

Installation guide

Electric regulating valves

Type CCMT 3 – 10 Light

027R7256

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<p>Refrigerant: R744 For other refrigerants, contact Danfoss.</p>	<p>Ambient temperature: Min. -40 °C / -40 °F Max. 50 °C / 122 °F Fluid temperature: Min. -20 °C / -4 °F on valve inlet Min. -40 °C / -40 °F on valve outlet Max. 55 °C / 131 °F on valve inlet / outlet</p>	<p>Stepper motor type: Bipolar Total full steps: 210 Step rate: 100 stp/s Phase current: 350 mA RMS Coil resistance: 15 ohm</p>
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<p>Max working pressure: Steel Connections : 140 bar / 2030 psig Bi-metal Connections : 130 bar / 1885 psig Note! Bimetal Connections : 120 bar / 1740 psig for UL approval.</p>	<p>⚠ Note!</p> <ul style="list-style-type: none"> CCMT valves are delivered in open position, ready for brazing. Filter with a maximum mesh of 100 µm recommended to install on the inlet line that can resist particles size above 100 µm.
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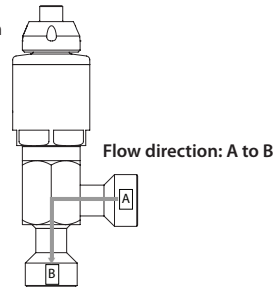
⚠ Warning! Do not connect directly to AC / DC power source. Connect valve to appropriate controller/driver only. Do not operate valve while assembling or disassembling.



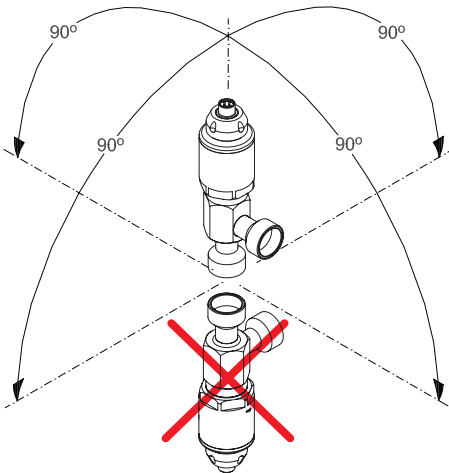
For more language options and more information on the valve refer to the website.

ccmt.danfoss.com

Flow direction

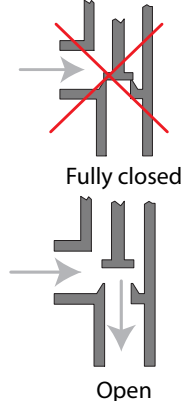


Mounting direction

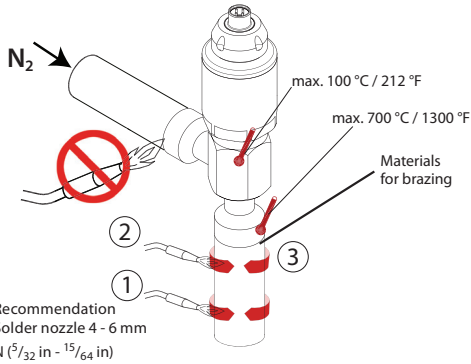


Warning!

- Do not disassemble the valve before brazing or welding.
- Valve must be open during brazing and welding.



Brazing



Materials used for brazing:

- Flux: Metalli tenacity No. 5 Powder or Braze Tec special h paste.
- Filler: Silver-Flo 55 (BS:AG 14/ DIN L-Ag55 Sn) or Silver-Flo 56 (AWS B Ag-7).

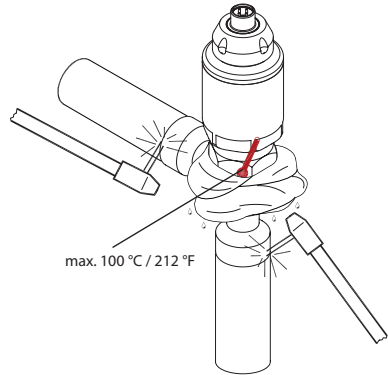


Warning

Filler metals containing Phosphor i.e. BS: CP 1/ DIN L-Ag 15P or BS: CP 3/ DIN L-Ag P7 must not be used.

Note: N2 gas from opposite side of soldering point.

