ATEX / IEC / UKEX Ex Non-Contact Safety Switches

Types: WM1-EX, WM2-EX, CM1-EX, CM2-EX, CM3-EX, LM-EX, RM-EX

DATA SHEET

APPLICATION:

Magnetic Non-Contact EX Safety Switches are designed to interlock hinge, sliding or removal guard doors or hatches.
They are specifically advantageous when:

- Poor guard alignment exists.
- High hygiene requirements exist e.g., food industry hose down.
- A long mechanical life is required (no moving or touching parts).

OPERATION:

All switches are designed to conform to EN60079-0 and IEC60079-18. They have a magnetic sensing system which provides a wide sensing distance and provides a high tolerance to misalignment after sensing.

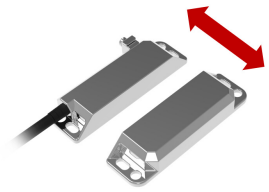
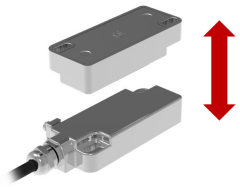
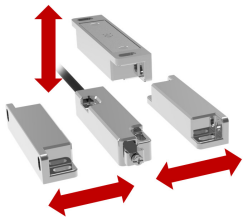
SPECIFIC CONDITIONS OF USE:

1. **The supply must include a fuse capable of interrupting a 1500A short circuit current.**
2. **When rated at 2A the switches are suitable for use in an ambient temperature range of -20ºC to +60ºC.**
3. **When rated at 1A or lower the switches are suitable for use in an ambient temperature range of -20ºC to +80ºC.**
4. **Dust layer shall be prevented from building up on the external surface of the switch model WM1-Ex 9001- - and the switch shall be routinely cleaned.**

IMPORTANT: Check internal fuse rating of switch model.

Installation of all Non-Contact EX Safety Switches must be in accordance with a risk assessment for the individual application.

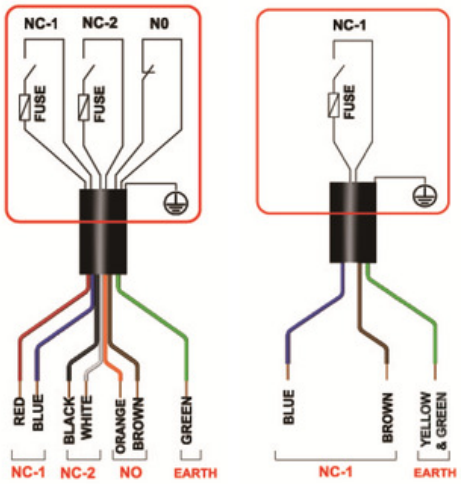
The maximum switching current and external fusing should be observed for each type of switch (see table below). Always fit in a position to avoid mechanical impacts. Tightening torque for mounting bolts to ensure reliable fixing is 1.5 Nm. Always mount on to Non-Ferrous materials.
The recommended setting gap is 5mm. The Safety switch must not be used as a mechanical stop or be adjusted by striking with a hammer. The actuator must not be allowed to strike the switch. Do not mount adjacent switches or actuators closer than 30mm.Typical misalignment tolerance after setting is 5mm.
RM-EX types require fitting through 30.5mm clearance holes. The lock nuts supplied must be used to secure the switches. The RM-EX can be flush mounted in Stainless Steel materials. After installation always check each switch function by opening and closing each guard individually in turn and ensuring that the machine stops and cannot be re-started when each switch is open.

			
LM-EX	**WM1-EX / WM2-EX**	**CM1-EX / CM2-EX / CM3-EX**	**RM-EX**

MAINTENANCE:

Monthly: Check alignment of actuator and look for signs of mechanical damage to the switch casing. Check cables for signs of damage.

Every 6 months: Check each switch function by opening and closing each guard individually in turn.
Never repair any switch, actuator, or integral cables. Replace any switch displaying signs of mechanical damage to the casing or cables.



For all switches the NC circuits are closed when the guard is closed and the actuator present.

