

ELECTRO-PNEUMATIC CONVERTERS PC25

DESCRIPTION

The ADCATrol PC25 is a compact device which converts a standard analog signal to a standard pneumatic signal, for the change-over between electrical controllers to pneumatic control valves, or from electrical measuring systems to pneumatic controllers.

The PC25 is a force balance device, which converts a 4 to 20 mA input signal into a proportional linear 0,2 to 1 bar output signal, with a respective supply pressure of 1,7 to 5 bar.

MAIN FEATURES

- Particularly compact design.
- Good dynamic response.
- Immune to mechanical vibrations.
- Low maintenance and low consumption.
- High reliability.
- Adjustable output measuring span.

OPTIONS: Pressure gauge on body.
 Other output pressure ranges.

AVAILABLE
MODELS: PC25.

SIZES: 1/4".

CONNECTIONS: Female threaded NPT.

INSTALLATION: In any position.
 See IMI – Installation and maintenance
 instructions.



TECHNICAL DATA

| GENERAL | |
|-----------------------|--|
| Operating temperature | -40 to +85 °C |
| IP rating | IP 65 |
| Electric connections | DIN 43650, form A |
| Pneumatic connections | Female threaded 1/4" NPT |
| Material | Passivated zinc die-casting epoxy painted, NBR diaphragms, Glass reinforced PA cover |
| Operating position | Any |
| Weight | 1 kg |

| PNEUMATIC OUTPUT SIGNAL | |
|-------------------------|--|
| Output pressure | 0,2 to 1 bar (others on request) |
| Flow capacity | > 300 NI/min, forward & relief |
| Linearity | ≤ 0,5% of span |
| Hysteresis | ≤ 0,5% of span |
| Response time | < 0,5 seconds for a 10 to 90% or 90 to 10% of output pressure into a 10cc load |
| Supply sensitivity | < 0,075% span output change per % supply pressure change |

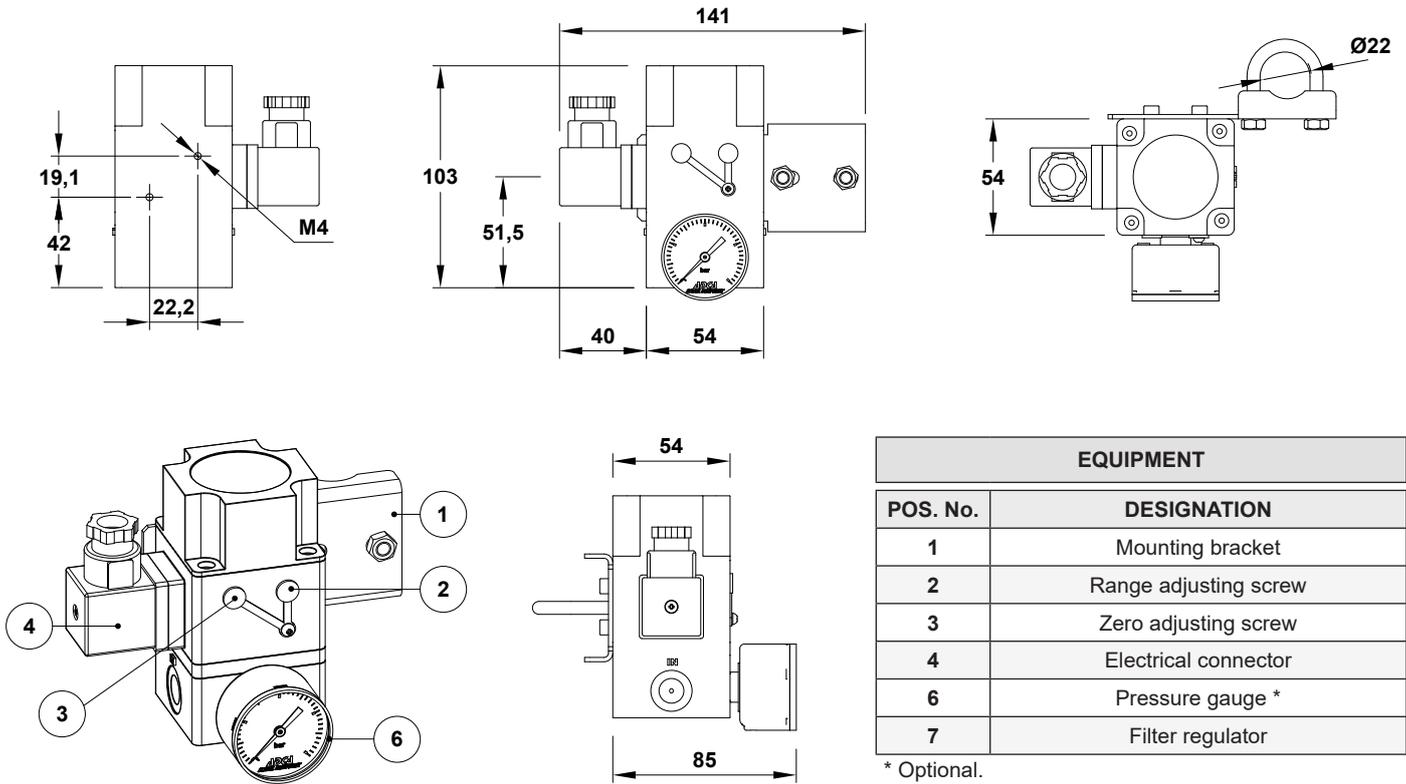
| AIR SUPPLY * | |
|--------------------|--|
| Purity | Maximum particle size: 5 µm Maximum particle density: 5 mg/m ³ |
| Oil content | Maximum concentration: 1 mg/m ³ |
| Supply pressure ** | 1,7 to 5 bar |
| Air consumption | 2,8 NI/min @ 1 bar |

| ANALOG INPUT SIGNAL | |
|-------------------------|--|
| Nominal operating range | 4 to 20 mA |
| Impedance | 11 kΩ at 20 mA |
| Span/zero | Up to 20% of output range, adjustable |
| Failure mode | Output pressure fails to zero signal state |

* Free of oil, water and dust, according to DIN/ISO 8573-1.

** Do not exceed the maximum operating pressure of the actuator!

DIMENSIONS (mm)



CALIBRATION

When the instrument is first installed or after a long downtime period, a moderate zero shift is normal. This is due to the rubber diaphragms which are stretched by the internal springs. After a few operations, the instrument will settle into its normal operating condition. In these circumstances, the instrument should be put to work by alternately applying zero and full scale signals several times. Zero calibration should then be carried out. Adjust zero control no. 2 (anti-clockwise) to give the minimum required output pressure. Adjust range control no. 3 (anti-clockwise) to give the maximum required output pressure.

Remark: Reverse acting operation.
About 20 turns of the zero screw may be required to reset the zero point.

TYPICAL INSTALLATION

