



Main

Commercial Status	Commercialised
Range of product	Zelio Control
Product or component type	Modular measurement and control relays
Relay type	Speed control relays
Relay name	RM35S
Relay monitored parameters	Overspeed Underspeed
Time delay range	0.6...60 s adjustable on energisation (0...10 % of the full scale value)
Switching capacity in VA	1250 VA
Minimum switching current	10 mA at 5 V DC
[Us] rated supply voltage	24...240 V AC/DC
Power consumption in VA	<= 5 VA AC
Measurement range	0.05...0.5 s 0.1...1 min 0.1...1 s 0.5...5 min 0.5...5 s 1...10 min 1...10 s
Utilisation category	DC-14 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 DC-12 conforming to IEC 60947-5-1 AC-15 conforming to IEC 60947-5-1 AC-14 conforming to IEC 60947-5-1 AC-13 conforming to IEC 60947-5-1 AC-12 conforming to IEC 60947-5-1

Complementary

Rest time in memory mode	1 s supply Un in memory mode on time delay >= 50 ms contact S2 in memory mode on time delay
Maximum switching voltage	250 V AC/DC
Supply voltage limits	20.4...264 V AC/DC
Power consumption in W	<= 3 W DC
Width	35 mm
Output contacts	1 C/O
Contacts material	Cadmium free
Nominal output current	5 A
Delay at power up	0.05 s
Hysteresis	5 % of threshold
Measurement accuracy	+/- 10 % of the full scale value
Repeat accuracy	+/- 0.5 % for time delay +/- 0.5 % for input and measurement circuit
Measurement error	< +/- 1 % over the whole range with voltage variation +/- 0.1 %/°C with temperature variation
Input frequency	0.0017...20 Hz
Response time	15 ms max on crossing the threshold
Polarity	Reversible polarity on DC supply
Threshold setting	10...100 %

Supply voltage for sensor	11.5...12.5 V
Supply current for sensors	50 mA for 24...240 V DC 50 mA for 24...240 V AC 40 mA for < 24 V DC at 25 °C 40 mA for < 24 V AC at 25 °C
Impulse duration	>= 5 ms low state >= 5 ms high state
Input compatibility	Volt-free contact input (E1), 12 V, 9.5 kOhm Voltage input (E1), 0...30 V, 9.5 kOhm, high state >= 4.5 V low state <= 1 V NAMUR sensor (E2), 12 V, 1.5 kOhm 3-wire sensor (E1) PNP or NPN, 12 V, 50 mA
Marking	CE : 73/23/EEC CE : EMC 89/336/EEC
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	> 500 MOhm at 500 V DC conforming to IEC 60664-1 > 500 MOhm at 500 V DC conforming to IEC 60255-5
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
Operating voltage tolerance	- 15 % + 10 % Un
Supply frequency	50/60 Hz +/- 10 %
Insulation	No galvanic insulation between supply and measurement
Operating position	Any position without derating
Connections - terminals	Screw terminals 2 x 0.2...2 x 1.5 mm ² - AWG 24...AWG 16, flexible cable with cable end Screw terminals 1 x 0.2...1 x 2.5 mm ² - AWG 24...AWG 12, flexible cable with cable end Screw terminals 2 x 0.5...2 x 2.5 mm ² - AWG 20...AWG 14, solid cable without cable end Screw terminals 1 x 0.5...1 x 4 mm ² - AWG 20...AWG 11, solid cable without cable end
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Status LED	1 LED yellow for relay (R) 1 LED yellow for inhibit 1 LED green for power ON
Mounting support	35 mm symmetrical DIN rail conforming to EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour under full load

Environment

Immunity to microbreaks	50 ms
Electromagnetic compatibility	Immunity for industrial environments conforming to NF EN/IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3 Emission standard for industrial environments conforming to EN/IEC 61000-6-4
Standards	IEC 60255-6 NF EN 60255-6
Product certifications	CSA C-Tick GL GOST UL
Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-20...50 °C
Relative humidity	95 % at 55 °C conforming to IEC 60068-2-30
Vibration resistance	1 gn (f = 57.6...150 Hz) conforming to IEC 60068-2-6/IEC 60255-21-1 0.35 mm (f = 5...57.6 Hz) conforming to IEC 60068-2-6/IEC 60255-21-1
Shock resistance	15 gn for 11 ms conforming to IEC 60255-21-1
IP degree of protection	IP30 (casing) conforming to IEC 60529 IP20 (terminals) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2 kV AC 50 Hz
Non-dissipating shock wave	4 kV