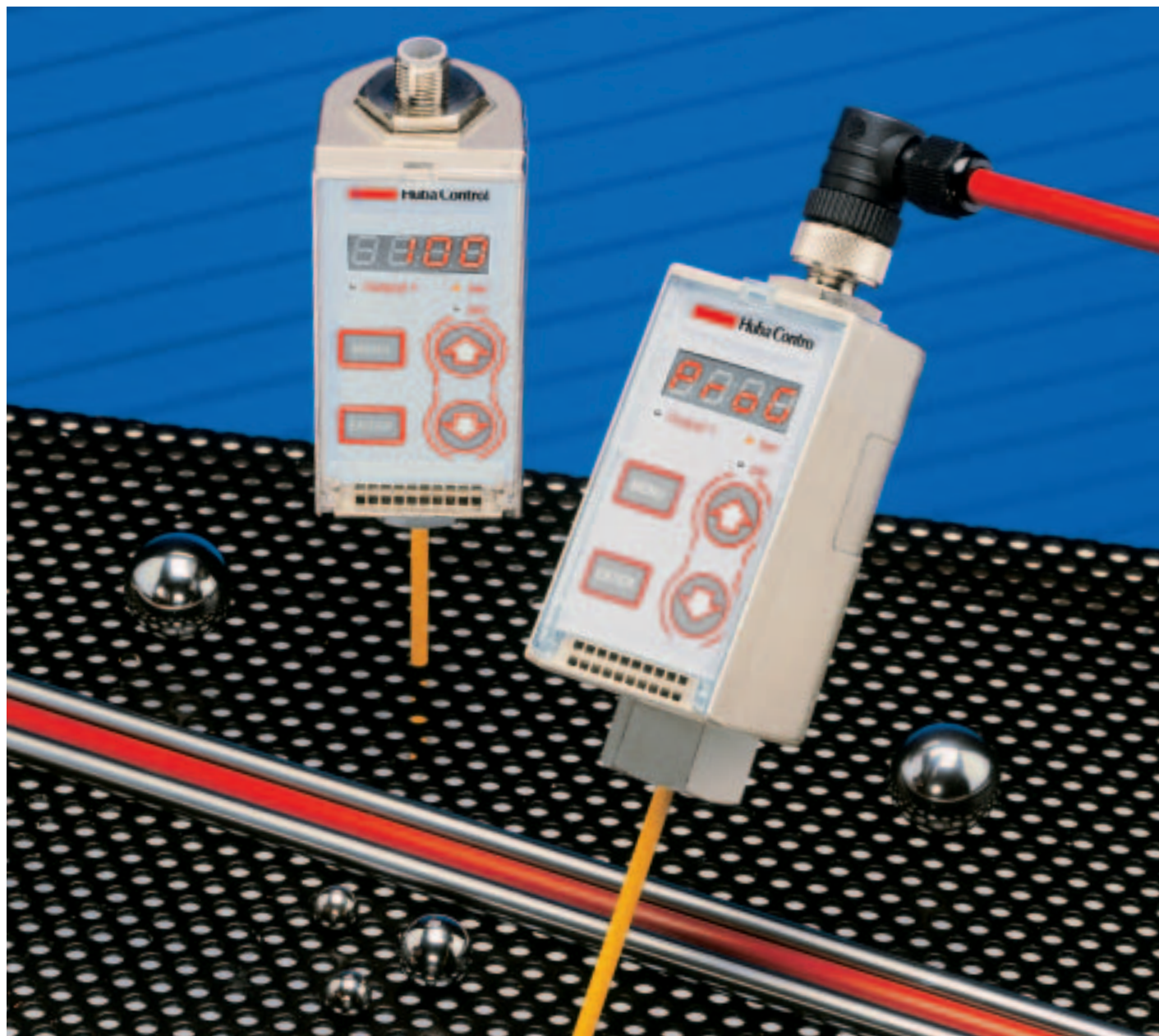


619

Pressure transmitter and
electronic pressure switch
programmable
Relative –1 to 600 bar