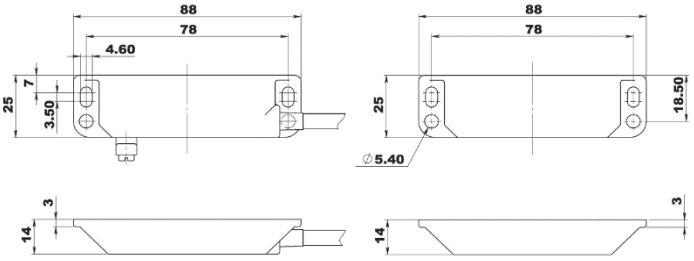
Certification Standards	IEC 60070-0 (EN60079-0)
	IEC 60079-18 (EN60079-18)
Certificate Numbers:	EC Type Cert. No. Baseefa11ATEX0234X
	IEC Cert. No. IECEx BAS11.0115X
	UK Type Cert. No. BAS22UKEX0014X
Classification	
Ex	WM1-EX (Zones 0, 20, 1, 21, 2, 22) II 1G Ex ma IIC T6 Ga II 1D Ex ma IIIC T80C Da
Classification	
Ex	CM1-EX, CM2-EX, CM3-EX, LM-EX, RM-EX (Zones 1, 21, 2, 22) II 2G Ex mb IIC T6 Gb II 2D Ex mb IIIC T80C Db

NC	WM1-EX	250V.ac/dc 0.6A Max. (Internally fused)
	WM2-EX	250V.ac/dc 2.0A Max. (Internally fused)
	CM1-EX	250V.ac/dc 2.0A Max. (Internally fused)
	CM2-EX (1NC VERSION)	250V.ac/dc 1.0A Max. (Internally fused)
	CM2-EX	250V.ac/dc 0.6A Max. (Internally fused)
	CM3-EX	250V.ac/dc 0.6A Max. (Internally fused)
	LM-EX	250V.ac/dc 0.6A Max. (Internally fused)
	RM-EX	250V.ac/dc 0.6A Max. (Internally fused)
NO	ALL	250V.ac/dc 0.2A Max.

ORIGINAL INSTRUCTIONS:

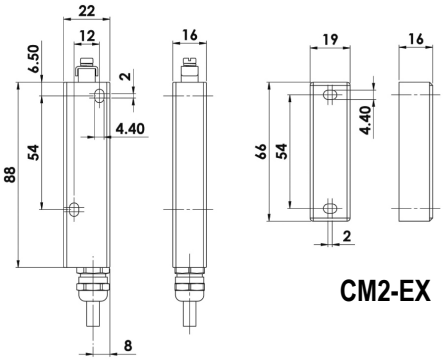
To request this data sheet in other languages please contact info@idemsafety.com
Um dieses Datenblatt in Deutscher Sprache wenden Sie sich bitte anfordern info@idemsafety.com
Pour obtenir cette fiche en Français, veuillez contacter info@idemsafety.com
Para solicitar esta hoja de datos en Español, por favor contacto con info@idemsafety.com

