

OEM Pressure Transducer for Hydraulics und Pneumatics

S M S

Main Features

- Measuring range from 0...4 bar and to 0...600 bar
- Fully welded, vacuum-proof stainless steel membrane
- Shock-proof and vibration-proof > 1000 g shock, > 20 g vibration
- Designed for OEM quantities and, therefore, available at a very reasonable price-performance ratio
- Extremely short design (thread G1/4 with M12 plugs smaller than 50 mm in total length)

Applications

- Mobile hydraulics
- Hydraulics
- Pneumatics
- Mechanical engineering / presses
- Air conditioning
- Automotive engineering

Description

ADZ NAGANO GmbH introduces the new pressure transmitter series "SMS" based on its proven stainless steel cell. Being both short and compact in design, combined with precision and a long lifecycle, it sets new standards in the field of fully electronic pressure-measuring technology. A hermetically welded thin-film cell (Poly-Si) in steel housing and, therefore, extremely robust, despite its tiny design. Commercial OEM-integrated plug-variants, Packard, 4-pin Deutsch, AMP-Super Seal, Junior-Timer, M12 series and cable variants can be obtained. Output signals from 4 to 20 mA (two-leads), 0 to 10 V, 1 to 5 V as well as 0.5 to 4.5 V ratiometric are available as a standard

ADZ NAGANO is certified acc. to TS16949.

As a matter of course, custom-made adjustments are possible with this product.



Specifications

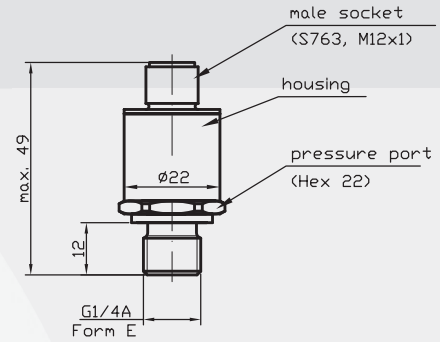
PRESSURE RANGE									
Measuring range*	p [bar]	4	6	10	16	20	25	40	60
Overload pressure	p [bar]	10,0	20,0	20,0	40,0	40	100	100	200
Burst pressure	p [bar]	15,0	30,0	30,0	60,0	60	150	150	300
Measuring range*	p [bar]	100	160	200	250	400	600		
Overload pressure	p [bar]	200	400	400	750	750	840		
Burst pressure	p [bar]	300	600	600	1.000	1.000	1.050		
ELECTRICAL PARAMETER									
	signal					$U_s [V_{DC}]$	$R_t [k\Omega]$	$RA [\Omega]$	
Output signal* and maximum acceptable burden R_A	R_A in Ohm	4...20 mA (2-wire, 3-wire)					9...32	nach $R_A = < (U_s - 10V) / 0,02 A$	
		0...10 V_{DC} (3-wire)				12...32	> 5,0		
		0...5 V_{DC}				8...32	> 2,5		
		1...5 V_{DC}				8...32	> 2,5		
		0,5...4,5 V_{DC} ratiometric				5 ± 10%	> 4,7		
Response time* (10-90%)	t [ms]	< 1							
Withstand voltage	U [V_{DC}]	350	(option 710)						
Accuracy	% of the range	≤ 0,50**	option ≤ 0,25					**incl. nonlinearity, hysteresis, repeatability, zero-offset- and final-offset (acc. to IEC 61298-2)	
	BFSL	≤ 0,125							
Non-linearity	% of the range	≤ 0,15							
Repeatability	% of the range	≤ 0,10							
Stability/year	% of the range	≤ 0,10							
ACCEPTABLE TEMPERATURE RANGES									
Measuring medium	T [°C]	-40...125							
Ambience	T [°C]	-40...105							
Storage	T [°C]	-40...125							
Compensated range*	T [°C]	-20...85							
Temperature coefficient within the compensated range									
Mean TC offset	% of the range	≤ 0,15 / 10K							
Mean TC range	% of the range	≤ 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 measuring medium		stainless steel							
Housing		stainless steel							
Shock resistance	g	1000	acc. to IEC 68-2-32						
Vibration resistance	g	20	acc. to IEC 68-2-6 and IEC 68-2-36						
Mass	m [g]	approx. 60 (depending on design)							
CE - conformity		EC Directive 89/336/EWG							
IP system of protection		The IP system of protection as specified in the data sheets generally applies, with their mating plug connected. Relative pressure transmitters usually require a ventilated mating plug and/or cable to allow for pressure compensation. From a pressure range of 60bar, a ventilated mating plug and/or cable is not necessarily required.							
* others upon request									

