

UJ

MEASURING RELAYS



APPLICATIONS

- > Voltage measuring relays with two changeover contacts, mounted on "J" boxes, able to be plugged into the various types of "J" sockets.

MAIN FEATURES

- > Wide range and high accuracy of voltage setting.
- > High durability and operational guarantee.
- > According with the most demanding test standards: IEC, EN, IEEE, and bearing the CE mark.
- > These instantaneous measuring relays has been designed to control the voltage level in electrically contaminated installations:
 - > Control of maximum or minimum voltages in DC and AC.
 - > Monitoring of voltages on automatic line switching.
- > The great power of the output contacts makes possible direct action on HV and MV switchgear, because their making/breaking capacities, continuous through current and overvoltage capacity guarantee perfect insulation.
- > Absolutely reliable for use in salty, tropical atmospheres, and in general in those atmospheres which need protection with transparent cover.

TECHNICAL SPECIFICATIONS

Electrical Characteristics

Measuring circuits	Consumption	< 0,01 VA	< 0,01 VA	< 0,01 VA	< 0,1 VA
	Regulations**	(*)2÷12 Vdc - Vac	4÷24 Vdc - Vac	20÷120 Vdc - Vac	80÷480 Vdc - Vac
	Resistance	280 k Ω	560 k Ω	2.800 k Ω	2.800 k Ω
** For measuring Vdc it must be multiplied by 0,9 the value of the name-plate adjust * Special rated for open delta connection					
Overload in measuring circuit	UJ-2		Twice the maximum value of operation		
	UJ-2E (*)		180 V; 50 Hz permanently		
Auxiliary supply (U _N)	Vac		110, 127, 220, 230 V 50/60 Hz		
	Vdc		19÷26,5 V 38÷53 V 57÷80 V 70÷130 V 88÷138 V 176÷242 V		
U _N maximum	1,5 U _N during 30 s				
Consumptions	Auxiliary supply	Vdc		Vac	
	Output relay deactivated	1,5 W		2,75 VA	
	Output relay activated	2,6 W		5,4 VA	
Timing on switching on	For relay adjusted for maximum operation for value equal to 150% of the rated value: < 60 ms				
Timing on switching off	For relay adjusted for minimum operation < 80 ms for value equal to 50% of the rated value				
Accuracy	In measurement at the end of scale			E ≤ 5%	
	Repetition			E < 1%	
	Return			< 5% for 50 Hz < 6,5% for 60 Hz < 8% for Vdc	
Contacts	Permanent current		10 A		
	Instantaneous current		80 A/200 ms 150 A/10 ms		
	Making capacity		40 A/0,5 s/110 Vdc		
	Breaking capacity		0,8 A/110 Vdc no inductive circuit		
	U _{max} , opened contact		250Vdc/400Vac		
Operating temperature	-10°C +55°C				
Operating humidity	93%/40°C				
Seismic characteristics according to EE501 Degree of ZPA	3 g/33 Hz				

Construction standards

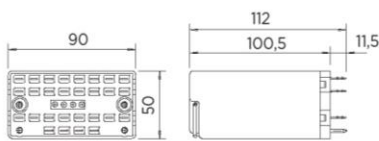
Electrical test IEC60255	Dielectric test	2 kV/50 Hz/1 min
	Surge withstand	5 kV/1,2/50 μ s
	Insulation	> 2000 M Ω /500 Vdc
Inflammability tests IEC60692-2-1	Plastic materials	UL94: V0 IEC60695: 850°C/30 s
Cover protection degree	IEC60529, EN60529: IP40	
Climatic tests IEC60255-7	Dry heat IEC60068-2-2	Non-dissipating sample: +70°C/96 h Dissipating sample: +55°C/96 h
	Cyclic humid heat	IEC60068-2-30: +55°C/12 h
	Cold 100 cycles IEC60068-2-1	Non-dissipating sample: -10°C/2 h
	Thermal aging test IEC60255-7	At nominal voltage (U_N) +55°C/1440 h