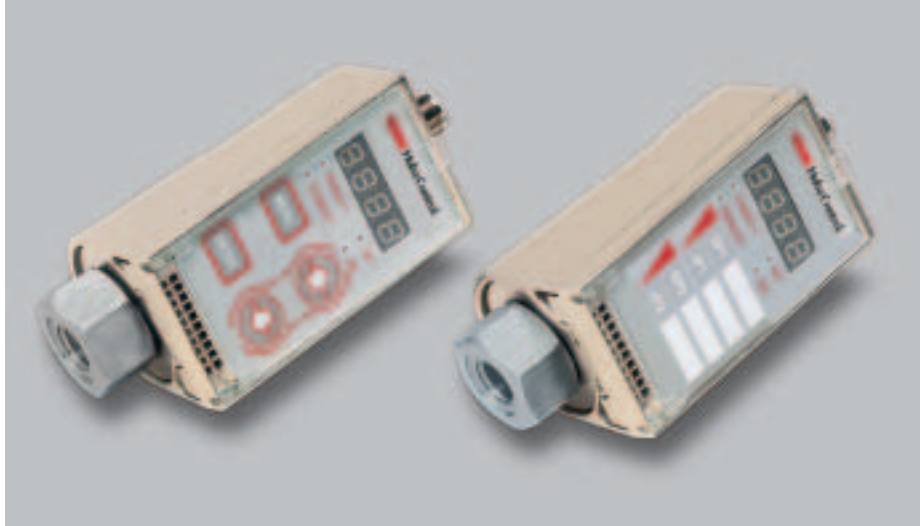


EDITION 02/2002

HUBA-REGISTERED TRADE MARK

 **Huba Control**

FOR FINE PRESSURE AND FLOW MEASUREMENT



EDITION 02/2002

Technical overview

The μ P-regulated, programmable pressure transmitter type 619 has a robust industry design. Parameters can easily be programmed with three different configuration menus.

All systems are equipped with a diagnostic function. Pressure is measured by a high resistant ceramic element. Normed analogue- and / or open collector outputs are available depending on the version chosen.

Kind of pressure

Relative pressure

Overload

-1 ... 250 bar
4 x measuring range full scale (fs)
-1 ... 400 bar
3 x measuring range full scale (fs)
-1 ... 600 bar
2 x measuring range full scale (fs)

Rupture pressure

6 x measuring range full scale (fs), max. 1800 bar

The distinct advantages

- Robust industry design
- High over pressure
- 4-digit LED display
- Sensitive operation keys
- Ergonomic design
- Diagnostic function
- Front cover

Accuracy

Analogue output:
Total of linearity, hysteresis and repeatability $\leq 0.6\%$ fs
Zero point rest voltage < 200 mV
Digital output:
Accuracy of switching point adjustments $\leq 0.6\%$ fs

Housing material

Case: Nickel-plated Zinc pressure die-casting
Key protection: PC with lettering
In contact with the media:
Ceramic / Stainless Steel (1.4305)
Sealing material: Viton

Temperature influences

Media and ambient temperature $-20^\circ\text{C} \dots +80^\circ\text{C}$
TC zero point $< 0.1\%$ fs
TC sensitivity $< 0.03\%$ fs

Mechanical rating

Resistant to vibration
5 g (25 ... 200 Hz)
35 g (60 ... 2000 Hz)
according to IEC 68-2-6
Shock proof
50 g according to IEC 68-2-27

Pressure connection

Inside thread G 1/4

Weight

610 grams

Installation arrangement

Unrestricted

Protection class

IP 67

Power supply

17 ... 33 VDC

Diagnostic function

Manual operation with keyboard:
Test of sensor circuit and of ceramic cell as well as memorizing of pressure peak.
Version with diagnostic input (shunt-cal): (feed-back with 50% fs signal 12mA or 5 V

Outputs

0 – 10 V

4 – 20 mA

Open-collector switching output for max. 200 mA, programmable NPN or PNP,

Contact NO or contact NC

Short circuit proof, and protected against polarity reversal. Each connection against other with max. +/- supply voltage.

