# Power Relays

#### **Features**

Small size & slim type (7.2mm wide) Switching capacity up to 10A Dielectric strength 4,000Vrms Low coil power consumption 0.2W Wash tight type F class insulation standard





c us: E141516 (For FRM15A only)

## Ordering information

FRM15 A DC12V - G	
1 Relay model: FRM15; FRM15N; FRM15N1 2 Contact arrangement: A: 1 Form A 3 Rated voltage	4 Contact material: NIL: AgNi; N: AgSnO₂; G: AgNi with gold plate; NG: AgSnO₂ with gold plate Note: RoHS: RoHS compliant relay RoHS-I: AgNi contact RoHS-N: AgSnO₂ contact

### Coil rating

Rated voltage	Coil resistance	Rated current	Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption (W)	Operate time	Release time
(V)	Ω+/-10%	(mA)	% of rated voltage (at 20°C)		Approx.	(ms)	(ms)	
4.5	101	44.6						
5	125	40						
6	180	33.3						
9	405	22.2	75 Max.	5 Min.	130 Max.	0.2	<10	<10
12	720	16.7						
18	1620	11.1						
24	2880	8.3						

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.

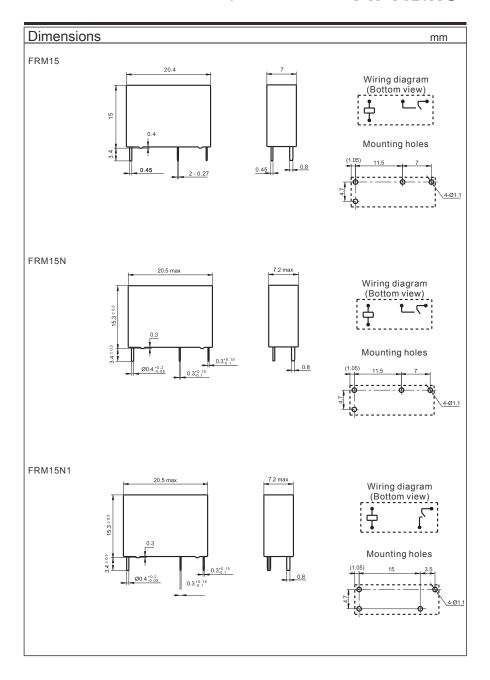
#### Characteristics

Contact arrangement		SPST (1 Form A)				
Contact material		Silver alloy				
Contact resistance		≤100mΩ Max. (at 1A 24VDC)				
Contact rating (resistive)		FRM15A : 5A 250VAC/30VDC				
		FRM15NA: 7A 250VAC/28VDC				
		(Special: 10A 277VAC/30VDC)				
Switching power		FRM15: 1,385VA / 150W Max.; FRM15N: 2,770VA / 300W Max.				
Switching voltage		AC 277V / DC 30V Max.				
Insulation resistance		1,000MΩ Min. (500VDC)				
Dielectric strength		1,000VAC (50Hz/min) Between open contacts				
		4,000VAC (50Hz/min) Between coil and contact				
Surge voltage		10KV (1.2 x 50μs) Between coil and contact				
Shock resistance		Functional: 98m/s <sup>2</sup>				
		Destructive: 980m/s <sup>2</sup>				
Vibration resistance		1.5mm Double amplitude 10-55Hz				
Ambient temperature		-40°C to +85°C				
Humidity		85% RH, 40°C				
Operation life	Mechanical	5 X 10 <sup>6</sup>				
	Electrical	FRM15A: 10 <sup>5</sup> (5A 250VAC - 5 x 10 <sup>4</sup> ); FRM15NA: 10 <sup>5</sup> (10A 250VAC - 1 x 10 <sup>4</sup> )				
Weight		FRM15: 4g Approx.; FRM15N: 3g Approx.				

(Specifications are subject to change without notices.)

# **Q** EL.ITALIA SRL

# El.italia serie FW-FRM15







<sup>2.</sup> Pickup and release voltage are for test purposes only and are not to be used as design criteria.

