

# FR12 Series



Specification	FR12 series	
	Type (flush)	Type (non-flush)
DC 3-wire NPN NO	FR12-2DN	FR12-4DN
DC 3-wire NPN NC	FR12-2DN2	FR12-4DN2
DC 4-wire NPN NO+NC	FR12-2DN3	FR12-4DN3
DC 3-wire PNP NO	FR12-2DP	FR12-4DP
DC 3-wire PNP NC	FR12-2DP2	FR12-4DP2
DC 4-wire PNP NO+NC	FR12-2DP3	FR12-4DP3
DC 2-wire NO	FR12-2DO	FR12-4DO
DC 2-wire NC	FR12-2DC	FR12-4DC
AC 2-wire SCR NO	FR12-2AO	FR12-4AO
AC 2-wire SCR NC	FR12-2AC	FR12-4AC
Sensing distance	2mm ±10%	4mm ±10%
Sensing object	metal	
Standard object	Iron12x12x1mm	
Supply voltage	DC type : 10-30VDC, AC type : 90-250VAC	
Current consumption	DC type : 5mA max, AC type:2mA max.	
Response frequency	DC type:300Hz max, AC type:20Hz max.	
Control output	Resistive load:200mA max.,	
	Inductive load:100mA max.	
Circuit protection	Reverse polarity,surge absorber	
Operating temperature	-25°C to +75°C (non-freezing condition)	
Residual voltage	DC 3-wire type:1.5V max.,	
	DC 2-wire type:3V max, AC 2-wire type:8V max	
Insulation resistance	Min. 50MΩ (500VDC)	
Enduring voltage	AC1500V 50/60Hz for 1minute	
Protection	IP67 (IEC specification)	