

Installation guide

Electric regulating valves

Type CCMT 3 – 10 Light

027R7256

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Refrigerant:

R744

For other refrigerants, contact Danfoss.

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

Stepper motor type: Bipolar**Total full steps:** 210**Step rate:** 100 stp/s**Phase current:** 350 mA RMS**Coil resistance:** 15 ohm**Max working pressure:**

Steel Connections : 140 bar / 2030 psig

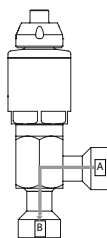
Bi-metal Connections : 130 bar / 1885 psig

Note! Bimetal Connections :

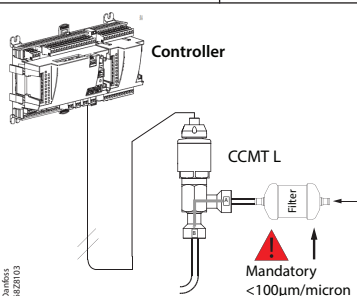
120 bar / 1740 psig for UL approval.



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

Flow direction

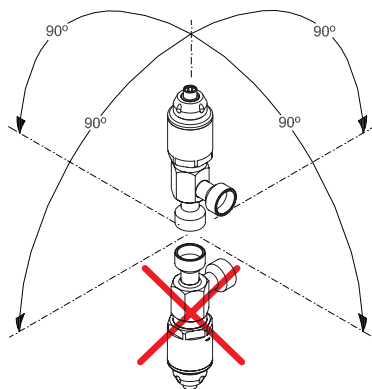
Flow direction: A to B

**Note!**

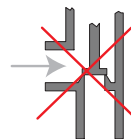
- CCMT valves are delivered in open position, ready for brazing.
- Filter with a maximum mesh of 100 µm is mandatory to install on the inlet line that can resist particles size above 100 µm.



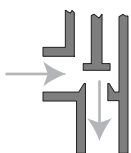
Warning! Do not connect directly to AC / DC power source.
Connect valve to appropriate controller/driver only. Do not
operate valve while assembling or disassembling.

Mounting direction**Warning!**

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

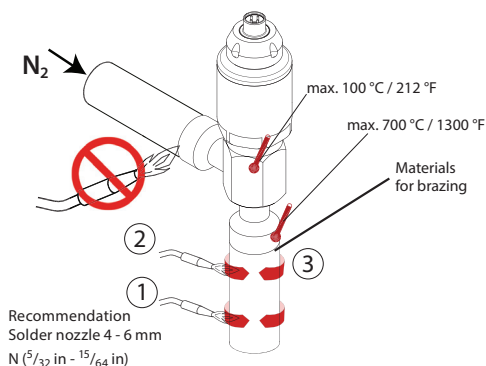


Fully closed



Open

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).

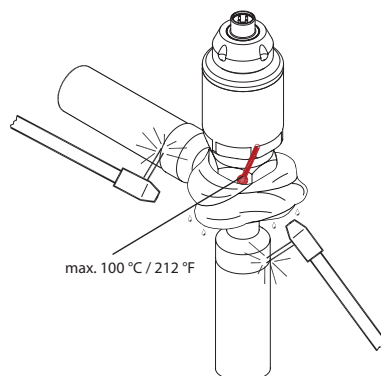


Warning

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.

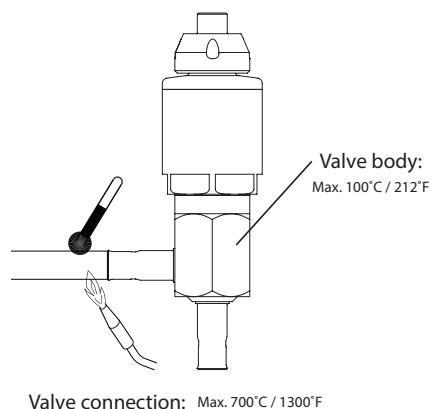
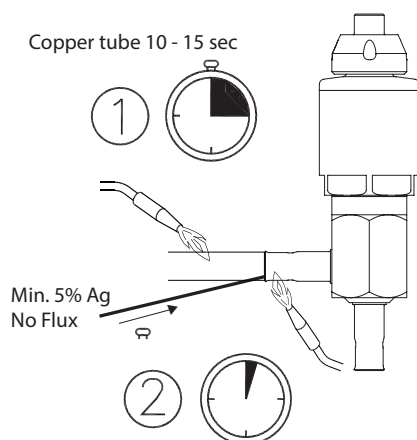
Welding



