


## ● Characteristics

1 - MODULAR - ECONOMIC - METER

	- Input:	0...10 m/s up to 0...100 m/s
	- Output:	4...20 mA
	- Supply:	24 VDC VDC
	- Accuracy:	see technical data
	- Process connection:	several options
	- Electrical connection:	several plugs / cable
	- Temperature range:	0...+70 °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
Indicator / limit values:	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	

### Programmierbare Merkmale

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)

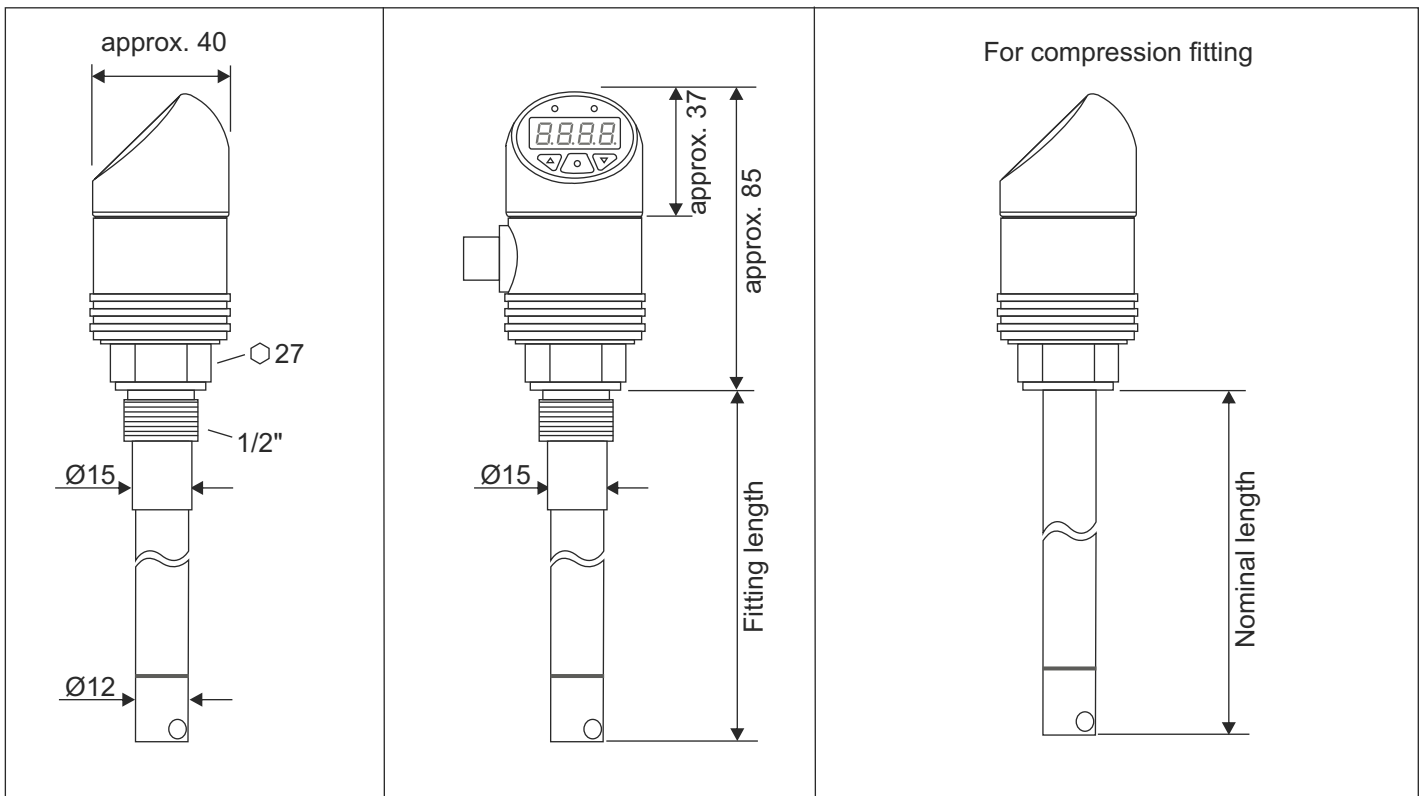
**● Electrical connection**

M12x1	Super Seal	Deutsch	Deutsch	Bayonet	Valve	MIL	Cable
							
4-pole 5-pole 8-pole	3-pole	3-pole	4-pole	4-pole	4-pole	6-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	A	B	C			
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)	
Cable, 4-pole	yellow	white	green	(yellow)	(Brown)	
Cable, 6-pole	yellow	white	pink	green	brown	grey
MIL, 6-pole	A	C	F	E	D	B

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

**● Dimensions (in mm)**



● Order code

O U X X X - X - X X X X

<b>Input flow:</b>	0...10 m/s	0								
	0...20 m/s	1								
	0...30 m/s	2								
	0...50 m/s (on request)	3								
	0...100 m/s (on request)	4								
<b>Output:</b>	4...20 mA	0								
<b>Process connection:</b>	Without (for compression fitting)	0								
	1/2"	3								
	3/4"	4								
	1"	5								
	1,5"	6								
	1/2"NPT	9								
<b>Electr. connection:</b>	M12, 4-pole	1								
	M12, 5-pole	2								
	M12, 8-pole	3								
	Deutsch DT04, 3-pole	4								
	Deutsch DT04, 4-pole	5								
	Super Seal 1.5, 3-pole	6								
	Bayonet (DIN), 4-pole	7								
	Valve plug, 4-pole	8								
	Cable, 2 m	9								
	MIL, 6-pole	A								
<b>Nominal, Fitting length:</b>	100 mm								100	
	150 mm								150	
	200 mm								200	
	250 mm								250	
	300 mm								300	
	350 mm								350	
	400 mm								400	
	Andere Länge (bitte angeben)								Y	
<b>Limit value contacts:</b>	2x PNP, 30 VDC, 200 mA (standard)								0	
	1x PNP, 30 VDC, 200 mA								1	
	Without								2	
	2x NPN, 30 VDC, 200 mA								3	
	1x NPN, 30 VDC, 200 mA								4	
	2x PNP, 30 VDC, 1000 mA								5	
	1x PNP, 30 VDC, 1000 mA								6	
	2x NPN, 30 VDC, 1000 mA								7	
	1x NPN, 30 VDC, 1000 mA								8	
<b>Configuration:</b>	Factory set								0	
<b>Special model:</b>	Non								0	
	Yes (to specify)								1	

Zubehör:      Compression fitting ??