

## Level monitoring relays, 110 - 130 V AC, 50/60 Hz, 0.1 - 1000 kΩ



Part no.	EMR6-N1000-N-1
Catalog No.	184756
Alternate Catalog No.	EMR6-N1000-N-1
EL-Nummer (Norway)	4101952

## Delivery program

Product range		EMR Measuring and monitoring relays
Basic function		Level monitoring relays
Monitoring of		Fill level of conductive liquids Mixture ratio of conductive liquids
adjustable sensitivity range		0.1 - 1000 kΩ
Supply voltage		110 - 130 V AC, 50/60 Hz 220 - 240 V AC, 50/60 Hz
Width	mm	22.5

## Technical data

## General

Standards		IEC/EN 60255-6, EN 61557, UL, CSA, GL, DNV, RMRS, EAC, RCM
Lifespan, mechanical	Operations $\times 10^6$	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 <sup>2</sup>	
Solid	mm <sup>2</sup>	1 x 0.5-2.5 (1 x 18-14 AWG)
Flexible with ferrule	mm <sup>2</sup>	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 <sub>imp</sub>	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 <sub>c</sub>	0.85 - 1.1
Power consumption	VA	2.6
Rated frequency	f	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 <sub>e</sub>	V AC	300
Rated operational current	I <sub>e</sub>	A	
AC-12 at 230 V	I <sub>e</sub>	A	5
AC-15 with 230 V	I <sub>e</sub>	A	3
DC-12 at 24 V	I <sub>e</sub>	A	2
Minimum Switching capacity			10 mA / 12 V
Lifespan, electrical (AC-12/230 V/4 A)	Operations	$\times 10^6$	
Lifespan, electrical	Operations	$\times 10^6$	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 8.0

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		No	
Width	mm	22.5	
Height	mm	85.6	
Depth	mm	103.7	