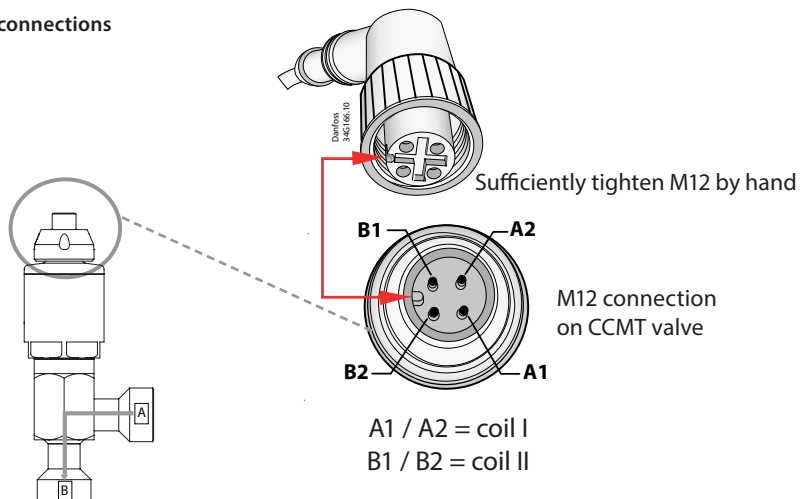
Recommendation for TIG welding

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

Bi-Metal Brazing



Electrical connections

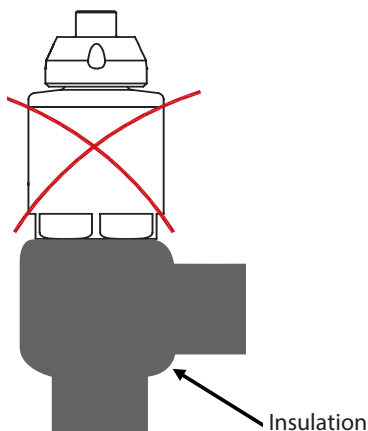


Insulation

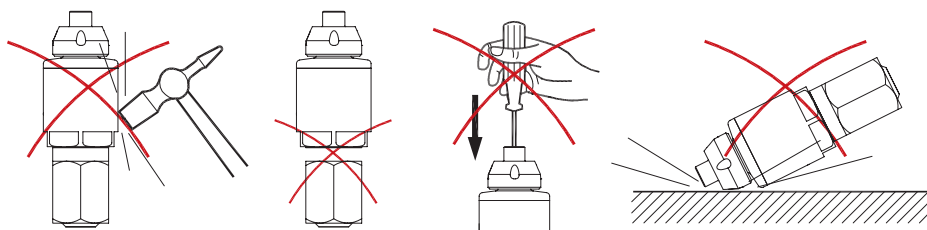
When used with duty cycle in a range from 20% to 50% or with Danfoss AK-XM 208C stepper driver:

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

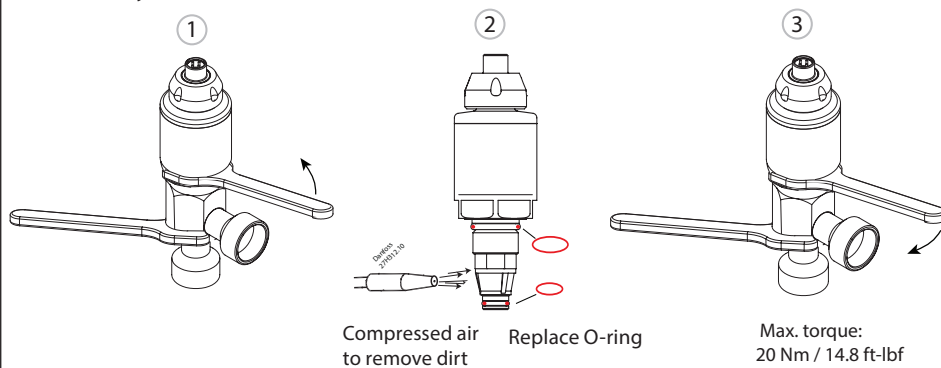
Note: operation with duty cycle above 50% is not possible irrespective of insulation method.



Warning



Service only



Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product.

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