

The Short One

SIS

Low Pressure Transmitter in Short and Compact Design

Main features

- Measuring ranges 0...10 mbar to 0...40 bar
- Standard signals for the industry, hydraulics and pneumatics
- Plug systems MVS/C acc. to DIN EN 175301-803 C
- small design ~ max. 50 mm in length
- large variety of electrical connections

Applications

- General industrial applications
- Pneumatics
- Mechanical engineering
- Automotive industry

Description

The low pressure transducer SIS features a short and compact design. This allows for a high level of integration and the SIS can be installed in applications with limited space. The high level of reliability and customization are a key factor for using SIS pressure transducers. The modular design concept allows for a highly flexible and custom product design and featuring all standard pressure and electrical connections. A wide variety of output signals can be offered.



Specifications

PRESSURE RANGE

Measuring range*	p [mbar]	10	20	40	60	100	160	400	600
Overload pressure	p [mbar]	50	100	200	300	500	800	1200	1800
Burst pressure	p [mbar]	150	300	600	900	1500	2000	2000	3000
Measuring range*	p [bar]	1,6	2,0	2,5	4,0	6,0	10,0		
Overload pressure	p [bar]	6	6	6	10	20	20		
Burst pressure	p [bar]	9	9	9	15	30	30		
Measuring range*	p [bar]	16	20	25	40				
Overload pressure	p [bar]	40	40	40	60				
Burst pressure	p [bar]	60	60	60	80			(vacuum, relative pressure, +- or absolute pressure are available)	

ELECTRICAL PARAMETER

		2-wire	3-wire	3-wire
Output signal*		4...20 mA	0...5 V	0,5...4,5 V ratiometric
Supply voltage	$U_s [V_{DC}]$	10...32**	8...32	$5 \pm 10 \%$
Load resistor	R_L in Ohm	$R_L = (U_s - 10V) / 0,02A$	$\geq 4.7k\Omega$	$\geq 4.7k\Omega$
Response time	t [ms]	≤ 2	≤ 1	≤ 1
Maximum supply current	I [mA]	23	10	7,5
Isolation voltage*	U [V _{DC}]	50		** > AppNote (see www.adz.de)

ACCURACY

Accuracy @ RT	% of the range $\leq 1,00^{***}$	Option $\leq 0,5$	*** incl. nonlinearity, hysteresis, repeatability, zero-offset and final-offset (acc. to IEC 61298-2)	
	BFSL $\leq 0,25$			
Non-linearity	% of the range $\leq 0,15$			
Stability/year	% of the range $\leq 0,10$			

ACCEPTABLE TEMPERATURE RANGES

Measuring medium	T [°C]	-40...85		
Ambience	T [°C]	-40...85		
Storage	T [°C]	-40...85		
Compensated range****	T [°C]	-10...70		**** The mean TC are relevant for the compensated range only, outside the compensated range the total error statements apply.
Mean TC offset	% of the range $\leq 0,15 / 10K$			
Mean TC range	% of the range $\leq 0,15 / 10K$			
Total error	% of the range	-40°C 3,00%		
	% of the range	85°C 3,00%		

MECHANICAL PARAMETER

Wetted components	silicon, NBR O-ring, aluminium, plastic (e.g. PA66)		
Housing*	stainless steel		
Weight	m [g]	80-120	depending on design
Shock resistance/drop	g	1000	acc. to DIN EN 60068-2-32 – free fall
Vibration resistance	g	20	acc. to DIN EN 60068-2-6 – vibration sinusoidal
Shock resistance/constant	g	25	acc. to DIN EN 60068-2-27 – shock
Approvals	CE Declarations of conformity 2014/30/EU		

Note: Not every specification listed here applies to all configurations, thus affecting the appropriate approval.

IP system of protection (IEC 60529) up to IP69K The IP system of protection as specified in the data sheets generally applies, with appropriate mating plug connected.

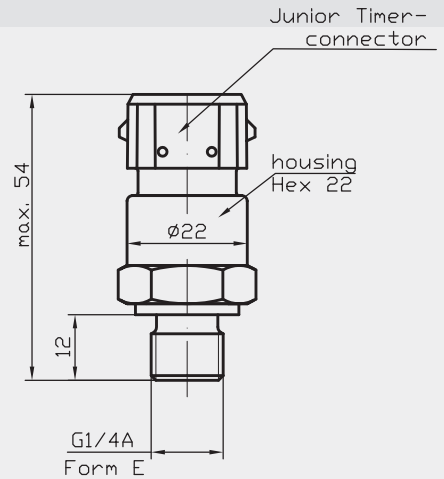
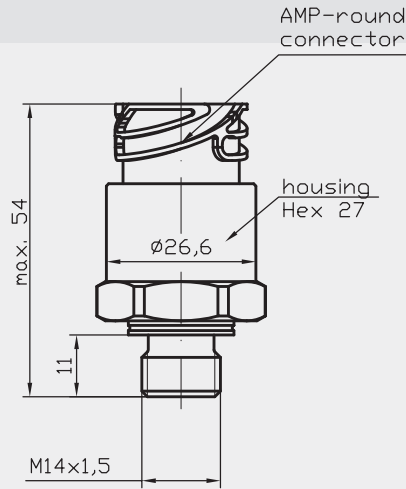
Configurations -examples-

