

FJM-EL Electric Monitor

Description

The SKUM FJM-EL Electric Monitor is a powerful fire suppression monitor with exceptional flow characteristics and remote control operation. The electric motors in the monitor drive the elevation and rotation movements. SKUM supply two FJM-EL Electric Monitor models; the MV (magnet valve) model and the LA (linear actuator) model. The MV model contains a solenoid valve to adjust and operate the fog and jet patterns. The LA model contains a linear actuator to adjust and operate the fog and jet patterns.

Application

The SKUM FJM-EL Electric Monitor is designed for fixed mounting to deliver water and foam. The monitor can deliver varying water to fog patterns and is adjustable through remote control operation.

Features

- Wide capacity range
- Adjustable flow to nominal capacity
- Compact and balanced design
- Low friction bearings for easy manoeuvres
- Long throw length
- Adjustable stream pattern
- Stainless steel and bronze corrosion-resistant construction
- Integrated electrical junction box
- Available with ATEX approved electrical equipment

Connections

- The foam and water inlet is flanged according to DIN PN16, JIS 10 K, or ANSI 150 lb

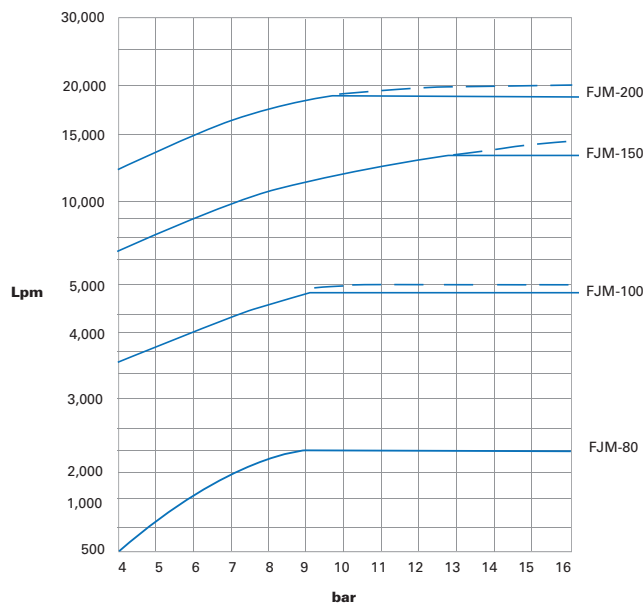
Optional components

The following components are available on request:

- Standard control cabinet and operating panel
- Custom-built solutions and control cabinet
- Power supply from 24 VDC to 440 VAC
- Harsh environment cast iron motors and gearboxes
- The S-version inbuilt inductor is available for most models
- The suction hose and valve is available for the S-versions



Capacity ranges



Listings and approvals

- Det Norske Veritas (DNV)
- Bureau Veritas (BV) only for the FJM-200 EL monitor
- Russian Maritime Register of Shipping (RMRS)
- CNBOP (Poland) available upon request

Ordering information

When ordering the SKUM FJM-EL Electric Monitor, specify the following information:

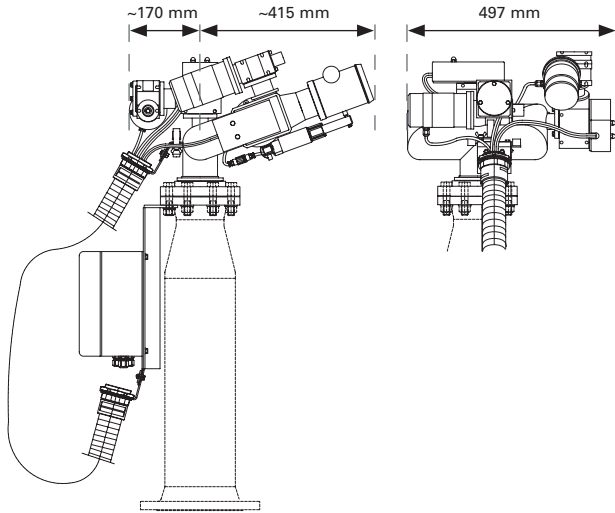
- Part number
- Type
- Flange type
- Flow and pressure capacity
- Motor and solenoid voltage
- S-version foam induction
- Type of control cabinet and panel

