PENN[®] COMMERCIAL REFRIGERATION



FIELD AND COLD ROOM CONTROLLERS

MULTI-STAGES CONTROL DEVICES

MS LINE GENERAL PURPOSE AND MULTI-STAGES

This range of versatile controls is intended for single or multistage (2 or 4 stages) applications such as heating, cooling but also humidity or pressure depending on the input type.

This range incorporates all control functions as required by modern applications and it exists in both panel mount and DIN rail enclosures. Particular attention has been given to its style in order to better suit your machine design.

This complete range of microprocessor based controls offers innovative features and "state of the art" technology.

FEATURES

- Attractive panel mount and DIN rail mount enclosure
- Up to 4 relays in panel mount enclosure
- 230 Volt power supply models available
- Accept temperature (A99) and 0-10 Volts sensor signal depending on models
- Power supply to sensors on 0–10 Volts models available from controller
- Accurate and interchangeable IP68 sensor
- Wide range of enclosures for sensors available
- Keyboard lock

440

SMD technology

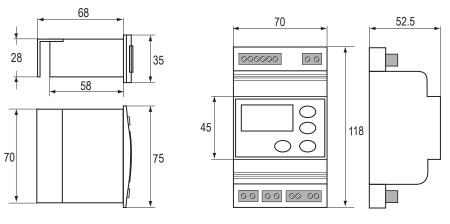


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MS LINE MULTI-STAGES CONTROL DEVICES

DIMENSIONS (in mm)



Panel model

DIN rail model

ORDERING INFORMATION

MS DISPLAY

CODES	RANGE	POWER SUPPLY	ENCLOSURE	INPUT	PROTECTION CLASS	ADDITIONAL FEATURES	
DIS12T-1C	40 to 70%	12 VAC/DC	Danal	A99 sensor (incl.)			
DIS230T-1C	-40 to 70°C	230 VAC		A99 Sensor (Incl.)	Overall IP20	 Accuracy: ±1 Unit Power Consumption: 1.5 VA 50/60 Hz 	
DIS12V-1C	- 0 to +100% (Rh)	12 VAC	Panel	0-10 V from humidity sensor (not Incl.)	Front IP54		
DIS230V-1C		230 VAC					

MS1 ONE-STAGE CONTROL

CODES	RANGE	POWER SUPPLY	ENCLOSURE	INPUT	OUTPUT RATING 250 VAC	ALARM OUTPUT	PROTECTION CLASS	ADDITIONAL FEATURES
MS1PM12RT-1C		12 VAC/DC	Panel	A99 sensor	SPST 8(3)A	Open Collector 40 VDC/100 mA	Overall IP20 Front IP54	
MS1PM230T-1C	-40 to 70°C	230 VAC			SPDT 8(3)A			 Accuracy: ±1 Unit Power Consumption:
MS1DR230T-1C		230 VAC	DIN rail	(incl.)	SPST 8(3)A		IP20	
MS1PM12RV-1C	-40 to 100	12 VAC	Panel	0-10 V	SPST 8(3)A		Overall IP20 Front IP54	
MS1PM230V-1C		230 VAC			SPDT 8(3)A			2 VA 50/60 Hz
MS1DR230V-1C		230 VAC	DIN rail		SPST 8(3)A		IP20	





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OREDERING INFORMATION

MS2 TWO-STAGE CONTROL

CODES	RANGE	POWER SUPPLY	ENCLOSURE	INPUT	OUTPUT RATING 250 VAC Each stage (1-2)	PROTECTION	ADDITIONAL FEATURES
MS2PM12RT-1C		12 VAC/DC	Panel	A99	SPST 8(3)A	Overall IP20 Front IP54	
MS2DR230T-1C	-40 to 70 °C	230 VAC		sensor	SPST 8(3)A		Accuracy:
MS2DR48DT-1C	•	12-24 VAC/DC 48 VDC	DIN rail	(incl.)	SPDT 8(3)A	IP20	±1 °C • Power - Consumption: 2 VA 50/60 Hz
MS2PM12RV-1C	-40 to 100	12 VAC	Panel	0-10 V	SPST 8(3)A	Overall IP20 Front IP54	
MS2DR230V-1C		230 VAC	DIN rail		SPST 8(3)A	IP20	

MS4 FOUR-STAGE CONTROL

					OUTPUT RATING 250 VAC		
CODES	RANGE	POWER SUPPLY	ENCLOSURE	INPUT	Each stage (1 to 4)	PROTECTION CLASS	ADDITIONAL FEATURES
MS4PM12RT-1C	-40 to 70°C	12 VAC/DC	Panel		SPST 8(3)A	Overall IP20 Front IP54 IP20	 Accuracy: ±1 Unit Power Consumption: 2 VA 50/60 Hz
MS4DR230T-1C		230 VAC	DIN rail	A99 sensor (incl.)	SPST 8(3)A		
MS4DR48T-1C		12-24 VAC/DC 48 VDC			SPDT 8(3)A		

