BRONZE LEVER MONITOR

Model MP-080B

Data sheet 0811c Rev.05

Updated document

Product description

MP-080B fire monitors are fixed discharge devices that use water or foam as extinguishing agents. They are designed for use in specific risk areas, ensuring efficient coverage of large surfaces. This equipment can be part of fixed deluge or flow control systems, connected to hydrants or fire trucks, or installed on mobile carts and trailers, thus increasing operational versatility in complex scenarios.

The MP-080B monitor, made of bronze, is suitable for use with fresh water, salt water, or foam. Its simple and robust design provides operational reliability, a wide discharge range, and ease of use.

The mechanical construction of the monitor incorporates bronze joints with high corrosion resistance, with two rows of stainless steel bearings and lubrication fittings on all rotation joints, ensuring long-lasting and reliable operation throughout its service life.

The equipment has been designed to allow handling by a single technician. Its design ensures the compensation of forces generated by the hydraulic flow, guaranteeing stability and precision of movement. It offers continuous 360° rotation in the horizontal plane and elevation from +90° above the horizontal to -45° below it.

All these movements are controlled by an ergonomic lever, complemented by locking controls equipped with a locking system that allows for safe and precise adjustments in orientation.

The internal design minimizes turbulence and pressure losses, resulting in greater range and superior jet projection efficiency. The speed and flow rate depend on the type and configuration of the nozzle installed, offering flexibility for different operating scenarios.

Listing and approvals

Listed by UL.

Aplications

- Refineries
- Seaports
- Industrial plants
- Power plants
- Airport
- Petrochemical industries
- Heliports
- Recycling plants
- Sawmills
- Chemical plants

