



HANDBOOK  
VALVES

Ed. 2017



# CHAPTER 2

## VALVES WITH SCREW SHUTTER

### FOR REFRIGERATION PLANTS THAT USE HC REFRIGERANTS

this chapter cannot be installed with mineral oils or alkylbenzenes.

#### RECEIVER VALVES

Receiver valves for HC are two-way valves with 90° connections, type 6110N.

The main parts are manufactured with the following materials:

- Hot forged brass EN 12420 – CW 617N for the body
- Steel, with proper surface protection, for the spindle.
- Hydrogenated nitrile butadiene rubber (HNBR) and aramid fibres for packing gland seal.
- Glass-reinforced PBT for the protective cap that covers the spindle.



#### APPLICATIONS

The valves illustrated in this chapter have been developed by Castel for all those refrigeration applications that use the following HC refrigeration fluids: R290, R600, R600a, belonging to Group 1, defined in Article 13, Chapter 1, Point (a) of Directive 2014/68/EU, with reference to EC Regulation No. 1272/2008.

**CAUTION!** Valves with screw shutter illustrated in

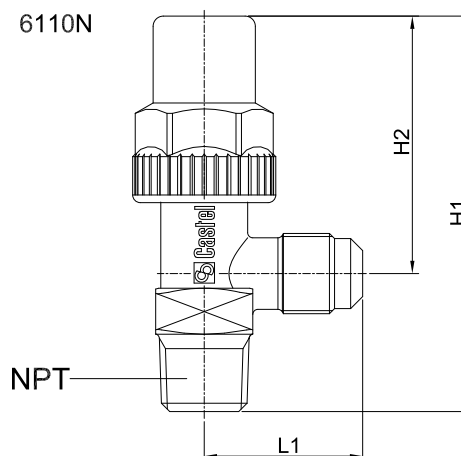


TABLE 19: General characteristics of receiver valves for HC refrigerants

Catalogue Number	Connections		Kv Factor [m³/h]	PS [bar]	TS [°C]		TA [°C]		Risk Category according to PED Recast
	SAE Flare	NPT			min.	max.	min.	max.	
6110N/22	1/4"	1/4"	0,44	45	-40	+150	-40	+50	Art. 4.3
6110N/33	3/8"	3/8"	1,35						
6110N/43	1/2"	3/8"	2,40						

TABLE 20: Dimensions and weights of receiver valves for HC refrigerants

Catalogue Number	Dimensions [mm]			Weight [g]
	H <sub>1</sub>	H <sub>2</sub>	L <sub>1</sub>	
6110N/22	72	48	27,5	110
6110N/33	77	50	31	140
6110N/43	88	55,5	34,5	220

[www.castel.it](http://www.castel.it)



ed. 002-VR-ENG

Castel can accept no responsibility for any errors or changes in the catalogues, handbooks, brochures and other printed material. Castel reserves the right to make changes and improvements to its products without notice. All trademarks mentioned are the property of their respective owners.

The name and Castel logotype are registered trademarks of Castel Srl.  
All rights reserved.

Castel Srl - Via Provinciale 2-4 - 20060 Pessano con Bornago - MI