

# Gruppi idraulici e raccordi

Hydraulic groups and fittings



*AirLeaf*

# HYDRAULIC GROUPS AND FITTINGS

The range of valve groups and fittings developed by Innova covers all the main applications. Special combinations of our valve groups and fittings can nonetheless be developed for particular system requirements.

Fan coil terminals and all the hydraulic accessories are fitted with 3/4" Eurokonus fittings, which guarantee a seal without the addition of further elements (hemp, gaskets, Teflon, liquid sealants, etc.) thanks to an O-ring inserted in the bevel seat.

They are widely used in residential installations and fittings and adapters are available for all types of system components (collectors, valves, copper and multilayer pipes).

Our range of accessories includes flat adapters that convert the 3/4" Eurokonus male fitting to a standard 3/4" GAS M fitting if Eurokonus end fittings cannot be found for the various types of piping (copper, multilayer etc.).

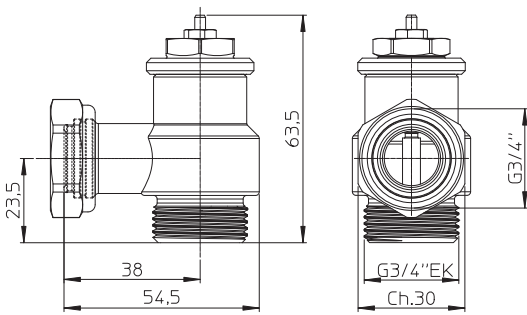
## Innova circuit valves

Innova circuit valves are highly reliable over time as they are made from the best materials and have very low pressure loss values. The KV value of 3.6 is very high for a valve designed for air conditioning terminals.

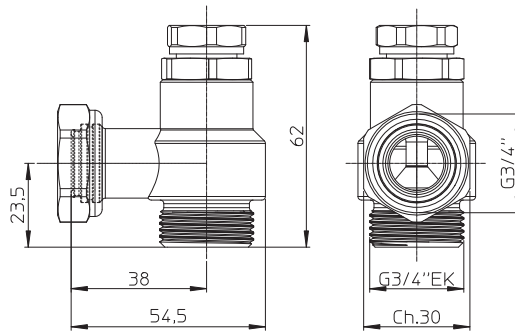
The considerable stroke of the closure mechanism guarantees effective flow rate adjustment even with modulating thermo-actuators. The lockshields supplied with the hydraulic kits have a dual micrometric adjustment with position memory in the event of mo-

mentary closure. This feature enables optimal system balancing. The balancing valves (in some 3-way groups) accurately regulate the quantity of water flowing between flow and return when the ambient temperature conditions are met (terminal off). To facilitate the thermal insulation of the valve bodies, Innova has developed a series of insulators easy to fit and remove for easier maintenance.

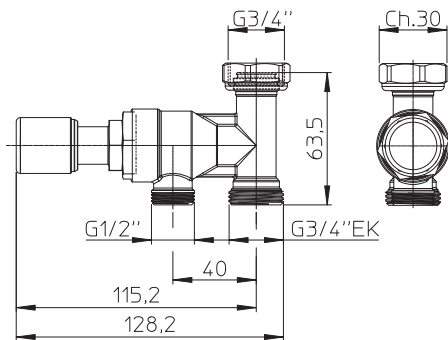
Closure valve



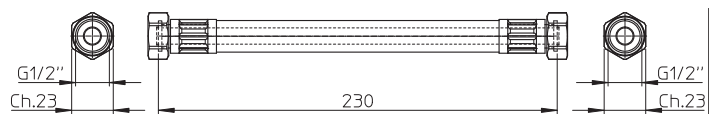
Hydraulic lockshield



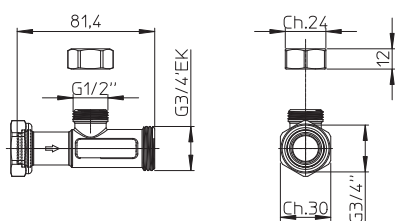
Valve with by-pass third way with balancing regulator