ATEX / IEC Ex / UKEX Non-Contact Safety Switches

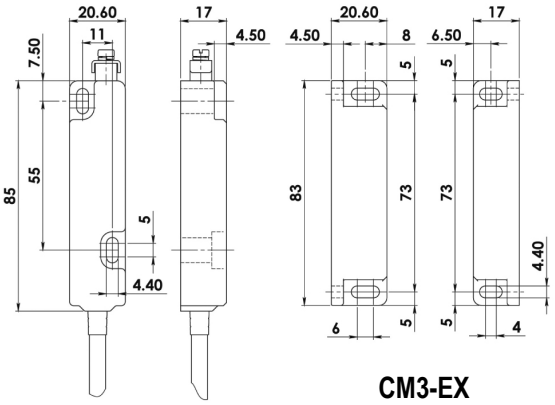


LM-EX

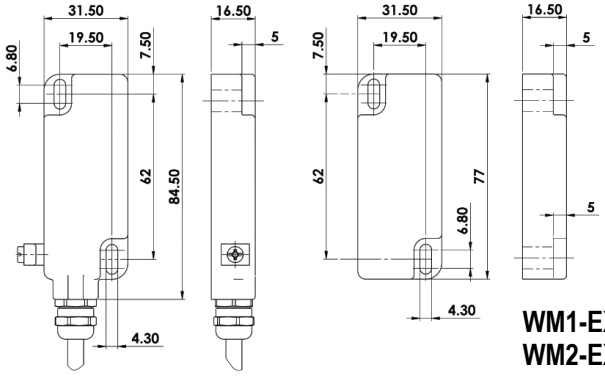
Recommended setting gap	5mm
Tolerance to misalignment	5mm in any direction from 5mm setting gap
Switching frequency	1.0 Hz Maximum
Body material	Stainless Steel 316
Temperature range	See conditions of use.
Enclosure protection	IP67 (Fully encapsulated)
Mechanical reliability (B10d)	3.3 million operations at 100mA load
MTTFd	470 years (Proof Test Interval 47 years)
Cable type	PVC 7 core or 3 core 6.5mm O.D. Max.
Mounting bolts	M4 Tightening torque 1.5 Nm



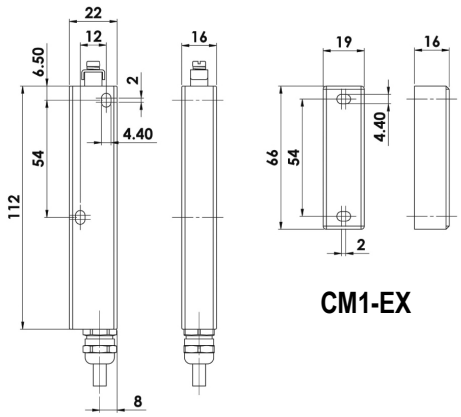
CM2-EX



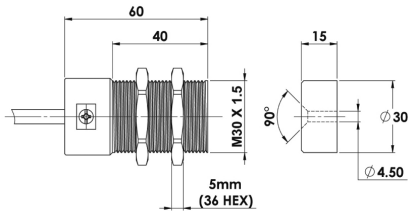
CM3-EX



WM1-EX
WM2-EX



CM1-EX



RM-EX

EU Declaration of Conformity

Manufacturer: IDEM SAFETY SWITCHES Ltd., 2 Ormside Close, Hindley Industrial Estate, Hindley Green, Wigan, UK.

The following products have been found to comply with the Essential Health and Safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II of the following Directive:

Directive for Equipment intended for use in potentially explosive atmospheres: 2014/34/EU

Devices: Non-Contact Interlock Switches.

Type: WM1-EX (Part 9001---)
II 1G Ex ma IIC T6 Ga
II 1D Ex ma IIIC T80°C Da

Types: WM1-EX (Part 9002---) WM2-EX, CM1-EX, CM2-EX, CM3-EX, RM-EX, LM-EX
II 2G Ex mb IIC T6 Gb
II 2D Ex mb IIIC T80°C Db

Harmonised Standards: EN IEC 60079-0:2018 EN60079-18:2015+A1:2017.

EC Type Certificate Number: Baseefa11ATEX0234X Date: 11/03/2025

Certified Body: SGS Fimko Oy, FI-00380 Helsinki, Finland (Notified Body Number 0598).

M.Mohtasham Managing Director 3rd April 2025

UK Declaration of Conformity

Manufacturer: IDEM SAFETY SWITCHES Ltd., 2 Ormside Close, Hindley Industrial Estate, Hindley Green, Wigan, UK.

The following products have been found to comply with the Essential Health and Safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the following regulations:

Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended).

Devices: Non-Contact Interlock Switches.

Type: WM1-EX (Part 9001---)
II 1G Ex ma IIC T6 Ga
II 1D Ex ma IIIC T80°C Da

Types: WM1-EX (Part 9002---) WM2-EX, CM1-EX, CM2-EX, CM3-EX, RM-EX, LM-EX
II 2G Ex mb IIC T6 Gb
II 2D Ex mb IIIC T80°C Db

Harmonised Standards: BS EN IEC 60079-0:2018 BS EN60079-18:2015+A1:2017

UK Type Certificate Number: BAS22UKEX0014X Date: 11/03/2025

Certified Body: SGS United Kingdom Ltd.,Rockhead Business Park, Staden Lane, Buxton, Derbyshire SK17 9RZ (Notified Body Number 1180).

M.Mohtasham Managing Director 3rd April 2025