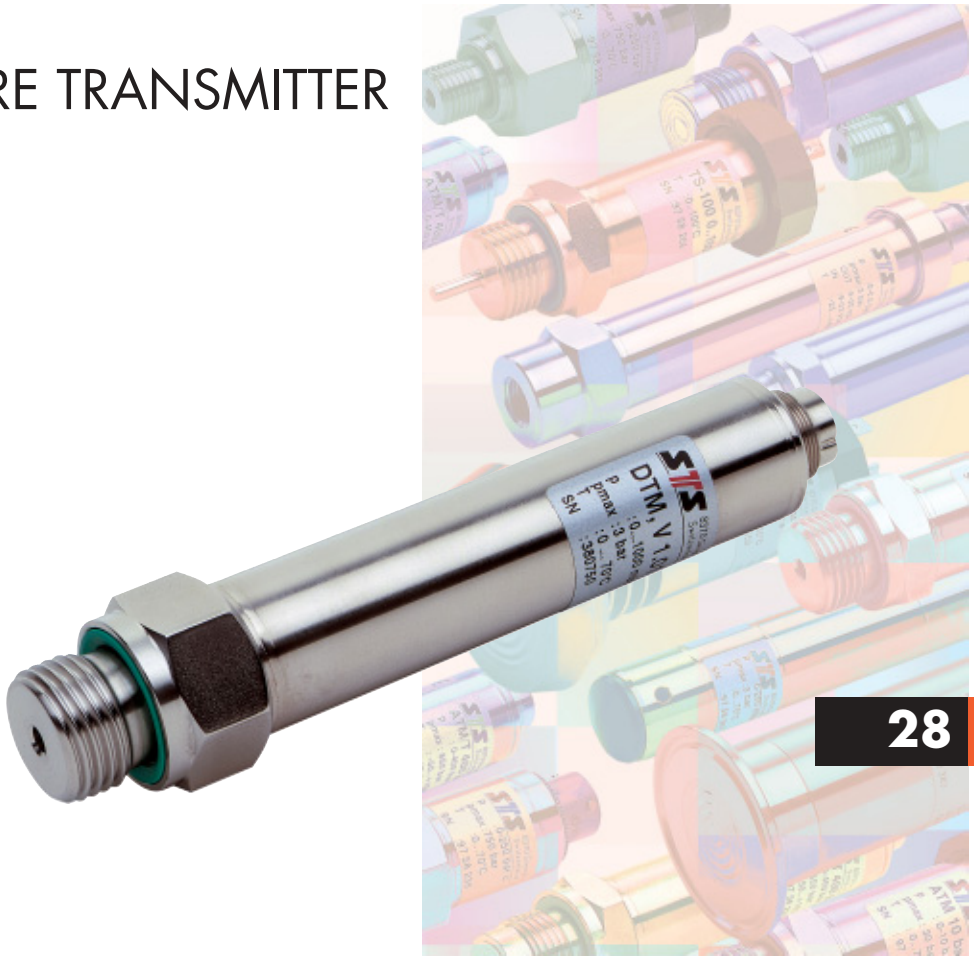
DIGITAL PRESSURE TRANSMITTER DTM



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CE

Features

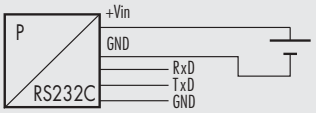
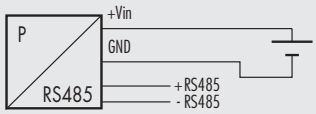
- Compact and robust stainless steel assembly 1.4435 (316L)
- Piezoresistive measuring element
- Gauge, absolute or sealed gauge
- All pressure ranges between 0…50 mbar and -1…1000 bar available
- Calibration available for all common pressure units
- High reliability
- Customized versions due to modular assembly
- Reverse polarity and short circuit protected
- Media temperature up to 150°C (option)
- Interface RS232C or RS485

Typical applications

- Machine installations
- Industrial process control
- Heating and ventilation
- Environmental monitoring
- Food industry
- Mobile hydraulics
- Test and calibration systems
- Gas density control

