

**Proportional pressure control valve
1/4 NPT
Nominal orifice 2**

ATEX approved

Failfree operation (output pressure retained on power failure)

High performance & accuracy

Rugged proven technology

Advanced electronic control

Vibration immune

IP65 environment protection



Technical Data

Medium:

Compressed air filtered to 5 µm, dry and non-lubricated

Output pressure:

0,2 to 1 bar, standard low pressure unit

0,2 to 8 bar, standard high pressure unit
(or PSI equivalent)

Supply pressure:

At least 0,7 bar above maximum required output pressure
(or PSI equivalent)

Supply sensitivity:

Negligible effect

Flow:

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

Air consumption:

0,2 l/min typical low pressure unit

0,4 l/min typical high pressure unit

Ambient temperature:

-20°C to +70°C

Contact our technical service for use below +2°C

Temperature sensitivity:

Typically less than 1% of span/°C between -10°C and +60°C

Response time:

6 seconds, low pressure unit

12 seconds, high pressure unit

(from 10 to 90% of output pressure into a 2 litre load)

Degree of protection:

IP 65

Linearity:

< 0,5% of span

Hysteresis:

< 0,1% of span

Vibration immunity:

Negligible effect for vibration level up to 3 g, 5 to 500 Hz

Weight:

0,80 kg

Materials:

Body: zinc diecasting passivated and epoxy painted

Cover: Verton glass/nylon

Diaphragms: nitrile

Electrical parameters

see page 2

Ordering Information

See page 2

Options to special order:

Alternative pressure ranges

Conduit entry (M 20)

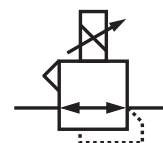
50 mm pipe mounting bracket

Intrinsically safe certification

Type 'nL' certification

Reverse acting

Captured Bleed



Electrical parameters

Electromagnetic compatibility	Compliant and CE marked in accordance with the EC Directive 89/336/EEC Compatibility Tested to standards: BS EN50082-2: 1995, BS EN50081-2: 1994
Electrical input signal	4 to 20 mA (two wire) Load presents 6 volts ($\pm 0,5$ V) constant voltage drop to the current source at 20 mA
Failure mode	Output pressure held at previous value when input signal fails; drift rate 0,02% in 30 seconds
Span / Zero	Adjustable 20% output range
Connections:	30 mm square connector DIN EN 175 301-803, form A (DIN 43650) provided, mountable in four directions

Certification

Certification agency	Hazardous area approvals
ATEX approved	Intrinsically safe applications to EN50020:2002 with x II 1G EEx ia IIC T4 (Ta= -40°C to +80°C)
	Type nL applications to EN50021:1999 with x II 3G EEx nL IIC T6 (Ta = -40°C to +70°C)

Option selector

AC****

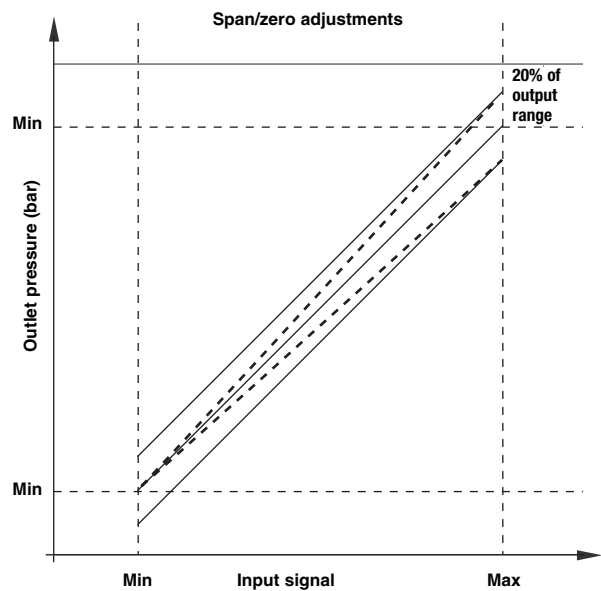
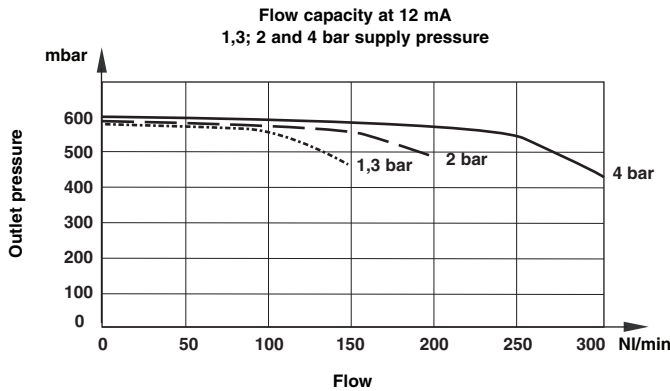
Pressure unit	Substitute	Captured bleed	Substitute
Bar	2	Without	0
Psi	0	With	1