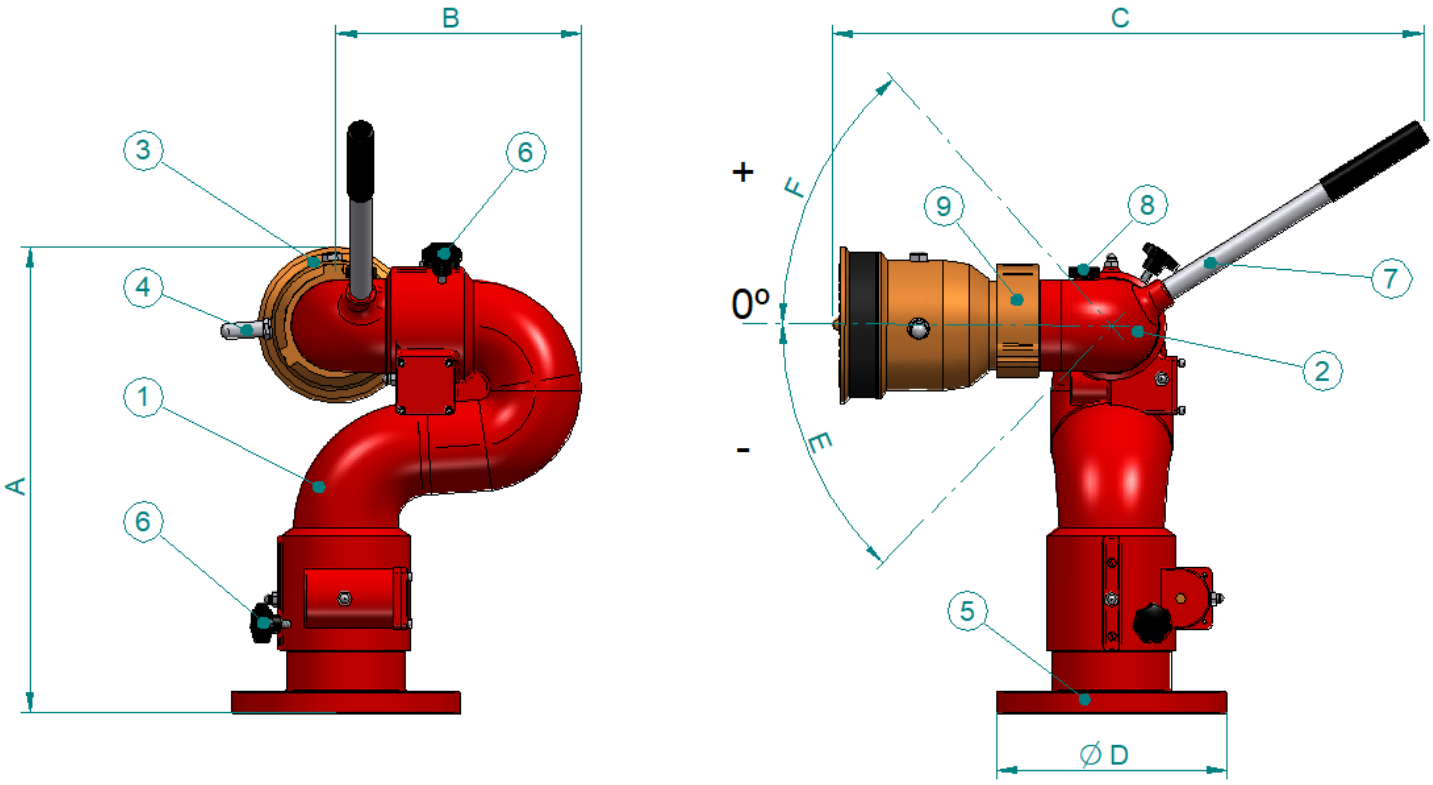
Approvals

Technical information

Model	MP-080BU
Approvals	UL listed
Maximum working pressure	16 bar (230 psi)
Flow	3790 lpm (1000 gpm)
Size	DN 80
Inlet connection	4" Ansi B16.5 150 lb F.F
Outlet connection	3" BSP (M)
Horizontal movement	360º
Vertical movement	+90º, -45º
Material	Bronze
Operation	Manual
Finish	RAL 3001
Weight	35 kg
Optional	Pressure gauge at the monitor outlet
	Drain valve
	Bronze or stainless Steel lever
	Outlet 3" NH (M)

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Dimensions



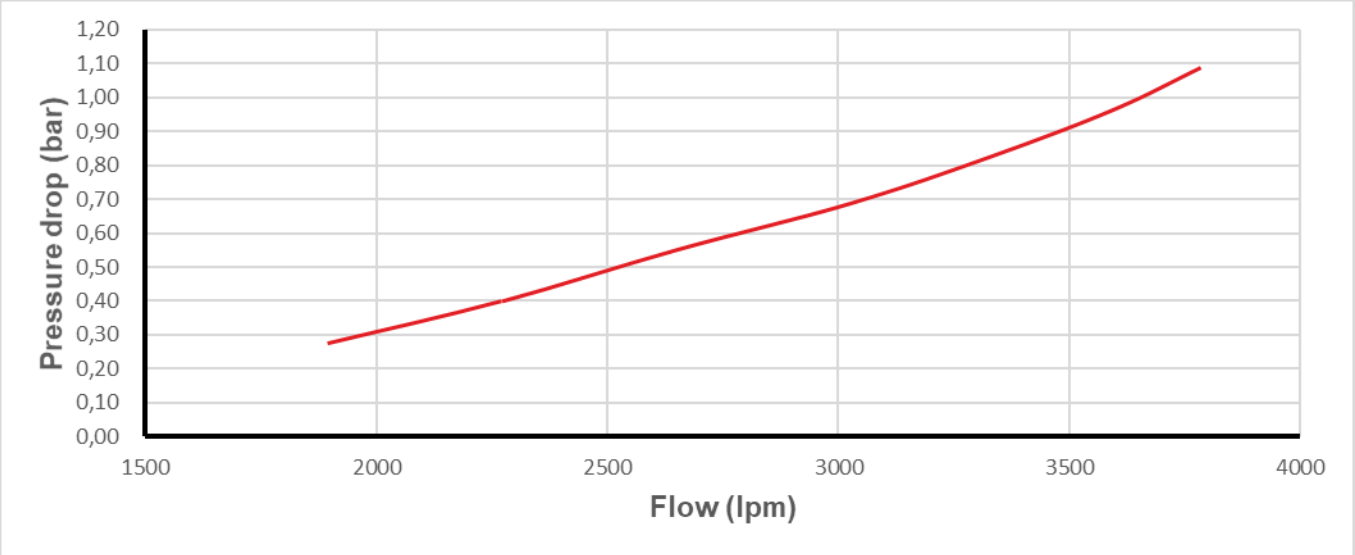
Nominal size (inch)	ØD (inch)	Outlet connection (inch)	Weight (kg)	A (mm)	B (mm)	C (mm)	E (º)	F (º)	Rotation (º)
3	4	3" BSP (M)	35	400	310	770	-45º	+90	360º

