

Installation/ Operation

**PNEUMATIC CONNECTION**

The compressed air is connected by means of M5 threaded holes (for size 0 regulators), G 1/4" threaded holes (for size 1 regulators) and G 1/2" threaded holes (for size 3 regulators) on the body.

Before making the connections, eliminate any impurities in the connecting pipes to prevent chippings or dust entering the unit. Do not supply the circuit with more than 10 bar pressure and make sure that the compressed air is dried (excessive condensate could cause the appliance to malfunction) and filtered at 5 micron. The minimum supply pressure required depends on the characteristics of the vacuum generator.

If a silencer is applied to the discharge path the unit response time may change; periodically check that the silencer is not blocked and replace it if necessary.

**ELECTRICAL CONNECTION**

For the electrical connection a SUB-D 15-pole female is used.

Wire in accordance with the wiring diagram shown below.

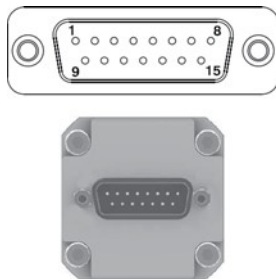
Warning: INCORRECT CONNECTIONS MAY DAMAGE THE DEVICE

**NOTES ON OPERATION**

If the electric supply is interrupted, the outlet pressure is maintained at the set value. However, maintaining the exact value cannot be ensured as it is impossible to operate the solenoid valves.

In order to discharge the circuit downstream, zero the reference, make sure that the display shows a pressure value equal to zero and then disconnect the electric power supply.

A version of the device is available that exhausts the downstream circuit when the power supply is removed. (Option "A" at the end of the ordering code). If the compressed-air supply is suspended and the electric power supply is maintained a whirring will be heard that is due to the solenoid valves; an operating parameter can be activated (P18) that triggers the regulator protection whenever the requested pressure is not reached within 4 seconds of the reference signal being sent. In this case the system will intervene to interrupt the control of the solenoid valves. Every twenty seconds, the unit will start the reset procedure until standard operating conditions have been restored.

TOP VIEW OF THE REGULATOR CONNECTOR**CONNECTOR PIN:**

1	DIGITAL INPUT 1
2	DIGITAL INPUT 2
3	DIGITAL INPUT 3
4	DIGITAL INPUT 4
5	DIGITAL INPUT 5
6	DIGITAL INPUT 6
7	DIGITAL INPUT 7
8	ANALOG INPUT / DIGITAL INPUT 8
9	SUPPLY (24 VDC)
10	DIGITAL OUTPUT (24 VDC PNP)
11	ANALOG OUTPUT (CURRENT)
12	ANALOG OUTPUT (VOLTAGE)
13	Rx RS-232
14	Tx RS-232
15	GND

Ordering codes**19_E2P_D.0090.****SIZE**

- 0 = Size 0
- 1 = Size 1
- 3 = Size 3


VARIANT

- E = External pressure feedback without exhaust downstream pressure when power supply is removed
- AE = External pressure feedback with exhaust downstream pressure when power supply is removed

MANAGEMENT

- C = Current signal (4-20 mA / 0-20 mA)
- T = Voltage signal (0-10 V / 0-5 V / 1-5 V)

**Fixing bracket
170M5****Model with SUB-D 15 poles connector**

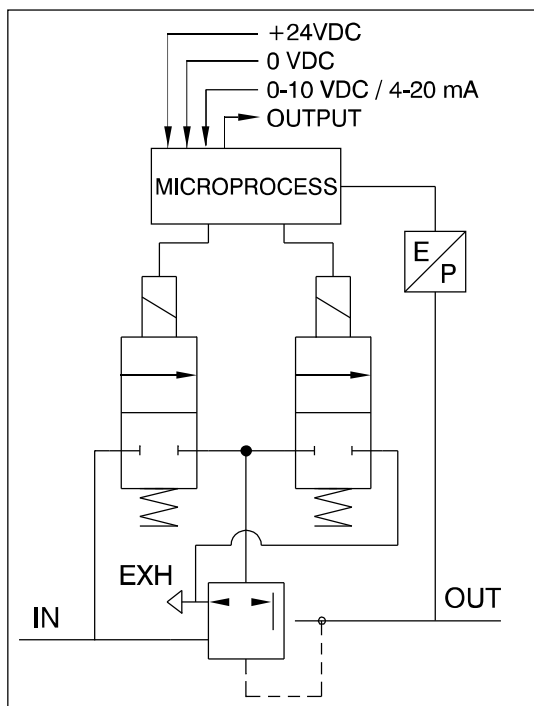
	5300.F15.00.00	Straight connector + Casing IP65 *
	5300.F15.00.03	Straight connector + Cable 3 meters
	5300.F15.00.05	Straight connector + Cable 5 meters
	5300.F15.90.00	Connector 90° + Casing IP65 *
	5300.F15.90.03	Connector 90° + Cable 3 meters
	5300.F15.90.05	Connector 90° + Cable 5 meters

Series 1900 vacuum-vacuum version

Product description

The connections of the regulator require the aperture for supply and discharge to be on one side and the aperture for use on the opposite side. On the other two remaining sides there are apertures of G1/8" that are plugged with removable plugs, however it is possible to connect a vacuum gauge or vacuum sampling for an additional remote vacuum switch. The control solenoid valves, the negative pressure sensor and the management electronics are located in the upper part of the regulator. The regulator is available in only one size, 1, with flow rate 170 l/min and the possibility to select commands: Voltage (T) Current (C).

Functional diagram



CLOSED LOOP diagram (internal control circuit)

The proportional regulator is known as a CLOSED LOOP regulator because a pressure transducer in the circuit transmits a continuous analog signal to the microprocessor, which compares the reference value with the detected value and supplies the control solenoid valves accordingly.

