



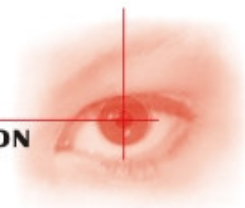
Pressure Transmitters

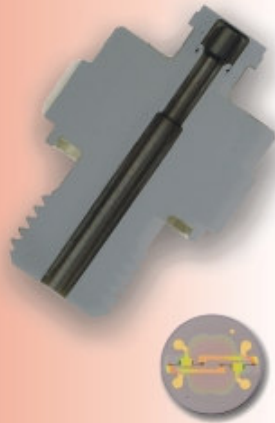
Custom-Built Sensors

Electronic Pressure Switches



SEE OUR SOLUTION





Measuring Principle

Piezo-resistive, vacuum-proof, stainless steel diaphragm with pressure range resistor (Poly-Si-on SiO₂)

Pressure Ranges (Stand.)

-1...0 bar to 0...4,000 bar

Accuracy

Class 1: 0.5 % F.S.
Class 2: 0.25 % F.S.

Accuracy includes: non-linearity, hysteresis and non-repeatability

Physical Description

Case: stainless steel, SW 22, case diameter 22 mm, wetted materials

Sensor: 17-4 PH, SUS 304 or SUS 630 stainless steel

Port Configuration (Stand.) Pressure Fittings

G 1/4" Form E with Viton-gasket

Vibration

25 g - Sinusoidal

Protection Class

Acc. to DIN 40 050

Options

Pressure cycles > 10 Million

Overrange Protection (Standard)

2 x rated pressure

Burst Pressure (Standard)

3 x rated pressure

Pressure Transmitter "Industry Standard"

SML



Applications

Standard Industrial OEM Equipment

Pressure Range

to 0...4,000 bar

Ambient Temperature

-40 °C to 105 °C
Media temperature: to 125 °C

Output

4...20 mA 2 wire
4...20 mA 3 wire
0...20 mA 3 wire
0...10 V 3 wire
0...5 V 3 wire

Port Configuration (Standard)

G 1/4" Form E

Electrical Connection

Standard design device plug
DIN 43650 design A and C

Protection Class

DIN 40 050 - IP 65

Options

On request

Data Sheet

www.adz.de → "SML"

Pressure Transmitter "Mobile Hydraulics"

SML-MO1



Applications

Mobile hydraulics on open-cast mining, civil engineering and agricultural machinery, engine technology, gearboxes, etc.

Pressure Range

to 0...4,000 bar

Ambient Temperature

-40 °C to 105 °C
Media temperature: to 125 °C

Output

4...20 mA 2 wire
0...5 V 3 wire to 125 °C
0.5...4.5 V rat. 3 wire to 145 °C

Port Configuration (Standard)

G 1/4" Form E; M 14 x 1.5

Electrical Connection

Cable, AMP, cable with Deutsch connector

Protection Class

DIN 40 050 - IP 65

Options

Pressure-peak damping, load-dump-protection, EMV stability to 300 V/m, reverse voltage protected

Data Sheet

www.adz.de → "SML-MO1"

Pressure Transmitter "Mobile Hydraulics"

SML-MO2



Applications

Transport and civil engineering machinery

Pressure Range

to 0...4,000 bar

Ambient Temperature

-40 °C to 110 °C
Media temperature: to 135 °C

Output

PWM (500 Hz, 5 kHz)
Bandwith (200 Hz to 2,2 kHz)

Port Configuration (Standard)

G 1/4" Form E; M 14 x 1.5;
9/16-20 UNF

Electrical Connection

Cable with Deutsch connector, MIL

Protection Class

DIN 40 050 - IP 65, IP 69

Options

Pressure-peak damping, load-dump-protection, EMV stability to 300 V/m, over and reverse voltage protected, diagnostic, Clamp

Data Sheet

www.adz.de → "SML-MO2"

**Pressure Transmitter
"CAN-Bus"**

SML-CAN



Applications

Networked hydraulics, Semiconductor technology, environmental and water management, industrial robots