Nº	Descripción	Material
1	Monitor body	Bronze
2	Outlet connection	Bronze
3	Nozzle	Bronze
4	Handle	Bronze
5	Flange	Bronze
6	Fixing device	AISI 316
7	Thriller	Carbon steel
8	Plug	Polyamide
9	Nozzle connection	Bronze

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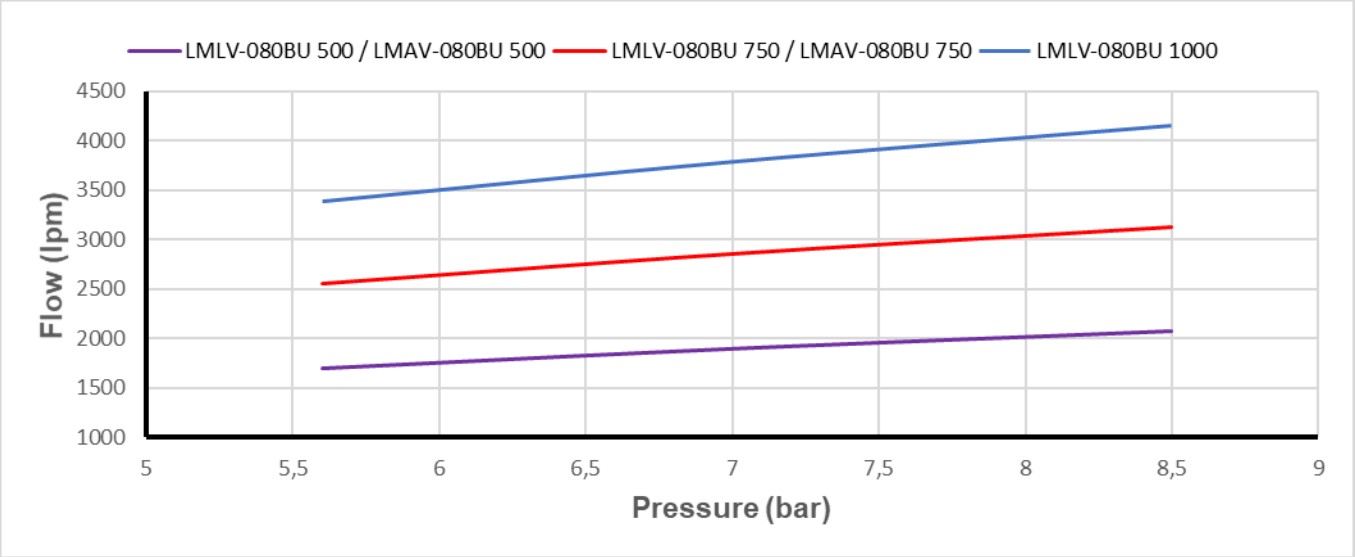
Pressure drop

The following graph shows how, as the flow rate in the MP-080B monitor increases, the pressure drop also increases. Since the performance data is based on the inlet pressure of the monitor, pressure drops through the monitor should not be taken into account in the design phase.



Flow rate depending on the type of nozzle

The following graph shows performance data for the different types of lances. As pressure increases, so does flow rate. For the LMAV-080BU self-priming lance models, the main difference with respect to the LMLV-80BU model, apart from the fluid discharged, is the maximum range achieved. In the LMAV-080BU self-priming lance model, the maximum range is reduced by around 10% compared to the LMLV-080BU constant flow lance model.



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Nozzle for MP-080B monitor

The MP-080B monitor is UL approved for use with fresh water, salt water, or any type of foam solution in conjunction with the LMLV-080BU and LMAV-080BU discharge nozzle models. All monitors for the MP-080B are made of bronze and are fixed flow type with a variable discharge pattern from mist to straight jet. The LMLV-080BU monitor model can be used with water or a foam solution supplied through the appropriate dosing system, for example, by means of a bladder tank with a proportioner or other foam dosing system. The LMAV-080BU nozzle model is capable of providing foam through the Venturi effect produced by the flow of water through the interior of the nozzle. Auto-induction can be stopped by using a ball valve.

