



DESCRIPTION

INSULATING SHELLS

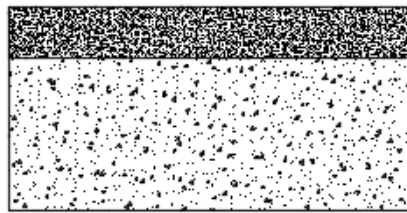
Thermal insulating shells classified according to UL. Made by **2 shells** joined with **Velcro®** (allowing multiple opening and closing) and realized with a **sandwich** structure (2 layers). Available for the following products:

- PCS kits "Pettinaroli Commissioning Solutions" series **XT**
- Pettinaroli PICV valves series **91, 91X, 92, 92X/2, 93, 83PR, 94F** and **95F**

The shells are available for both **cooling** applications (the actuator is enclosed inside the shell) and **heating** applications (the actuator is not enclosed inside the shell). **RITE** version available upon request.

MATERIALS

External layer: polyethylene cross linked foam with high density (80 kg/m³). This layer gives rigidity to the structure of the shell.



Internal layer: polyethylene cross linked foam with low density (29 kg/m³). This layer increases the insulation performance of the shell.

TECHNICAL FEATURES

	Standard	Insulation material		Unit of measure
Density	ISO 845	29	80	Kg/m ³
Compression stress (50% deflection)	ISO 3386/1	88	260	kPa
Tensile longitudinal strength	ISO 1798	0,18	0,80	MPa
Extension longitudinal stretch	ISO 1798	120 (rupture)	170 (rupture)	%
Residual distortion 22h at 23°C	ISO 1856	13	1,5	%
Operating temperature range	-	-60÷90	-60÷90	°C
Thermal conductivity at 40°C	EN 12667	0,040	0,049	W/mK
Fire resistance	UL94	HF1	HF2	-

CODING LOGIC

The logic according to which the product name (article) is created is shown below:

Insulating shells for PCS kits				
□	□ □ □ □	□	□	
				V = Velcro® fastening
				H = Heating application
				C = Cooling application
				Kit identification number
				I = Thermal insulating shell

Example: I702HV

Thermal insulating shell for XT702 PCS kit for heating application with Velcro® fastening

Insulating shells for PICV valves				
□	□ □ □	□	□	□
				V = Velcro® fastening
				H = Heating application
				C = Cooling application
				I = Thermal insulating shell
				PICV identification number
				O = Accessory for PICV

Example: 091XICV

Thermal insulating shell for 91X PICV for cooling application with Velcro® fastening

INSULATING SHELLS FOR PCS KITS

The table below collects the models of thermal insulating shells available for use with Pettinaroli PCS kits:

Article*	Kit	Size	Product code**	Thickness	Type
I600HV	XT600	½" x 150 l/h → ½" x 780 l/h	6902010190C	20 mm	Heating
I600CV	XT600	½" x 150 l/h → ½" x 780 l/h	6902010210C	20 mm	Cooling
I601HV	XT601	½" x 150 l/h → ½" x 780 l/h	6902010070C	20 mm	Heating
I601CV	XT601	½" x 150 l/h → ½" x 780 l/h	6902010230C	20 mm	Cooling
I700HV	XT700	½" x 150 l/h → ¾" x 1500 l/h	6902010540C	20 mm	Heating
I701HV	XT701	½" x 150 l/h → ¾" x 1500 l/h	6902010580C	20 mm	Heating
I702HV	XT702	½" x 150 l/h → ½" x 450 l/h	6902010890C	20 mm	Heating
I702HV	XT702	½" x 850 l/h	6902010900C	20 mm	Heating
I702HV	XT702	¾" x 1000 l/h → ¾" x 1850 l/h	6902010880C	20 mm	Heating
I702HV	XT702	¾" x 1" x 2500 l/h → ¾" x 1" x 3300 l/h	6902010990C	20 mm	Heating
I704HV	XT704	½" x 150 l/h → ½" x 450 l/h	6902010850C	20 mm	Heating
I704HV	XT704	½" x 850 l/h → ¾" x 1850 l/h	-	20 mm	Heating
I704HV	XT704	1" x 2500 l/h → 1" x 3300 l/h	-	20 mm	Heating
I800HV	XT800	½" x 150 l/h → ¾" x 1500 l/h	6902010170C	20 mm	Heating
I800CV	XT800	½" x 150 l/h → ¾" x 1500 l/h	6902010200C	20 mm	Cooling
I801HV	XT801	¾" x 600 l/h → ¾" x 1500 l/h	6902010080C	20 mm	Heating
I801CV	XT801	¾" x 600 l/h → ¾" x 1500 l/h	6902010240C	20 mm	Cooling
I850HV	XT850	¾" x 1" x 2200 l/h → ¾" x 1" x 3000 l/h	6902010160C	20 mm	Heating
I850CV	XT850	¾" x 1" x 2200 l/h → ¾" x 1" x 3000 l/h	6902010220C	20 mm	Cooling
I851HV	XT851	1" x 2200 l/h → 1" x 3000 l/h	6902010090C	20 mm	Heating
I851CV	XT851	1" x 2200 l/h → 1" x 3000 l/h	6902010250C	20 mm	Cooling
I880HV	XT880	¾" x 1" x 2500 l/h → 1" x 5200 l/h	6902010910C	20 mm	Heating
I881HV	XT881	1" x 2500 l/h → 1" x 3300 l/h	-	20 mm	Heating
I881HV	XT881	1" x 2500 l/h → 1" x 5200 l/h	-	20 mm	Heating
I1694HV	XT1694	1 ½" x 9000 l/h	-	20 mm	Heating
I1694HV	XT1695	1 ½" x 9000 l/h	-	20 mm	Heating
I2074HV	XT2074	2" x 14000 l/h	-	20 mm	Heating
I2075HV	XT2075	2" x 14000 l/h	-	20 mm	Heating
I1313HV	XT1313	½" x 150 l/h → ½" x 450 l/h	-	20 mm	Heating
I1313HV	XT1313	½" x 850 l/h	6902011170C	20 mm	Heating
I1313HV	XT1313	¾" x 1000 l/h → ¾" x 1850 l/h	6902011180C	20 mm	Heating
I1313HV	XT1313	¾" x 1" x 2500 l/h → ¾" x 1" x 3300 l/h	-	20 mm	Heating
I1314HV	XT1314	¾" x 1000 l/h → ¾" x 1850 l/h	-	20 mm	Heating
I1314HV	XT1314	1" x 2500 l/h → 1" x 3300 l/h	-	20 mm	Heating

