Electrical Control Valves Series EXM/EXL for OEM Use, Stepper Motor Driven

Features

- Unipolar stepper motor
- Bi-flow (same performance in both flow directions in term of capacity)
- High MOPD: 40 bar in normal flow direction
- Removable coils in two versions: 12VDC/24VDC
- Continuous modulation of mass flow, no stress (liquid hammering) in the refrigeration circuit
- Linear flow
- Resolution: 500 pulses (half steps) or 250 full steps
- Hermetic design
- Reliability: 225 millions pulses at continuous 40 bar differential pressure
- VDE tested according to IEC-60335-2-89 and IEC-60335-2-40

Note: The valve is not released for refrigeration applications such as cold rooms and refrigeration display cabinets.

EXM/EXL

Selection Table

Valve Series	Description	Type	Part No. (10 pcs)	Nominal Capacity (kW)						Connections Size / Style
				R32	R452B	R454B	R410A	R407C	R134a	
EXM	Valve less coil	EXM-B0A	800 399M	2.7	2.1	2.1	1.8	1.6	1.2	¼" ODM
		EXM-B0B	800 400M	8.2	6.3	6.3	5.5	5.0	3.7	
		EXM-B0D	800 401M	17.3	13.3	13.3	11.6	10.5	7.7	
		EXM-B0E	800 402M	20.4	15.7	15.7	13.7	12.4	9.1	
	Coil 12VDC	EXM-125	800 403M	-	-	-	-	-	-	-
	Coil 24VDC	EXM-24U	800 415M	-	-	-	-	-	-	
EXL	Valve less coil	EXL-B1F	800 405M	25.3	19.4	19.4	17.0	15.4	11.3	¼" ODF 8 mm ODM
		EXL-B1G	800 406M	34.2	26.3	26.4	23.0	20.7	15.2	
	Coil 12VDC	EXL-125	800 407M	-	-	-	-	-	-	-
	Coil 24VDC	EXL-24U	800 416M	-	-	-	-	-	-	

Note 1: Nominal conditions: Evaporating Temperature +4°C (dew point), Condensing Temperature +38°C (bubble point), Subcooling 1 K
Note 2: For selection of other operation conditions, please use the „Controls Navigator" selection tool.
Note 3: When selecting also observe the information in the operating instructions. Available for download on the Emerson website.

Technical Data

Max. Allowable Pressure PS	45 bar
MOPD	40 bar in Normal Flow Direction, 30 bar Reverse Flow Direction
Temperature Range TS	-30...+70°C (Liquid Refrigerant) -30...+60°C (Ambient)
Stepper Motor Type	Uni-polar, Constant Voltage

Full Travel Time	16.6 Seconds at 30 Pulse/Sec. 5.5 Seconds at 90 Pulse/Sec.
Reference Position	Mechanical Stop at Fully Close Position
Total Number of Pulses	500 Half Step (250 Full Step)
Insulation Class	EXM: A EXL: E
Cable Length	1 m

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