DATASHEET - EMR6-N100-N-1



Level monitoring relays, 110 - 130 V AC, 50/60 Hz, 220 - 240 V AC, 50/60 Hz, 5 - 100 kΩ

Powering Business Worldwide

Part no.	**EMR6-N100-N-1**
Catalog No.	**184758**
Eaton Catalog No.	**EMR6-N100-N-1**

Technical data

General

Standards			IEC/EN 60255-6, EN 61557, UL, CSA, GL, DNV, RMRS, EAC, RCM
Lifespan, mechanical	Operations	x 10^6	10
Climatic proofing			Damp heat, cyclical to IEC 60068-2-30: 24 h cycle, 55° C, 93% relative humidity, 96 h
Ambient temperature			
Operation		°C	
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	+ 60
Storage		°C	- 40 - 85
Mounting position			As required
Shock resistance			Class 2
Degree of protection			
Terminals			IP20
Enclosures			IP50
Terminal capacities		mm^2	
Solid		mm^2	1 x 0.5-2.5 (1 x 18-14 AWG)
Flexible with ferrule		mm^2	2 x 0.5-1.5 (2 x 18-16 AWG)
Standard screwdriver		mm	5.5 x 0.8
Tightening torque		Nm	0.5 - 0.8
Fixing			Snap fixing, top-hat rail IEC/EN 60715

Contacts

Rated impulse withstand voltage	U_{imp}	V AC	4000
Overvoltage category/pollution degree			III/3

Power supply

Supply voltage			110 - 130 V AC, 50/60 Hz 220 - 240 V AC, 50/60 Hz
Voltage tolerance		x U_c	0.85 - 1.1
Power consumption		VA	2.6
Rated frequency	f	Hz	50 - 60
Duty factor		% DF	100

Measuring circuits

Sensor inputs			
B1			Earth reference sensor
B2			Maximum level
B3			Minimum level
Sensor voltage		V AC	6

Status indication

Supply voltage			LED, green
Output relay energized			LED, yellow
Status indicator (LED)			Green, solid: Supply voltage Green, flashing: Release delay active Yellow, solid : MIN and MAX occupied Yellow, flashing: Min occupied Yellow, solid (R): Output relay excited

Relay output contacts

Rated operational voltage	U_e	V AC	300

Rated operational current	I_e	A	
AC-12 at 230 V	I_e	A	5
AC-15 with 230 V	I_e	A	3
Lifespan, electrical (AC-12/230 V/4 A)	Operations	x 10^6	
Lifespan, electrical	Operations	x 10^6	0.1
Short-circuit rating			
max. fuse	Fast/gL	A	5

Electromagnetic compatibility (EMC)

Electromagnetic compatibility			IEC/EN 60947-6-2
ESD	Air/contact discharge	kV	IEC/EN 61000-4-2 level 3
HF-immunity to radiation			IEC/EN 61000-4-3 level 3
Burst			IEC/EN 61000-4-4 level 3
Surge			IEC/EN 61000-4-5 Level 4
HF-immunity to line-conducted interference			IEC/EN 61000-4-6 level 3

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60

Technical data ETIM 7.0

Relays (EG000019) / (Fill) level monitoring relay (EC001447)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Level monitoring relay (ecl@ss10.0.1-27-37-18-13 [AKF107014])

Type of electric connection			Screw connection
Rated control supply voltage Us at AC 50HZ		V	110 - 240
Rated control supply voltage Us at AC 60HZ		V	110 - 240
Rated control supply voltage Us at DC		V	0 - 0
Voltage type for actuating			AC
With detachable clamps			No
Number of inputs for electrodes			3
Min. adjustable operate delay time		s	0
Max. permitted operate delay time		s	0
Min. adjustable off-delay time		s	0
Max. permitted off-delay time		s	0
Response value sensitivity adjustable			Yes
Number of contacts as normally closed contact			0
Number of contacts as normally open contact			0
Number of contacts as change-over contact			1
Physical measurement principle			Conductive
Cascadable			
Width		mm	23
Height		mm	85
Depth		mm	110

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