

## CCMT Electric Regulating Valve

# Cost-efficient, safe & simple

## For a better control of CO<sub>2</sub> applications

Designed for better high-pressure transcritical control and medium pressure by-pass control.



The CCMT is a highly reliable electric pressure regulating valve optimized for transcritical CO<sub>2</sub> refrigeration. The valve has versatile applications in the transcritical system. The valve is capable of high pressure gas cooler control (transcritical). The CCMT can be used as gas by-pass valve (medium pressure control). If desired, the valve can also be used as a normal expansion valve for evaporators\*.

### CCMT 16, 24, 30, 42

With the CCMT electric regulating valve sizes 16, 24, 30 & 42 you get a fully serviceable three-in-one solution with valve, transmitter\*\* and filter integrated into one, compact unit. The cartridge design of the component means that all functional parts are easy to service and replace; not even the orifice remains in the housing when the valve is disassembled. When you exchange the cartridge, you immediately get a brand new valve, in a matter of seconds. At the same time, the integration of valve, transmitter and filter into one unit allows easy installation with fewer connections and thus reduced risk of leakage. CCMT comes with solder, brazing and weld connections to make it fit in any system.

\* Does not apply to CCMT Light – verification tests in progress  
\*\* There are code numbers without MBS transmitter available

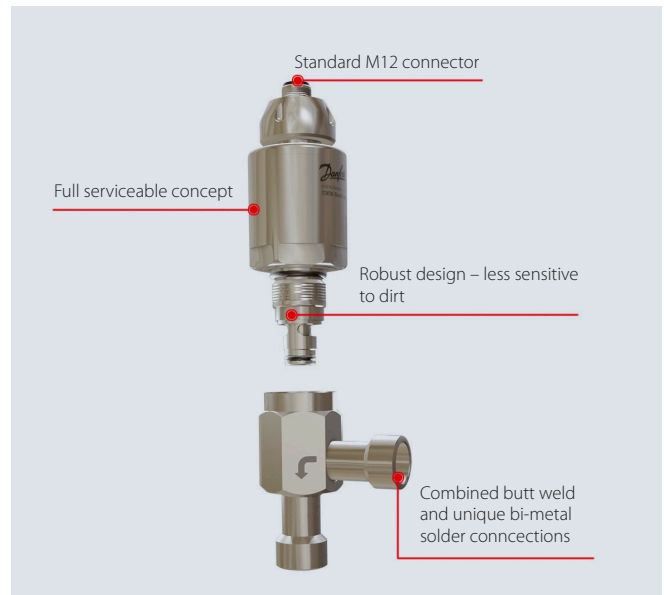


### CCMT 3L, 5L, 8L

The CCMT Light is the latest addition to our CO<sub>2</sub> portfolio. The valve is robust, accurate and easy-to-use and focuses on stress-free valve installation and field service. It is designed to have a high tolerance for dirt and debris which reduces service-related incidences and improves long-term system reliability. Installation time is decreased because the valve is delivered in open position – this means it is ready for welding / brazing which lowers production costs and increases productivity.

### A perfect fit for all CO<sub>2</sub> refrigeration systems

The complete CCMT range covers CO<sub>2</sub> refrigeration systems of all types sizes – from very small applications to large systems. The CCMT Light is optimum for condensing units or small packs up to 100 kW and the CCMT 16-42 for medium to large packs from 100 kW up to 600 kW.



|                                | CCMT 16-42   | CCMT 3L - 8L  |
|--------------------------------|--|---|
| Compatible refrigerants        | R744   |   |
| MOPD                           | 90 bar / 1305 psi  |   |
| Max. working pressure (PS/MWP) | 140 bar / 2030 psig  | 140 bar / 2030 psig with steel connections<br>130 bar / 1885 psig with Bi-metal connections |
| Material specification         | Stainless steel<br>Weld/solder combo connections   |   |
| Build in strainer / filter     | Yes, 250micron   | No  |
| Comply with P.E.D.             | Fluid group I / Article 3, paragraph 3   |   |
| Approval                       | CE, UL, EAC, CRN   | CE, EAC   |
| Stepper motor type             | Bi-polar – permanent magnet  |   |
| Motor enclosure                | IP 67  |   |
| Duty cycle                     | 100% is allowed<br>20% recommended   | 20% duty cycle  |
| Step rate                      | Max 150 steps/sec (constant voltage drive)<br>Max 200 steps/sec. (chopper current drive) | Max 100 steps/sec. (chopper current drive)  |
| Total full steps               | CCMT 16: 800<br>CCMT 24: 1400<br>CCMT 30: 2300<br>CCMT 42: 2200                          | 210   |
| Full travel time               | CCMT 16 : 4 sec. CCMT 24 : 7 sec.<br>CCMT 30 : 11.5 sec. CCMT 42 : 11 sec.               | 2.1 sec. (at 100 steps sec.)  |
| Electrical connection          | Integrated M12   |   |
| Compatible controllers/drivers | EKE 1A/1B/1C/1P, AK-PC 572, AK-PC 772A/781A/782A, AK-XM 208C                             |   |
| Battery back-up module         | EKE 2U   |   |
| Pressure transmitter           | Yes  | No  |

\* For full technical details, please refer to the product datasheet at [ccmt.danfoss.com](http://ccmt.danfoss.com)

### Related products

Superheat controller/driver,  
type EKE 1A/1B/1C/1P

Pack Controller, type AK-PC 572

Pack Controller,  
type AK-PC 772A/781A/782A

Electronic driver, type AK-XM 208C



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