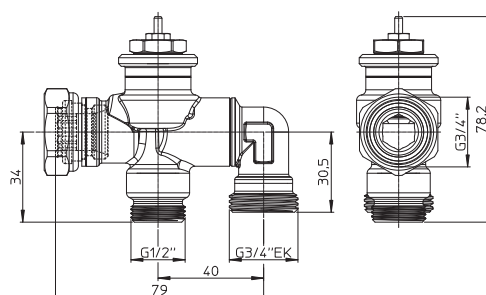
Flexible by-pass hose



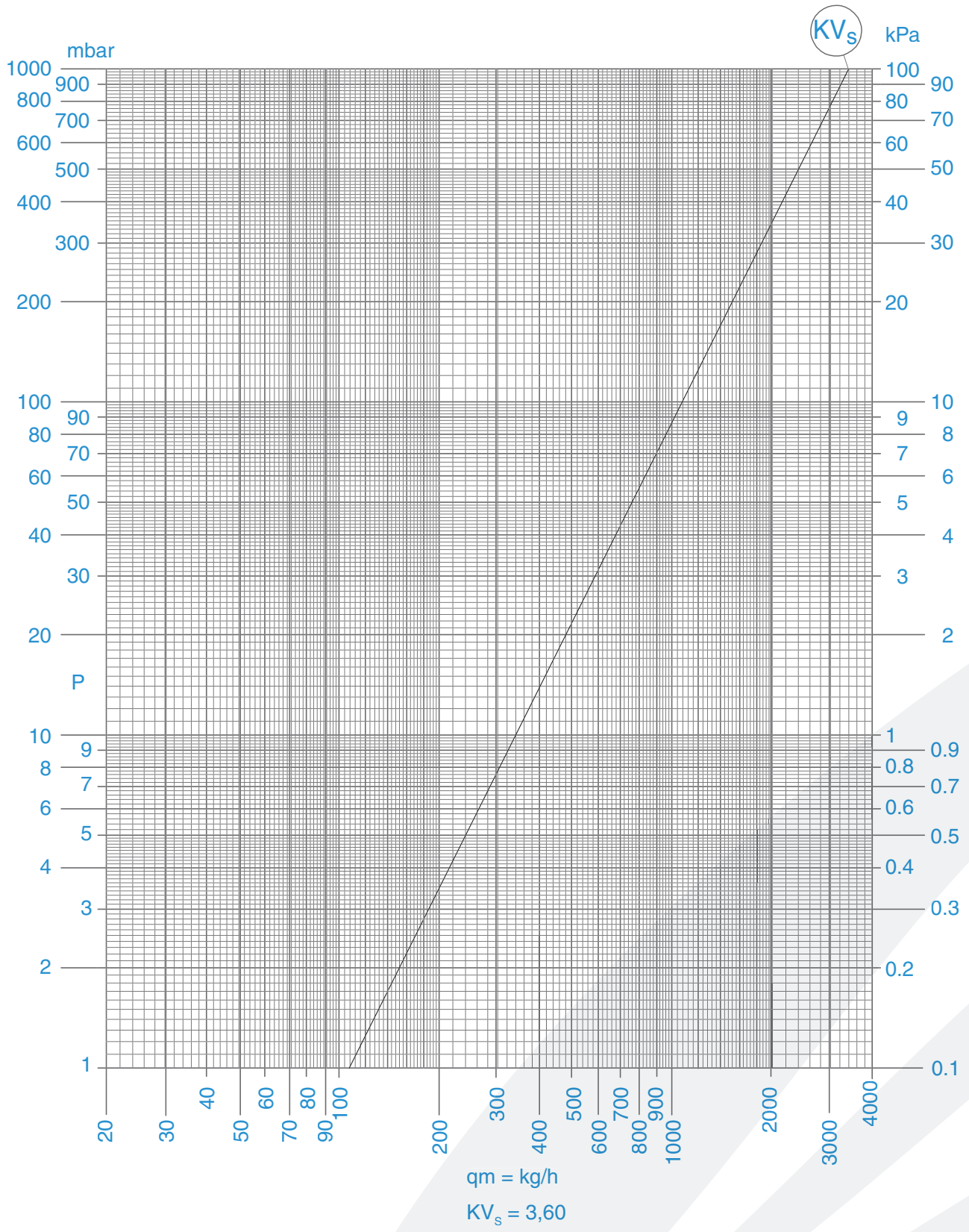
Outlet collector



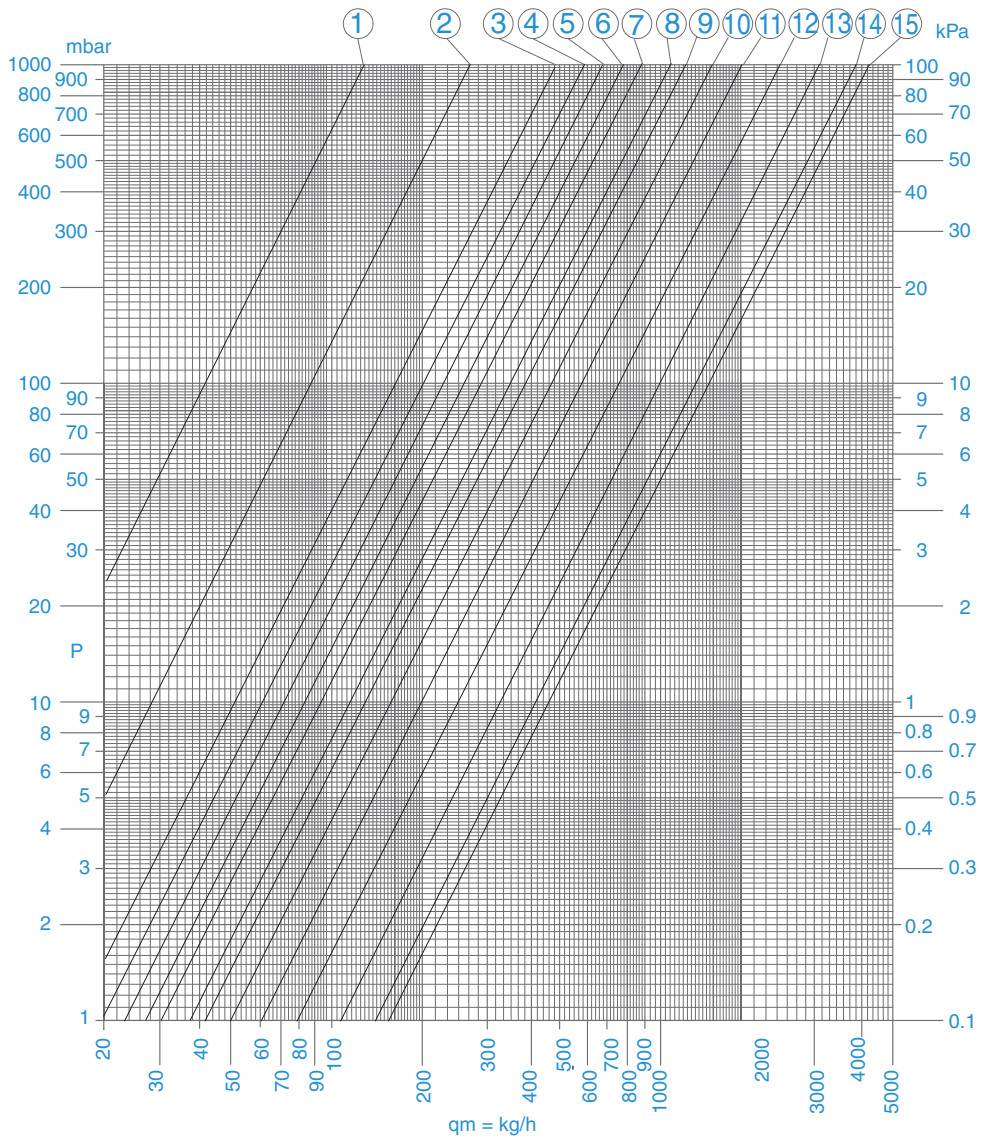
3-way diverter valve



# Kv graph of closure valve in maximum open condition

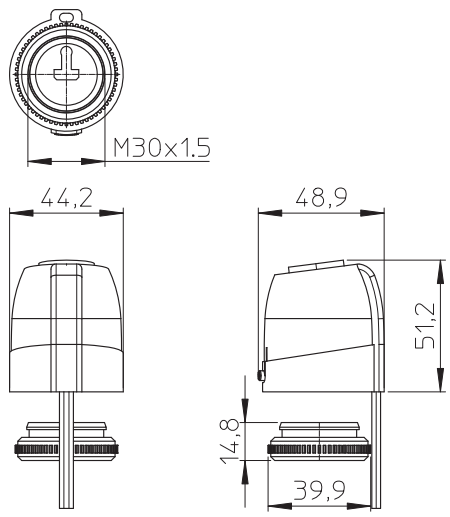


# Diagram of lockshield pressure loss depending on adjustment



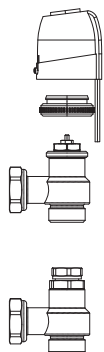
| POS. | 1                | 2    | 3                | 4                | 5                | 6    | 7                | 8                | 10   | 11               | 12   | 13   | 14   | 15   |
|------|------------------|------|------------------|------------------|------------------|------|------------------|------------------|------|------------------|------|------|------|------|
| ADJ  | 1 <sup>2/4</sup> | 2    | 2 <sup>1/4</sup> | 2 <sup>1/2</sup> | 2 <sup>3/4</sup> | 3    | 3 <sup>1/4</sup> | 3 <sup>2/4</sup> | 4    | 4 <sup>1/2</sup> | 5    | 6    | 8    | T.A. |
| Kv   | 0,13             | 0,28 | 0,49             | 0,62             | 0,70             | 0,82 | 0,95             | 1,33             | 1,57 | 1,95             | 2,47 | 3,34 | 4,18 | 4,52 |

