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SERIES

Ex-d Motion detector EFS MS  
for harsh & hazardous areas



**EATON**

*Powering Business Worldwide*

# Ex-d Motion detector EFS MS

Light metal design, explosion-protected for Zone 1 and Zone 21

## For use under harsh and hazardous conditions

The flameproof motion detector made of light metal are suitable for use in hazardous areas of zones 1, 2, 21 and 22. With its robust light metal housing of the EFS series with borosilicate glass viewing window, use in harsh environmental conditions is no problem.

With its 400 VA switching capacity, the motion detector is suitable for the demand-oriented control of even large lighting equipment in hazardous areas. The 3-pole terminal strip has pluggable clamp terminals with a connection cross section of up to 1.5 mm<sup>2</sup>.

The high degree of protection IP 67 allows universal use in Ex areas.

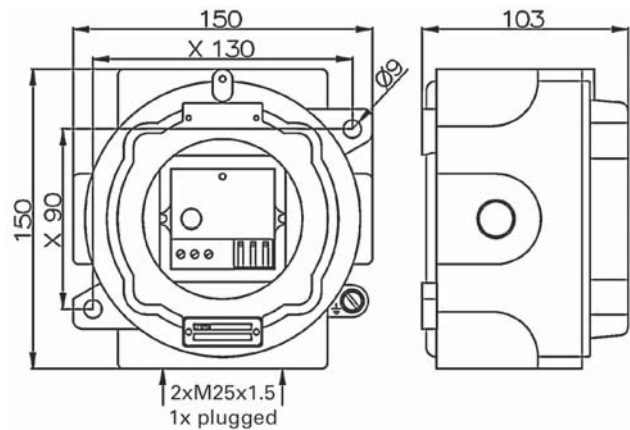
Various cable and line ducts, conduits or flameproof cable glands, can be realized.

Drilled holes, cable and line ducts, through which no lines are conducted, should be sealed with certified screw plugs.

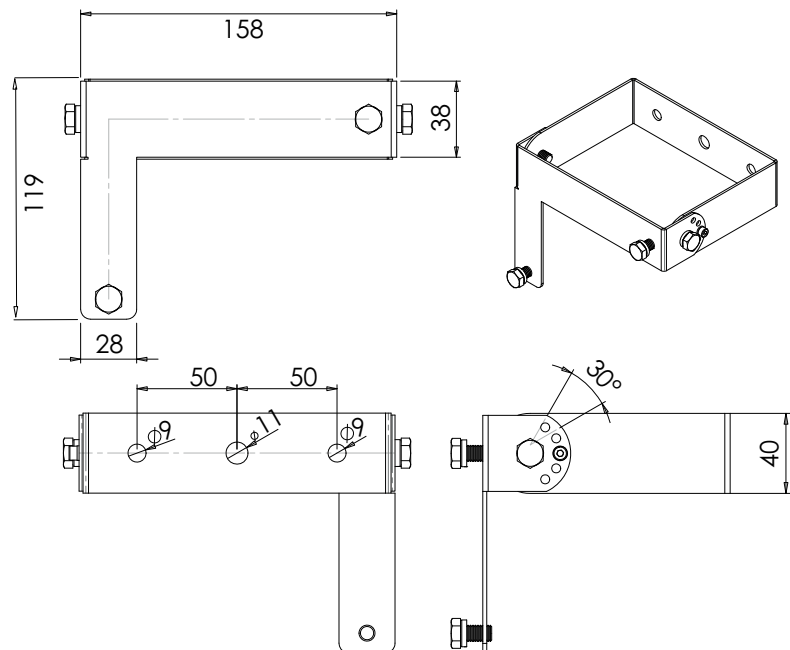
The housing is provided with an external earthing connection.

## Dimension drawing

### Motion detector



### swivel bracket



## Features

- High mechanical, chemical and thermal resistance
- High degree of protection IP67
- High switching capacity 400 VA



### Technical data

#### Certifications and compliances

#### EFS MS 1

Marking accd. to 2014/34/EU	⊕ II 2 G Ex d IIC T6 Gb / ⊕ II 2 D Ex t IIIC T85 °C Db
EC-Type Examination Certificate	LOM 03 ATEX 2034
Permissible ambient temperature	-20 °C bis +55 °C
Degree of protection accd. EN 60529	IP67

#### Sensor Ratings

Detection range	up to 15 m (frontal, wall mounted) up to 10 m (diameter, ceiling mounted)
Detection angle	ca. 120 °
Motion detection	0,3 up to 3m/s (1 up to 10 km/h)
Sensitivity	20 up to 100 %
Hold time	10 up to 1200 s
Brightness	1 up to ∞ Lux
Mounting height	max. 2,7 m (wall mounting) max. 4,0 m (ceiling mounting)

#### Electrical Ratings

Rated voltage	230 V AC +/- 10 % 50 Hz
Switching capacity (max.)	400 VA - for at least 300.000 Switching cycles: inrush current max. 20 A / 200 μs - for at least 100.000 Switching cycles: inrush current max. 60 A / 200 μs For a functional guarantee at switching cycles >20 A we offer a compatibility test
Standby power	<1,3 W
Connecting terminals	3-pole, pluggable clamp terminals for max. 1,5 mm <sup>2</sup> (N, L, L')
Sensor principle	HF motion detector
Frequency range	5,8 GHz +/- 75 MHz
Rated power	<5 mW

### Ordering details

Type	Thread entries	Weight	Order No.
<b>Type EFS</b>			
EFS MS1 with motion sensor	2xM25x1.5, 1x screw plug, metallic	0.8 kg	<b>NOR 000 114 110 745</b>
<b>Accessories</b>			
EFS MS A4 swivel bracket	2xM25x1.5, 1x screw plug, metallic	0.4 kg	<b>NOR 000 114 110 742</b>



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