*For further information regarding the shells, such as dimensions or weights, please refer to the technical specifications of the corresponding PCS kit. **Where the product code is not indicated, the corresponding insulating shell is still available. Please contact Pettinaroli technical service for further information.



The thermal insulating shell must be positioned on the corresponding kit before installing the actuator, if present. The actuator adapter, however, can be mounted beforehand.



During the installation of the shell, it is recommended to use thermal insulating tape in order to properly seal the various joints and minimize air infiltration.

INSULATING SHELLS FOR PICV VALVES

The table below collects the models of thermal insulating shells available for use with Pettinaroli PICV valves:

Article*	PICV	Size	Product code**	Thickness	Type
091IHV	91	½" x 150 l/h → ¾" x 1500 l/h	6902010471C	20 mm	Heating
091IHV	91	1" x 1500 l/h	6902010770C	20 mm	Heating
091ICV	91	½" x 150 l/h → ¾" x 1500 l/h	6902010472C	20 mm	Cooling
091ICV	91	1" x 1500 l/h	6902010780C	20 mm	Cooling
091XICV	91X	½" x 150 l/h → ½" x 900 l/h	6902010570C	20 mm	Cooling
092IHV	92	½" x 150 l/h → ½" x 450 l/h	6902010590C	20 mm	Heating
092IHV	92	½" x 850 l/h → ¾" x 1850 l/h	6902010600C	20 mm	Heating
092IHV	92	1" x 2500 l/h → 1" x 3300 l/h	6902010970C	20 mm	Heating
092IHV	92	1 ¼" x 5200 l/h	6902011250C	20 mm	Heating
092IHV	92	1 ½" x 9000 l/h	6902011260C	20 mm	Heating
092IHV	92	2" x 14000 l/h	6902011500C	20 mm	Heating
092ICV	92	½" x 150 l/h → ½" x 450 l/h	6902010610C	20 mm	Cooling
092ICV	92	½" x 850 l/h → ¾" x 1850 l/h	6902010620C	20 mm	Cooling
092ICV	92	1" x 2500 l/h → 1" x 3300 l/h	6902011110C	20 mm	Cooling
092XIHV	92X	½" x 150 l/h → ¾" x 450 l/h	6902011650C	20 mm	Heating
092XIHV	92X	¾" x 850 l/h → 1" x 1850 l/h	6902011660C	20 mm	Heating
093IHV	93	¾" x 2200 l/h → 1 ¼" x 3000 l/h	6902010531C	20 mm	Heating
083IHV	83PR	1 ¼" x 6000 l/h → 2" x 11000 l/h	6902010720C	33 mm	Heating
083IHV	83PR	2" x 12000 l/h → 2" x 18000 l/h	6902010760C	33 mm	Heating
094IHV	94F - 95F	2" x 20000 l/h	6902010790C	35 mm	Heating
094IHV	94F - 95F	2 ½" x 30000 l/h	6902010800C	35 mm	Heating
094IHV	94F - 95F	3" x 30000 l/h	6902010840C	36 mm	Heating
094IHV	94F - 95F	4" x 55000 l/h	6902010810C	43 mm	Heating
094IHV	94F	5" x 90000 l/h → 5" x 120000 l/h	6902010820C	43 mm	Heating
094IHV	94F - 95F	6" x 90000 l/h	6902010830C	43 mm	Heating

*For further information regarding the shells, such as dimensions or weights, please refer to the technical data sheet of the shell itself.



During the installation of the shell, it is recommended to use thermal insulating tape in order to properly seal the various joints and minimize air infiltration.

GENERAL NOTES

For any other combination of kits or PICVs not listed in the previous tables, a thermal insulating shell is available upon request. Please contact Pettinaroli technical service for further information. For final dimensions, refer to the dimensional drawings provided during the product approval and acceptance phase.