## Electrothermal motor for valve operation



These devices enable the operation of the closure valves directly from the control systems of our terminals or from other external 2-point 230 V actuators. They are also available in 2-point 24 V and proportional with 0-10V signal. Highly reliable even after thousands of activations.

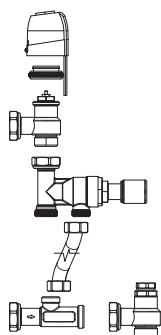
## List of valve groups



### Cod. V20139II



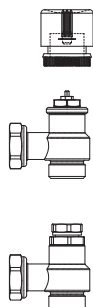
V20139II 2-way valve group with electrothermal motor. The group includes: closure valve, hydraulic lockshield, electrothermal motor. This hydraulic accessory is suitable for installations already fitted with flow rate balancing according to the number of active terminals (by means of self-regulating electronic pumps, main balancing valves of system branches, etc.). The kit also includes preformed insulators for the valve body and the lockshield.



### Cod. V30140II



V30140II valve group with by-pass third way with balancing regulator and electrothermal motor. The group includes: closure valve, adjustable by-pass valve, lockshield, outlet collector and flexible by-pass hose. This hydraulic accessory is suitable for systems not fitted with automatic balancing systems (self-regulating electronic pumps, branch balancing valves). For each appliance it is possible to adjust both the water flow rate circulating in the appliances and that diverted into the by-pass. The kit also includes preformed insulators for the closure valve body, the lockshield and the by-pass valve.

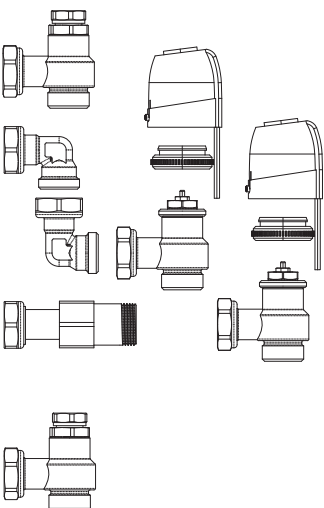


### Cod. I20205II



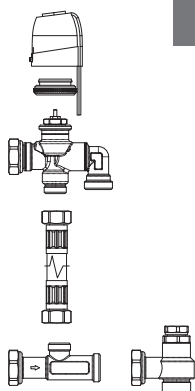
I20205II 2-way valve group with manual closure. The group includes: closure valve, hydraulic lockshield and plastic valve wheel. This hydraulic accessory is suitable for installations already fitted with flow rate balancing according to the number of active terminals (by means of self-regulating electronic pumps, main balancing valves of system branches, etc.) and where the closure or opening of the terminal's hydraulic circuit does not need automatic checking.

