

# Industrial Automation

IMI Norgren

# VP10 Proportional pressure control valves

- Port size: 1/4"
  (ISO G or NPT)
- Reliable, rugged, open loop control
- Minimum vibration effects
- IP65 environmental protection
- Proportional I/P and E/P converters

#### **Technical features**

#### Medium:

Oil free, dry air, filtered to 5 µm Output Pressure: 0,2 ... 1 bar (2,9 ... 14 psi) 0,2 ... 2 bar (2,9 ... 29 psi) 0,2 ... 4 bar (2,9 ... 58 psi) 0,2 ... 8 bar (2,9 ... 116 psi) See ordering options

#### Supply pressure:

At least 0,7 bar (10 psi) above max. required output pressure. up to 2 bar (29 psi) instruments: max 5 bar (72 psi) up to 8 bar ( 116 psi) instruments: max 10 bar (145 psi)

Flow capacity: > 300Nl/min forward & relief flow

#### Air consumption:

up to 1 bar (1 psi): 2,8 Nl/min up to 2 bar (29 psi): 4,0 Nl/min up to 4 bar (58 psi): 7,5 Nl/min up to 8 bar (116 psi): 9,0 Nl/min

#### **Electrical parameters**

 Mounting bracket and connector included

Linearity: ≤ 0,5% of span

Hysteresis: < 0,5% of span

#### Response Time:

<0,35 seconds for 10 .... 90% or 90 ...10% of output pressure into a 10cc load (1 bar range instruments)

**Temperature Sensitivity:** < 0,1% of span/°C between -40 ... +85°C (-40 ... 185°F)

Supply sensitivity: <0,075% span output change per % supply pressure change

Port sizes: Main ports: G 1/4 or 1/4 NPT Integral gauge ports: G 1/4 or 1/4 NPT

### Ambient/Media temperatur:

-40 ... +85°C (-40 ... 185°F) Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

I.P. Rating: IP65 in normal operation

Weight: 1,0 kg

Mounting Position: Surface mounting bracket provided. Alternative mounting options available.

Vibration Effect: 5% of span: 4mmp-p 5 ... 15Hz and 2g sine 15 ... 150Hz.



#### Materials:

Body: Passivated zinc die-casting, epoxy painted Cover: Glass reinforced PA Diaphragms: NBR

Input Signal	mA versions 1 4 bar: 2 wire 4 20 mA; 3 wire 4 20 mA +12 24 V mA versions 6 8 bar: 3 wire 4 20 mA +12 24 V voltage versions 1 4 bar: 2 wire 0 10 V; 3 wire 0 10 V +12 24 V voltage versions 6 8 bar: 3 wire 0 10 V +12 24 V
Failure Mode	Output pressure falls to zero signal state when electrical supply fails
Connections	30 mm square connector provided (DIN 43650, form A) mountable in four orientations
Span/Zero	Adjustable up to 20 % output range - further information available

#### **Option selector**

## VP10\*\*\*\*\*0\*A00





#### Dimensions

Dimensions in mm Projection/First angle

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Inlet port (G1/4 or 1/4 NPT)
 Outlet port (G1/4 or 1/4 NPT)
 Adjust zero
 Adjust span
 Plug orients 4 ways
 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 features/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.