

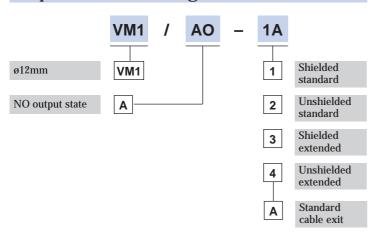
M12 Inductive 2-wire AC Proximity Switches

Standard and extended distance M12 AC proximity switches

- Wide operating voltage 20-264VAC 50/60Hz
- LED operation indicator
- IP67
- Nickel-plated brass housing
- Nominal sensing range shielded 2mm
- Unshielded 4mm
- Shielded 3.2mm
- Unshielded 6.5mm



Options and ordering codes



Normally closed output types, plug-in types

Please contact IMO for price and availability

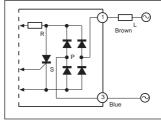
Specifications Dimensions (mm)

VM1/C0-1A VM1/C0-2A VM1/C0-3A VM1/C0-4A Nominal sensing distance Sn 2mm ⁽⁰⁾ 4mm ⁽⁰⁾ 3.2mm ⁽⁰⁾ 6.5mm ⁽⁰⁾ Type		Standard		Extended Distance	
Nominal sensing distance Sn 2mm ⁽⁰⁾ 3.2mm ⁽⁰⁾ 6.5mm ⁽⁰⁾ Type		VM1/A0-1A	VM1/A0-2A	VM1/A0-3A	VM1/A0-4A
Type shielded unshielded shielded unshielded Effective range 0 · 1.6mm 0 · 3.2mm 0 · 2.5mm 0 · 5.2mm Hysteresis 10% Repeatability 5% Supply voltage 20 · 264VAC 50/60Hz Output current 5-300 mA RMS Non-repeating current peak 7A Ton = 10ms Residual current 0.7mA RMS Residual output voltage check IMO Switching frequency 25Hz Output type TRIAC Time before switch operation 200 ms Insulation resistance 2000MΩ at 1000VDC Transient noise protection 1J (10/1000μS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red - output on nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque Ambient humidity 35% 85% r.h.		VM1/C0-1A	VM1/C0-2A	VM1/C0-3A	VM1/C0-4A
Effective range	Nominal sensing distance Sn	2mm ⁽¹⁾	4mm ⁽¹⁾	3.2mm ⁽¹⁾	6.5mm ⁽¹⁾
Hysteresis 10%	Туре	shielded	unshielded	shielded	unshielded
Repeatability 5% Supply voltage 20 - 264VAC 50/60Hz Output current 5-300 mA RMS Non-repeating current peak 7A T _{On} = 10ms Residual current 0.7mA RMS Residual output voltage check IMO Switching frequency 25Hz Output type TRIAC Time before switch operation 200 ms Insulation resistance 2000MΩ at 1000VDC Transient noise protection 1J (10/1000μS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Effective range	0 - 1.6mm	0 - 3.2mm	0 - 2.5mm	0 - 5.2mm
Supply voltage 20 - 264VAC 50/60Hz Output current 5-300 mA RMS Non-repeating current peak 7A Ton = 10ms Residual current 0.7mA RMS Residual output voltage check IMO Switching frequency 25Hz Output type TRIAC Time before switch operation 200 ms Insulation resistance 2000MΩ at 1000VDC Transient noise protection 1J (10/1000μS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Hysteresis	10%			
Output current 5-300 mA RMS Non-repeating current peak 7A Ton = 10ms Residual current 0.7mA RMS Residual output voltage check IMO Switching frequency 25Hz Output type TRIAC Time before switch operation 200 ms Insulation resistance 2000MΩ at 1000VDC Transient noise protection 1J (10/1000μS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Repeatability	5%			
Non-repeating current peak 7A T _{on} = 10ms	Supply voltage	20 - 264VAC 50/60Hz			
Residual current 0.7mA RMS	Output current	5-300 mA RMS			
Check IMO	Non-repeating current peak	7A T _{on} = 10ms			
Switching frequency 25Hz Output type TRIAC Time before switch operation 200 ms Insulation resistance 2000MΩ at 1000VDC Transient noise protection 1J (10/1000µS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Residual current	0.7mA RMS			
Output type TRIAC Time before switch operation 200 ms Insulation resistance 2000MΩ at 1000VDC Transient noise protection 1J (10/1000μS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Residual output voltage	check IMO			
Time before switch operation 200 ms Insulation resistance 2000MΩ at 1000VDC Transient noise protection 1J (10/1000μS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Switching frequency	25Hz			
Insulation resistance 2000MΩ at 1000VDC	Output type	TRIAC			
Transient noise protection 1J (10/1000μS) Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red − output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Time before switch operation	200 ms			
Dielectric strength 1500VAC 50Hz for 1 min Fast transient withstand 500V (IEC 801-4,1) Temperature range -25° +70°C Temperature drift 10% Sn Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35% 85% r.h.	Insulation resistance	2000MΩ at 1000VDC			
Fast transient withstand 500V (IEC 801-4,1)	Transient noise protection	1J (10/1000μS)			
Temperature range	Dielectric strength	1500VAC 50Hz for 1 min			
Temperature drift 10% Sn Protection degree 1P67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35%85% r.h.	Fast transient withstand	500V (IEC 801-4,1)			
Protection degree IP67 LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35%85% r.h.	Temperature range	-25° +70°C			
LED indicator red – output on Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35%85% r.h.	Temperature drift	10% Sn			
Housing material nickel plated brass Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35%85% r.h.	Protection degree	IP67			
Face material PBT to UL 94VO Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35%85% r.h.	LED indicator	red – output on			
Cable PVC 2 x 0.22mm² ø3.75mm Tightening torque 15Nm (153 kg cm) Ambient humidity 35%85% r.h.	Housing material	nickel plated brass			
Tightening torque 15Nm (153 kg cm) Ambient humidity 35%85% r.h.	Face material	PBT to UL 94VO			
Ambient humidity 35%-85% r.h.	Cable	PVC 2 x 0.22mm² ø3.75mm			
•	Tightening torque	15Nm (153 kg cm)			
Weight approx 70g	Ambient humidity	35%-85% r.h.			
	Weight approx	70g			

⁽¹⁾ refers to Fe 37 12 x 12mm standard target 1mm thick

SW17 5 14 14 39 5 14 14 39 ■ VM1/*0-1A, VM1/*0-3A	In-line metal cable support with tangOutput indicator LED
SW17 5 14 14 34 53 SW1/*0-4A	● Cable 2 x 0.34mm ø4.7mm x 2m long PVC
Output circuit – wirin	ng connection

Please see - Mounting brackets page 330



Note: in order to ensure a long life of the output stage, it is essential to avoid short-circuits. Also, the load current should never exceed the specifications value.