### Cod. V40219II



V40219II two-way hydraulic group for 4-pipe systems with double electrothermal motor. The group includes two closure valves, two lockshields and two electrothermal motors. It contains all the fittings for connecting to 4-pipe terminals with dual battery (cold – hot). The kit also includes preformed insulators for the valve bodies and the lockshields.

# List of valve groups



## Cod. V30361II

V30361II 3-way diverter valve group with electrothermal motor. The group includes a 3-way valve with calibrated diverter by-pass, the hydraulic lockshield, the outlet fitting and a flexible hose for connecting the by-pass. This accessory is recommended in all situations in which the system does not need any particular branch balancing but does require a hydraulic by-pass of inactive terminals. The kit also includes preformed insulators for the valve body and the lockshield.

Diagram of load loss bypass valve completely closed

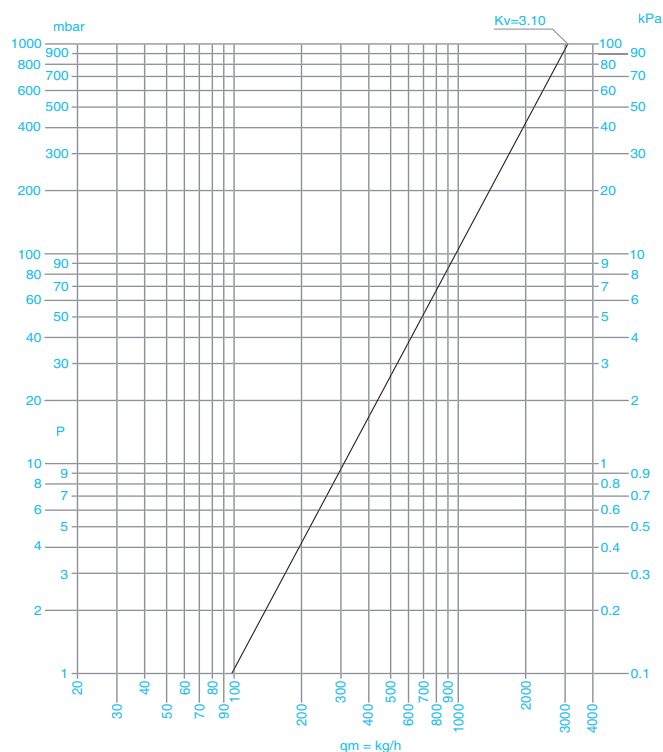
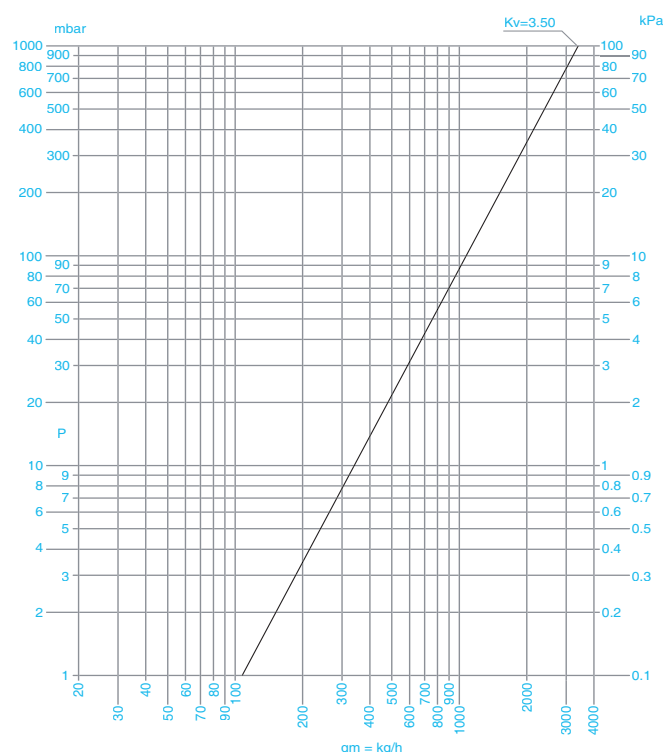
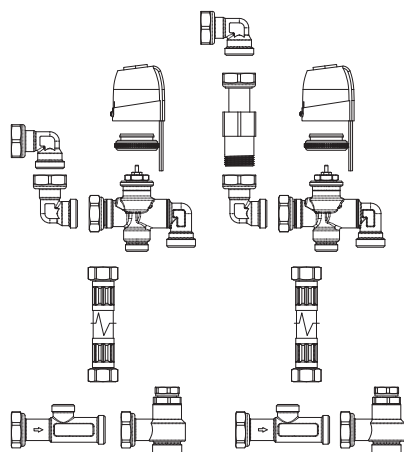


