



Product designation			Frequency monitoring relays
Product type designation			PMF20
General characteristics			
Description			Minimum and maximum frequency control
Type of system			Single-phase
Power supply			
Auxiliary supply voltage U_s			Self powered
Operating voltage range			0.85...1.1 U_e
Rated frequency	Hz	50 or 60 Hz selectable	
Power consumption Max	VA	10	
Power dissipation Max	W	1.5	
Control circuit			
Rated voltage to control (U_e)		min	VAC 220
		Max	VAC 240
Frequency set-point (% rated frequency)		min	% 90...99
		Max	% 101...110
Tripping delay		s	0.1...20
Resetting time		s	0.1...20
Resetting hysteresis		%	0.5
Type of reset		Automatic	
Repeat accuracy		%	<±0.1
Voltage inputs			
Frequency range		Hz	40...70
Relay outputs			
Number of relays		Nr.	1
Relay state		Normally energised De-energises at tripping	
Contact arrangement		1 changeover SPDT	
Rated operational voltage AC (IEC)		VAC	250
Maximum switching voltage		VAC	400
IEC Conventional free air thermal current I_{th}		A	8
UL/CSA and IEC/EN 60947-5-1 designation		B300	
Electrical life (with rated load)		cycles	100000
Mechanical life		cycles	30000000
Functions			
Modular version		2U	
Minimum AC voltage		Yes	

Maximum AC voltage	Yes
Minimum frequency	No
Maximum frequency	No

Indications

Indication	1 green LED for power on and tripping and 2 red LEDs for min/max tripping
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Connections

Terminals type	Screw
Tightening torque for terminals	

max	Nm	0.8
max	lbin	7

Conductor cross section			
AWG/Kcmil	min	AWG	24
	Max	AWG	12
IEC	min	mm ²	0.2
	Max	mm ²	4

Insulations

Rated insulation voltage Ui	V	575
Rated impulse withstand voltage Uimp	kV	6
Operating frequency withstand voltage	kV	4

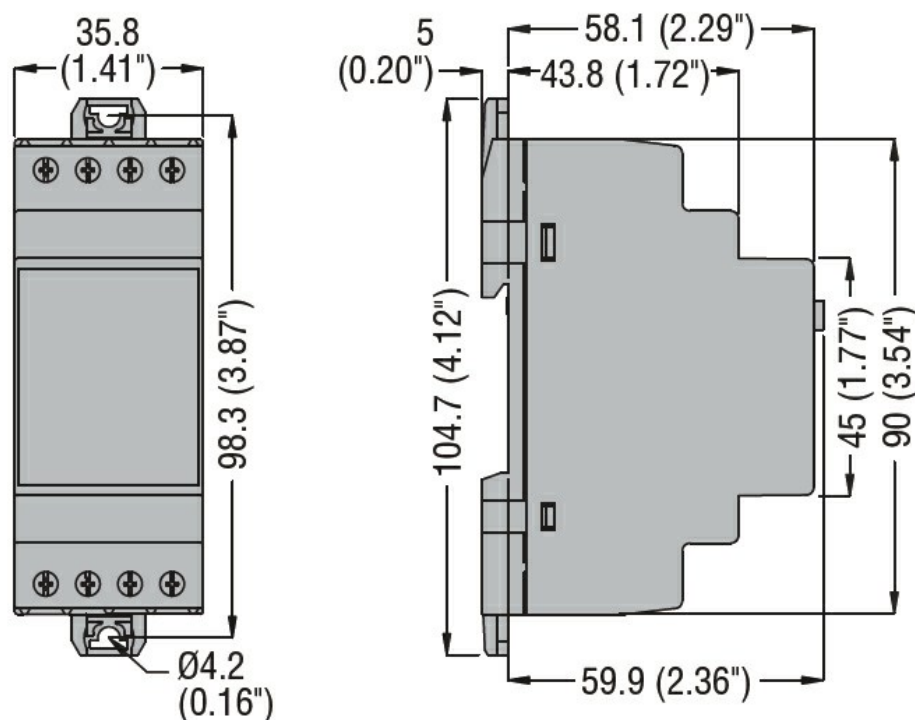
Ambient conditions

Temperature			
Operating temperature	min	°C	-20
	max	°C	+60
Storage temperature	min	°C	-30
	max	°C	+80

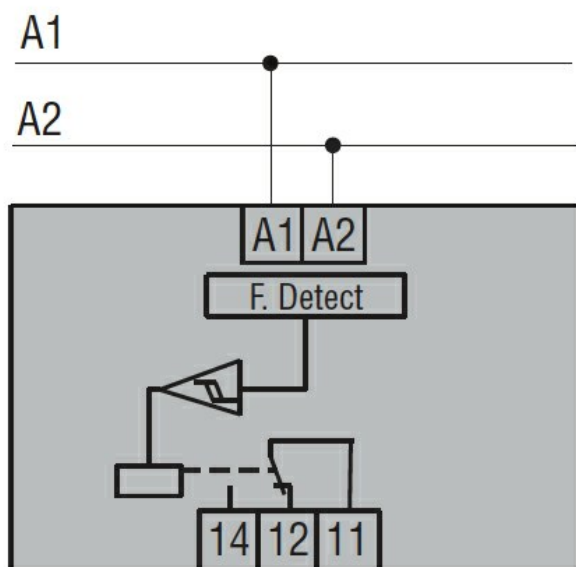
Housing

Reading		
Execution (n° of modules)		2
Material		Self-extinguishing polyamide
Mounting		35mm DIN rail (IEC/EN 60715)
IEC degree of protection		IP40 on front; IP20 at terminals
Dimensions (W x H x D)	mm	35.8 x 104.7 x 64.9
Weight	g	125

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 14

IEC/EN 60255-5

IEC/EN 61000-6-2

IEC/EN 61000-6-3

UL 508

Certificates

cULus

EAC

ETIM classification

ETIM 8.0

EC001442 -
Frequency
monitoring relay