

Technical Data Sheet/Sensors



AU



LVW



CONTROLLER

AU PIEZORESISTIVE PRESSURE SENSOR, 4-CONDUCTOR SYSTEM

Supply	Constant current 1 mA
Optional supply	4 mA or 10 V _{DC}
Output signal	0 – 250 mV
Overload protection (1 – 50 bar)	50 % f. s.
Linearity incl. hysteresis	< 0.5 % f. s.
Linearity incl. hysteresis (opt.)	< 0.1 % f. s.
Thermal zero offset	0.025 mV/ °C
Operating temperature	+5 to +80 °C
Storage temperature (dry)	-40 to +100 °C
Long-term drift, temperature-dependent (at 0 °C to 50 °C), typ.	0.25 mV
Max. cable lengths	500 – 1000 m*

PRESSURE SENSOR WITH LVW VIBRATING WIRE TECHNOLOGY (LONG WIRE)

Overload protection of measuring range	50 %
Linearity incl. hysteresis	± 0.5 % f. s.
Linearity incl. hysteresis (opt.)	± 0.1 % f. s.
Resolution (f.s.)	± 0.02 %
Thermal zero offset	< 0.03 %/ °C
SENSOR SPECIFICATIONS	
Temperature range	0 to +70 °C
Current consumption	Impulse excitation
Operating frequency	0.7 kHz – 1 kHz
Supply, impulse triggering	60 V
Coil resistance at 20 °C	480 Ω
Thermistor resistance at 25 °C	
3 k Ω inductance	42 mH
Capacity	135 nF
Max cable resistance	150 Ω
Max. cable length	3000 m

MBus

Rate of transmission	9600 baud
Cable length	800-1000 m

GLÖTZL bus

Rate of transmission	1200 baud
Max. cable length	2000-2500 m

LAN network

Rate of transmission	bus-dependent
Max. cable length	100-1000 m

Fibre optic LAN

Rate of transmission	bus-dependent
Max. cable length	arbitrary



SPECIAL SENSORS

Sensor	Resolution	Cable length
Strain transducer:		
DMS full bridge	0.01 %	500 m
DMS 1/4 bridge	0.1 %	5-50 m
Displacement transducer		
LVDT	∞	5-10 m
Potential divider	0.01 %	500 m



AI



VW

AI PIEZORESISTIVE PRESSURE SENSOR WITH A BUILT-IN AMPLIFIER

Supply	15 to 30 V
Output signal	4 – 20 mA
Overload protection (1 – 50 bar)	50 % f. s.
Linearity incl. hysteresis	< 0.5 % f. s.
Linearity incl. hysteresis (opt.)	< 0.1 % f. s.
Operating temperature	+5 to +60 °C
Storage temperature (dry)	-15 to +100 °C
Temperature coefficient	< 0,01 %/ °C f. s.
Load impedance (U _s -9 V)	: 20 mA
Initialization time after switch-on	6 seconds
With optional AD 590 temperature sensor, output signal	1 µA/K
Max. cable length	1000 – 2000 m*

PRESSURE SENSOR WITH VW VIBRATING WIRE TECHNOLOGY

Overload protection of measuring range	50 %
Linearity incl. hysteresis	± 0.5 % f. s.
Linearity incl. hysteresis (opt.)	± 0.1 % f. s.
Resolution	± 0.02 %*1 f. s.
Thermal zero offset	< 0.02 %/ °C*1
SENSOR SPECIFICATIONS	
Temperature range	-20 to +80 °C
Current consumption	Impulse excitation
Operating frequency	2 kHz – 3,3 kHz
Supply, impulse triggering	60 V
Optional ex-protection*2	EEx ib IIB T4 EEx ib IIB BTI
Max. cable length	2500 m

*Dependent on the number of sensors and cable length

*1 Deviation during operation at high temperatures on request
*2 The cable characteristics need to be taken into account for ex-versions

AU AND AI

Pressure and measuring ranges

0 - 0.1, 0 - 0.2, 0 - 0.5, 0 - 0.5, 0 - 1, 0 - 2, 0 - 5, 0 - 10, 0 - 20, 0 - 50, 0 - 100, 0 - 200 and 0 - 400 bar

VW AND LVW

Pressure and measuring ranges

-0.5 to +0.4, +0.7, +1.7, +3.5, +5.0, +7.0, +10, +20, +35, +70, +100, +200, +350, +500 and 750 bar, negative pressures standard up to -0.5 bar