Load

0 – 10 V > 10 kOhm

4 – 20 mA < 500 Ohm

Current consumption

typ. 50 mA, max. 200 mA

Electrical connection

M 12, Snap-C compatible, 4 contact pins

Admission



Displays

7 Segment LED, 4 digits for the indication of

- pressure measuring values
- programming codes
- parameter values
- reaction time

Point-LED for state indication of switching points

Point-LED for indication of programmed measuring unit

Programming

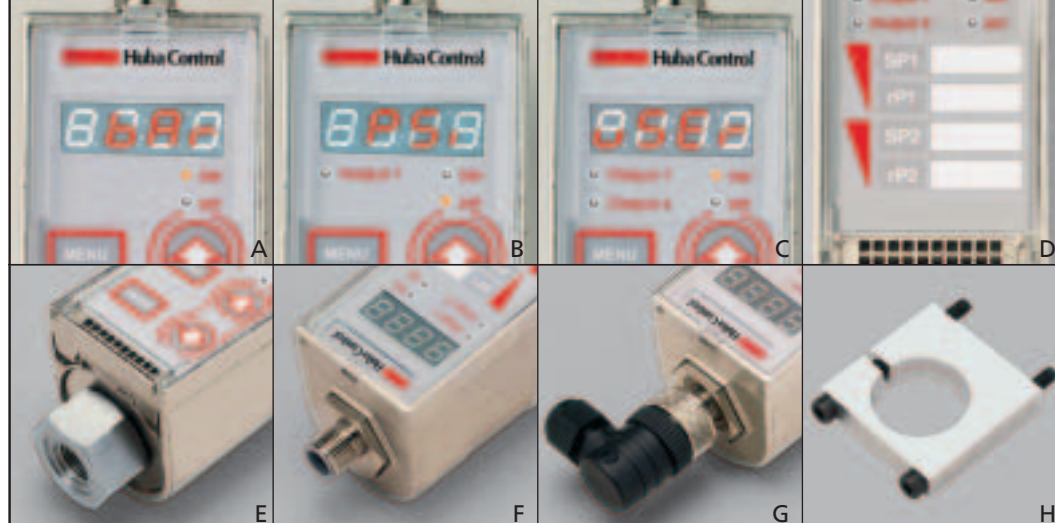
All settings can made in unpressurized state or during the operation. Ex works with standard setting. The diagnostic function is active in all menus.

Menus: «PROG» Configuration of different system functions, input of switching point, diagnostic function
«USER» Input of switching point
«READ» Reading of all configuration- and input parameters

Display: Pressure unit in bar/psi or MPa/psi. Reaction time eligible in steps 1% fs (slow), 0.5% fs (normal) or 10 ms (fast).

Analogue output: Response time adjustable of 5 ... 500 ms, output characteristic line adjustable of 75 ... 125% fs

Digital output: Measuring range rising pressure 8 ... 100% fs
falling pressure 5 ... 97% fs
P or N-switching, open-close-contact, rise-delay time eligible
Rise-delay time 0 – 50 s
Switch off delay time 0 – 50 s
Response time 5 ... 500 ms



- A – Analogue output with calibration-shunt
- B – Digital output
- C – 2 Digital outputs
- D – Label for switching points indication
- E – Inside thread G 1/4
- F – Connector M 12x1
- G – Female connector 90° for M 12x1
- H – Connector

Versions

Order code selection table

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619

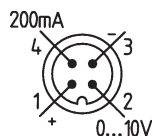
				9	X	X	X	X	X	X	X	X	X	X
Pressure ranges	bar	psi	MPa											
	-1 ... 0	-14.5 ... 0	-0.1 ... 0	0	0									
	0 ... 1	0 ... 14.5	0 ... 0.1	1	1									
	0 ... 2.5	0 ... 36.25	0 ... 0.25	1	4									
	0 ... 10	0 ... 145	0 ... 1.0	3	0									
	0 ... 16	0 ... 232	0 ... 1.6	3	1									
	0 ... 25	0 ... 362.5	0 ... 2.5	3	2									
	0 ... 40	0 ... 580	0 ... 4.0	3	3									
	0 ... 70	0 ... 1015	0 ... 7.0	4	0									
	0 ... 100	0 ... 1450	0 ... 10.0	4	1									
	0 ... 160	0 ... 2320	0 ... 16.0	4	2									
	0 ... 250	0 ... 3625	0 ... 25.0	4	3									
	0 ... 400	0 ... 5800	0 ... 40.0	5	4									
	0 ... 600	0 ... 8700	0 ... 60.0	5	5									
Pressure indication	eligible	bar / psi (factory calibration in bar)						0						
		MPa / psi (factory calibration in bar)						1						
Electrical connection	Female connector M12x1							0						
Sealing material	FPM							0						
Outputs	1 Analogue output 4 – 20 mA with diagnostic input (Shunt-cal)										1			
	1 Analogue output 4 – 20 mA with 1 digital output										2			
	1 Analogue output 0 – 10 V with diagnostic input (Shunt-cal)										3			
	1 Analogue output 0 – 10 V with 1 digital output										4			
	2 Digital outputs										5			
Pressure connection	G 1/4 inside										0			
Pressure connection material	Stainless Steel 1.4305 (X10 CrNiS 18 9)											1		

