FINE CONTROLS (UK) LTD

Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

We offer a full range of valve & instrumentation products & services, with our product rangerepresenting leading technologies & brands:

Flow: Flow Meters & Transmitters, Flow Switches, Flow Control Valves & Batch Control Systems

Temperature: Temperature Probes & Thermowells, Temperature ransmitters,Temperature Regulators & Temperature Displays

Level: Level Transmitters & Switches

Pressure: Pressure Gauges &Transmitters, Precision & High Pressure Regulators & I-P Converters, Volume boosters.

Precision Pneumatics: Pressure Regulators, I-P Converters, Volume Boosters, Vacuum Regulators

Valves: Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

Services: Repair, Calibration, Panel Build, System Design & Commissioning

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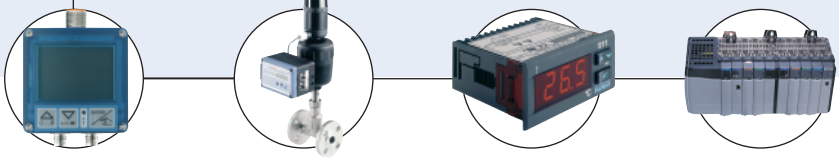
bürkert
FLUID CONTROL SYSTEMS

Pressure Transmitter

- Ceramic measurement cell
- Two-wire version
- Compact, stable construction for the highest operational reliability
- Media stop system if bursting pressure exceeded

Type 8314 can be combined with...



Type 8611
PI pressure controller

Type 2712
Globe control valve with SideControl

Type 0911
Process indicator

PLC

The compact Type 8314 pressure transmitter meets the highest requirements with regard to mechanical loading, EMC characteristics and operational reliability and is particularly suitable for demanding industrial applications.

General data	
Body material	Stainless steel 1.4305 AISI 303
Wetted parts materials	Ceramics (Al_2O_3), stainless steel 1.4305 (1.4404 AISI 316L on request), FKM seal, PPS
Electrical connection	M12 x 1 plug
Process connection	G 1/4" external to DIN 3852 Form E
Installation	as required, preferably with pressure connection in downward position
Measurement principle	Ceramic technology
Measurement procedure	Relative pressure measurement
Measuring range	0 up to 1, 4, 6, 10, 16, 40 or 100 bar *(0 to 14.51, 58.04, 87.06, 145.1, 232.16, 580.4, 1451 PSI)*
Overload	3 x full scale at 0 ... 4 bar 2.5 x full scale at 6 ... 100 bar
Bursting pressure	3 x full scale at 0 ... 4 bar *(0 ... 58.04 PSI)* 2.5 x full scale at 6 ... 100 bar *(87.06 ... 1451 PSI)* patented media stop system to prevent escape of media if the bursting pressure range is exceeded (≥ 4 bar *(58.04 PSI)* nominal pressure)
Fluid temperature	-15 up to +125°C *(5 to 257 °F)*
Accuracy	Sum of linearity, hysteresis and reproductibility: ≤ 0.3% of F.S.* Balancing accuracy of zero point and full scale: ≤ 0.3% of F.S.*
Long term stability	0.5% of F.S. / 10 year
Dynamic response	Suitable for static and dynamic measurements response time < 2 ms, typ. 1ms

* F.S. = full scale

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Electrical data	
Power supply (U)	8 up to 33 V DC, unregulated
Output signal (two-wire)	Standard 4 up to 20 mA signal
Load in Ω	< (U - 8 V) / 0.02 A
Protected connection	Short-circuit proof & protected against reverse polarity

Environment	
Ambient temperature	-15 up to + 85°C *(5 to 185 °F)*
Temperature coefficient	< 0.015% of F.S.* / C° (Tcoef. zero point and sensitivity)

Standard and approvals	
Protection class	IP67
Interference emission	According to EN 50081-1 and EN 55022
Interference stability	According to EN 50082-2
Approval	UL certificate

EMC acc. to harmonised standards for interference resistance EN 50082-2, IEC 61000-6-2 and EN 61326-1, interference radiation EN 50081-1, EN 55022, CISPR 22, EN 61326-1

Interference stability	Test Norm / Test condition	Effects
Electrostatic discharge ESD	EN 61000-4-2 15 kV air, 89 kV contact discharge	No effects
High frequency electromagnetic irradiation	EN 61000-4-3 200 V/m, 80 ... 100 MHz	No effects
Line related high frequency coupling	EN 61000-4-6 30 V, 0.15 ... 80 MHz	No effects
Fast transients (Bursts)	EN 61000-4-4 / 4 kV	No effects
Magnetic fields	EN 61000-4-8 / 30 A/m, 50 Hz	No effects
Surge voltage	EN 61000-4-5 / Line-Line, Line-Case 500V, 12 Ohm, 9 µF Radiometric Line-Line 500V, 2 Ohm, 18 µF	No failure
Insulation voltage	500 V DC (optional 1000 V DC) 350 V AC (optional 700 V AC)	No effects

Interference transmitted	Test standard / Test condition	Effects
Line - related interference	EN 55022	
Interference	0.15 ... 30 MHz	No emission
Radiation from body	30 ... 1000 MHz, 10 meter	No emission

Test / Admissions	
Shock acc. IEC 28-2-27	75G, 11 ms half sine wave, all three directions. Free fall from 1 m on concrete (6x)
Constant shock acc. IEC 68-2-29	40G for 6 ms, 1000 x all three directions
Vibration acc. IEC 68-2-6	20G, 9...2000 Hz, 2...9 Hz with amplit. +/- 15 mm, 1 Octave/min all three directions, 50 constant load

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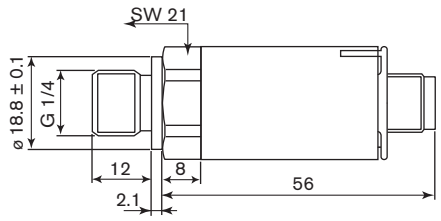
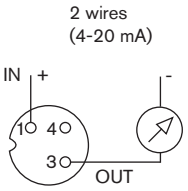
Dimensions [mm]



Electrical connections



Ordering chart for transmitter Type 8314

Process connection	Pressure range [bar]	Power supply	Output signal	Electrical connection	Item no.
G 1/4"	0 - 1.00	8 - 33 V DC	4...20 mA	M12 x 1 plug	550 364
	0 - 4.00	8 - 33 V DC	4...20 mA	M12 x 1 plug	550 365
	0 - 6.00	8 - 33 V DC	4...20 mA	M12 x 1 plug	552 954
	0 - 10.0	8 - 33 V DC	4...20 mA	M12 x 1 plug	550 366
	0 - 16.0	8 - 33 V DC	4...20 mA	M12 x 1 plug	552 955
	0 - 40.0	8 - 33 V DC	4...20 mA	M12 x 1 plug	550 367
	0 - 100.0	8 - 33 V DC	4...20 mA	M12 x 1 plug	550 368

Further versions on request

Pressure
other measuring ranges

Port connection
NPT 1/4"

Electrical connection
connectors

Additional
electrical outputs

Ordering chart accessories

Description	Item no.
5-pin M12 female cable connector with plastic threaded locking ring	917 116
5-pin M12 female connector moulded on cable (2 m, shielded)	438 680

*To find your nearest Bürkert facility, click on the orange box → www.burkert.com

In case of special application conditions, please consult for advice.

Subject to alteration.

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