

# Electrical Control Valves Series EXN for OEM Use, Stepper Motor Driven

## Features

- Unipolar stepper motor
- Bi-flow with same capacity in normal and reverse flow direction
- MOPD: 36 bar in both flow directions
- Unipolar stepper motor with gear mechanism enabling Bi-flow performance at 36 bar differential pressure across the valve
- Removable coil: 12 VDC
- Continuous, linear modulation of mass flow
- High resolution: 2000 pulses (half steps) or 1000 full steps
- Hermetic design



EXN with Coil

## Selection Table

Type	Description	Part No.	Nominal Capacity [kW]				Connections Size / Style
			R410A	R32	R134a	R407C	
EXN-B2K	Valve less coil	800421	34	50.6	22.2	30.7	1/2" ODF
EXN-B2L	Valve less coil	800422	42	62.5	28.8	37.9	1/2" ODF
EXN-125	Coil 12VDC	800420	-	-	-	-	-

The nominal capacity ( $Q_n$ ) is based on the following conditions:

Refrigerant	Evaporating Temperature	Condensing Temperature	Subcooling
R410A, R134a, R32	+4°C	+38°C	1K
R407C	+4°C dew point	+38°C bubble / +43°C dew point	1K

**Note:** For selection of other operating conditions, please use the "Controls Navigator" selection tool.

## Technical Data

<b>MOPD (Maximum Operating Pressure Differential)</b>	36 Bar in Normal Flow 36 Bar in Reverse Flow
<b>Max. Working Pressure PS</b>	45 Bar
<b>Temperature Range TS</b> - liquid refrigerant - Ambient	-30...+70°C -30...+60°C
<b>Stepper Motor Type</b>	Uni-Polar, Constant Voltage, 5 Wires
<b>Supply Voltage</b>	12 VDC Coil: 12 V ± 10%

<b>Total Number of Pulses</b>	2000 Half Step (1000 Full Step)
<b>Pulsing Rate Frequency (Pulse/Sec.)</b>	100...200 Hz
<b>Full Travel Time</b>	20 Seconds at 100 Hz 10 Seconds at 200 Hz
<b>Coil Insulation Class</b>	A
<b>Cable Length</b>	1 m
<b>Electrical Connection</b>	JST XH connector, 5 pole Housing: XHP-5 Pin: SXH-001T-P0.6