

Measuring and Monitoring Relays Series UR5

Technical Data (Part 2)

		UR5U1011	UR5U3011	UR5U3N11	UR5I1011
ACCURACY	Base accuracy	< 5 % of rated value			
	Adjustment accuracy	± 5 % of rated value	-		± 5 % of rated value
	Repetition accuracy	< 2 % of rated value			
	Voltage influence	-			
	Temperature influence	≤ 0.05 % / °C			
AMBIENT CONDITIONS	Ambient temperature (IEC 60068-1)	-25 °C to +55 °C			
	Storage temperature	-25 °C to +70 °C			
	Transport temperature	-25 °C to +70 °C			
	Relative humidity (IEC 60721-3-3 class 3K3)	15 % to 85 %			
	Pollution degree (IEC 60664-1)	2			2, if built in 3
	Vibration resistance (IEC 68-2-6)	10 to 55 Hz, 0.35 mm	-		10 to 55 Hz, 0.35 mm
	Shock resistance (IEC 68-2-27)	15 g, 11 ms	-		15 g, 11 ms
	*The distance between the devices must be greater than 5 mm!				

Technical Data (Part 3)








		UR5P3011	UR5R1021	UR5L1021
INDICATORS	Green LED ON/OFF	Indication of supply voltage		
	Yellow LED ON/OFF	Indication of relay output	-	Indication of relay output
	Red LED ON/OFF	-	Indication of failure	
MECHANICAL DESIGN	Housing	Self-extinguishing plastic housing		
	Degree of protection housing	IP40		
	Mounting (EN 60715)	DIN-rail TS 35		
	Terminal (VBG 4, PZ1 required)	Shockproof terminal connection		
	Degree of protection terminal	IP20		
	Mounting position	Any		
	Tightening torque	Max. 1 Nm		
	Terminal capacity	1 x 0.5 to 2.5 mm ² with/without multicore cable end 1 x 4 mm ² without multicore cable end 2 x 0.5 to 1.5 mm ² with/without multicore cable end 2 x 2.5 mm ² flexible without multicore cable end		
INPUT CIRCUIT	Supply voltage	Measured voltage	230 V~	
	Rated voltage U _N	3(N) 230 / 400 V~	230 V~	
	Terminals	N-L1-L2-L3	A1 - A2	
	Tolerance	-30 % to +30 % of U _N	-15 % to +10 % of U _N	
	Rated consumption	8 VA (0.8 W)	1.3 VA (1 W)	2 VA (1 W)
	Rated frequency	AC 48 to 63 Hz		
	Duty cycle	100 %		
	Reset time	500 ms	250 ms	500 ms
	Residual ripple for DC	-		
	Drop out voltage	> 20 % of the supply voltage	> 30 % of the supply voltage	
	Overvoltage category (IEC 60664-1)	III		
	Rated surge voltage	4 kV	6 kV	
	OUTPUT CIRCUIT	Number of contacts and type	1 potential free CO	
Rated voltage		250 V~		
Terminals		-	11 - 12 - 14	-
Switching capacity		1250 VA (5 A / 250 V~)	1250 VA AC1 B300/P300 (IEC 60947-5-1), therm. constant current 5 A	
Fusing		5 A fast acting		
Mechanical service life		15 x 10 ⁶ operations	20 x 10 ⁶ operations	
Electrical service life		100 x 10 ³ operations at 1000 VA resistive load	2 x 10 ⁵ operations at 1000 VA resistive load	
Switching frequency (IEC 60947-5-1)		Max. 6 / min at 1000 VA resistive load		
Overvoltage category (IEC 60664-1)		III		
Rated surge voltage		4 kV	6 kV	

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Technical Data (Part 4)

		UR5P3011	UR5R1021	UR5L1021
MEASURING CIRCUIT	Measuring variable	3 (N)~, sinus, 48 to 63 Hz		
	Measuring input	Supply voltage		Conductive probes
	Terminals	(N) - L1 - L2 - L3	T1 - T2 or T1 - T3	E1 - E2 - E3
	Overload capacity	Determined by tolerance specified for supply voltage		
	Internal resistance		< 1.5 kΩ	
	Response value (relay in off-position)		≥ 3.6 kΩ	
	Release value (relay in on-position)		≤ 1.65 kΩ	
	Disconnection (short circuit thermistor)	Yes	At T1 - T2	
		No	At T1 - T3	
	Measuring voltage T1-T2 (EN 60947-8)		≤ 7.5 V at R ≤ 4 kΩ	
	Asymmetry		5 % to 25 % adjustable or disengageable	
	Sensitivity			0.25 to 100 kΩ (4 mS to 10 S)
	Sensor voltage			12 V~
	Sensor current			Max. 7 mA
	Wiring distance (capacity of cable 100 nF / km)	Set value < 50 % Set value 100 %		Max. 1000 m Max. 100 m
Overvoltage category (IEC 60664-1)		III		
Rated surge voltage		4 kV	6 kV	
ACCURACY	Base accuracy	±5 % of maximum scale value	±5 %	-
	Adjustment accuracy	< 5 %		-
	Repetition accuracy	< 2 %	< 1 %	-
	Voltage influence		-	
CONTROL CONTACT R*	Temperature influence	≤ 0.05 % / °C	≤ 0.15 % / °C	-
	Function		Connection of an external reset key	
	Loadable		No	
	Line length R1 - R2		Max. 10 m (twisted pair)	
	Control pulse length		Min. 50 ms	
AMBIENT CONDITIONS	Reset		Potential free NO contact, terminals R1 - R2	
	Ambient temperature (IEC 60068-1)		-25 °C to +55 °C	
	Storage temperature		-25 °C to +70 °C	
	Transport temperature		-25 °C to +70 °C	
	Relative humidity (IEC 60721-3-3 class 3K3)		15 % to 85 %	
Pollution degree (IEC 60664-1)		2	2, if built in 3	2

*Note: The terminals **R2 - T2** are internal affiliated with each other!

DESCRIPTION	AVAILABLE	ORDER NO.
Voltage Monitoring Relays		
Voltage monitoring relay, 1 phase, 1CO		UR5U1011
Voltage monitoring relay with adjustable voltage range 160-240V, 3-phase, 1CO		UR5U3011
Voltage monitoring relay, 3 phase against N, fixed Us=195.5V, 1CO		UR5U3N11
Current Monitoring Relays		
Current monitoring relay 1 phase, input 230V, 1CO		UR5I1011
Phase Monitoring Relays		
Phase monitoring relay, 3 phase, 1CO		UR5P3011
Thermistor Monitoring Relays		
Thermistor monitoring relay, 1 phase, 1CO		UR5R1021
Level Monitoring Relays		
Level monitoring relay, 1 phase, 1CO		UR5L1021



Order no. blue: on stock, usually ready for delivery on the day of order