

Pressure transmitter

according to DESINA®

- Model SD-10

TRONIC LINE

- Pressure ranges from 0 ... 10 bar up to 0 ... 250 bar
- Signal output 0 ... 10 V, 3-wire
- Wetted parts and case of stainless steel
- Medium temperature -30 ... +125 °C
- Ingress protection IP 67
- Locking plug 5-pin, M 12 x 1
- DESINA® -conformity

General features

The DESINA®-pressure transmitter offers considerable advantages especially to customers in the field of machine tool building. Especially in these critical applications the pressure transmitter offers high operational reliability and safety due to its extremely high resistance to shock, vibration and EMC-loads. The transmitter complies to an overall concept regarding standardisation and decentralisation of electrical installations in machines and plants. This future standard has been defined by a multi-branch study group. (Further information about DESINA® can be found under www.desina.de).

This concept results in cost cuttings regarding electrical equipment due to a simplified mounting and maintenance, reduced variations i.e. reduced stockkeeping and altogether in a higher grade of availability of the machine.

There is a diagnosis signal for each error, which helps avoiding long trouble-shooting periods. A yellow LED which is visible all around furthermore indicates that pressure is applied to the sensor.

The electrical connection is carried out via a 5-pin M 12 x 1 plug in IP 67 according to DESINA®-requirements. The high ingress protection class is necessary in order to meet the high requirements of the machine tool building and to guarantee a sufficient protection against oils used as coolants.

Due to a special welding process used for our inhouse-produced thin film sensors it is not necessary to use additional sealing elements and we can guarantee a very good longterm impermeability.

Accuracy of the transmitter is $\leq 0.5\%$. Due to the combination of excellent repeatability and longterm stability we guarantee a reliable measuring over a long period.

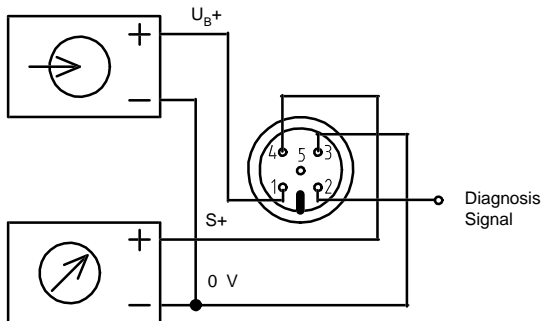


Supplementary data sheets:

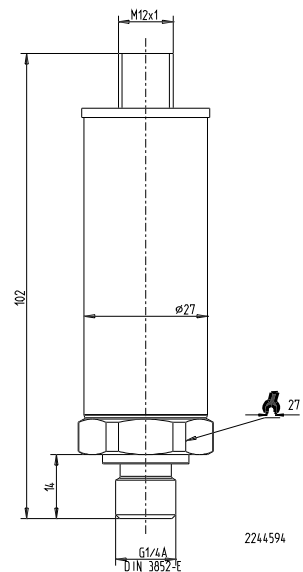
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|---|--------------------|
| • Pressure Transmitter for general applications (see data sheet PE 81.01) | Model S-1X |
| • Compact Pressure Transmitter (see data sheet PE 81.12) | Model C-10 |
| • Pressure Transmitter ECO-TRONIC (see data sheet PE 81.14) | Model ECO-1 |
| • Pressure Transmitters for mobile hydraulics (see data sheet PE 81.21) | Model MH-1 |

Specifications		Model SD-10 (DESINA®)							
Pressure ranges	bar	10	16	25	40	60	100	160	250
Over pressure safety	bar	20	32	50	80	120	200	320	500
Burst pressure	bar	100	160	250	400	550	800	1000	1200
Pressure connection		G ¼ A per DIN 3852-E							
Materials		<ul style="list-style-type: none"> wetted parts: stainless steel 1.4571 and 1.4542 case: stainless steel 1.4571, cap in PA 							
Power supply U_B	DC V	20 ... 30							
Signal output and maximum load R_A	V / kOhm	0 ... 10, 3-wire system / > 3							
Upper cutoff frequency	Hz	> 500							
Response time (10 ... 90 %)	ms	≤ 1							
Diagnosis function (Pin 2):		<ul style="list-style-type: none"> Function: o.k.: HIGH; not o.k.: LOW Level: HIGH: > + U_B - 0.3 V; LOW: < + 0.6 V Switch on time (power on): s < 1 Resonse time: ms < 100 							
Status indicator:		<ul style="list-style-type: none"> Indicator element: all around visible LED: yellow Function: < 10% of nominal pressure: OFF; > 10% of nominal pressure: ON Tolerance threshold: 10% ± 2% of nominal pressure 							
Accuracy (included hysteresis, nonlinearity and repeatability)	% of span	< 0.5							
1-year stability	% of span	< 0.2 (at reference conditions)							
Permissible temperature of									
• medium	°C	-30 ... +125				-22 ... +257 °F			
• ambient	°C	-20 ... +80				- 4 ... +176 °F			
• storage	°C	-40 ... +80				-40 ... +176 °F			
Compensated temp. range	°C	0 ... +80				32 ... +176 °F			
Temperature coefficients in compensated temp range:									
• mean TC of zero	% of span/10K	< 0.3 (< 0.4 at 10 bar)							
• mean TC of range	% of span/10K	< 0.2							
CE -conformity		Interference emission and immunity see EN 61 326; declaration of conformity on request							
Electrical connection		Locking plug 5-pin, M 12 x 1 Pin 1: + U_B ; Pin 2: signal (diagnosis); Pin 3: 0 V; Pin 4: signal (pressure); Pin 5: not connect							
Wiring protection		protected against polarity crossing, overvoltage and short circuiting							
Degree of protection per EN 60 529 / IEC 529		IP 67							
Weight	kg	approx. 0.1							
Dimensions	mm	see drawings							

Electrical connection



Dimensions in mm



Specifications and dimensions given in this document represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.



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