

**Hazardous area, closed loop
Proportional pressure control valve
1/4 NPT or G1/4
Nominal orifice 2**

ATEX certified
Explosion proof / Intrinsically safe / Type nL
Advanced electronic control
Fail-Safe (unit pressure falls to zero on signal failure)
Rugged proven technology
Field replaceable parts
High performance and accuracy
Fast response and large flow capacity
Minimal temperature effect
Tight shut off

Technical Data

Medium:

Compressed air filtered to 50 µm, dry and non-lubricated

Output (nominal) pressure:

0,2 to 1 bar (or PSI equivalent)

Supply pressure:

1,2 to 10 bar (or PSI equivalent)

Supply sensitivity:

Less than 0,1% span over full supply pressure range

Flow:

Max. 300 N l/min (see characteristic curves)

Air consumption:

< 2,5 N l/min at 50% signal

Ambient temperature:

-40°C to +85°C

Contact our technical service for use below +2°C

Temperature sensitivity:

Typically less than 0,035% of span/°C between
-40°C to +85°C

Response time:

1 second (from 0 to 90% or 100 to 10% of output
pressure into a 0,5 litre load)

Degree of protection:

IP 66, NEMA 4X (when mounted upright)

Linearity:

< 0,1% of span

Hysteresis:

< 0,1% of span

Vibration immunity:

Output pressure changes less than 3% for vibration
amplitude 4mm 5-15Hz, 2g 15-150Hz

Weight:

2,07 kg

Calibration:

Independent control of 0% and 100% set points.
Adjustable by potentiometers up to 20% of output
range. Unit is factory calibrated to within 1% of span



Materials:

Body: aluminium and zinc diecasting

Diaphragms: nitrile

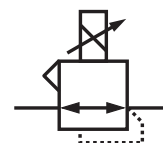
Black epoxy powder coating
standard

Electrical parameters

see page 2

Ordering Information

See page 2



Electrical parameters

Electromagnetic compatibility	CE marked: conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995)
Electrical input signal	4 to 20 mA (two wire) Terminal voltage < 6,5 V @ 20 mA
Failure mode	Signal falls to below 15 mbar (0,2 psi) in < 2 sec, when input signal fails
Overload protection	100 mA max overload current
Insulation resistance	> 100 mW at 850 V d.c., electrical terminals to case
Tight shut off	Adjustable up to 4,5 mA to achieve tight shut off
Input Impedance	The impedance changes with applied current, because it's terminal voltage remains fairly constant, therefore 4 mA = approx 1370 W 12 mA = approx 470 W 20 mA = approx 290 W
Connections:	1/2" NPT or M 20; internal terminal block with capacity up to 2,5 mm ² cable

Certification

Certification agency	Explosion proof/ flame proof	Intrinsically safe	Type IV/ non-incendive	Others
SIRA (CENELEC) ATEX approved 	EEx d IIC T4 Ta=-20°C to +40°C EExd IIB+H2 T5/T6 Ta=-20°C to +80°C (T5) Ta=-20°C to +65°C (T6) Umax=30V Sira 01ATEX1006 2G(T4/T5/T6)/2D(95°C)	EEx ia IIC T4 Ta=-40°C to +85°C Ui=30V, li=110mA Pi=0.84W Ci=6nF, Li=100µH Sira 01ATEX2007X 1G(T4)/1D(95°C)	EEx nL IIC T5 Ta=-40°C to +85°C li=24mA Ci=6nF, Li=100µH Sira 01ATEX4008X 3G(T5)/3D(95°C)	
Factory MUTUAL 	Class I, Division 1, Group B, C, D; T6, Ta=75°C; T5, Ta=85°C	Class I, II, III, Division 1, Group A, B, C, D, E, F, G; T4, Ta=85°C	Class I, Division 2, Group A, B, C, D; T6, Ta=75°C; T5, Ta=85°C	Dust Ingress Protection: Class II, III, Division 1, Group E, F, G; T6, Ta = 75°C; T5, Ta = 85°C Suitable for: Class II, III, Division 2, Group F, G; T6, Ta=75°C; T5, Ta=85°C
CSA 	Class I, Group B, C, D; Class II, Group E, F, G; Class III; Ex d IIC; T4 Ex d IIB+H2; T5/T6	Class I, Group A, B, C, D; Class II, Group E, F, G; Class III; Ex ia IIC; T4	Class I, Division 2, Group A, B, C, D; Ex nL IIC; T5; Class II, Division 2, Group E, F, G; Class III	