Configurations

SMS with M12 (S763)

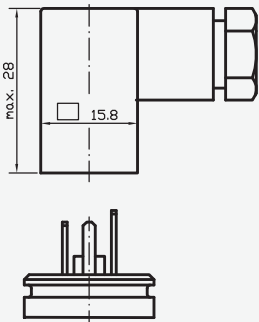


Deutsch Super- Junior- Packard M12x1 MVS/C cable
connector seal Timer (S763)

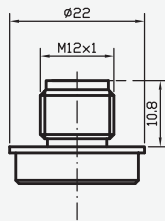


Connectors*

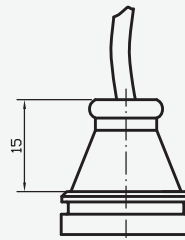
MVS/C
DIN EN 175301-803



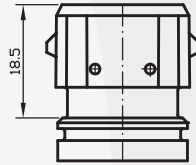
male socket
M12x1 (S 763)



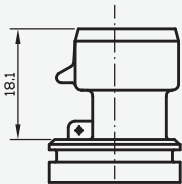
cable output



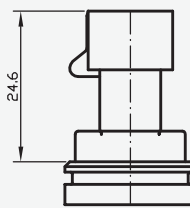
Junior-Timer



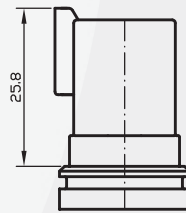
Packard



Superseal

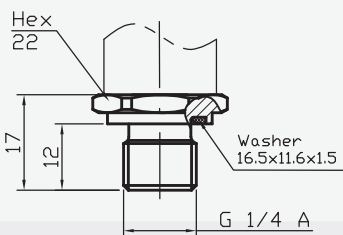


Deutsch-connector
4-pin

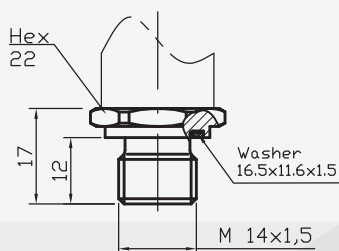


