#### 1600 Apollo ProFlow PICV pressure independent control valve (2 x female thread)

Where hydraulic balance in the installation requires this, provide the piping system with the following control valves:

* manufacturer Apollo ProFlow
  + type 1600
* functions flush with full bore/shut-off/hydraulic  
   balancing/differential pressure measurement
* material
  + body brass (CW511L)
  + shuttle brass (CW511L)
  + O-rings EPDM
  + cartridge polyphenylene sulphide (PPS)
  + control pin stainless steel (AISI 304)
  + colour black/brass
* flush full bore
* shut-off full shut-off at 45° turn
* control
  + type PICV: dynamic, constant flow at  
     fluctuating system pressures
  + operating range (kPa) 30-400
  + pre-setting (%) 0-100 of maximal flow  
     setting according to table on tag
  + stability (%) ca. 7
  + control actuator: open-close/modulating 0-10V
  + connection actuator M30x1,5
  + flow direction according to arrow
  + position/rotation (°) 360
* security Locking pin against tampering
* test points 2 x needle
* dimensions (DN) 15/20/25
  + versions low flow (LF), standard flow (SF),  
     high flow (HF)
* connections female thread ISO 7/1 parallel
* operating conditions
  + medium water, water glycol mixture
  + temperature (°C) -10 min./+90 max.
  + operating pressure max. 16 bar
* add-ons
  + technical manual; hydraulic charts; electronic measuring device BC3; prefab insulation shells; selection program
  + [www.aalberts-ips.nl](http://www.aalberts-ips.nl)

Diameter to be selected as a function of the flow according to the manufacturer's guidelines. Balancing report to be supplied by the installer with the following data for each valve: valve type, diameter, flow, pressure loss, balancing position, pump type and setting

#### PS1600 VSH XPress ProFlow PICV pressure independent control valve (2 x press)

Where hydraulic balance in the installation requires this, provide the piping system with the following control valves:

* manufacturer VSH Xpress ProFlow
  + type PS1600
* functions flush with full bore/shut-off/hydraulic  
   balancing/differential pressure measurement
* material
  + body brass (CW511L)
  + shuttle brass (CW511L)
  + press end bronze (CC499K)
  + O-rings EPDM
  + cartridge polyphenylene sulphide (PPS)
  + control pin stainless steel (AISI 304)
  + colour black/brass
* flush full bore
* shut-off full shut-off at 45° turn
* control
  + type PICV: dynamic, constant flow at  
     fluctuating system pressures
  + operating range (kPa) 30-400
  + pre-setting (%) 0-100 of maximal flow  
     setting according to table on tag
  + stability (%) ca. 7
  + control actuator: open-close/modulating 0-10V
  + connection actuator M30x1,5
  + flow direction according to arrow
  + position/rotation (°) 360
* security Locking pin against tampering
* test points 2 x needle
* dimensions (DN) 15/20/25  
   15/22/28 mm
  + versions low flow (LF), standard flow (SF),  
     high flow (HF)
* connections VSH XPress (M-profile)
* operating conditions
  + medium water, water glycol mixture
  + temperature (°C) -10 min./+90 max.
  + operating pressure max. 16 bar
* add-ons
  + technical manual; hydraulic charts; electronic measuring device BC3; prefab insulation shells; selection program
  + [www.aalberts-ips.nl](http://www.aalberts-ips.nl)

Diameter to be selected as a function of the flow according to the manufacturer's guidelines. Balancing report to be supplied by the installer with the following data for each valve: valve type, diameter, flow, pressure loss, balancing position, pump type and setting

#### AT01 electro-thermal actuator (open/closed)

Where hydraulic balance in the installation requires this, provide the dynamic control valves with the following actuator:

* manufacturer Apollo
  + type AT01 (open/close)
* construction electro-thermal head with connector
* version normally closed (NC)
* operating voltage (V) 24VAC/DC 230AC
* operating power (VA) 2,3 3,6
* material moulded plastic
* connection M30x1,5
* protection class IP54
* ambient temperature (°C) 0 tot +60
* actuator stroke (mm) 4/5/6,5 4
* stroke time (min.) ca.3,5/4/5 ca.3,5/4/5
* actuating force (N) 100/125 100/125
* CE-conformity EN60730-1
* connecting cable 1m; 2 core
* additional features visual control open/closed  
   first-open function
* add-ons
  + technical manual; hydraulic charts; electronic measuring device BC3
  + [www.aalberts-ips.nl](http://www.aalberts-ips.nl)

#### AE01 electro-thermal actuator (proportional control, normally closed)

Where hydraulic balance in the installation requires this, provide the dynamic control valves with the following actuator:

* manufacturer Apollo
  + type AE01 (modulating 0-10V)
* construction electro-thermal head with connector
* version normally closed (NC)
* operational voltage (V) 24VAC
* operational power (VA) 3,1
* control signal (V) 0-10VDC
* material moulded plastic
* connection M30x1,5
* protection class IP54
* ambient temperature (°C) 0 tot +60
* actuator stroke (mm) 4/5/6,5
* stroke time (min.) ca.3,5/4/5
* actuating force (N) 100/125
* CE-conformity EN60730-1
* connecting cable 1,5m; 3 core
* additional features visual control open/closed  
   first-open function
* add-ons
  + technical manual; hydraulic charts; electronic measuring device BC3
  + [www.aalberts-ips.nl](http://www.aalberts-ips.nl)

#### AP02 electro-motoric actuator modulating (proportional control)

Where hydraulic balance in the installation requires this, provide the dynamic control valves with the following actuator:

* manufacturer Apollo
  + type AP02 (proportional 0-10V)
* construction electro-motoric head with connector
* version normally closed (NC) / normally open (NO)
* operational voltage (V) 24VAC
* operational power (VA) 2,5
* control signal (V) 0-10VDC
* material moulded plastic
* connection M30x1,5
* protection class IP43
* ambient temperature (°C) 0 tot +60
* actuator stroke (mm) 6,3
* stroke time (s/min) 8
* actuating force (N) 120
* CE-conformity EN60730-1
* connecting cable 1,5m; 3 core
* additional features visual control with double colour LED  
   direct acting
* add-ons
  + technical manual; hydraulic charts; electronic measuring device BC3
  + [www.aalberts-ips.nl](http://www.aalberts-ips.nl)

#### AP01 electro-motoric actuator modulating (proportional control with feedback)

Where hydraulic balance in the installation requires this, provide the dynamic control valves with the following actuator:

* manufacturer Apollo
  + type AP01 (proportional 0-10V, feedback)
* construction electro-motoric head with connector
* version normally closed (NC) / normally open (NO)
* operational voltage (V) 24VAC
* operational power (VA) 6
* control signal (V) 0-10VDC
* material moulded plastic
* connection M30x1,5
* protection class IP54
* ambient temperature (°C) 0 tot +60
* actuator stroke (mm) 6,3
* stroke time (s/min) 8
* actuating force (N) 160
* CE-conformity EN60730-1
* connecting cable 1,5m; 4 core
* additional features visual control with double colour LED  
   direct acting
* add-ons
  + technical manual; hydraulic charts; electronic measuring device BC3
  + [www.aalberts-ips.nl](http://www.aalberts-ips.nl)