Pressure Range

to 0...2,000 bar

Ambient Temperature

-40 °C to 80 °C

Output

CAN open 2.0 B
Physical layer to DIN 11 898

**Port Configuration
(Standard)**

G ¼ " Form E

Electrical Connection

Binder 4 pole, AMP

Protection Class

DIN 40 050 - IP 65

Options

CAN-Bus 12 bit with
AD converter

Data Sheet

www.adz.de → "SML-CAN"

**Pressure Transmitter
"High-Temperature"**

SMK



Applications

Hydraulics and pneumatics, water management

Pressure Range

to 0...4,000 bar

Ambient Temperature

to 145 °C
Media temperature: to 180 °C

Output

4...20 mA 2 wire
(Ambient temperature to 105 °C)
0...10 V 3 wire
(Ambient temperature to 115 °C)
0.5...4.5 V rat. 3 wire
(Ambient temperature to 145 °C)
with special cable: 180 °C

**Port Configuration
(Standard)**

G ¼ " Form E

Electrical Connection

Cable (Teflon)

Protection Class

DIN 40 050 - IP 65

Options

A) Electronics in housing
B) Electronics in cable

Data Sheet

www.adz.de → "SMK"

**Pressure Transmitter
"Tank Pressure and
Liquid-Level Probe"**

SML-PS1



Applications

Liquid-level and standard level measuring in tank-storage, reservoirs, environmental technology

Pressure Range

up 1 m WC (water column)

Ambient Temperature

5 °C to 70 °C

Output

4...20 mA 2 wire
0...10 V 3 wire
0...5 V 3 wire

**Port Configuration
(Standard)**

Metal binder or weighted plastic protection

Electrical Connection

Cable

Protection Class

DIN 40 050 - IP 65

Options

Eg.: with snubbers

Data Sheet

www.adz.de → "SML-PS1"

**Pressure Transmitter
"Intrinsic Safety"
in preparation**

SML-EExi
acc. to ATEX



Applications

Pressure measuring in explosion prone environment (chemistry / petrol-industry, process control)

Pressure Range

to 0...4,000 bar

Operating Temperature

-40 °C to 105 °C

Output

4...20 mA 2 wire
0...10 V 3 wire
0...5 V 3 wire

**Port Configuration
(Standard)**

G ¼ " Form E

Electrical Connection

DIN 43 650, design A or C

Protection Class





DIN 40 050 - IP 65

Options

On request

Data Sheet

www.adz.de → "SML-EExi"

Multi-Function Transmitter "Pressure and Temperature"	Pressure Transmitter "Small-Size Mini-Construction"	Elektronic Pressure Switch	Elektronic Pressure Switch
KS1	SME	DS3	DS4
			
<p>Applications General hydraulics, pneumatics, water management, process control, air conditioning and heating</p> <p>Pressure Range to 1.000 bar</p> <p>Operating Temperature -40 °C to 105 °C meas. range: -50 to 200 °C</p> <p>Output 4... 20 mA 2 wire or 0... 10 V 3 wire</p> <p>Temperature Probe: Diameter: 2 mm, Length: 50 mm</p> <p>Port Configuration (Standard) M 16 x 2 (femal)</p> <p>Electrical Connection Binder 8 pole</p> <p>Protection Class DIN 40 050 - IP 65</p> <p>Options Weight ca. 200 g</p> <p>Data Sheet www.adz.de → "KS1"</p>	<p>Applications For premium space applications, hydraulics, combustion engine</p> <p>Pressure Range 0...10 bar to 0...700 bar</p> <p>Operating Temperature -40 °C to 125 °C</p> <p>Output 0.5...4.5 V 3 wire 0.5...4.5 V rat. 3 wire</p> <p>Port Configuration (Standard) M 8 x 1; M 10 x 1</p> <p>Electrical Connection Cable, ribbon cable</p> <p>Protection Class DIN 40 050 - IP 65</p> <p>Options 0...50 bar, diameter: 15 mm; up 60 bar, diameter: 12 mm length: 50 mm; Resistant to pressure peaks</p> <p>Data Sheet www.adz.de → "SME"</p>	<p>Applications General hydraulics, pneumatics, water management, process control, air conditioning and heating</p> <p>Pressure Range to 0...4,000 bar</p> <p>Operating Temperature -10 °C to 80 °C</p> <p>Output Transistor circuitry U_B, pnp max. 1 Ampere</p> <p>Port Configuration (Standard) G ¼" Form E</p> <p>Electrical Connection Binder 5 pole</p> <p>Protection Class DIN 40 050 - IP 65</p> <p>Options Factory preset or field adjustable with programming module normally open or closed, special hysteresis and optional time delay feature, weight 100 g</p> <p>Data Sheet www.adz.de → "DS3"</p>	<p>Applications Industrial measuring hydraulics, pneumatics, water management, process control</p> <p>Pressure Range to 0...4,000 bar</p> <p>Operating Temperature -20 °C to 80 °C optional: -40 °C to 125 °C</p> <p>Output npn or pnp; max. 1.7 A DC error total: < 1.5 % F.S.</p> <p>Port Configuration (Standard) G ¼" Form E</p> <p>Electrical Connection Binder 4-pole</p> <p>Protection Class DIN 40 050 - IP 65</p> <p>Options Factory programmed or via PC (CD available), two switching points, programmable hysteresis and time delay, optional averaging</p> <p>Data Sheet www.adz.de → "DS4"</p>