Electromagnetical compatibility tests

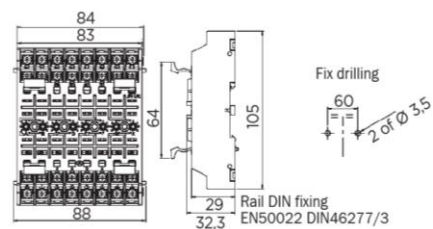
Electrostatic discharges EN61000-4-2, IEC61000-4-2	Air Mode (level 3)	± 8 kV
Radiated electromagnetic field (level 3) EN61000-4-3, IEC61000-4-3		10 V/m
Fast transient (burst) (level3) EN61000-4-4, IEC61000-4-4	Aux. supply	± 2 kV/5 kHz
	Inputs	± 1 kV/5 kHz
Impulse test voltage (surge) (I.3) EN61000-4-5, IEC61000-4-5	Common mode	± 2 kV
	Differential mode	± 1 kV

DIMENSIONS

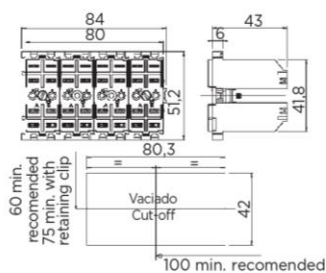
Relay



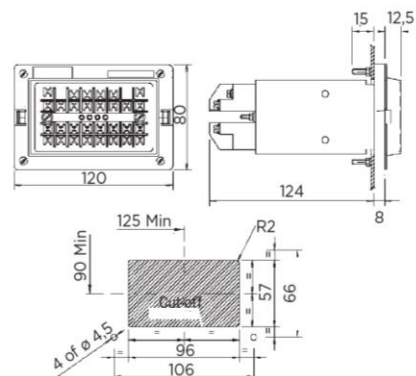
JN-DE IP10 • JN-DE2C IP10 Socket



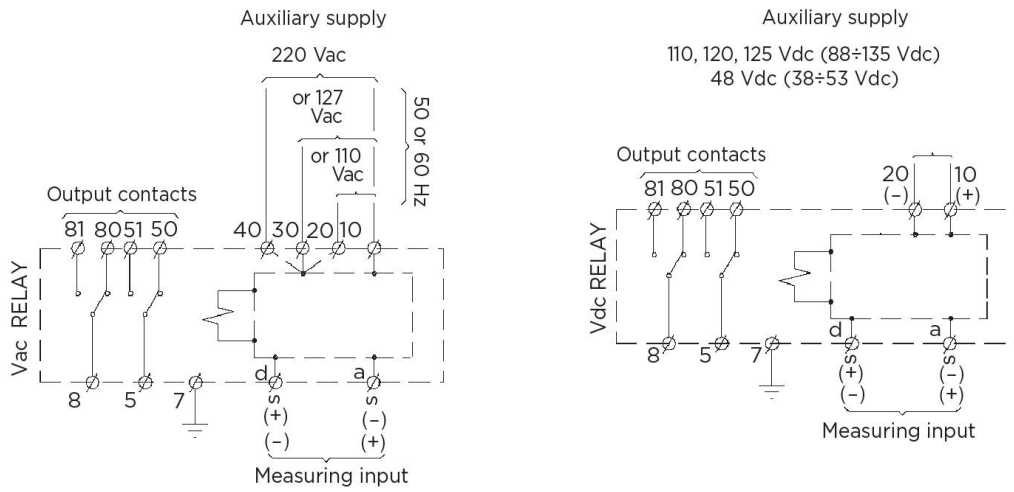
JN-TR OP • J-TRC OP • JN-TR2C OP Socket



J-EMP OP Socket



CONNECTIONS



OTHER CHARACTERISTICS

Kind of sockets

	Screw	Faston	Double Faston
Front connection	JN-DE IP10 JN-DE IP20		JN-DE2C IP10 JN-DE2C IP20
Rear connection	J-TR OP	J-TRC OP	J-TR2C OP
Flush mounting	J-EMP OP		

Weight

UJ	550 g
JN-DE IP10, JN-DE IP20; JN-DE2C IP10, JN-DE2C IP20	225 g
J-TR OP, J-TRC OP, J-TR2C OP	180 g
J-EMP OP	400 g

Complements and accessories

Retaining springs
Function signs on the extraction ring
Security pins

APPLICATIONS

