### Characteristics

1 - MODULAR - ECONOMIC - METER



- Input: 0...10 m/s up to 0...100 m/s - Output: 4...20 mA 24 VDC VDC - Supply: - Accuracy: see technical data - Process connection: several options - Electrical connection: several plugs - Temperature range: 0...+60 °C (ambient) - Limit value contacts: 2x electronically (NPN / PNP) - Adjustment: keys - Material sensor: see technical data - Protection: at least IP65

#### Technical data

#### Input

Flow: 10 m/s / 20 m/s / 30 m/s / 50 m/s / 100 m/s

Reference conditions: 20 °C, 1013 hPa

Medium: air, non aggressive gases

Principle of measurement: calorimetrically

### Output

Current signal: 4...20 mA Load resistance: 500 Ω maximum

#### **Performance**

Sensor unit: Measurement uncertainty: ±5% of final value (within range 10...100%)

Reference section: 10x diameter for inflow and outflow

Repeating accuracy: ±2

Reaction time: approx. 2 s
Dependence on temperature: ±0,01% / 1K

Transmission behaviour: linear to flow velocity Resolution: -9999...9999 digit

Error of measurement: ±0,2% of range, ±1 digit

Temperature drift: 100 ppm/K

Features: according VDMA 24574-1 up to 24574-4 Operation: according VDMA 24574-1 up to 24574-4

#### **Programmable features**

Indicator / limit values:

Display: range of indication / time of indication / decimal point / units
Limit value contacts: limit value 1 and 2 / hysteresis 1 and 2 / delay times 1 and 2

# Applications

For use in climating, ventilating and heating installations and the whole range of industrial application. With it's two configurable limit value contacts, the integrated display and the numerous electrical connections, the flow sensor is also suitable for applications with higher requirements.







## Technical data (continued)

Indication

Display: 7 segment, 8,5 mm, red, 4 digits, representation mirror-inverted 180° possible

Head of display: rotatable approx. 330°
Memory: minimum / maximum values

Indication: - measuring value - unit of measurement - control menu

Decimal point: automatically or manually, dependent on measuring range / unit

Representation: xxxx / xxx.x / xx.xx / x.xxx

**Limit contacts** 

Electronically: 2x PNP or NPN (30 VDC, 200 mA)

Option: 2x PNP or NPN (30 VDC, 1000 mA)

Indication: 1 LED red for each limit value

Voltage across: <1 V

Settings: with 3 keys (TouchM-Technology)

Setting range: switch point and hysteresis: any value within measuring range

Switching delay: 0,0...999,9 s Failsafe function: adjustable

Galvanical insulation: switching outputs are separated from measuring amplifier

Supply

Voltage: 24 VDC, ±10%

**Ambient conditions** 

Temperature: Operating range: 0...+60 °C

Storing: -20...+80 °C Medium: -20...+70 °C

Condensation: uncritical

**Mechanics** 

Dimensions: see page 3

Process connection: without / 1/2" / 3/4" / 1" / 1,5" / 1/2NPT

Fitting, Nominal length: 50...400 mm System pressure: 25 bar

With compression fitting: 10 bar

Electrical connection: see page 3

Material: Sensor: Process connection: stainless steel

Sensor tube: stainless steel

Sensor element: Al<sub>2</sub>O<sub>3</sub> with glassivation

Sensor retainer: FKM
Potting: epoxy resin

Body: PBT GF30

Head of display: polycarbonate (makrolon)

Weight: approx. 180 g (1/2", 100 mm, M12)

Fitting position: any

Protection device: Sensor: IP 67

Electronics: at least degree IP65 (when electrical connection is plugged)

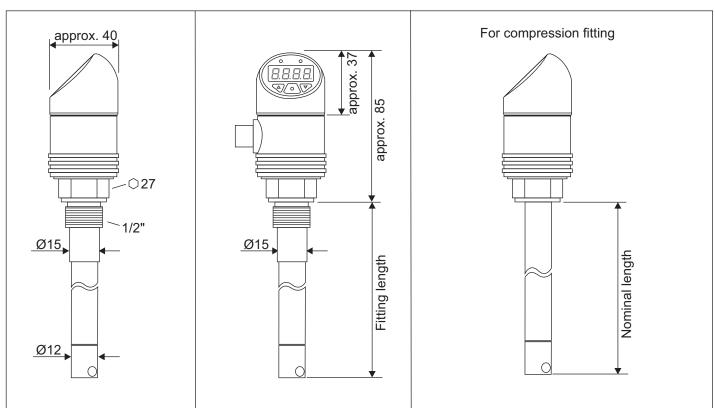
## Electrical connection

M12x1	Super Seal	Deutsch	Deutsch	Bayonet	Valve	MIL	
					70		
4-pole 5-pole 8-pole	3-pole	3-pole	4-pole	4-pole	4-pole	6-pole	

Connection	Supply		Out	Limit value contact		
	U+	U-	+	Common	SP 1	SP 2
M12, 4-pole	1	3	2	(1)	(4)	
M12, 5-pole	1	3	2	5	4	
M12, 8-pole	1	3	6	5	4	2
Super Seal, 3-pole	1	3	2			
Deutsch DT04, 3-pole	А	В	С			
Deutsch DT04, 4-pole	1	3	2	(1)	(4)	
Bayonet DIN, 4-pole	1	2	3	(1)	(4)	
Valve (L-plug), 4-pole	1	2	3	(1)	(GND)	
MIL, 6-pole	А	С	F	Е	D	В

Details in brackets: U+ is also common for limit value

## Dimensions (in mm)



Order code		
Input flow:	010 m/s 020 m/s 030 m/s 050 m/s (on request) 0100 m/s (on request)	0 1 2 3 4
Output:	420 mA	1
Process connection:	Without (for compression fitting) 1/2" 3/4" 1" 1,5" 1/2"NPT	0 3 4 5 6 9
Electr. connection:	M12, 4-pole M12, 5-pole M12, 8-pole Deutsch DT04, 3-pole Deutsch DT04, 4-pole Super Seal 1.5, 3-pole Bayonet (DIN), 4-pole Valve plug, 4-pole MIL, 6-pole	1 2 3 4 5 6 7 8 A
Nominal, Fitting length	h: 100 mm 150 mm	100
	200 mm 250 mm 300 mm 350 mm 400 mm Andere Länge (bitte angeben)	150 200 250 300 350 400 Y
Limit value contacts:	2x PNP, 30 VDC, 200 mA (standard) 1x PNP, 30 VDC, 200 mA Without 2x NPN, 30 VDC, 200 mA 1x NPN, 30 VDC, 200 mA 2x PNP, 30 VDC, 1000 mA 1x PNP, 30 VDC, 1000 mA 2x NPN, 30 VDC, 1000 mA 1x NPN, 30 VDC, 1000 mA 1x NPN, 30 VDC, 1000 mA	0 1 2 3 4 5 6 7
Configuration:	Factory set	0
Special model:	Non Yes (to specify)	(