


## Characteristics

1 - MODULAR - ECONOMIC - METER

	- Input:	0...10 m/s up to 0...30 m/s
	- Output:	4...20 mA
	- Supply:	24 VDC VDC
	- 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 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, dependent on construction (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
Indicator / limit values:	Operation:	according VDMA 24574-1 up to 24574-4

### Programmable Features

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%
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### 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:	10 bar with screwed connection		
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

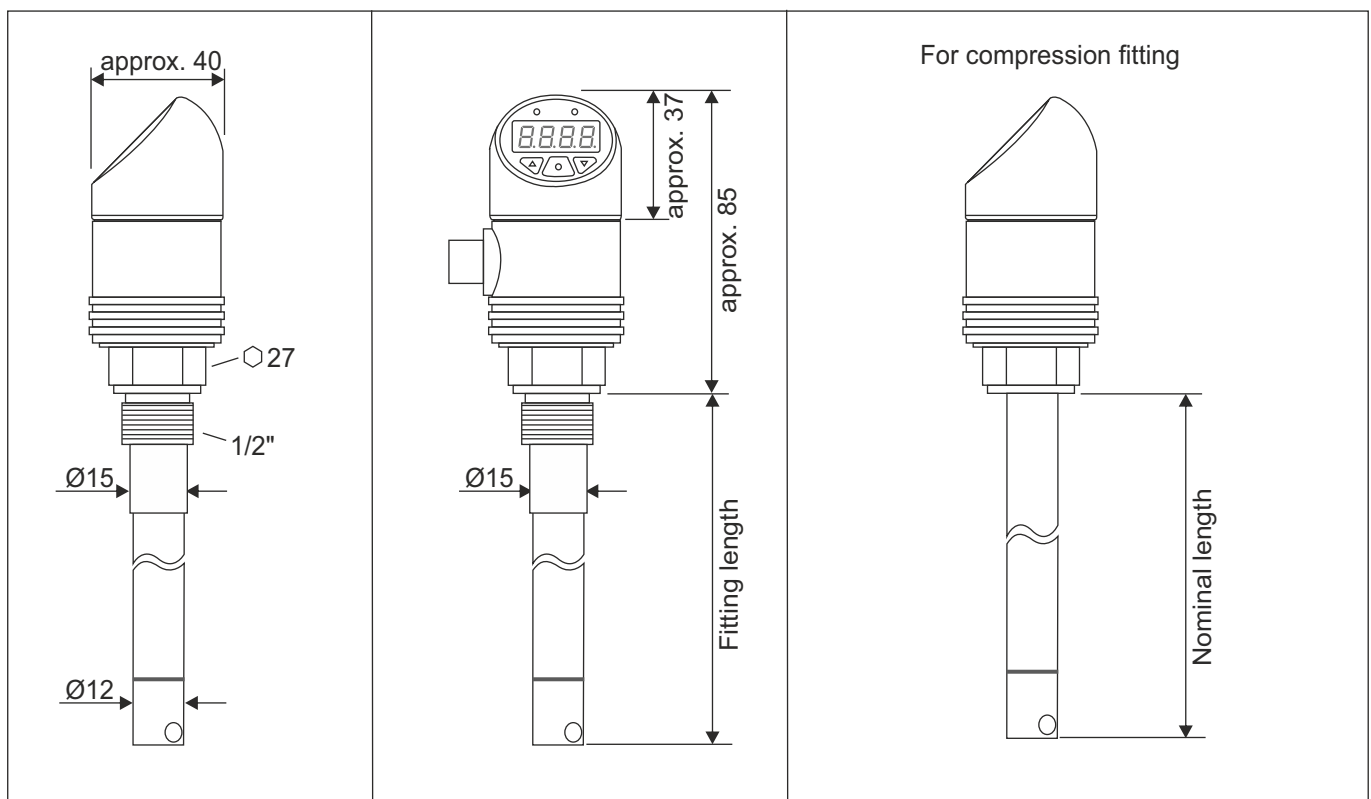
M12x1	Super Seal	Deutsch	Deutsch	Bayonet	Valve	MIL	
							
4-pole 5-pole 8-pole	3-pole	3-pole	4-pole	4-pole	4-pole	6-pole	

Connection	Supply		Out SIG (+)	Limit value contact			Program- ming
	U+	U-		Common	SP 1	SP 2	
M12x1, 4-pole	1	3	2	(1)	(4)		5
M12x1, 5-pole	1	3	2	(1)	4		5
M12x1, 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)		4
Bayonet DIN, 4-pole	1	2	3	(1)	(4)		4
Valve (L-Plug), 4-pole	1	2	3	(1)	(GND)		GND
MIL, 6-pole	A	C	F	E	D	B	

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

\* When using 3-pole connectors it is not possible to change the measuring range after assembling of the sensor.

## ● 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							
<b>Output:</b>	4...20 mA	1							
<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							
	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	
	Other length (please specify)							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>	No							0	
	Yes (please specify)							1	

Accessories: Compression fitting G1/2"