

Nicab Compact®

Secondary refrigerant valves 2 or 3 way intended to be built in with display cabins and so on, small construction measures with 3 O-rings in EPDM rubber to minimize the risk of leakage. DN 15 – DN 20.



Properties	Benefits	User Advantages
1 LED for position control.	Easy to see if the valve is in open or close position.	Easy to check if the valve is installed properly.
Internal heating.	Prevents condensation.	Minimizes the risk of short circuit on the circuit board.
3 O-rings in EPDM rubber.	Handles low temperatures. Compatible with different types of secondary refrigerants. Stabilizes the spindle.	Minimizes the risk of leakage. Suitable for all systems.
Internal relay.	The actuator can be controlled with an on/off switch.	No need for an extra relay, which reduces the cost.
90° turning angle.	Only one type of actuator needed as spare part.	Reduced cost.

NICAB Compact: Motorised ballvalve for sec. refrigerant systems
HT -15 °C / LT -35 °C
Dimensions DN 15 – DN 20

The COMPACT range of 2 and 3 port motorised ball valves are designed for use in secondary refrigerant systems (both HT and LT temperature i.e. -15° C to -35° C). The ball in the 3-way diverting valve is specifically designed to ensure constant flow when the valve changes position i.e. when defrosting. The motorised actuator has a LED fitted that indicates the valve position. The valve is compatible with most secondary refrigerants including Glycol, Freezium, Hy-Cool, Temper and Tyfoxit.
 The valve must be fitted in an upright or horizontal position position, **never** fitted with the actuator facing downwards.
 The internal heater is always connected by internal wired scheme, to avoid condensation on the printed circuit board.

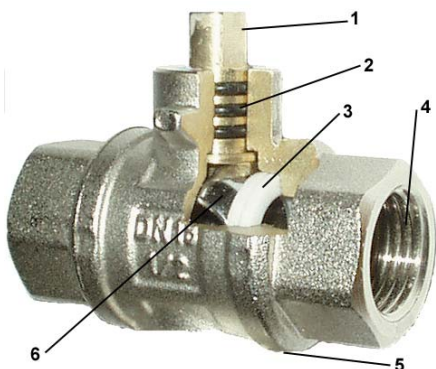


Type	Dimension DN	kVS value m ³ /h		Weight in kg	
		2-Väg / 3-Väg	2-Väg / 3-Väg	2-Väg / 3-Väg	2-Väg / 3-Väg
Compact DN 15	15	16,2	3,9	1 kg	1,1 kg
Compact DN 20	20	26,5	7,9	1,2 kg	1,2 kg

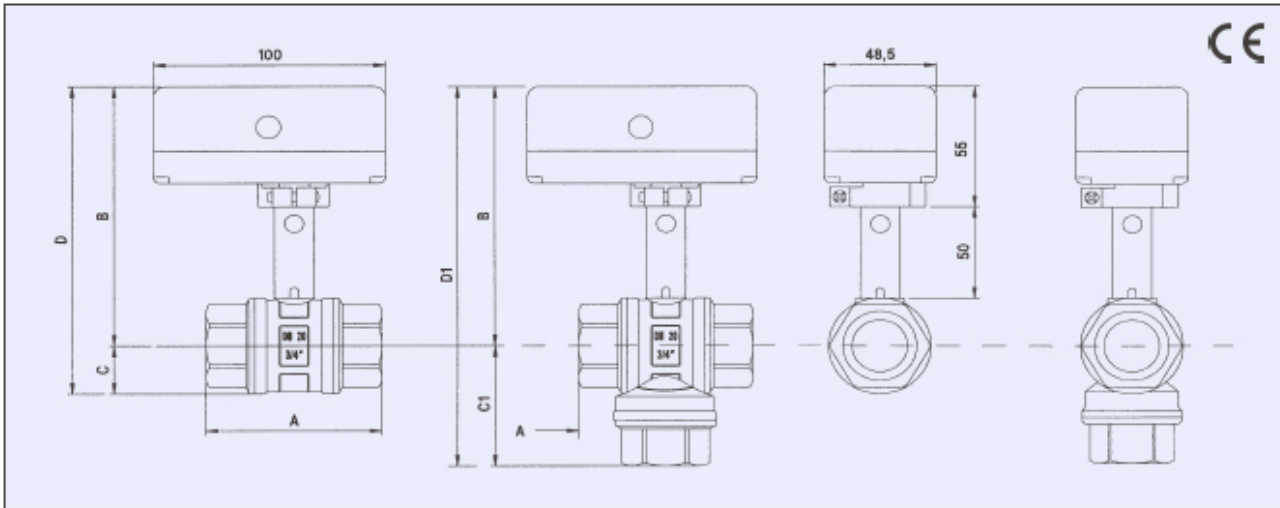
Technical Data

Dimension:	DN15 – DN 20
Voltage:	230V (24V)
Torque:	6 Nm
Internal heating:	5 W
Room temperature:	-20 °C - +70°C
Valve body:	Low zinc plated brass
Microswitch:	10 (2) A
Led's:	Blue led = open/cooling Red led = close/defrost
Frequency:	50/60 Hz
Running time:	90° about 100 Sec.
Protection:	IP 55
Sec. Refrigerant temp:	HT -15°C / +95 °C (LT -35°C)
Operational pressure:	10 bar
Differential pressure:	6 bar
Relay contacts:	10 (2) A
Internal protection:	Heater 33 K, 5W. Protective spray film on circuit.