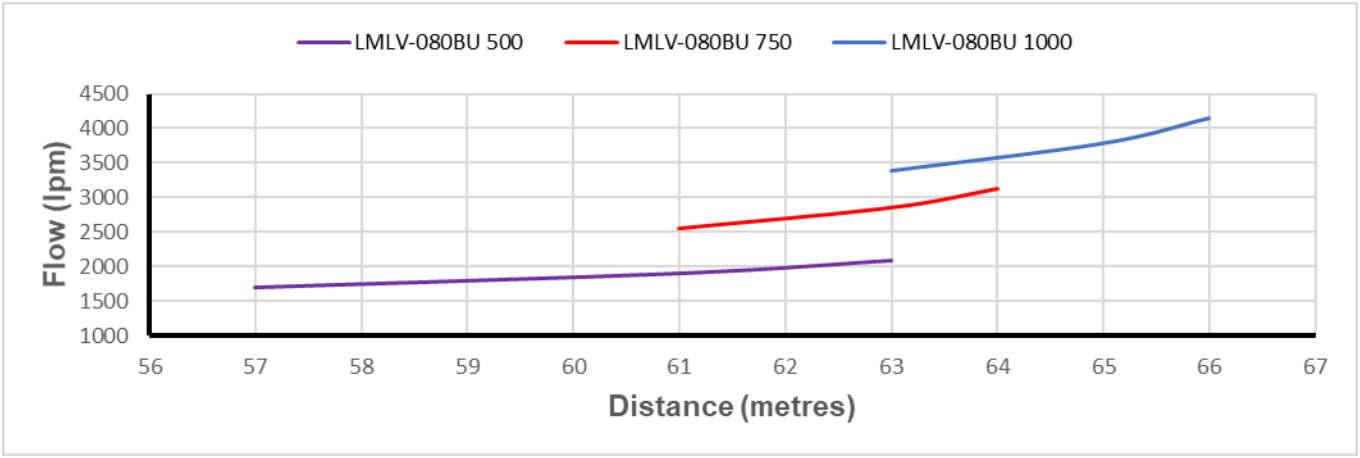
The standard LMLV-080BU nozzle model is supplied with a factory-set fixed nominal flow rate of either 1890 lpm, 2840 lpm, or 3780 lpm. The LMAV-080BU self-aspirating nozzle model is supplied with a fixed nominal flow rate set at the factory, with a choice of 1890 lpm or 2840 lpm. The nominal flow rate of the nozzles corresponds to an inlet pressure of 7 bar in the monitor. The foam mixture percentage for the LMAV-080BU self-aspirating nozzles is 3%. The maximum range is achieved with a monitor angle of 30-35º. The maximum range may be affected by wind conditions and the discharged fluid. For more information, refer to the technical data sheet for the LMLV-080BU or LMAV-080BU nozzle.