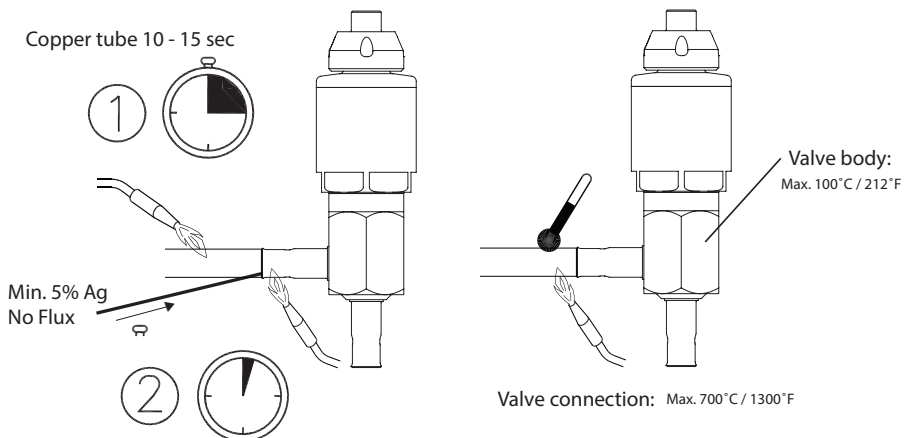
Welding



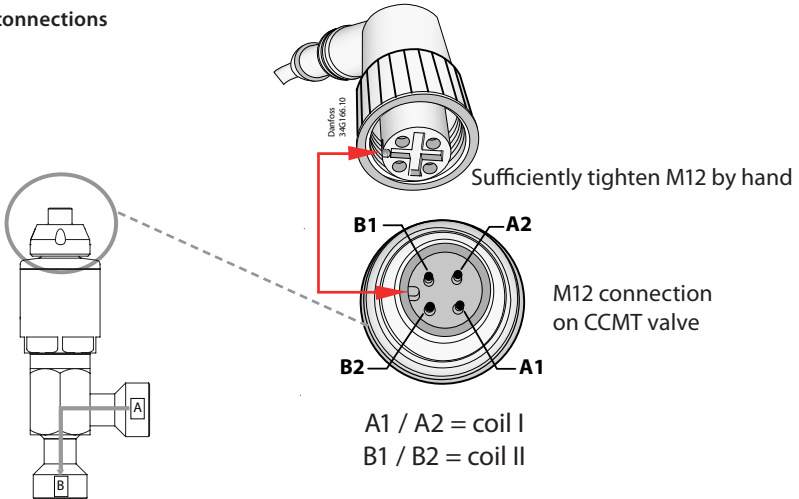
Recommendation for TIG welding

- Power approximately 60A.
- Use Shield gas charge - Argon.
- Material for welding - approximately 2 mm thick stainless steel alloy.

Bi-Metal Brazing



Electrical connections

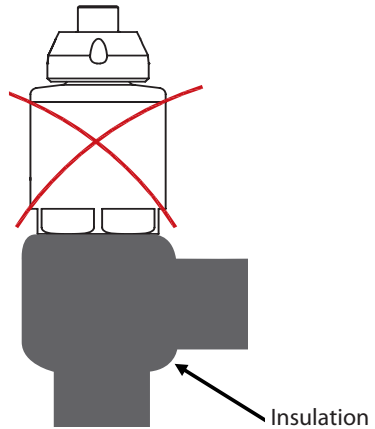


Insulation

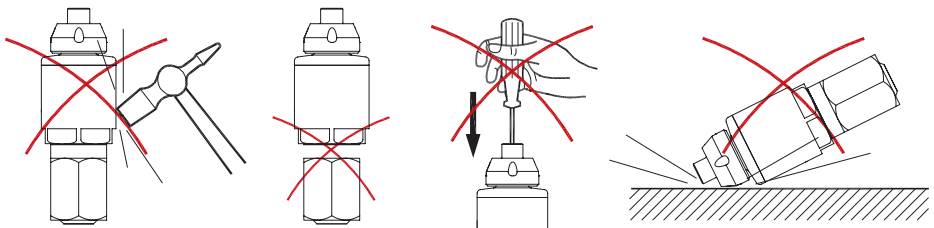
When used with duty cycle in a range from 20% to 50% or with Danfoss AK-XM 208C stepper driver:

- Insulation is not to be used on valve motor
- Insulation is acceptable on the valve body only

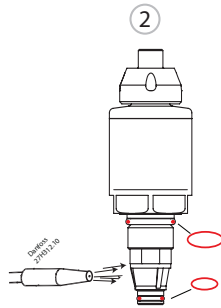
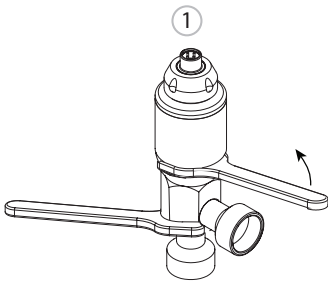
Note: operation with duty cycle above 50% is not possible irrespective of insulation method.



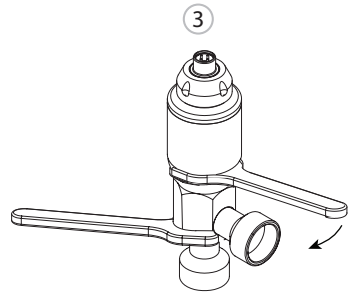
Warning



Service only



Compressed air to remove dirt
Replace O-ring



Max. torque:
20 Nm / 14.8 ft-lbf