Construction



1. Axle in chrome plated brass
2. 3 O-rings in EPDM rubber
3. Disk PTFE
4. Female thread BSP, standard (Male optional)
5. Body in low zinc plated brass
6. Ball in chrome plated brass



Measures 2-way valve

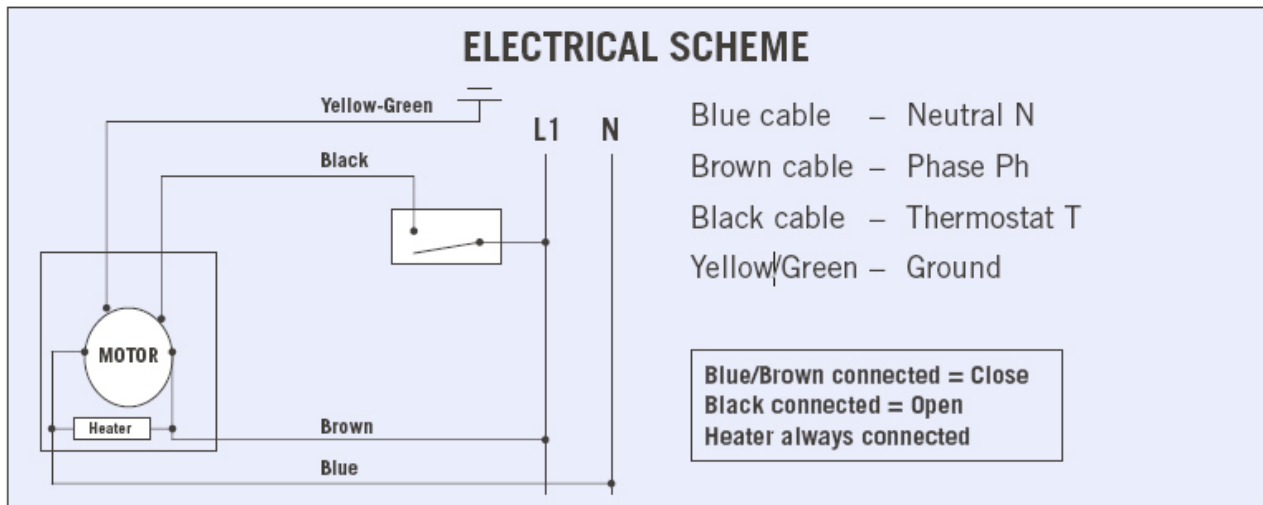
Dn	A	B	C	D	Kg	Kv	Art. Nr	Rsk Nr.
15	66	123,5	17	140,5	0,9	16,2	422HT215	5363185
20	76	128	21,5	149,5	1,0	26,5	422HT020	5363186

Measures 3-way valve

Dn	A	B	C1	D1	Kg	Kv	Art. Nr	Rsk Nr.
15	66	123,5	44	167,5	1,0	3,9	423HT315	5363187
20	76	128	54,5	182,5	1,1	7,9	423HT320	5363188

Pressure Loss

For calculating pressure loss over the valve use the formula $K_v = Q / \sqrt{\Delta P}$ normally the flow and Kv-value are known. Kv = amount of flow in m³/h create a pressure drop of 1,0 bar when passing the valve. Q = flow in m³/h ΔP = Pressure drop in bar. Example: 3-way DN 20 (423HT020) Kv = 7,9 - Q=2,0 m³/h ΔP = (2,0/7,9)² = 0,0064 bar = 6,4 Kpa. To calculate the valve size (Kv) for a given max pressure drop e.g. max ΔP 10 Kpa. Ex. Kv = ? Q = 4,0 m³/h - ΔP = 0,1 bar = 10 Kpa Δ Kv = 4,0/√0,1 Δ Kv = 12,6 find a valve with a Kv-value close to 12,6, take a 3-way DN 25 (423HT025) with Kv = 13. This example above is for water +20°C for secondary refrigerant and low temperature recalculate with a pressure loss 40% - 70% higher, depending on type of secondary refrigerants and temperature. For more detail figure contact Nicab or use the computer program on our home page.



ACCESSORIES

Insulation boxes



Brass connections

