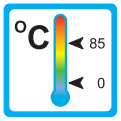
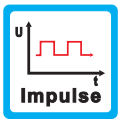
Flowmeter

TDH...-25.../MS
TDI...-25.../MS

Function

The flowmeters type TDH...-25.../MS and TDI...-25.../MS are turbine flowmeters.





Application

The turbine flowmeters type TDH...-25.../MS and TDI...-25.../MS are employed to measure and monitor volume flow of liquids.

Areas of application:

– Medical technology

– Pharmaceutical Industry

– Chemical Industry

– Research and Development

Features

The rotors of the series TDH...-25.../MS are equipped with magnets and a Hall-sensor detects the rotation of the rotor.
The rotors of the series TDI...-25.../MS are equipped with stainless steel pins and an inductive proximity switch detects the rotation.
Further characteristics of both series are:

– Large measuring range

– Saphire/PA bearings

– High accuracy

– Frequency output

– Sturdy brass construction

Installation information

The installation of the flowmeter can be done in any way in the system. The flow direction must be observed.

The flowmeter must not be used as a supporting part in a pipe construction.

The medium must not contain any solids! We recommend the installation of a strainer.

External magnetic fields influence the measurement. Keep sufficient distance to magnetic fields (e.g. electromotors).

The operating instructions for TDH...-25.../MS and TDI...-25/...MS must be observed under all circumstances.

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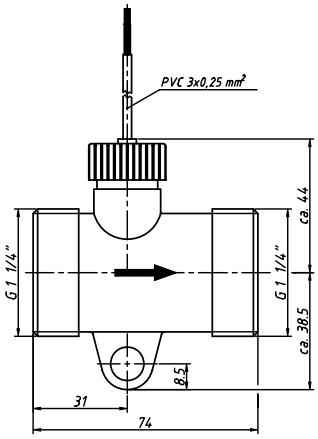
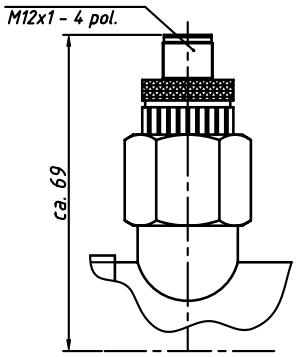
Technical data



TDHK-25I/MS



TDIS-25I/MS

Versions					
Type	Measuring value sensing		Output		
	Hall-sensor	Inductive proximity switch	Impulse output (see page 4)	Analog output	Switch output
TDHK-25I/MS	▲		▲		
TDIS-25I/MS		▲	▲		

Technical data		
	Units with Hall-sensor TDH...	**Units with inductive proximity switch TDI...**
Process connection:	G 1 1/4” male thread	
	Additional connection fitting is required	
Nominal size:	DN 25	
Max. medium temperature:	85 °C	60 °C
Nominal pressure:	PN 10	
Range:	4 - 160 l/min, at continuous load max 80 l/min	
Start of signal output:	approximately 1 l/min	
Max. size of solids in medium:	0,5 mm	
Electric connection:		
Cable connection (TDHK...)	2 m shielded PVC cable	—
	T_{max} = 75 °C	—
Plug (TDHS... or TDIS...)	4-Pin plug M12x1	4-Pin plug M12x1
Power supply (Pulse output):	4,5...24 VDC	12...24 VDC
Ingress protection:	IP 54	
Electric output:	see page 4	
Options:		
Strainer	Screen strainer, screen aperture size 0,63 mm	

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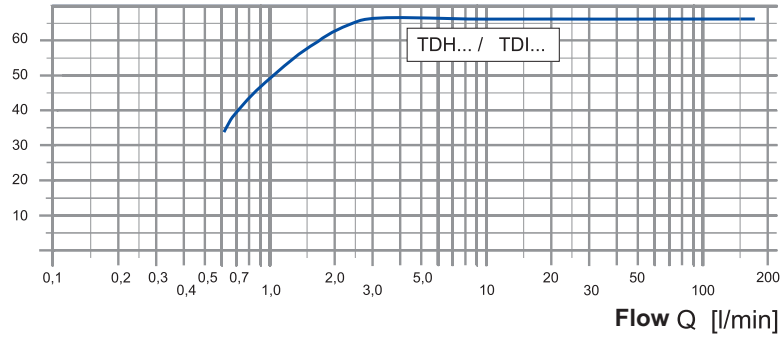
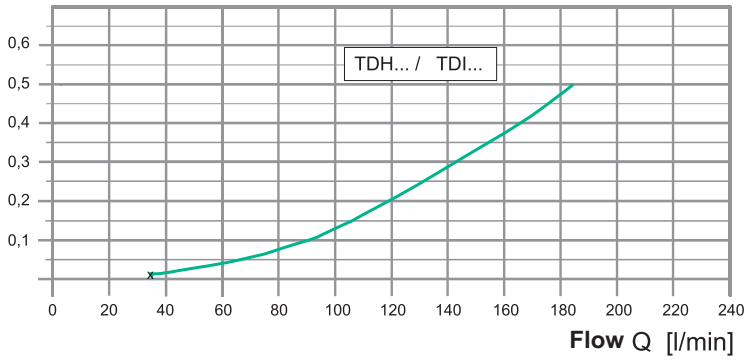
Materials, technical data, signal output

Materials			
	Wetted parts	**Units with Hall-sensor** **TDH...**	**Units with inductive proximity sensor** **TDI...**
Measuring tube	**yes**	Brass (CuZn36Pb2As)	
Turbine chamber	**yes**	PA Grivory HTV4X1	
Impeller	**yes**	PP	
Impeller magnets	**yes**	Permanent magnets, Recona 28 nickel-plated	Stainless Steel 1.4571
Axle	**yes**	Stainless steel 1.4436	
Bearing	**yes**	Saphire / PA	
Sensor bushing	**yes**	POM Delrin 100 P	
O-Ring	**yes**	72 NBR 872	
Strainer (optional)	**yes**	Stainless Steel 1.4301 (associated O-Ring: 70 EPDM 281)	

Pulse rate [1/l]



Pressure drop Δp [bar]



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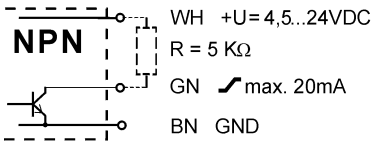
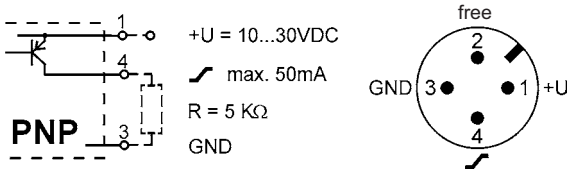
Signal output

Technical data, impulse output (TDHK-25l/MS, TDIS-25l/MS)		
	Units with Hall-sensor TDH...	**Units with inductive proximity sensor TDI...**
Accuracy:	± 3 % of range	
Repeatability:	± 0,5 %	
Output signal:		
Pulse rate / K-factor	65 Pulses / Liter	
Resolution	15 ml / Pulse	
Signal form	square wave	square wave
	NPN open collector	PNP open collector
Signal current	max. 100 mA	max. 10 mA
Connection diagram	A1 (see below)	B1 (see below)
Start of signal output:	approximately 1 l/min	

A1: TDHK-25l/MS (Cable)



B1: TDIS-25l/MS (PNP, Plug)



BN = brown
GN = green
WH = white

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