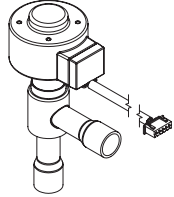

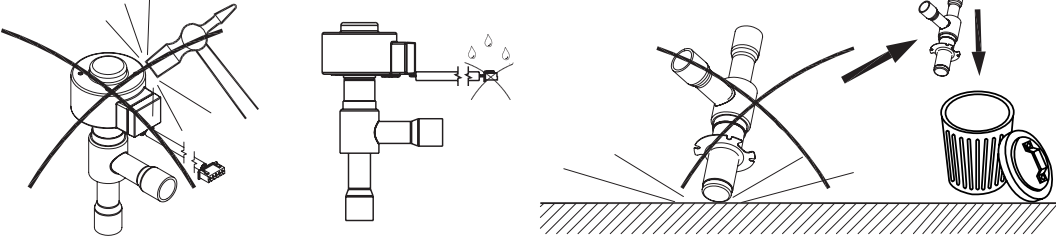
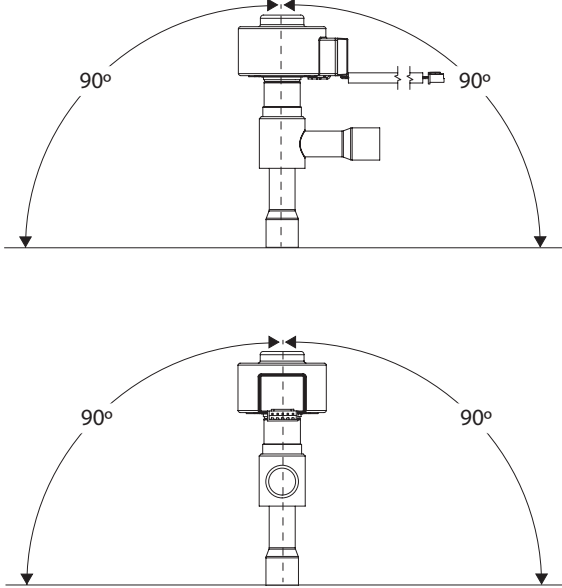


## Installation guide

# Electric expansion valve Type ETS 8M

034R9900

034R9900

<p><b>Refrigerants / 适用的冷媒</b> For a complete list of approved refrigerants, please visit <a href="http://store.danfoss.com/">http://store.danfoss.com/</a> and search for individual code numbers, where refrigerants are listed as part of product specifications.</p>	<p><b>Refrigerant temperature (JB/T 10212-2016) 流体温度 (JB/T 10212-2016)</b> <math>t_{Min.} : -30\text{ }^{\circ}\text{C} / -22\text{ }^{\circ}\text{F}</math>, <math>t_{Max.} : 70\text{ }^{\circ}\text{C} / 158\text{ }^{\circ}\text{F}</math></p>	<p><b>Max. working pressure / 最大工作压力</b> PS / MWP: 4.9 MPa / 49 barg / 710 psig</p>		
<p><b>Allowable ambient temperature (JB/T 10212- 2016) 环境温度(JB/T 10212- 2016)</b> <math>-30\text{ }^{\circ}\text{C} / -22\text{ }^{\circ}\text{F} - 70\text{ }^{\circ}\text{C} / 158\text{ }^{\circ}\text{F}</math></p>	<p><b>Stepper motor type / 步进电机形式</b> Unipolar / 单极 Bipolar / 双极</p>	<p><b>Nominal voltage / 额定电压</b> 12 V DC</p>	<p><b>Phase current unipolar motor / 单极电机相电流</b> 261 mA</p>	<p><b>Phase current bipolar motor / 双极电机相电流</b> 143 mA</p>
<p> <b>Warning!</b></p>  <p>Do not connect directly to AC / DC power source. Connect valve to appropriate controller / driver only. Do not operate valve while assembling or disassembling.</p> <p>勿直接与交流或直流电源连接。请仅将阀门连接于合适的控制器。在安装和拆卸阀门时请勿操作电子膨胀阀</p>		<p><b>1 Mounting Angle / 安装角度</b></p> 		

**2 Brazing option 1 / 焊接方案 1**

Max. 120°C (248°F)  
Min. 700°C (1300°F)  
Ag 5%  
N<sub>2</sub>

N<sub>2</sub> gas from opposite side of soldering point.  
焊点另一端充氮气保护

**Brazing option 2 / 焊接方案 2**

Min. 700°C (1300°F)  
Ag 5%  
Max. 120°C (248°F)  
H<sub>2</sub>O  
N<sub>2</sub>

**3 Assembling / 组装**

CLICK

**4 Unipolar Motor Excitation Sequence / 单极电机励磁顺序**

Table:1 Stepper motor open and close sequence / 步进电机开关顺序

Coil 线圈	Wire 线缆	Excitation Sequence 励磁顺序							
		→ Valve Opening 开阀 ← Valve Closing 关阀							
		1	2	3	4	5	6	7	8
A1	Orange/橙	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
B1	Red/红	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
A2	Yellow/黄	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
B2	Black/黑	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
COM	Grey/灰	ON	ON	ON	ON	ON	ON	ON	ON

⚠️ Coil resistance check / 线圈电阻: Coil A1 = Coil B1 = Coil A2 = Coil B2 = 46 ± 3 Ohm  
Please check motor type before referring to excitation sequence / 参考励磁顺序前请检查电机形式

**5 Bipolar Motor Excitation Sequence / 双极电机励磁顺序**

Table 2: Stepper motor open and close sequence / 步进电机开关顺序

Coil 线圈	Wire 线缆	Excitation Sequence 励磁顺序							
		→ Valve opening 开阀 ← Valve closing 关阀							
		1	2	3	4	5	6	7	8
A1	Orange/橙	-	-	OFF	+	+	+	OFF	-
A2	Yellow/黄	+	+	OFF	-	-	-	OFF	+
B1	Red/红	OFF	-	-	-	OFF	+	+	+
B2	Black/黑	OFF	+	+	+	OFF	-	-	-

⚠️ Coil resistance check / 线圈电阻: Coil A = Coil B = 92 ± 6 Ohm  
Please check motor type before referring to excitation sequence / 参考励磁顺序前请检查电机形式