High Pressure Transmitter

SMF

Main features

- Measuring ranges > 0...1000 bar to 0...4000 bar
- Standard signals for the industry, hydraulics and others
- Highly flexible options by its modular design
- Plug systems MVS/A acc. to DIN EN 175301-803 A, MVS/C acc. to DIN EN 175301-803 E, M12
- Highly reliable

Applications

- Hydraulics
- Mechanical engineering
- Test stand design
- Water-power engineering
- Diesel engine technology

Description

This pressure transmitter is designed and manufactured for safely measuring high pressures. It is robust and precise. Special non-corroding steel permits its application also in systems with aggressive, liquid or gaseous media. Its modular design allows reasonable manufacture also in small batches and offers a multitude of signal, thread and connecting options that can all be supplied within very short time.

At its pressure connection, the sensor is sealed by means of a double-seal cone (as a rule, from 1000 bar). The threaded connection is to be fastened applying the specified torque.







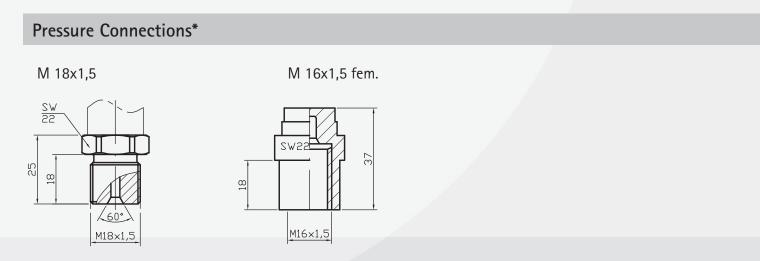




Specifications							
PRESSURE RANGE							
Measuring range*	p [bar]	1600	2000	2500	4000		
Overload pressure	p [bar]	2400	2400	3600	4800		
Burst pressure	p [bar]	3000	3000	4500	6000		
ELECTRICAL PARAMETER							
		signal			$U_s [V_{DC}]$	$R_{L}[k\Omega]$	RA $[\Omega]$
Output signal * and	R _A in Ohm	420 mA	(2-wire, 3-	-wire)	932		acc. to $R_A = < (U_S - 10V) / 0.02 A$
maximum acceptable burde	en R _A	010 V _{DC}	(3-wire)		1232	> 5,0	
		15 V _{DC}			832	> 1,0	
		0,54,5 V	oc ratiometric	2	5 ±10%	> 4,7	
Response time* (1090%)	t [ms]	< 1	-				
Withstand voltage	U [V _{DC}]	350	(option 710	0)			
ACCURACY	for pressure range ≤ 2000 bar			for pressu	re range >	2000 bis 4000 bar	
Accuracy @ RT	% of the range	e ≤ 0,50**	option ≤ C),25	≤ 1,00**		
	BFSL	≤ 0,25			≤ 0,50		
Non-linearity	% of the range	e ≤ 0,15			≤ 0,30		
Repeatability	% of the range	2 ≤ 0,10			≤ 0,20		
Stability/year	% of the range	2 ≤ 0,10			≤ 0,20		
	** incl. nonlinearity, hysteresis, repeatability, zero-offset- and final-offset (acc. to IEC 61298-2)						
ACCEPTABLE TEMPERATUR	RE RANGES						
Measuring medium	T [°C]	-40125					
Ambience	T [°C]	-40105	(option-55	i)			
Storage	T [°C]	-40125					
Compensated range*	T [°C]	-2085					
Temperature coefficient wit	thin the compen	sated range	2				
Mean TC offset	% of the range	e ≤ 0,15 / 10	OK				
Mean TC range	% of the range \leq 0,15 / 10K						
Total error	% of the range -40°C 2,00%						
	% of the range 105°C 2,00%						
MECHANICAL PARAMETER	₹						
Parts in contact with the m	easuring mediur	m*	stainless s	teel			
Housing*			stainless s	teel			
Shock resistance		g	1000	acc. to IE0	C 68-2-32		
Vibration resistance		g	20	acc. to IEO	C 68-2-6 und	d IEC 68-2-	36
Mass		m [g]	120-150	dependin	g on design		
CE - conformity			EC Directiv	/e 89/336/E	WG		
IP system of protection		The IP syst	em of prote	ction as spe	cified in the	data sheets	generally applies, with their mating
		connected. Relative pressure transmitters usually require a ventilated mating plug and/or cable t					
		aloow for	pressure con	npensation.	From a press	sure range o	of 60bar, a ventilated mating plug and
* others upon request		cable is no	t necessarily	/ required.			

Configurations -examples SMH with MVS/A M16x1,5 adapter M16x1,5 M18x1,5 MVS/A MVS/A M18x1,5 Packard M18x1,5 Packard

male socket M12x1 (S763) male socket M12x1 (S763) MVS/A DIN EN 175301-803 MVS/C DIN EN 175301-803

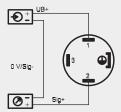


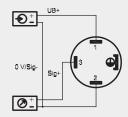
^{*} custom-made adjustments acc. to pressure connections and connecting options are possible

S M H High Pressure Transmitter

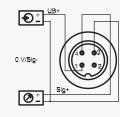
Electrical Connections* (left: 2-wire, right: 3-wire)

MVS/A DIN EN 175301-803

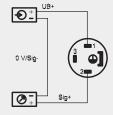


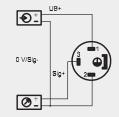


male socket M12x1 (S763)

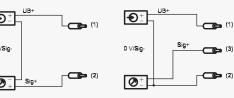


MVS/C DIN EN 175301-803











* custom-made adjustments acc. to pressure connections and connecting options are possible

Product line DS4 **Electronic Pressure Switch** SMC Pressure Transmitter with CANopen Interface DPSX9I Intrinsically Safe Electronic Pressure Switch for Current SME Pressure Transmitter in Miniature Design DPSX9U Intrinsically Safe Electronic Pressure Switch for Voltage SMF Pressure Transmitter with Flush Diaphragm PS1 Level Sensor **SMH** High Pressure Transmitter PSX2 Intrinsically Safe Level Sensor SML Pressure Transmitter for Industrial Application SHP High Precision Pressure Transmitter SM₀ Pressure Transmitter in Mobile Hydraulics Low Pressure Transmitter in Short and Compact Design SMS **OEM Pressure Transmitter for Hydraulics and Pneumatics** SIS Low Pressure Transmitter for Industrial Application SIL SMX Intrinsically Safe Pressure Transmitter for Industrial Application SKE High Temperature Pressure Transmitter with Detached Electronics TPS Multi-Function Transmitter for Pressure and Temperature SKL High Temperature Pressure Transmitter with Cooling Fins



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