Non-Contact Pneumatic Sensors

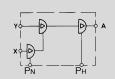
Logic Components for Sensor Output Signals



AND Module

Type ZK-2-R-M5

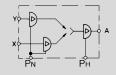




OR Module

Type OS-2-R-M5

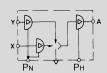




NOT Module

Type VLO-R-M5

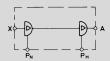




Amplifier Module

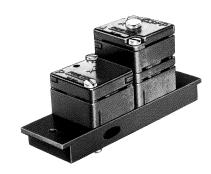
Type VK-R-M5





Dimensions, See page 207.





These elements amplify and process output signals from pneumatic sensors with pressures of 0.02 to 3.8 psi / 0.001 to 0.25 bar.

Each element is factory-mounted on a 2n width mounting plate.

Function:

Type ZK-2-R-M5

AND logic amplification element for pneumatic sensors. An output is present at A if both X and Y are present.

Type OS-2-R-M5

OR logic amplification element for pneumatic sensors. An output is present at A if either X or Y is present.

Type VLO-R-M5

Logic amplification element for pneumatic sensors. An output is present at A if X is present and Y is NOT present.

Type VK-R-M5

Amplifier element for pneumatic sensors with two-stage amplification. An output is present at A if X is present.

For the sub-base, internal connections are accomplished by means of integrated air channels.

Signal inputs X and Y of the four elements are supplied with low pressure (sensor output signals). The output at A is a high pressure signal (supplied by P_H).

An air pressure supply of 15 to 105 psi / 1 to 7 bar is required at P_H . An additional air pressure supply of 1.5 to 3.8 psi / 0.1 to 0.25 bar is required at connection P_N .

| Order Number | Part No./Type | 7421 ZK-2-R-M5 | 7423 OS-2-R-M5 | 7422 VLO-R-M5 | 7425 VK-R-M5 |
|--|---------------|--|----------------|---------------|---------------------|
| Medium | | Compressed air (through 5 micron filter, dried, unlubricated) | | | |
| Mounting | | On 2n mounting racks | | | |
| Connection | | P _N , X, Y: Barbed fitting for 1/4 in / 4 mm tubing; P _H , A: M5 | | | |
| Orifice Size | | Low pressure: 1/4 in / 4 mm. High pressure: 0.098 in / 2.5 mm | | | |
| Air Flow (P→A) | | 2.8 SCFM / 80 I/min | | | |
| Supply Pressure Range at PN* | | 1.5 to 3.8 psi / 0.1 to 0.25 bar | | | |
| Signal Pressure Range at PH | | 15 to 105 psi / 1 to 7 bar | | | |
| Control Pressure Range at X, Y | | 0.015 to 4 psi / 0.001 to 0.25 bar | | | |
| Constant Air Consumption, Not Actuated | | Low pressure: 0.05 SCFM at 1.5 psi / 1.4 l/min at 0.1 bar. High pressure: 3.15 SCFM at 90 psi / 3.6 l/min at 6 bar. | | | |
| Ambient Temperature | | 14 to 140°F / -10 to +60°C† | | | |
| Design | | Seat valve, piloted | | | |
| Material | | Housing: plastic. Seals: Buna N. Mounting plate: Al, plastic | | | |
| Weight | | 0.192 lb / 0.087 kg | | | 0.165 lb / 0.075 kg |

^{* 14} to 140°F / -10 to +60°C temperature range of medium

[†] Depending on tubing used