Specifications

Pressure range [bar]		0.05 … 0.5	> 0.5 … 2	> 2 … 25	> 25 … 600	> 600 … 1000
Overpressure		3bar	3 x FS (min. 3bar)	3 x FS	3 x FS (max. 850bar, optional 1500bar)	1500bar
Burst pressure	[bar]	> 200	> 200	> 200	> 850 (optional 1500bar)	1500
Accuracy [1]	[± % FS]	≤ 0.25	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
Thermal shift	[± % FS/°C]					
Zero	0…70°C	≤ 0.06 [2]	≤ 0.03	≤ 0.015	≤ 0.015	≤ 0.015
	-25…85°C	≤ 0.08 [3]	≤ 0.04	≤ 0.02	≤ 0.02	≤ 0.02
Span	0…70°C	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015
	-25…85°C	≤ 0.02	≤ 0.02	≤ 0.02	≤ 0.02	≤ 0.02
Long term stability (1 year)		< 4mbar	< 4mbar	< 0.2% FS	< 0.2% FS	< 0.2% FS

Interface	RS232C	RS485
Power supply	5…30V DC	5…30V DC
Current consumption	< 7mA	< 7mA
Circuit diagram		
Resolution	< 0.01 % FS	< 0.01 % FS
Integration time	1µs … 20s, adjustable	1µs … 20s, adjustable
Identification	Each DTM has a serial number and a customer programmable mark	

Materials	
Process connection, diaphragm, housing	Stainless steel 1.4435 (316L), other materials (e.g. titanium) on request
Seals (standard)	Viton (other materials see ordering information)

Electromagnetic compability

Standard		Level	Typical interferences
Emission:			
EN 61000-6-3	Generic emission standard		
EN 55022	Emission, class B		
Immunity:			
EN 61000-6-2	Generic immunity		
EN 61000-4-2	Electrostatic discharge	4kV contact, 8kV air	
EN 61000-4-3	Radiated electro-magnetic field	10V/m, 80-1000MHz, 80% AM 1kHz	Cellular phones, radio sets
EN 61000-4-3	Radiated electro-magnetic field (GSM)	10V/m, 950MHz, 200Hz on/off	Digital portable phones
EN 61000-4-4	Fast transients (burst)	2kV	Motors, valves
EN 61000-4-6	Conducted radio-frequency	10V, 0.15-80MHz, 80% AM 1kHz	Cellular phones, radio sets
EN 61000-4-5	Surge		

[1] Zero based non-conformity according to DIN 16086, including hysteresis and repeatability

[2] 50 - 99mbar: ≤ 0.12

[3] 50 - 99mbar: ≤ 0.16

Ordering Information

				28	X	. XXXX	. XXXX	. XX	. XXX
Type	DTM			28					
Pressure type	Gauge				1				
	Absolute				2				
	Sealed gauge				3				
Pressure range	All pressure ranges between 0…50 mbar and -1…1000 bar available					XX			
Process connection	G 1/4 female	(Fig. 1)				00			
	G 1/4 M	(Fig. 2)				11			
	G 1/4 M, Manometer DIN 16288	(Fig. 3)				12			
	G 1/2 M	(Fig. 4)				13			
	G 1/2 M, frontal diaphragm	(Fig. 5)				14			
	G 1/2 M, flush diaphragm	(Fig. 6)				15			
	G 1/2 M, Manometer DIN 16288	(Fig. 7)				16			
	1/4 NPT M					10			
	1/2 NPT M	(Fig. 8)				19			
	Other process connector available					XX			
Electrical connection	Connector DIN 43650 (screwed on) [2]	(Fig. 10)	IP 65				01		
	Connector Binder 723, 5-pin [2]	(Fig. 11)	IP 67				03		
	Connector MIL C26482, (10-6) [2]	(Fig. 13)	IP 40				06		
	PE cable [3] [4]	(Fig. 14)	IP 67				13		
	PUR cable [3]	(Fig. 14)	IP 67				15		
	Teflon cable [3]	(Fig. 14)	IP 67				21		
	Other connector available					XX			
Interface	RS232C						61		
	RS485						62		
Accuray	≤ ± 0.25% FS (for pressure ranges ≤ 500mbar)							1	
	≤ ± 0.1 % FS (for pressure ranges > 500mbar)							2	
Temperature range	Compensated 0…70°C (media temperature 0… 80°C)							0	
	Compensated -25…85°C (media temperature -25…100°C)							1	
	Compensated -25…85°C (media temperature -25…150°C)							2	
	Special temperature range							9	
Options	Throttle [1]								A
	Electronics packed in gel: Gauge pressure								C
	Absolute and sealed gauge pressure								D
	Temperature measurement (ambient temperature)								E
	Special oil filling in the TD: ASEOL Food								G
	Halocarbon								H
	Seals: EPDM								S
	Kalrez								T
	Special options								Z

[2] Available only with fig. 2, fig. 4 or fig. 7

[3] Cable socket connector not included

[4] Please specify the required cable length

[5] Suitable for drinking water (food approved)

