

FRM5



- Small size, high capacity
- Easy mounting and wiring
- Simple operation
- Wide variety

FRM5N with built-in operation indicator (Mechanical, LED)

Technical data

Characteristics

- Contact Arrangement: DPDT (2 Form C), 3PDT (3 Form C)
- Contact Material: Ag Alloy
- Contact Resistance: 50mΩ Max.
- Contact Rating (Resistive Load):
 - FRM5: 10A 28VDC/220VAC
 - FRM5N: 10A 28VDC/250VAC
 Inductive Load: 7A 250VAC Cosφ = 0.4
- Contact Voltage Drop:
 - Less than 200mV (Normal value)
 - Less than 500mV (Max. value)
- Operate Time (Initial): AC: 20 ms Max., DC: 30ms Max.
- Release Time (Initial): 20 ms Max.
- Insulation Resistance: 100MΩ Min.
- Dielectric Strength:
 - 1000V AC (50 Hz/min.) between open contacts
 - 1500V AC (50 Hz/min.) between coil and contact
 - For FRM5N: 2500VAC (50 Hz/min.) between coil and contact
- Shock Resistance:
 - Malfunction: 100m/s²
 - Mechanical: 1000m/s²
- Vibration Resistance: 1.5mm Double Amplitude, 10-50 Hz
- Ambient Temperature: -10 °C to +40 °C
- Humidity: 30 - 85% RH
- Operation Life:
 - Mechanical: 10⁷
 - Electrical: FRM5 10⁵ (At rated load), FRM5N 5 x 10⁵ (At rated load)
- Weight:
 - FRM5: 125g Approx.
 - FRM5N: 85g Approx.

Coil rating

Rated Voltage (V)	Coil Resistance Ω +/- 10%			Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption	
	FRM5-F	FRM5-T	FRM5N					
				% of rated voltage (at +20 °C)				
AC	6	4.4	5.5	80 Max.	30 Min.	120 Max.	FRM5 2.5VA Approx.	
	12	20	24					
	24	80	93					
	110	1860 ± 15%	1600 ± 15%					1240
	220	7400 ± 15%	7400 ± 15%					5130
	240	-	-					6450
DC	6	23.5	40	80 Max.	15 Min.	120 Max.	1.5W (FRM5-F) 1.2W (FRM5-T) 1.5W (FRM5N)	
	12	95	150					
	24	430	570					
	48	1630 ± 15%	2230 ± 15%					1630
	110	7300	10080 ± 15%					7300

Ordering information

FRM5 - T 3 L I DC 12V

Rated voltage

Mechanical indicator & push bottom (available for FRM5N only)

I: Mechanical indicator

PB: Mechanical indicator & push button

Classification (available for FRM5N only)

L: Led indicator

N: Diode

Contact arrangement:

2 = 2PDT

3 = 3PDT

Coil arrangement:

F: For 2PDT coil connects to pins #2 and #7

For 3PDT coil connects to pins #2 and #10

T: For 2PDT coil connects to pins #1 and #8

For 3PDT coil connects to pins #1 and #11

Relay model

DIMENSIONS (mm)