SIS with



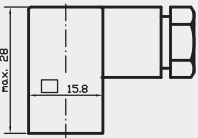
Round connector DIN 72585

Junior-Timer connector

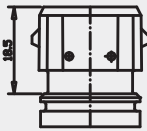


Electrical connections* -examples-

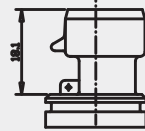
MVS/C
DIN EN 175301-803
(IP65)



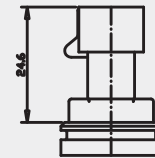
Junior-Timer
connector
(IP67/IP69K)



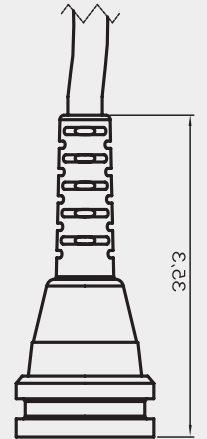
Packard-
connector
(IP67/IP69K)



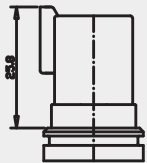
Superseal
connector
(IP67/IP69K)



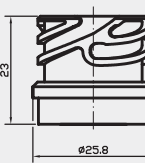
cable output
(IP67) with
bend protection



Round connector
DIN 72585
(IP67/IP69K)

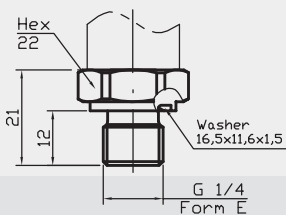


Deutsch-
connector 4-contacts
(IP67/IP69K)

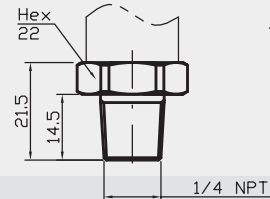


Pressure Connections* -examples-

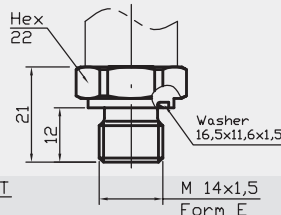
G 1/4 A;
DIN 3852; Form E



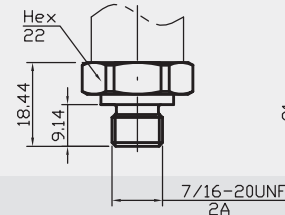
1/4 NPT



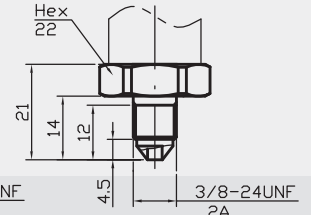
M 14x1,5;
DIN 3852; Form E



7/16-20UNF-2A
SAE 514

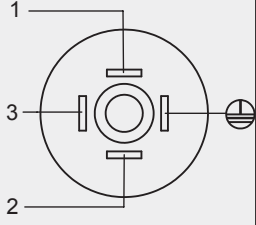
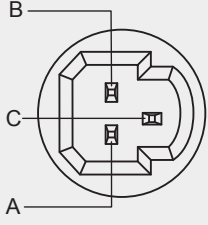
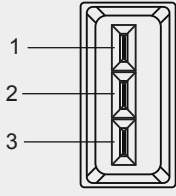


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* customer specific configurations available

Electrical Configuration*

Cable	DIN EN 175301-803-C	Packard Metripack	JuniorTimer
			
2-wire rt: UB+ sw: out ws: nc	2-wire 1: UB+ 2: out 3: nc ⊕: nc	2-wire A: UB+ B: UB+ C: out	2-wire 1: UB- 2: out 3: UB+
3-wire rt: UB+ sw: UB- ws: out	3-wire 1: UB+ 2: UB- 3: out ⊕: nc	3-wire*	3-wire*

nc = not connected

The electrical connection must be made in accordance with the respective connection diagram unless otherwise agreed upon.

* custom-made adjustments are possible

Product line

DS5	Electronic Pressure Switch	SMC	Pressure Transmitter with CANopen Interface and J1939
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
PS1/17	Level Sensor	SMH	High Pressure Transmitter
PSX2	Intrinsically Safe Level Sensor	SML	Pressure Transmitter for Industrial Application
SH2	Pressure transmitter for hydrogen applications	SMO	Pressure Transmitter in Mobile Hydraulics
SHP	High Precision Pressure Transmitter	SMX2	Intrinsically Safe Pressure Transmitter for Industrial Application
SIS	Low Pressure Transmitter in Short and Compact Design	TPSE	Multi-Function Transmitter for Pressure and Temperature – external sensor
SIL	Low Pressure Transmitter for Industrial Application	TPSI	Multi-Function Transmitter for Pressure and Temperature – internal sensor
SKE	High Temperature Pressure Transmitter with Detached Electronics	TS1	Temperature transmitter for industrial application
SKL	High Temperature Pressure Transmitter with Cooling Fins		