**Digital
Pressure Readout
with switching outputs**

DA-2



Applications

Display for visualizing the process size pressure - LCD digital display, general industrial applications

Pressure Range

To choose ex factory

Operating Temperature

-20 °C to 90 °C

Output

Two limit switches, optional current output
Readout: 4 LCD digital display

Accuracy

±0.2 %, ±1 digit

Transmitter Input

4...20 mA, 0...20 mA, 0...5 V, 0.5...4.5 V, 1...5 V

Electrical Connection

Molex - 15 pole pin jack

Protection Class

DIN 40 050 IP 50

Options

Set limit monitoring

Data Sheet

www.adz.de → „DA-2“

**Electronic
Pressure Switch
with readout**

DS-DG



Applications

General hydraulics, pneumatics, water management, process control and other industrial applications

Pressure Range

to 0...4,000 bar

Operating Temperature

-10 °C to 80 °C

Output

Transistor circuitry
U_B, pnp max. 1 Ampere
Readout: 4 LCD digital display

Port Configuration

G ¼ " Form E

Switching Resolution

0.2 % F.S.

Electrical Connection

Binder 5 pole

Touch Keys

Programmable with 3 touch pads

Protection Class

DIN 40 050 IP 65

Options

Two switching points, programmable hysteresis and time delay, optional averaging, weight 100 g

Data Sheet

www.adz.de → „DS-DG“

**Hand Field
Pressure Meter**

DMT



Applications

Pressure monitoring of gases and fluids, industrial hydraulics, pneumatics, process control, leak-testing, medical and automobile

Pressure Range

Depend on the pressure transmitter (to 0...4,000 bar)

Operating Temperature

0 °C to 60 °C;
optional: -40 °C to 125 °C

Software

Range selector, sensor recognition, supporting PC software - RC 232 terminal

Data Logger Function

Memory for max. 12,000 values measured

Transmitter Input

4...20 mA, 0...10 V, 0...5 V, 0.5...4.5 V rat.

Touch Keys

Touch pads for range and time constant selection fronted between 0.1 and 10 s

Protection Class

DIN 40 050 IP 40

Options

Analogue display PC interface available

Data Sheet

www.adz.de → „DMT“

Partnership



NAGANO KEIKI CO., LTD.



**for total
sensor solution**

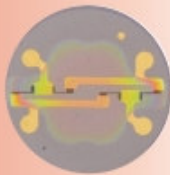


SCsensor *Silicon Capacitive Sensor*

The SC sensor is a differential low pressure sensor detecting pressure changes by the variable capacitance between the diaphragm and an electrode. The silicon diaphragm is processed to the order of microns utilizing state of the art micro-machining technology.

CCsensor Ceramic Capacitive Sensor

The CC sensor is a low pressure sensor which detects the pressure by sensing the capacity change between the electrode installed on the ceramic diaphragm and another stationary electrode at the other end.



SSsensor Semiconductor Strain Gauge Sensor

In the semiconductor strain gauge sensor, a strain gauge is deposited by plasma CVD on a metallic diaphragm and an insulator film. This pressure sensor detects strain caused by the distortion of the diaphragm due to the pressure applied on this diaphragm from liquid, by means of measuring the change in resistance.

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