Output pressure	Substitute	Intrinsically safe	Substitute
0,2 ... 1 bar/ 3 ... 15 psi	1	Without	0
0,2 ... 8 bar/ 3 ... 120 psi	4	With	1

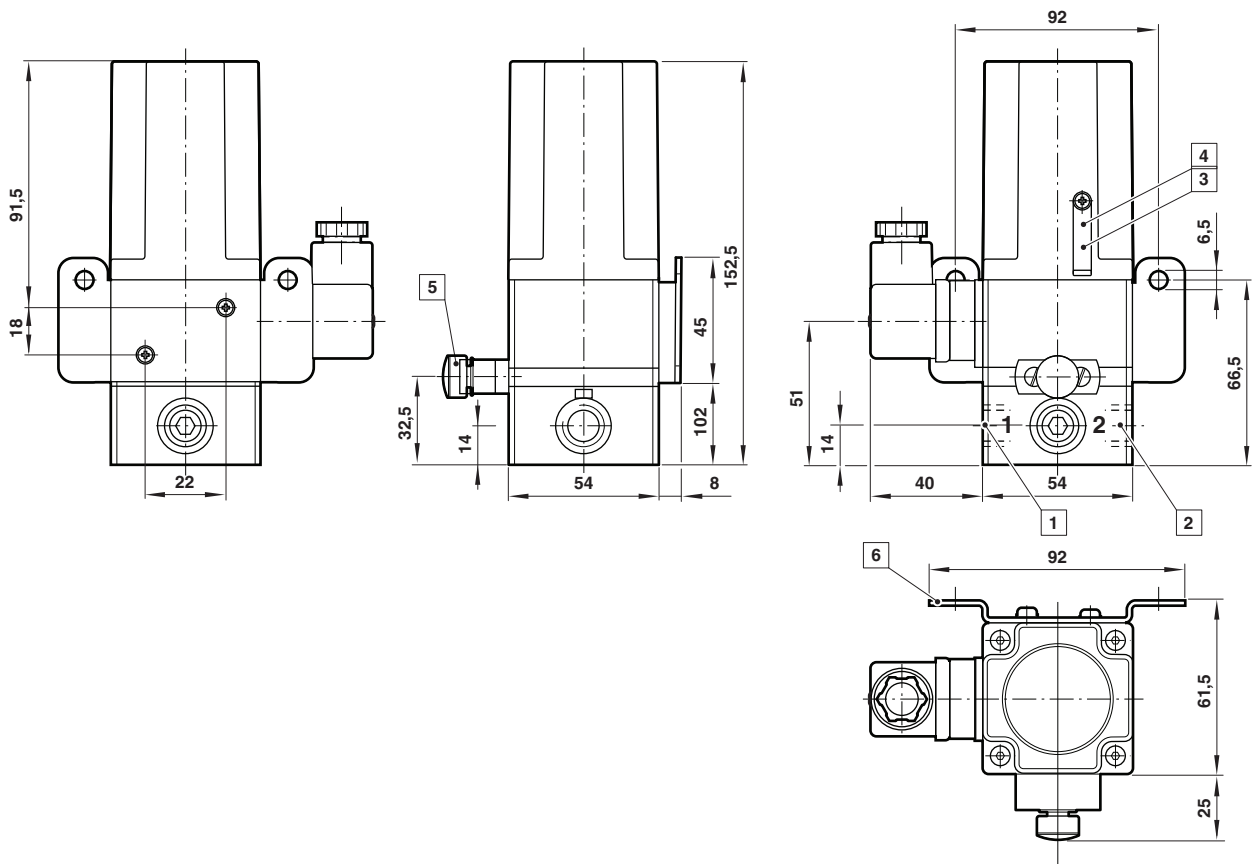
Ordering example

Proportional pressure control valve, output 0,2 to 1 bar, port size 1/4 NPT, Quote: AC2100

Characteristic curves



Basic dimensions



- 1 Inlet port
- 2 Outlet port
- 3 Adjust span
- 4 Adjust zero
- 5 Exhaust port
- 6 Bracket supplied as standard

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.