

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.

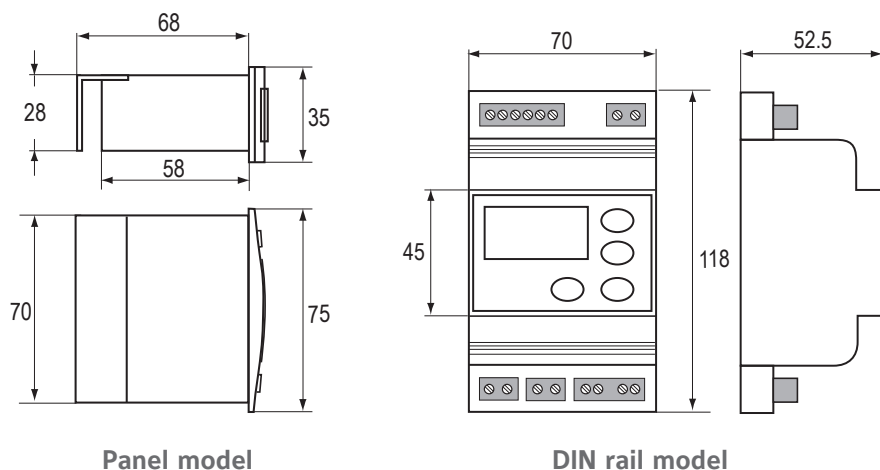


FEATURES

- 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
- SMD technology



DIMENSIONS (in mm)



ORDERING INFORMATION

MS DISPLAY

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

MS1 ONE-STAGE CONTROL

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



ORDERING INFORMATION

MS2 TWO-STAGE CONTROL

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

CODES	RANGE	POWER SUPPLY	ENCLOSURE	INPUT	OUTPUT RATING 250 VAC	PROTECTION CLASS	ADDITIONAL FEATURES
					Each stage (1 to 4)		
MS4PM12RT-1C	-40 to 70°C	12 VAC/DC	Panel	A99 sensor (incl.)	SPST 8(3)A	Overall IP20 Front IP54	• Accuracy: ±1 Unit • Power Consumption: 2 VA 50/60 Hz
MS4DR230T-1C		230 VAC	DIN rail		SPST 8(3)A		
MS4DR48DT-1C		12-24 VAC/DC 48 VDC			SPDT 8(3)A	IP20	