

CCMT Electric Regulating Valve

Cost-efficient, safe & simple

For a better control of CO₂ applications

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



3-in-1

control of transcritical
CO₂ solutions



The sustainable solution for CO₂ refrigeration

The CCMT is a highly reliable electric regulating valve optimized for transcritical CO₂ refrigeration. It is used to control the pressure in the transcritical system (gas cooler control) and it can be used as gas by-pass valve (medium pressure control). If desired, it can also be used as a normal expansion valve for evaporators.

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 get a brand new valve. 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.



Technical Data*	
Compatibility refrigerants	R744 and other refrigerants. Not applicable for flammable refrigerants and Ammonia.
MOPD	90 bar / 1305 psi
Max. working pressure (PS/MWP)	140 bar / 2030 psig
Material specification	Stainless steel Weld/solder combo connections
Build in strainer / filter	Yes, 250 micron
Comply with P.E.D.	Fluid group I / Article 3, paragraph 3
Approval	CE, UL, EAC, cUL, CRN
Stepper motor type	Bi-polar - permanent magnet
Motor enclosure	IP 67
Duty cycle	100% duty cycle is allowed / 20% recommended
Step rate	Max. 150 steps/sec. (constant voltage drive) Max. 200 steps/sec. (chopper current drive)
Total full steps	CCMT 16: 800 CCMT 24: 1400 CCMT 30: 2300 CCMT 42: 2200
Full travel time at 50 steps/sec.	CCMT 16: 5.3 sec. CCMT 24: 9.3 sec. CCMT 30: 15.3 sec. CCMT 42: 14.7 sec.
Electrical connection	Integrated M12
Compatible controllers	EKD 316, EKD 316C, AK-XM 208C
Pressure transmitter	MBS 8250

* For full technical details, please refer to the product datasheet at ccmt.danfoss.com

Related Products

Get the best out of your transcritical CO₂ system with Danfoss ADAP-KOOL® solutions.



AK-PC 772 Transcritical Mini-Booster Controller



AK-PC 781 Integrated Transcritical Pack Controller



AK-XM 208 C Stepper output extension module

Ordering

Type	Connections (Combi)		Value		Code number
	Weld* [in]	Solder ODF X ODF [in]	K _v	C _v	Single Pack
CCMT 16	1x1 in.	1-1/8 x 1-1/8	1.6	1.85	027H7231
CCMT 24	1x1 in.	1-1/8 x 1-1/8	2.4	2.77	027H7232
CCMT 30	1x1 in.	1-1/8 x 1-1/8	3.2	3.70	027H7233
CCMT 42	1x1 in.	1-1/8 x 1-1/8	4.6	5.32	027H7234

*OD according to EN 10220

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.