

Monitoring Relays

3UG Monitoring Relays for Electrical and Additional Measurements

Speed monitoring

Technical specifications

Type			3UG30/3UG35
Load capacity of the output relay	Rated operational current I_e	A	Max. 8
	AC-15/24 ... 400 V	A	3
	DC-13/24 V	A	1
	DC-13/125 V	A	0.2
	DC-13/250 V	A	0.1
Minimum contact load		mA	5 /17 V for a fault of 1 ppm
Output relay with DIAZED fuse¹⁾	gL/gG operational class	A	4
Electrical endurance	Operating cycles		1×10^5
Mechanical endurance	Operating cycles		2×10^6
Ambient temperature	During operation	°C	-20 ... + 50
	During storage	°C	-30 ... + 70
Conductor connection	Solid	mm ²	2 x (0.5 ...2.5)
	Finely stranded, with end sleeves	mm ²	2 x (0.5 ...1.5)
Degree of protection	Terminals		IP20
	Enclosure		IP40
Vibration resistance	According to IEC 60068-2-6	Hz/mm	10 ...150/0.035

¹⁾ Short-circuits without any relay contact welding according to DIN VDE 0660 Part 200.

Type			3UG30 51
Rated control supply voltage U_s		V	See Catalog LV 1, Selection Data (for AC voltages with electrical isolation by means of transformer, 24 V DC without electrical isolation)
Voltage tolerance			$0.85 \dots 1.15 \times U_s$
Maximum power consumption		W/VA	4 / 5
Set value		%	Adjustable to 10 ... 100 of the selected time setting range
Hysteresis		%	Typically 5 of the set value
Setting accuracy		%	10 referred to upper limit of time setting range
Repeat accuracy	At constant parameters	%	± 0.5
Deviations	With temperature fluctuations	%/°C	0.1
ON-delay T		s	Adjustable to 0.3 ... 30 ± 10 %
Signal input IN1¹⁾	(Input resistance 16 k)	V	Max. voltage 30, 3-wire sensor, pnp operation
Signal input IN2¹⁾	(Input resistance 1 k)		Floating contact, 2-wire NAMUR sensor
Voltage level for reliable operation	Level 1	V	4.5 ... 30
	Level 0	V	0 to 1
Sensor supply	+24 V / 0 V	mA	Max. 50 at 24 V (20 ... 35 V DC)
	+8 V2	mA	1 DC 8.2 V
Measuring range selectable (rotary switch on front))			
Time setting range			
• 0.1 ... 1 s	- Frequency	Hz	10 ... 1
	- Revolutions	min ⁻¹	600 ... 60
• 1 ... 10 s	- Frequency	Hz	1 ... 0.1
	- Revolutions	min ⁻¹	60 ... 6
• 0.1 ... 1 min	- Frequency	Hz	0.17 ... 0.017
	- Revolutions	min ⁻¹	10 ... 1
• 1 ... 10 min	- Frequency	Hz	0.017 ... 0.0017
	- Revolutions	min ⁻¹	1 ... 0.1
- Minimum pulse duration of signal		ms	5
	- Minimum interval between 2 pulses	ms	5
Function mode setting	With or without memory		Rotary switch on front side
Availability time after application of U_s		ms	200
Mains buffering time		ms	10

¹⁾ The sensors are not included in the scope of supply.