

## Flowmeter

TDH...-40.../MS



## 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
- Sturdy device body of brass
- Integrated mesh filter

### Installation information

- The operating instructions for TDH...-40.../MS must be observed!
- **Download: [www.meister-flow.com](http://www.meister-flow.com)**

## OPERATING DATA

|  |                        |
|--|------------------------|
| <b>Sensor</b>                            | Hall sensor            |
| <b>Nominal diameter</b>                  | DN 40                  |
| <b>Nominal pressure</b>                  | PN 10                  |
| <b>Pressure drop</b>                     | see diagram on page 5  |
| <b>Media temperature, max.</b>           | 85 °C                  |
| <b>Ambient temperature</b>               | 0 - 75 °C              |
| <b>Measuring accuracy <sup>(1)</sup></b> | ±5 % of measured value |
| <b>Repeatability</b>                     | ±0,5 %                 |
| <b>Start of signal output</b>            | 4,7 l/min              |
| <b>Maximum size of solids in medium</b>  | < 0,63 mm              |

<sup>(1)</sup> up to 50 l/min ±7 % of measured value

## MEASURING RANGES

| <b>Type</b>     | <b>Measuring range for H<sub>2</sub>O at 20 °C <sup>(2)</sup></b> |                        |
|-----------------|---|------------------------|
|                 | <b>l/min</b>  | <b>m<sup>3</sup>/h</b> |
| TDH...-40.../MS | 6,7 – 417   | 0,4 – 25               |

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

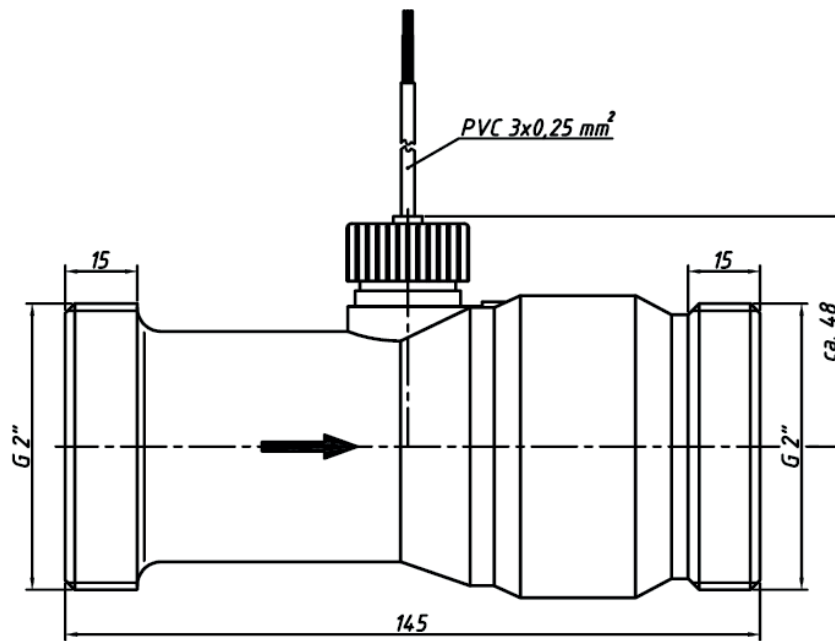
## MATERIALS

| <b>Wetted parts</b>       |                      |
|---------------------------|----------------------|
| Measuring tube:           | Brass (CW724R)       |
| 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                 |
| Flow guiding cone:        | POM                  |
|                           | 1.4301               |
| Mesh filter (integrated): | Flat filter          |
|                           | Mesh size 0,63 mm    |
| Retaining ring:           | Bronze               |

## VERSIONS

| <b>Versions with connection cable</b> |                                   |               |
|---------------------------------------|-----------------------------------|---------------|
| <b>Type</b>                           | <b>Measured value acquisition</b> | <b>Output</b> |
| TDHK-40I/MS                           | Hall sensor                       | Pulse output  |
| 2,0 m PVC cable, shielded             |                                   |               |
| T <sub>max</sub> = 75 °C              |                                   |               |

## TECHNICAL DRAWING



## SUMMARY OF TYPES

| Type        | Sensor      | Output       | Technical data   |    |    |
|-------------|-------------|--------------|------------------|----|----|
|             |             |              | G <sup>(3)</sup> | DN | PN |
| TDHK-40I/MS | Hall sensor | Pulse output | 2"               | 40 | 10 |

<sup>(3)</sup>External thread, additional connecting couplings recommended.

These are available as optional accessories.

## ELECTRICAL DATA

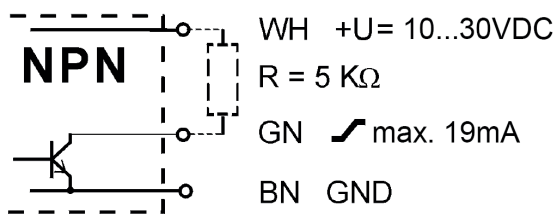
|                               |   |
|-------------------------------|---|
| <b>Power supply</b>           | 10 - 30 V DC <sup>(4)</sup>                 |
| <b>Start of signal output</b> | 4,7 l/min                                   |
| <b>Pulse rate / K-Factor</b>  | 26,6 Pulses/l                               |
| <b>Resolution</b>             | 37,6 ml/Pulse                               |
| <b>Signal form</b>            | square-wave signal<br>NPN<br>open collector |
| <b>Signal current max.</b>    | 19 mA                                       |
| <b>Pull-up/down resistor</b>  | 5 $\Omega$ <sup>(5)</sup>                   |
| <b>Connection diagram</b>     | A1<br>see below                             |

<sup>(4)</sup> Optional: 4,5 - 26,5 V DC

<sup>(5)</sup> Recommended

## CONNECTION DIAGRAM

### A1: TDHK-40I/MS (Cable)



### Color code

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

## ELECTRICAL CONNECTION

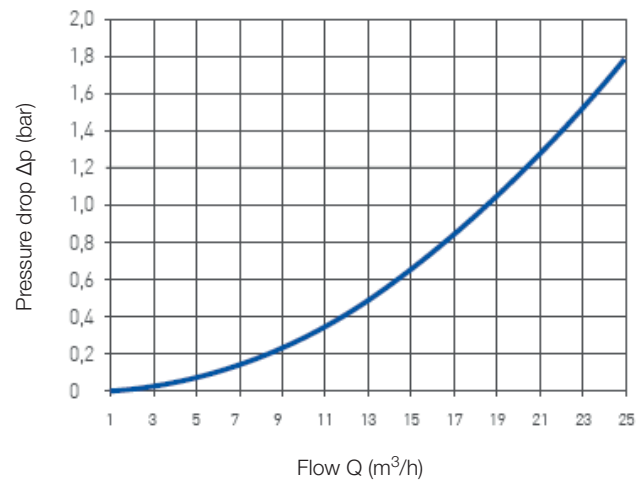
- 2,0 m PVC cable, shielded

### Ingress Protection

IP54

# ■ DIAGRAMS

## Pressure drop





TDH...-40.../MS 6 0001 12-15 EM

# MASTERPIECES MADE IN GERMANY

Meister Strömungstechnik GmbH • Im Gewerbegebiet 2 • 63831 Wiesen / Germany  
Tel. +49 (0) 6096 9720-0 • Fax +49 (0) 6096 9720-30 • sales@meister-flow.com • www.meister-flow.com  
The general business terms of Meister Strömungstechnik GmbH are valid • All rights reserved