Option selector

EX14001★★4★E★

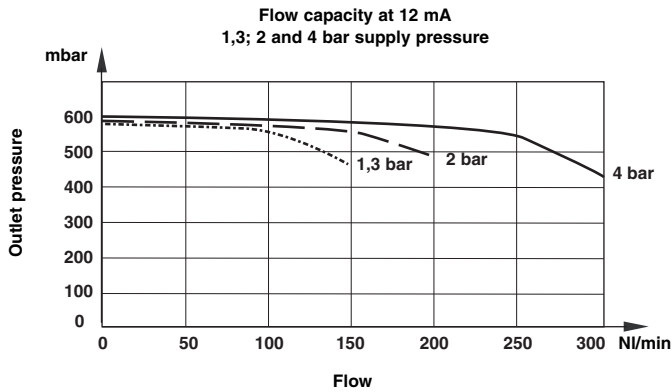
Output pressure	Substitute	Certification	Substitute
0,2 ... 1 bar	B	Cenelec only (M 20 x 1,5)	LE2
3 ... 15 psi	P	Triple certification/ triple agency	EE1
Ports	Substitute		
BSP	J		
NPT	K		

Ordering example

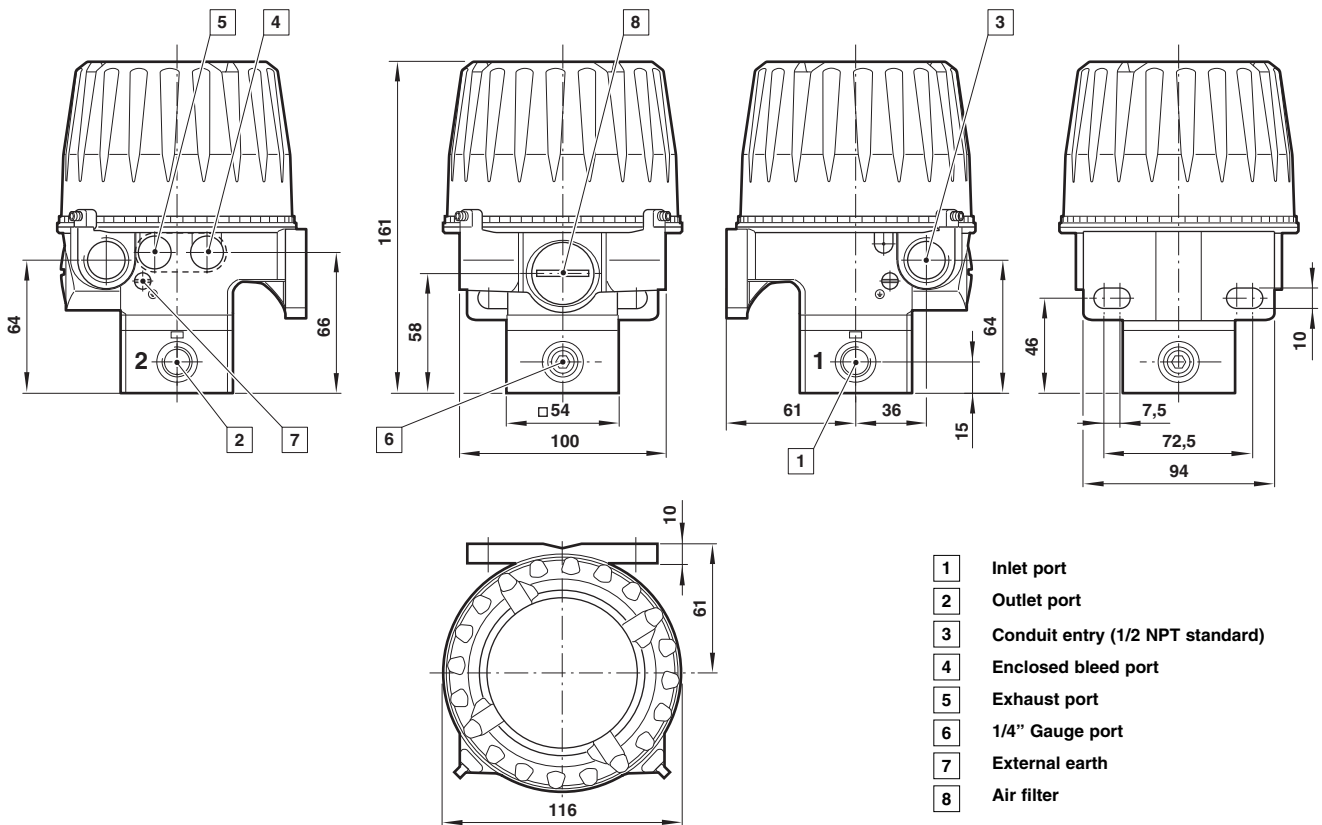
Proportional pressure control valve, output 0,2 to 1 bar,
port size 1/4 NPT, CENELEC certification

Quote: EX14001BK4LE2

Characteristic curves



Basic dimensions



- 1 Inlet port
- 2 Outlet port
- 3 Conduit entry (1/2 NPT standard)
- 4 Enclosed bleed port
- 5 Exhaust port
- 6 1/4" Gauge port
- 7 External earth
- 8 Air filter

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.