

# MAGNETIC PROXIMITY SWITCHES

Zones 1, 2, 21, 22

Full catalogue available on our website: [www.inpratex.com](http://www.inpratex.com)

## ATEX INSTRUMENTATION

## ZONES 1, 2 (gas) & 21, 22 (dust)



Magnetic proximity switches ideal for any contactless control, indispensable to detect and/or count any items passing by at remarkable speed.

Peculiar for applications in critical environments dominated by the presence of oils, greases, liquids, dusts, etc...



EU-Type Examination Certificate

Not subject to any mechanical wear and thus, compared to traditional switches, a longer operating life is guaranteed.

### ITEM REFERENCES

Designation:	Contact:	Cable:	Item No.:
IM/U	Monostable	1 m (included)	4D0501
IM/AB	Bistable	1 m (included)	4D0502
IM/UM-SX14N-MH2-4 (with junction box)	Monostable	Not included	4D0503
IM/AB-SX14N-MH2-4 (with junction box)	Bistable	Not included	4D0504

### TECHNICAL SPECIFICATIONS

Marking:	II 2G Ex d IIC T6/T5 Gb II 2D Ex tb IIIC T85°C/T100°C Db
Certificate:	EU-Type Examination Certificate
Housing / Fixing brackets:	Stainless steel AISI 316L
Operating temperature:	-20°C to +40°C
Ingress protection:	IP66
Contact type:	Switching (NO)
Contact material:	Rhodium
Max. switching power:	40 VA
Max. switching voltage:	250 Vdc - 220 Vac
Max. current peak:	1 A
Contact resistance:	0,075 Ω
Contact vibration time:	0,3 ms
Switching frequency:	100 Hz
Switching hysteresis:	~ 5 mm
Set point accuracy:	0,01mm
Axial vibration resistance:	100 gr
Contact mechanical life:	10 <sup>8</sup> operations
Connecting cable:	2x0,75 mm <sup>2</sup> - 3x0,75 mm <sup>2</sup>
Weight:	370 g
Cable entries:	Stainless steel 1/2" NPT cable gland

### INSTRUCTIONS

Permanent magnets must be mounted by countersunk screws in not-magnetic materials such as brass, aluminum, stainless steel or plastic.

Larger switch control distance is reached when the permanent magnet is directly fixed to an iron support.

Embedding the permanent magnet in a mass of iron causes a short circuit of the magnetic field; there should be a distance of the iron surface of 1-3 millimeters. This type of mounting significantly reduces the operating distance of magnetic switch.

The permanent magnets featuring north polarity have red protection cap whereas it is blue for south polarity. The protection caps are made of polyamide.

# MAGNETIC PROXIMITY SWITCHES




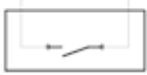
Zones 1, 2, 21, 22

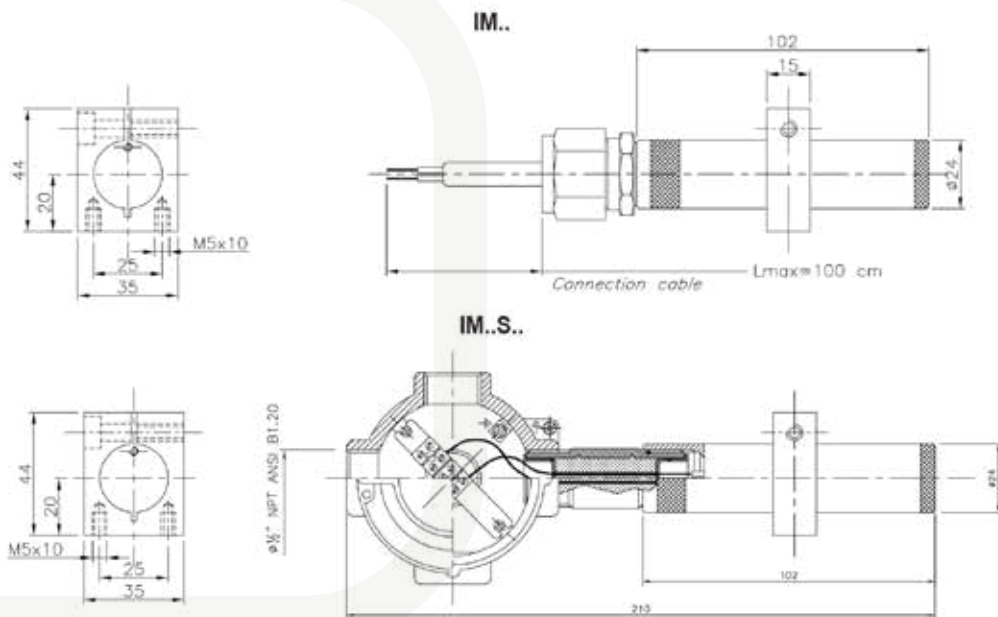
Full catalogue available on our website: [www.inpratex.com](http://www.inpratex.com)

9



INSTRUMENTATION

TYPE	
<b>MONOSTABLE</b>	
When a magnetic field is detected, the contact changes state. When it is no longer detected, the contact returns to the original position.	
	
<b>BISTABLE</b>	
When a magnetic field is detected, the contact changes state, and does not change again until a new magnetic field is detected.	



PERMANENT MAGNETS					
Designation:	Diameter:	Thickness:	Central hole for screw fixing:	Weight:	Item No.:
MG20 magnet	20mm	10mm	4,2mm	15g	4D0520
MG25 magnet	25mm	10mm	4,2mm	20g	4D0521

DETECTION DISTANCE				
	Magnet model MG20		Magnet model MG25	
	Installed on a metal surface	Installed on a non-metallic surface	Installed on a metal surface	Installed on a non-metallic surface
Activation distance between magnet and limit switch during approach.	28mm	18mm	38mm	26,5mm
Activation distance between magnet and limit switch during movement away.	35mm	23,5mm	46,5mm	33mm

*Attention: The values reported were detected through internal measurements; These values may undergo variations depending on the installation conditions.*