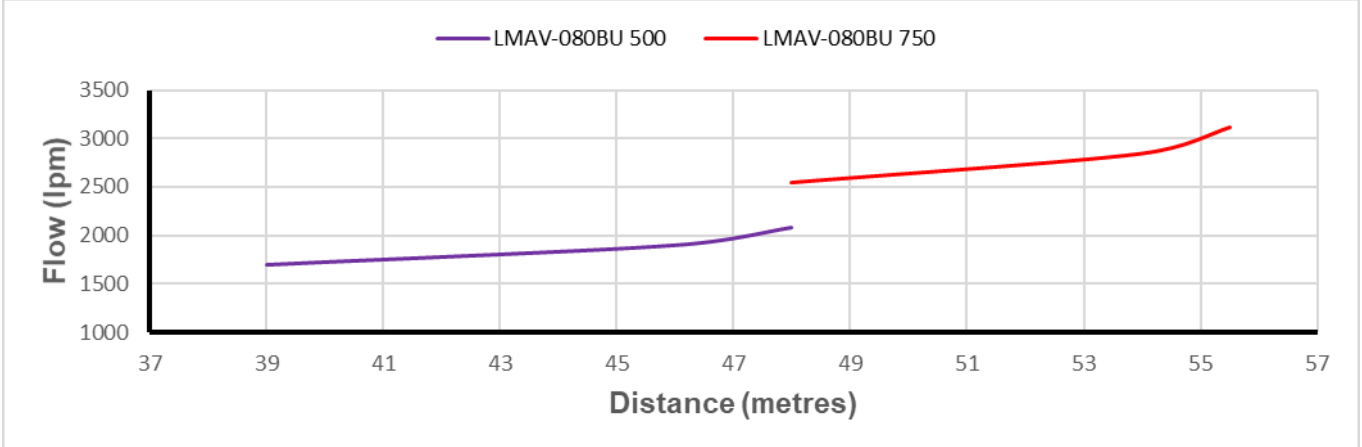
Nozzle	LMLV-080-BU	Features	
Description	Code	Flow	Approvals
LMLV-080BU 500	36000901	1890 lpm	UL
LMLV-080BU 750	36000902	2840 lpm	UL
LMLV-080BU 1000	36000903	3780 lpm	UL

Nozzle	LMAV-080 -BU	Features	
Description	Code	Flow	Approvals
LMAV-080BU 500	36000904	1890 lpm	UL
LMAV-080BU 750	36000905	2840 lpm	UL

Maximum range based on flow rate

The following graphs show how the jet range varies depending on the flow rate supplied by the nozzle. The maximum range is achieved with a monitor angle of 30-35º above the horizontal. The maximum range varies depending on the flow rate and the fluid discharged.





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Installation and maitenance

The installation, inspection, and testing of the monitor must be carried out by properly trained and qualified personnel. Before mounting the monitor to the supply pipe, it is essential to clean the supply line with water in order to remove sand, debris, or other impurities that could compromise the operation of the equipment.

Once the equipment has been installed, regular inspections must be carried out to detect possible damage or leaks in the system. If abnormal conditions such as low discharge flow, excessive wear, signs of corrosion, or structural damage are detected, the monitor must be taken out of service immediately and repaired by a qualified technician or, failing that, replaced.

To ensure that the monitor remains in optimal working condition, weekly inspections are recommended to verify the integrity of the components and ensure that the equipment is fit for use. In addition, a weekly functional test should be performed to check the discharge flow and regular movement in both planes throughout the entire operating range in order to detect possible leaks or anomalies.

Regular lubrication of the grease points on the joints using low-friction, water-resistant synthetic grease ensures smooth and reliable operation. In addition, after using the monitor with foam concentrate, it must be rinsed with fresh water to prevent residue buildup.

The owner is responsible for maintaining the equipment in optimal working condition.

Transport and storage

Monitors must be transported and stored exclusively in their original packaging in order to preserve their physical integrity and factory conditions.

Any improper stacking or handling that could compromise the structural or functional integrity of the product should be avoided.

Before assembly, each monitor must undergo a visual inspection to verify the absence of physical damage, corrosion, deformation, or other defects.

It is the user's responsibility to verify that AG FIRE SPRINKLER products are suitable for their application, in accordance with industry standards and the technical information provided.

The installer must understand how the product works and the reasons for its specific selection.

Failure to comply with installation requirements and applicable regulations may compromise system operation, resulting in system failure, serious injury to personnel, or property damage.

Caution

This equipment must only be handled by personnel who are properly trained in firefighting procedures and have the appropriate knowledge and technical training in order to minimize the risk of personal injury or property damage. The nozzle must be attached to the monitor with extreme caution. It is essential to verify that the threads of the connections are in optimal condition and that they are compatible, as the presence of damaged or incompatible threads can cause leaks in the connection or the nozzle to become detached during operation.

The associated pipe network must have sufficient mechanical strength to absorb and withstand the horizontal reaction force generated during monitor operation. Incorrect or inadequate installation can cause structural damage and pose a significant risk of serious injury to personnel.

