



SOLENOID VALVES - SPECIAL PRODUCTS UPON REQUEST MULTI-FUNCTION MODULES WITH BUILT-IN VACUUM SOLENOID VALVES

The needs of technical designers in the packaging sector and in the automation sector in general to have more vacuum combined with different functions in the smallest possible space has led us to design and implement this new series of multi-function modules.

Each module has two internal solenoid valves built inside it. Their ducts house the seats for the flow control valves, which can be operated externally by means of special knobs. Various connections made at different points allow for connection of the module to instruments for reading and checking the level of vacuum, such as vacuum gauges, vacuum switches, transducers, etc.

There are three modules currently available:

- **Module A:** The basic module with two integrated 1"1/2 and 1" solenoid valves, two flow regulators and several additional connections;
- **Module B:** With two integrated 1/2" and 1" solenoid valves and two flow regulators. Can be combined with modules A and C;
- **Module C:** Module with two integrated 1/2" solenoid valves, a flow regulator and an additional connection. Can be combined with module A or B.

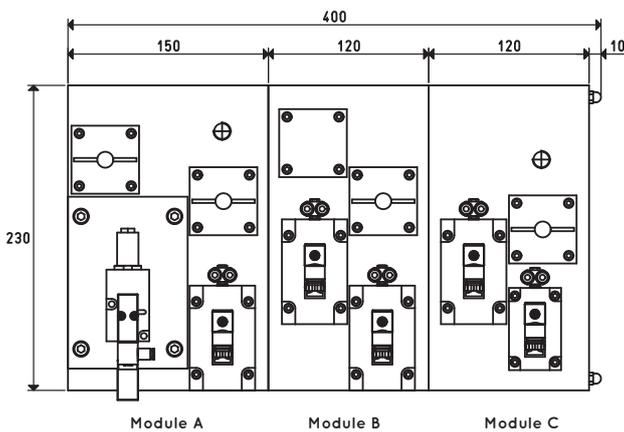
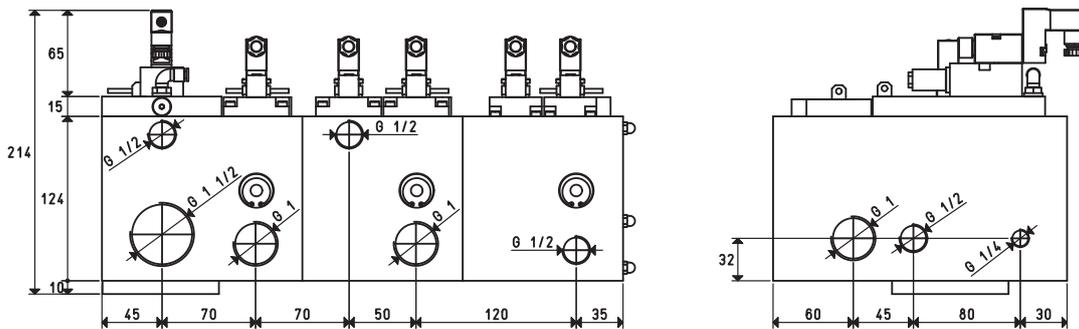
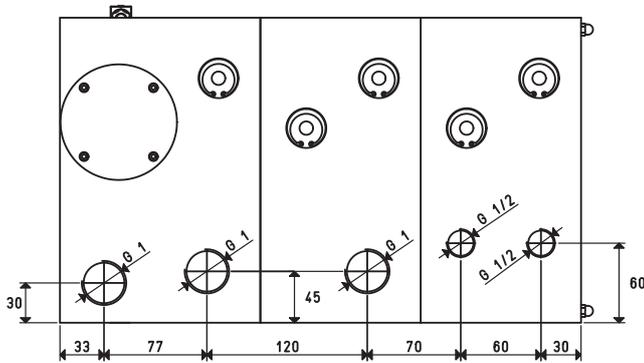
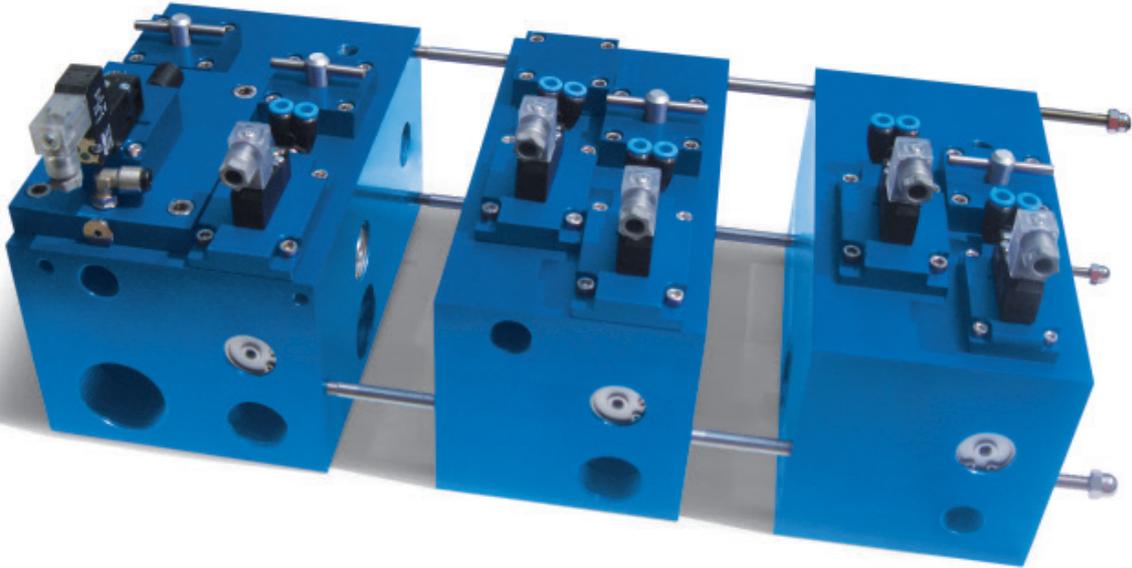
The combination of modules A, B and C, feasible using special stainless steel tie-rods, allows for the application of various functions from a single source of vacuum, as well as allowing for the elimination of numerous pipes and fittings, often causing leaks. The multi-function modules are supplied already tested to a guaranteed final level of vacuum of 0.5 mbar and perfectly sealed. The technical characteristics are those of the pneumatically actuated three-way vacuum solenoid valves:

- Servo-control pressure: 6-7 bar; 4-6 bar for version LP, with non-lubricated compressed air, 5 micron filtration, according to standard ISO 8573-1 class 4;
- Operating pressure: from 0.5 to 3000 absolute mbar;
- Electric coils: fully plastic-coated in synthetic resin, watertight, insulation class F (up to 155°C) as per standard EN 60664, with 3 mm two-terminal electrical connections for connectors in compliance with EN 175301-803;
- Protection degree IP 54; IP 65 with connector inserted;
- Tolerance permitted on the nominal voltage value: $\pm 10\%$;
- Electrical power of the coils: from 1 to 2 W, depending on the electrical voltage;
- Temperature of suctioned fluid: from -5 to $+60^\circ\text{C}$.

The ideal use of these multi-function modules is on vacuum thermoformers and vacuum thermo-welders, but they are also widely used on packaging and filling machines in the packaging sector and in all those cases where it is necessary to manage the vacuum at different points and times. Upon request, the modules can be customised and implemented with solenoid valves up to 3" gas. Contact our technical department for further information.



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Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134