Pressure Connections*

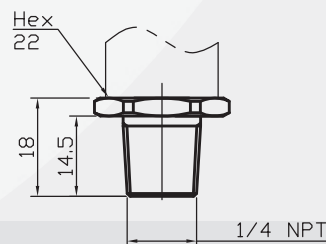
G 1/4 A; DIN 3852; Form E



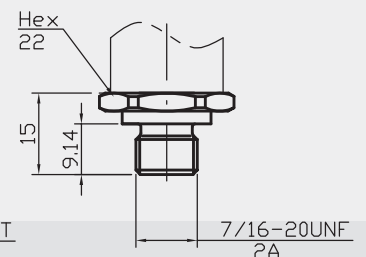
M 14x1,5



1/4 NPT

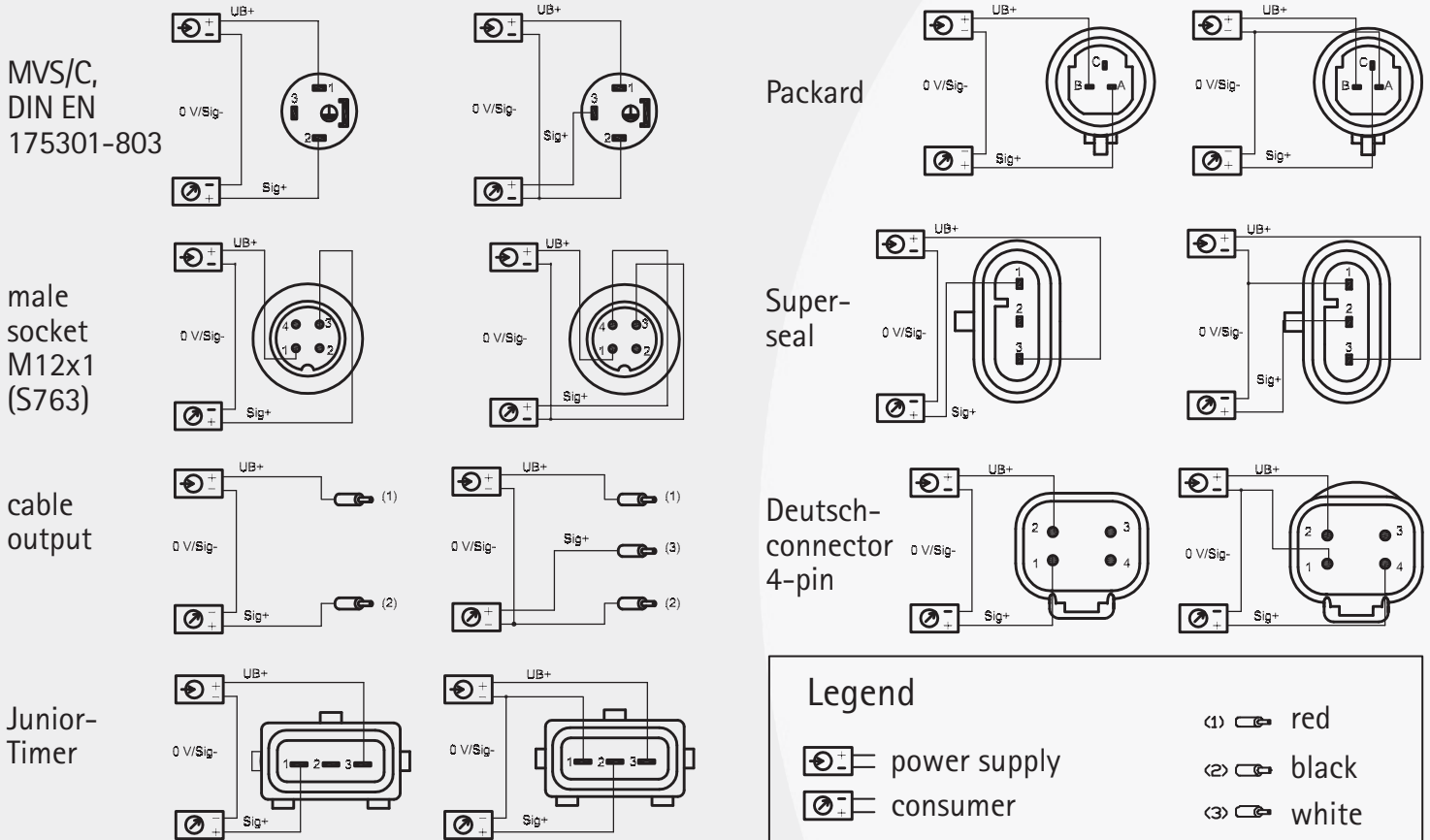


7/16-20 UNF



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

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



* 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	SMO	Pressure Transmitter in Mobile Hydraulics
SIS	Low Pressure Transmitter in Short and Compact Design	SMS	OEM Pressure Transmitter for Hydraulics and Pneumatics
SIL	Low Pressure Transmitter for Industrial Application	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		