Process Connection

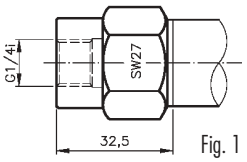


Fig. 1

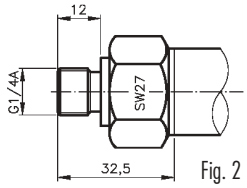


Fig. 2

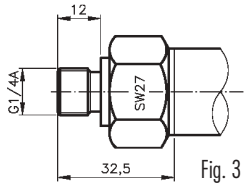


Fig. 3

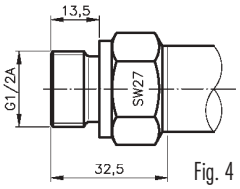


Fig. 4

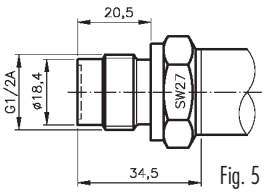


Fig. 5

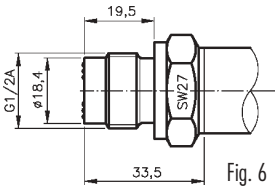


Fig. 6

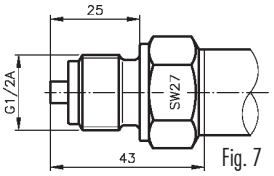


Fig. 7

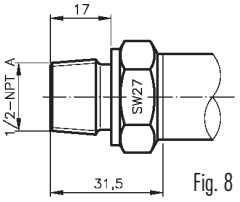
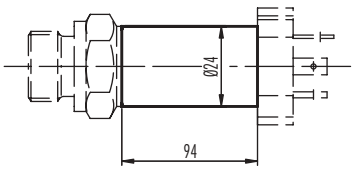


Fig. 8

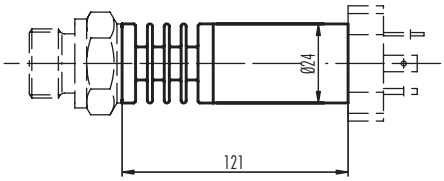
Dimensions

Version for media temperature up to 100°C



L = 94mm for connector DIN 43650 (Fig. 10)

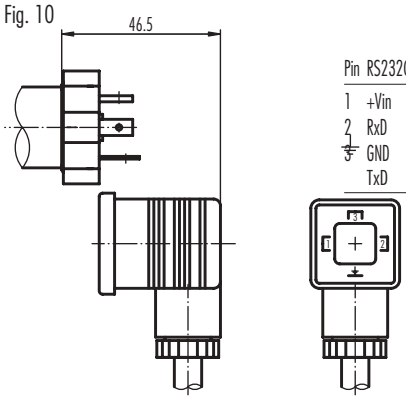
Version for media temperature up to 150°C



L = 121mmfor connector DIN 43650 (Fig. 10)

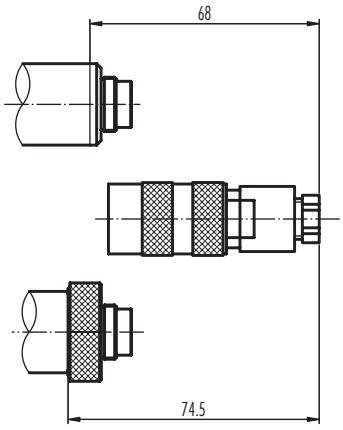
Electrical Connection

Fig. 10

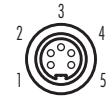


Pin	RS232C	RS485
1	+Vin	+Vin
2	RxD	+RS485
3	GND	GND
	TxD	-RS485

Fig. 11



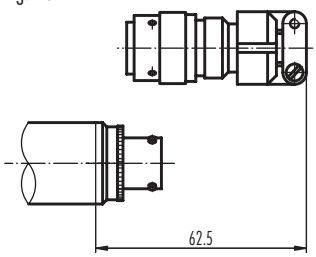
Cable socket connector



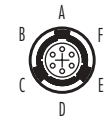
Pin	RS232C	RS485
1	RxD	+RS485
2	TxD	-RS485
3	+Vin	+Vin
4	GND	GND

Fig. 12

Fig. 13

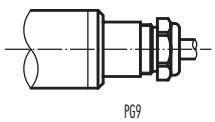


Cable socket connector



Pin	RS232C	RS485
A	+Vin	+Vin
B	GND	GND
C	RxD	+RS485
D	TxD	-RS485

Fig. 14



Colour	RS232C	RS485
white	+Vin	+Vin
yellow	GND	GND
brown	RxD	+RS485
green	TxD	-RS485

Specifications may change without notice.

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