHK-25I/PP | Hall sensor | Pulse output | 1 1/4" | 25 | 10 ⁽⁵⁾ |

⁽⁴⁾ External thread, welded sleeve / solvent cement socket or hose connector available as accessory items.

⁽⁵⁾ see media temperature on page 2

ELECTRICAL DATA

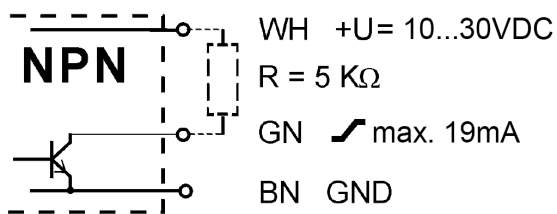
| | |
|-------------------------------|---|
| Power supply | 10 - 30 V DC ⁽⁶⁾ |
| Start of signal output | 1 l/min |
| Pulse rate / K-Factor | 65 Pulses/l |
| Resolution | 15 ml/Pulse |
| Signal form | square-wave signal NPN open collector |
| Signal current max. | 19 mA |
| Pull-up/down resistor | 5 Ω ⁽⁷⁾ |
| Connection diagram | A1 see below |

⁽⁶⁾ Optional: 4,5 - 26,5 V DC

⁽⁷⁾ Recommended

CONNECTION DIAGRAM

A1: TDHK-25I/PP (Cable)



Color code

| | |
|----|----------|
| BN | brown |
| GN | green |
| WH | white |
| R | Resistor |

ELECTRICAL CONNECTION

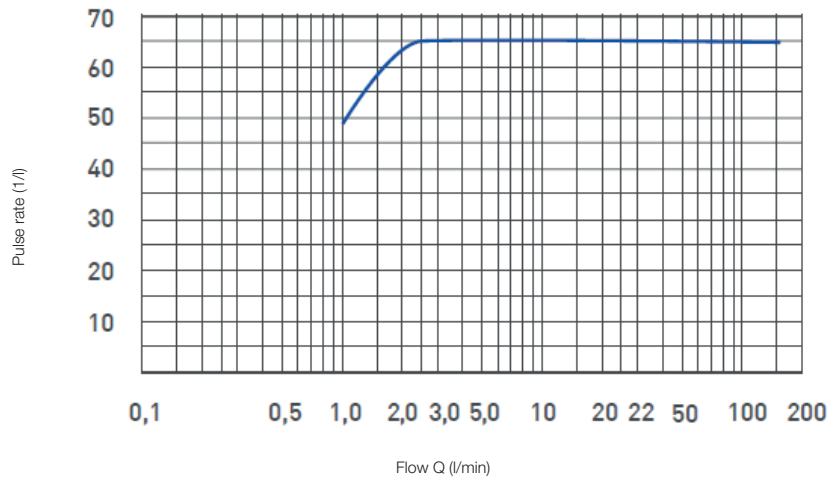
- 2,0 m PVC cable, shielded

Ingress Protection

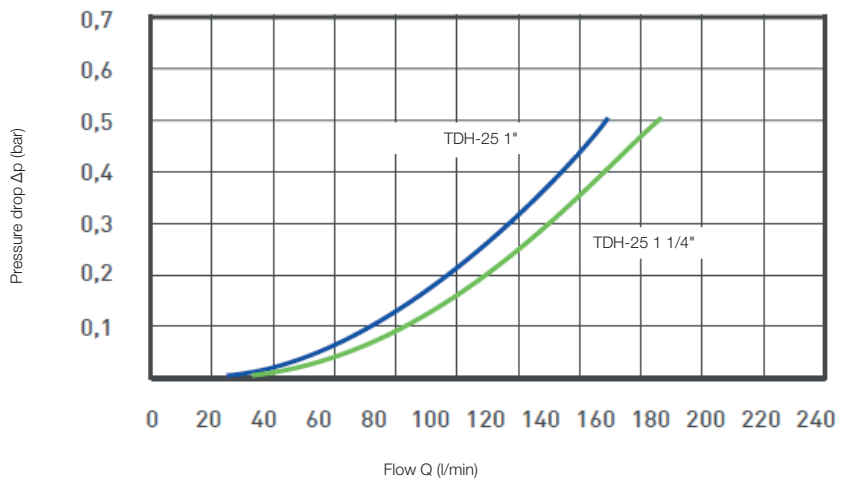
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DIAGRAMS

Characteristic curve



Pressure drop





TDH...-25.../PP 6 0001 12-15 EM

MASTERPIECES MADE IN GERMANY

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