Diagram of load loss bypass valve completely open

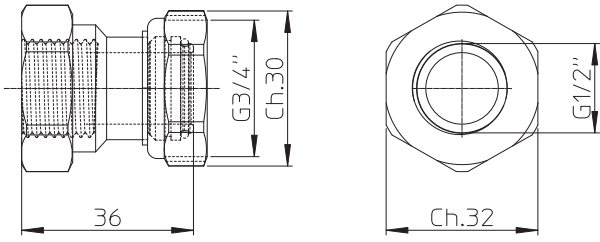


## Cod. V60221II



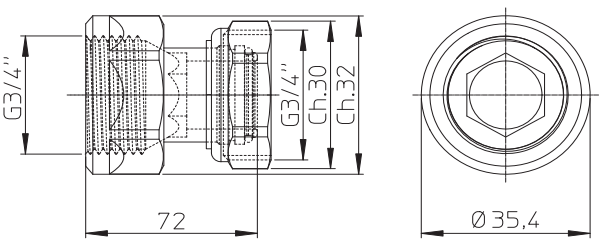
V60221II 3-way hydraulic group for 4-pipe systems with double electrothermal motor. The group includes: two diverter valves, two lockshields, two electrothermal motors, two flexible hoses for by-pass connection and various fittings for connection inside the terminal. The kit also includes preformed insulators for the valve bodies and the lockshields.

## Cod. AI0200II



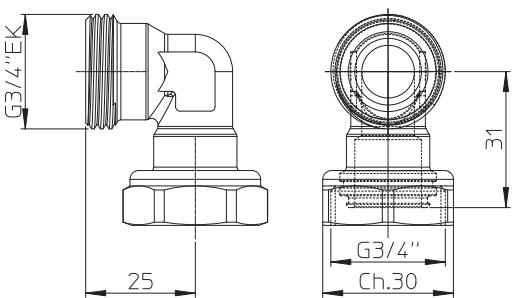
AI0200II couple of adapter: for adapting the 3/4"EK terminal or valve group connection to male 1/2" fittings with a conventional seal (hemp, Teflon etc.).

## Cod. AI0201II



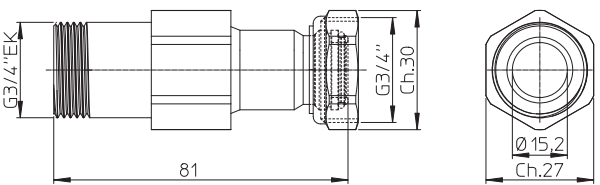
AI0201II couple of adapter: for adapting the 3/4"EK terminal or valve group connection to male 3/4" fittings with a conventional seal (hemp, Teflon etc.).

## Cod. A0203II



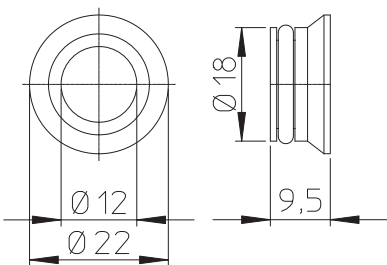
A0203II 90° fitting with Eurokonus connection: for easily connecting pipes with axis turned 90° away from valves' axis.

## Cod. AI0501II



AI0501II spacer for closure valve: for easier connection to the valve body on piping that is hard to bend. Basically enables the valve to be moved outwards, considerably reducing the need to bend pipes coming up through the floor or low down on a wall.

## Cod. AI0612II



AI0612II couple of insert for flat seat gaskets: for adapting the 3/4" Eurokonus fitting to a 3/4" GAS flat seat gasket.





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