

FIELD I TO P CONVERTER PC25

DESCRIPTION

Instrument that converts a standard DC signal to a standard pneumatic signal, for the change-over from electrical controllers to pneumatic control valves, or from electrical measuring system to pneumatic controllers.

The PC25 is a force balance device, which converts a 4...20 mA input signal into a proportional 3...15 psi (0,2...1 bar) or 6...18 psi (0,4...1,2 bar) output signal, with a respective supply pressure of 1,7 – 5 bar.

MAIN FEATURES

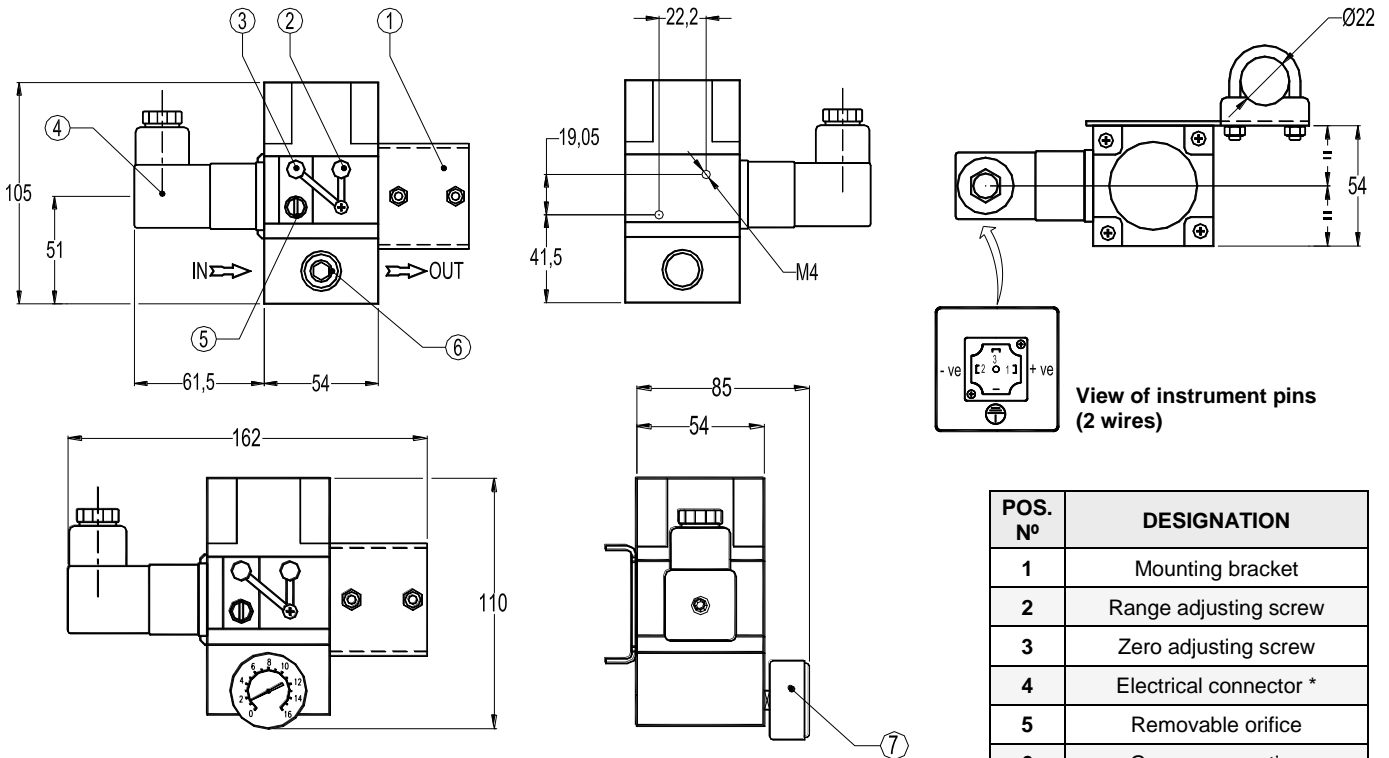
- Particularly compact design.
- Good dynamic response.
- Immune to mechanic vibrations.
- Low maintenance and low consumption.
- High reliability.
- Adjustable output measuring span.



TECHNICAL DATA

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PNEUMATIC	Output pressure:	Ranges: 0,2 – 1 bar; 0,4 – 1,2 bar.
	Air supply:	Oil free and dry air, filtered to 5 microns, 1,7 to 5 bar.
	Flow capacity:	Up to 300 nL/min forward flow, 150 nL/min relief.
	Air consumption:	Usually 1,4 L/min.
	Linearity:	Maximum 0,5% of span.
	Hysteresis:	Maximum 0,35% of span.
	Response time:	Usually less than 0,5 seconds (depending on input for 10 % – 90% step change in outlet pressures) into a 10cc load.
	Temperature sensitivity:	< 0,1 % span/°C for span and zero over operating range.
	Supply sensitivity:	Better than 0,075% span output change per % supply pressure change.
Port size:	1/4" NPT.	
PHYSIC	Operating temperature:	- 40 °C to 85 °C.
	IP Rating:	IP65 in normal position.
	Electromagnetic compatibility:	This is a passive electro-pneumatic instrument and is unaffected by interfering high frequency signals.
	Construction materials:	Zinc diecasting passivated and epoxy paint, nitrile diaphragms, Be2Cu flapper nozzle and supply valve.
	Weight:	825 g.
	Mounting position:	Integral surface mounting bracket provided for vertical mounting.
Vibrating effect:	< 5% of span: 4 mm 5-15 Hz & 2g sine 15-150 Hz, vertical, horizontal and inverted, in accordance with ISA-S75.13-1996.	
ELECTRIC	Input signal:	4-20 mA.
	Failure model:	Output pressure fails to bleed pressure when electrical supply.
	Connections:	30 mm square connector DN 43650.
	Span/zero:	Adjustable 20% output range.
Input impedance:	11 kohms for a 0-10 V.	

MOUNTING DIMENSIONS



Assembling with pressure gauge (on request).

POS. N°	DESIGNATION
1	Mounting bracket
2	Range adjusting screw
3	Zero adjusting screw
4	Electrical connector *
5	Removable orifice
6	Gauge connection
7	Pressure gauge (optional)
8	ADCA P10 regulator

* 4 different positions possible.

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, instruments 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 n° 2 (anti-clockwise) to give minimum required output pressure.

Adjust range control n° 3 (anti-clockwise) to give maximum required output pressure.

Note: Reverse acting operation

About 20 turns of the zero screw may be required to reset the zero point.

TYPICAL INSTALLATION

