

VP12 Miniature proportional valve

G1/8 or 1/8 NPT and manifold

Proven low power technology Reliable, rugged, open-loop device Compact and flexible design Excellent performance characteristics Available in 2 and 3 wire Output pressures up to 8 bar

Technical data

Medium: Oil free, dry air, filtered to 5 µm Mounting position: Calibrated in an upright position

Output pressure: 0 to 1 bar (0 to 15 psi), 0 to 2 bar (0 to 30 psi), 0 to 4 bar (0 to 60 psi), 0 to 6 bar (0 to 90 psi), 0 to 8 bar (0 to 120 psi)

Supply pressure: Minimum 1,5 bar (22 psi) above maximum output pressure (10 bar (150 psi) maximum)

Hysteresis: <1% of span

Repeatability:

< 2% of span Linearity:

< 1,5% of span

Response time: ≤500 ms from 0% to 100% ≤100 ms from 100% to 0% of output pressure into a 10cc load Flow capacity:

Forward: <200 l/min (7 scfm) Relief: <180 l/min (6 scfm)

Air consumption: ≤ 6 bar (90 psi) = < 3 nl/min typical 8 bar (120 psi) = <10 nl/min typical

Temperature effect:

Typically less than 7 mbar per °C between 0°C to +60°C

Supply sensitivity: Less than 0,1 bar (1,5 psi) for 1 bar (15 psi) supply pressure change

Ambient temperature: 0°C to +60°C

Consult our Technical Service for use below +2°C. Degree of protection:

IP30

Vibration immunity: Output pressure changes less than 3% for 2 g sine 15 to 150 Hz $\,$

Electromagnetic compatibility: Compliant with EC requirements EN61000-6-4:2001 (Emissions) and EN61000-6-2:1999 (Immunity)



Electrical connection: Screw terminal Port sizes: 1/8" BSP/NPT Command signal: 4 to 20mA or 0 to 10V Electrical supply: 24V d.c. $\pm 10\%$ (on 3 wire options) Loop resistance: mA = 220 Ω maximum, V = 16 k Ω minimum Failure mode: Fails safe upon loss of signal or power

Materials

Diaphragm: nitrile Base: Zinc casting Spacer: plastic

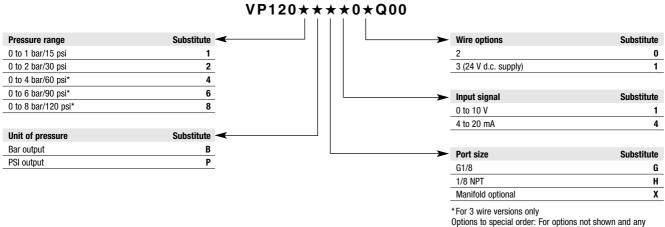
Ordering information

See page 2





Options selector



Options to special order. For options not shown and any specific requirements please contact Norgren technical department

Ordering information

3 wire: Output pressure: 2 bar, port size: G1/8, input: 4 to 20 mA quote: VP1202BG401Q00

2 wire: Output pressure: 15 psi, port size: 1/8" NPT, input: 4 to 20 mA quote: VP1201PH400Q00

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.

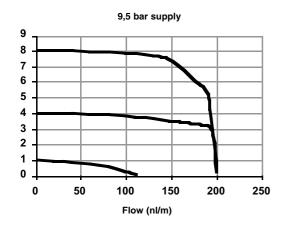
The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

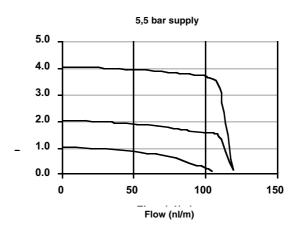
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

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



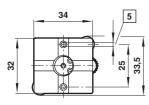
Characteristic curves

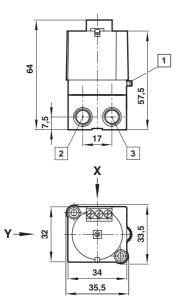


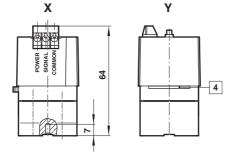




Flow (nl/m)







1Adjust gear2Outlet port (G

Outlet port (G1/8 or 1/8 NPT)

3 Inlet port (G1/8 or 1/8 NPT)

4 Exhaust port, do not obstruct

5 M3 x 0,5 x 7

Note: All measures are in millimetres unless otherwise stated