During monitor installation, it is mandatory that the flange mounting bolts be tightened evenly and in accordance with the manufacturer's specifications. Uneven tightening can cause the monitor to shift or become misaligned with respect to the flange or connection valve. Before starting up the system, ensure that no personnel are located in the path of the water flow. The application of water or foam concentrate on electrical equipment is strictly prohibited, as water is an electrical conductor and there is a high risk of electrocution and serious injury.

Water should be supplied gradually and in a controlled manner. Sudden filling of the system should be avoided, as a sudden increase in flow can compromise the stability of the system and create hazardous situations.

Warranty

For warranty terms and conditions, please contact AG FIRE SPRINKLER.

Aplicable regulations

Foam systems must be designed, installed, and maintained in accordance with NFPA, EN, and other local regulations.

The design and implementation must take into account the factors that affect the efficiency of the discharge process, incorporating equipment and water supply systems with the necessary characteristics to ensure compliance with the required performance standards.

Note: The information contained in this technical data sheet is intended for qualified technical personnel and is subject to change without notice.

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Order information

To place your order, please complete the table indicating the monitor model, type of lance and connection, as well as any optional items you may require.

Material	Code	Quantity	Outlet connection
Bronze	MP-080B		

Nozzle

Material	Code	Flow	Quantity
Bronze	LMLV-080BU		
Bronze	LMAV-080BU		

Optional items

Optional	
Pressure gauge	
Drain valve	
Outlet connection NH	
Bronze thriller	
Stainless Steel thriller	

Related items

- **Valves**

Manual batterfly valves			Features	
Description	Model	Code	Pressure	Approvals
Batterfly valves 4"	VW300W	A005500	300 psi	FM/UL
Batterfly valves 4"	VMW300S	35900212	300 psi	FM/UL
Batterfly valves 4"	VM232WVFC	36000893	232 psi	CE
Batterfly valves 4"	VM232WP	A005418	250 psi	CE

Gates valves			Features	
Description	Model	Code	Pressure	Approvals
Gate valves 4"	VCOSY232	35900112	232 psi	FM/UL
Gate valves 4"	VCOSY300	A008954	300 psi	FM/UL
Gate valves 4"	VCOSY300F	A005418	300 psi	FM/UL
Gate valves 4"	VCNRS232IP	A005687	232 psi	FM/UL

You can find more information by consulting the AG fire sprinkler valve technical data sheets.

- **Towers and vehicles monitors**

Monitor towers	TPF/TPG	Features
Description	Code	Platform
Fixed monitors towers	A008458	Fixed
Rotating monitors towers	36000733	Rotating

Vehicles for monitors	AG-CN	Features
Description	Code	Capacidad
Vehicle monitor AG-CM0200	36000734	200 litres
Vehicle monitor AG-CM0650	36000735	650 litres
Vehicle monitor AG-CM1000	36000736	1000 litres
Vehicle monitor AG-CM2000	36000737	2000 litres
Vehicle monitor AG-CM4200	36000738	4200 litres

You can find more information by consulting the AG fire sprinkler valve technical data sheets.

- **Hidrants**

Dry hydrant 6" UL/FM	AG-F0733	Features
Description	Code	Length
Dry hydrant 250-R01	36001116	306 mm
Dry hydrant 250-R02	36001117	612 mm
Dry hydrant 250-R1	36000756	915 mm
Dry hydrant 250-R2	36000757	1065 mm
Dry hydrant 250-R3	36000758	1220 mm
Dry hydrant 250-R4	36000759	1370 mm
Dry hydrant 250-R5	36000760	1525 mm
Dry hydrant 250-R6	36000761	1675 mm
Dry hydrant 250-R7	36000762	1830 mm
Dry hydrant 250-R8	36000763	1980 mm
Dry hydrantt 250-R9	36000764	2130 mm

Wet hydrant 6"	AF	Features
Description	Code	Outlet
Wet hydrant 250-R01	36001036	4"

Steel hydrant 6"	AG-RM	Features
Description	Code	Outlet
Hidrante de acero 2 X 2,5 "	36000744	4"
Hidrante de acero 2 X 2,5 "	36000746	4"

Custom hydrant 4"	AGRM6-3	Features
Description	Code	Outlet
Custom hydrant	AGRM6-3	4"

You can find more information by consulting the AG fire sprinkler valve technical data sheets.

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