

## Wolf® M-70 Mini Safety Torches

The Wolf M-70 is one of the most powerful members of the compact mini flashlight series, a **next-generation** torch designed for maximum illumination performance in hazardous areas. Offered by **IST Safety Ltd**, the **official distributor of Wolf**, this model combines an ergonomic pocket-sized structure with an impressive 107-lumen light output.

The product holds the highest level of protection certifications, including **I M1 (Mining)** and **Zone 0**, making it suitable for both underground mines and industrial explosive atmospheres. While providing crystal-clear visibility in confined spaces and dark field operations thanks to advanced LED technology, its IP67 waterproof and dustproof rating ensures safe operation in the harshest conditions.



### Certification & Compliance:

- Suitable for use in Zones 0, 1 & 2.
- Gas Group: Gas Groups IIA, IIB, IIC
- T4 temperature range.
- Complies with EN IEC 60079-0, EN 60079-11 standards.
- EX I M1 / II 1GD  
Ex ia I Ma / IIC T4 Ga (-20°C ≤ Ta ≤ +40°C)  
Ex ia IIC T200160°C Da IP67
- 2 x LR03 (AAA) cells
- Single LED

**Permitted cells:** Duracell Procell/Plus/Ultra M3/Industrial, Procell(grey), Energizer Industrial/Ultra+/Ultimate, GP Alkaline/Super Alkaline, Panasonic Powermax/Ultra, Philips Powerlife, Varta High Energy

### Technical Specifications:

- **Light Source:** 1x High Power Cree LED
- **Light Source Output (Lumens):** Up to 107 lm
- **Brightness/Battery Duration:** Up to 7 hours
- **Materials:** Polycarbonate lens, impact-resistant thermoplastic.
- **Power Supply:** Operates with 2 x LR03(AAA) cells

- **Weight (inc. Cells):** Approximately 50 grams.

**Ingress Protection:** IP67

### Warranty and Technical Support

- **Warranty:** 2-year manufacturer's warranty.
- **Official Support:** Original spare parts and professional technical service are provided through IST Safety Ltd, the official distributor of Wolf in Turkey.

### Standards



Ex-Proof (ATEX)



IECEX



CE 0598

## TECHNICAL DETAILS

Product Reference		M-10	M-40	M-60	M-70
Product Description		LED Micro Torch	LED Mini Torch		
Code	ATEX	I M1/II 1G2D	I M1/II 1G2D	I M1/II 1G2D	I M1/II 1GD
	Gas	Ex ia IIC T5 Ga	Ex ia IIC T4 Ga	Ex ia IIC T4 Gb	Ex ia IIC T4 Ga
	Dust	Ex ib IIIB T95°C	Ex ib IIIB T125°C	Ex ib IIIB T130°C	Ex ia IIIC T <sub>200</sub> 160°C Da
		Db	Db	Db	
Mining	Ex ia I Ma	Ex ia I Ma	Ex ia I Ma	Ex ia I Ma	
Type of Protection		ia / ib			

<b>Area of Class (Gas)</b>		Zones 0, 1 & 2, Gas group IIC			
<b>Temp. Class (Gas)</b>		T5	T4		
<b>Ambient Temp.</b>		-40°C to + 50°C			-20°C to +40°C
<b>Area of Class (Dust)</b>		Zones 21 & 22, Dust Group IIIB			Zones 20, 21 & 22, Dust group IIIC
<b>Max Surface Temp. (Dust)</b>		95°C	125°C	130°C	160°C
<b>Certification</b>		Baseefa06ATEX084 / IECEx BAS 06.0023 / BAS21UKEX0435			
<b>Enclosure / lens</b>		Impact Resistant Thermoplastic with a polycarbonate lens			
<b>Beam Type</b>		Medium Spot			
<b>Light Source</b>	<b>Type</b>	1x5mm LED White (Nichia)	3 x 5mm LED White (Nichia)	1 x High Power Cree LED	
	<b>Output (at source)</b>	30 cd	3 x 30 cd	Up to 139 lm	Up to 107 lm
	<b>Life</b>	25,000 hrs			
<b>Power Source</b>	<b>Part No.</b>	M-102 (4 pack)	M-402 (3 pack)		M-202 (2 pack)
	<b>Type</b>	LR44 Primary Cells to IEC60086	LR1 Primary Cells to IEC60086		LR03 Primary Cells to IEC60086
	<b>Volts</b>	4 x 1.5V	3 x 1.5V		2 x 1.5V
<b>Light Duration</b>		Up to 2 hrs	Up to 10 hrs	Up to 3 hrs	Up to 7 hrs
<b>Ingress Protection</b>		IP67			

Weight (incl. cells)	25g	60g		50g
Product Reference	M-10	M-40	M-60	M-70

## What is ATEX Lighting?

**What is ATEX and what does exproof mean?** The **ATEX directive** is a set of European Union standards that define the safety requirements for equipment used in hazardous areas with explosive atmospheres. **Exproof** (Explosion-proof) refers to protection methods designed to prevent explosions by inhibiting the formation of sparks or electrical arcs in environments containing flammable gases, dust, or vapors. To ensure life and property safety in industrial facilities, the use of **ATEX-certified exproof devices** is a legal requirement.

## What is ATEX Zone Classification?

**ATEX Zone coding** is a technical classification based on the frequency and duration of the occurrence of an explosive atmosphere in a given area. While the terms **Zone 0, 1, and 2** are used for risks originating from gas, vapor, and mist; the codes **Zone 20, 21, and 22** are designated for environments containing combustible dust. This classification is a legal standard that determines the required Equipment Protection Level (EPL) for devices. Accurate zone identification both optimizes operational costs and minimizes occupational safety risks.

## What is IECEx Certification? How Does it Differ from ATEX?

In addition to ATEX certification, some projects may also require the IECEx Certification System (International Electrotechnical Commission Explosive Atmospheres System) certification. IECEx is an internationally recognized conformity assessment system for equipment intended for use in explosive atmospheres.

While ATEX is a European Union directive and a legal requirement within the European market, IECEx is a globally accepted certification system, widely preferred in regions such as the Middle East, Asia, and Australia.

From a technical perspective, both ATEX and IECEx are based on similar standards (e.g., the EN/IEC 60079 series). However:

- ATEX is a mandatory legal directive, whereas
- IECEx is an international certification system (voluntary, but widely required)

Therefore, while ATEX certification may be sufficient for certain projects, international tenders or critical industries such as oil & gas often prefer or require products that are certified to both ATEX and IECEx standards.

The appropriate certification should be determined based on the project location, client requirements, and application area.