Packaging Single packaging

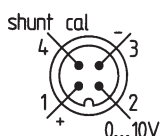
Accessories Connector inclusive 2 screws

1 0 8 7 1 8

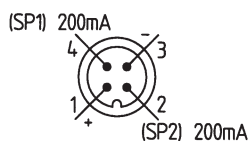
1 Analogue output
0...10V
1 digital output



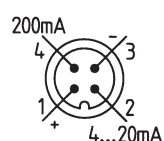
1 Analogue output
0...10V
diagnostic input



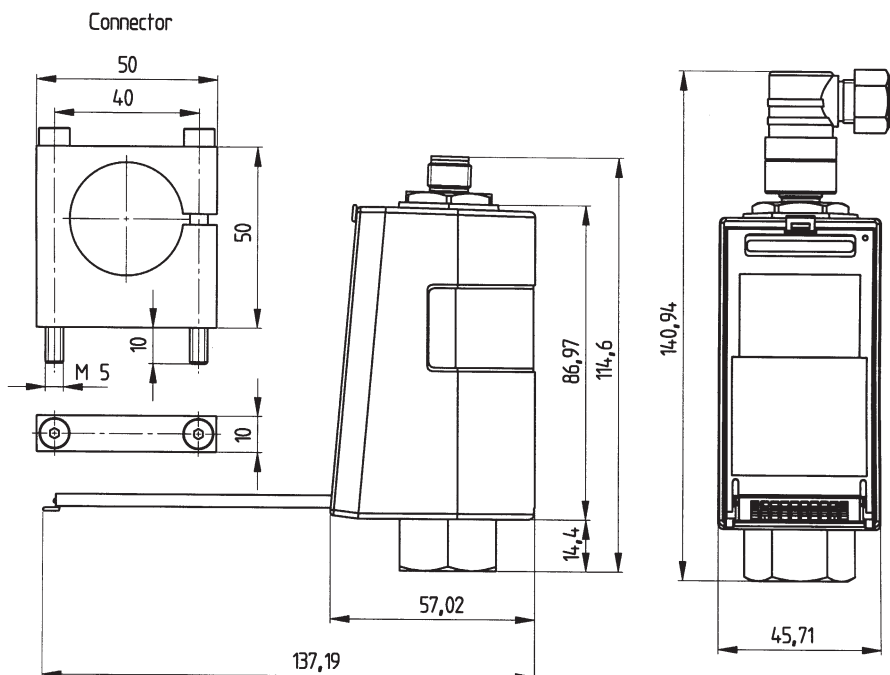
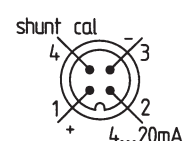
2 Digital outputs



1 Analogue output
4...20mA
1 digital output



1 Analogue output
4...20mA
diagnostic input



Electromagnetic compatibility:

CE conformity (EMC) by application of harmonized standards: Interference stability EN 50082-2, IEC 61000-6-2, interference emit EN 50081-1, EN 55022, CISPR 22, EN 61326-1

Interference stability	Test standard	Effects
Electrostatic discharge ESD	EN 61000-4-2 8 kV air discharge, 4 kV contact discharge	No effect
High-frequency electromagnetic radiation (HF)	EN 61000-4-3 30 V/m, 80...1000 MHz	No effect
Conducted HF interference	EN 61000-4-6 10 VRMS, 0.15 ... 80 MHz	No effect
Fast transients (burst)	EN 61000-4-4 2 kV	No effect
Surge	EN 61000-4-5 1 kV (42 Ohm, 0.5 µF)	No failure
Insulation voltage	1250 VAC	Nofailure
Interference emit	Test standard	Effects
Conducted interference	EN 55022 0.15...30 MHz, 3 meters	No effect
Radiation from housing	30...1000 MHz, 3 meters	No effect

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