

# 4 WAY BALL VALVE FOR REVERSING CYCLE FOR R744 TRANSCRITICAL SYSTEMS

Stainless steel ball valve for HVAC-R systems.

The 4 way reversing valve is the key component to provide heating and cooling by reversing the flow direction of the refrigerant.

Marks on top of the pin show how the ports are connected inside of the valve.

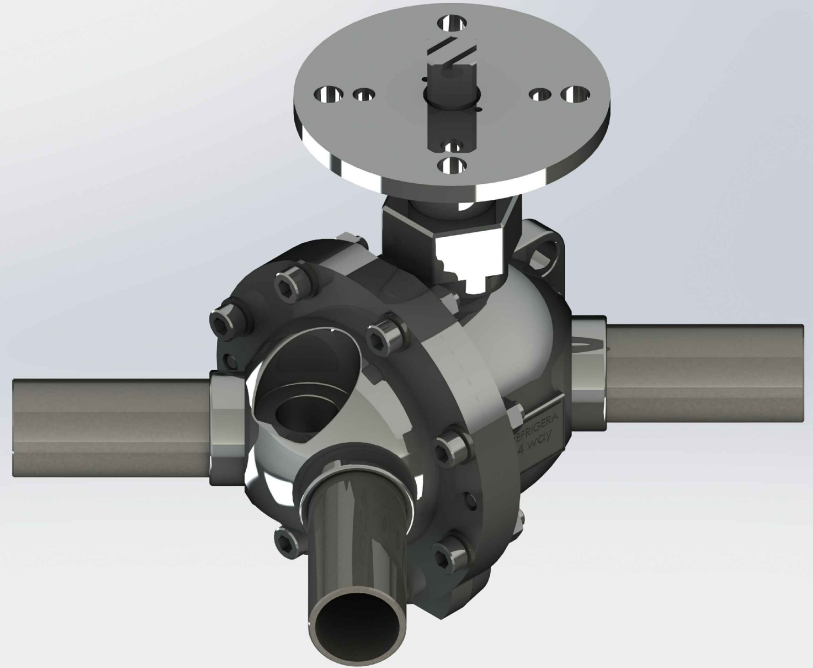
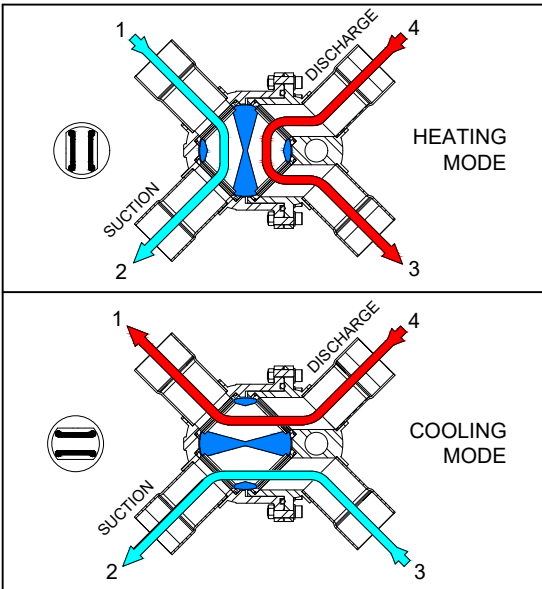
A reversible 90 degrees rotation turns the valve from one to the other position.

Application: R744 heat pump.

## ■ MAXIMUM DIFFERENTIAL PRESSURE

Pressures are  $p_1, p_2, p_3, p_4 \leq 130$  bar

$\Delta p_{max} = p_4 - p_2 \leq 90$  bar




NO.XS10032021

## ■ MAIN FEATURES

- These new stainless steel valves have been designed with the use of high performance materials for a perfect internal tightness in any application. New generation technopolymers guarantee high mechanical and thermal resistance, which combined with a low rotation torque enable to achieve high results in terms of energy efficiency.
- It is a trunnion ball valve: the ball is fixed to the spindle at its top side, is fixed to a ball bearing at its low side. This fact increases the tightness of the valve because the high differential pressure cannot move the ball from its axis.
- Functional tests are executed on 100% of the produced ball valves by using a proper high pressure system.

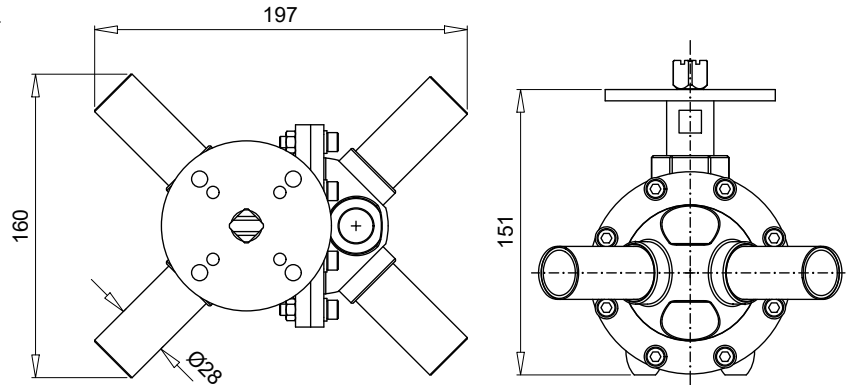
## ■ SPECIFICATIONS

Refrigerants	R744 ( transcritical )
Media temperature range	- 40 °C + 150 °C
Maximum working pressure (PS)	130 bar ( 1885 psig )
Maximum test pressure	PS x 1,43
Oils	POE, PAG
Valve Body	X-TYPE
Approvals	 2014 / 68 / UE PED

**CONNECTIONS SIZE AND OVERALL DIMENSIONS**

The valves are available with standard AISI304 stainless steel OD connections. They are also available with special K65® ODS connections.

	CONNECTIONS SIZE		Kv m³/h
	mm	in	
OD AISI304	22		21
	28		
ODS K65®	22		
		7/8	
	28	1-1/8	



**MOTORIZATION**

The 4 way ball valve is suitable for actuators. The junction kit is hermetically sealed according to EN 14903 Standard and connects valve and actuator through an ISO 5211 F05, F07 flange with a square 14 or 17 spindle.

**WORKING FOR R744 HEAT PUMP**

The valve can work in a system with R744 heat pump reversing the cycle. The 90 degrees rotation (clockwise and counter clockwise) allows to switch from the heating configuration to the defrosting configuration and vice versa.