Table 1: Part details

Standard Environment Part No.	Harsh Environment CI Model Part No.	Description
FJM-80 EL LA linear actuator model		
161508107	–	FJM-80 EL LA DIN ANSI ^{1,3}
161508108	–	FJM-80 EL LA POS DIN ANSI ³
168211118	–	Standard junction box and protection hose assembly
FJM-100 EL LA linear actuator model		
–	163450155	FJM-100 EL LA DIN
–	163450159	FJM-100 EL LA POS DIN
–	163450162	FJM-100 EL LA ANSI
–	163650158	FJM-100 EL LA Exde DIN
–	163650165	FJM-100 EL LA Exde ANSI
–	163450169	FJM-100 EL LA CI DIN with motors ⁴
–	163450176	FJM-100 EL LA CI ANSI with motors ⁴
–	163650172	FJM-100 EL LA CI Exde DIN with motors ⁵
–	163650179	FJM-100 EL LA CI Exde ANSI with motors ⁵
FJM-150 EL LA linear actuator model		
–	163455149	FJM-150 EL LA DIN ANSI JIS
–	163655151	FJM-150 EL LA Exde DIN ANSI JIS
–	163455156	FJM-150 EL LA DIN ANSI JIS with motors ⁴
–	163450183	FJM-150 EL LA POS DIN ANSI JIS with motors ⁴
–	163655158	FJM-150 EL LA Exde DIN ANSI JIS with motors ⁵
FJM-100 EL MV		
–	163410148	FJM-100 EL MV DIN
–	–	FJM-100 EL MV POS DIN
–	163410247	FJM-100 EL MV ANSI
–	163410153	FJM-100 EL S MV DIN ²
–	163410252	FJM-100 EL S MV ANSI ²
–	163610151	FJM-100 EL MV Exde DIN
–	163610253	FJM-100 EL MV Exde ANSI

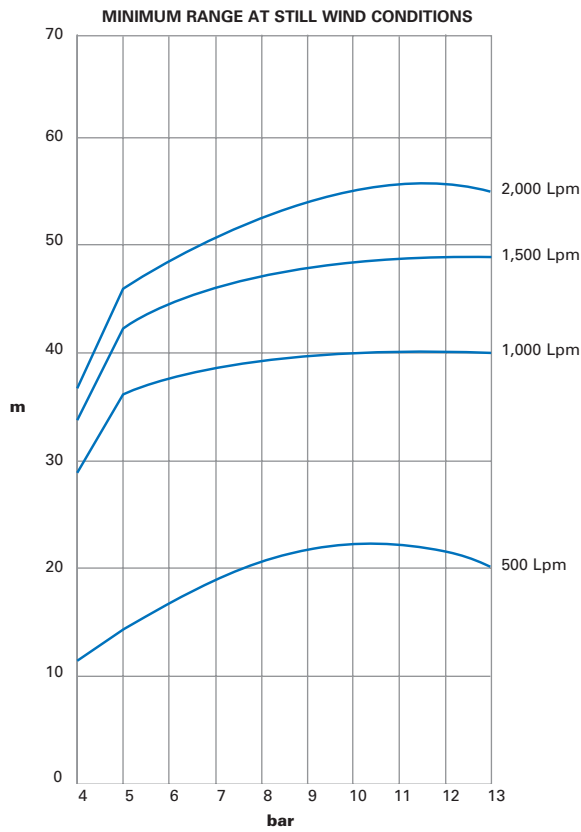
Standard Environment Part No.	Harsh Environment CI Model Part No.	Description
FJM-150 EL MV		
–	163415142	FJM-150 EL MV DIN ANSI JIS
–	163515144	FJM-150 EL MV Exde DIN ANSI
–	163415147	FJM-150 EL S MV DIN ANSI JIS
FJM-200 EL MV		
–	163420144	FJM-200 EL MV DIN
–	163420243	FJM-200 EL MV ANSI
–	163420151	FJM-200 EL MV DIN CI POS with motors ⁴
–	163620142	FJM-200 EL MV EXD DIN
–	163620241	FJM-200 EL MV EXD ANSI
Optional components		
–	161010606	FJM-100 suction hose Dia 2 in. x 3 m
–	161015608	FJM-150 suction hose Dia 2 in. x 3 m
161008805		Weather cover for the FJM-80 monitor
161010810		Weather cover for the FJM-100 monitor
161015815		Weather cover for the FJM-150 monitor
161020820		Weather cover for the FJM-200 monitor
Notes:		
1. Not supplied with a terminal box or cable protection hose. Order separately (Part No. 168211118).		
2. Excludes a suction hose.		
3. Complete with 24 VDC motors.		
4. Complete with motors. 3 x 220-254/380-440 V 50 Hz, 3 phase, IP56 3 x 220-277/386-480 V 60 Hz, 3 phase, IP56 linear motor 230 VAC		
5. Complete with motors EExd 3 x 230/400 V, 50 Hz, 3 phase, IP56 linear motor 24 VAC.		
6. Achieving the values listed in the range of jet graph depends on the monitor's elevation angle. For further details, see the length-height relationship graph.		

FJM-80 EL LA dimensions

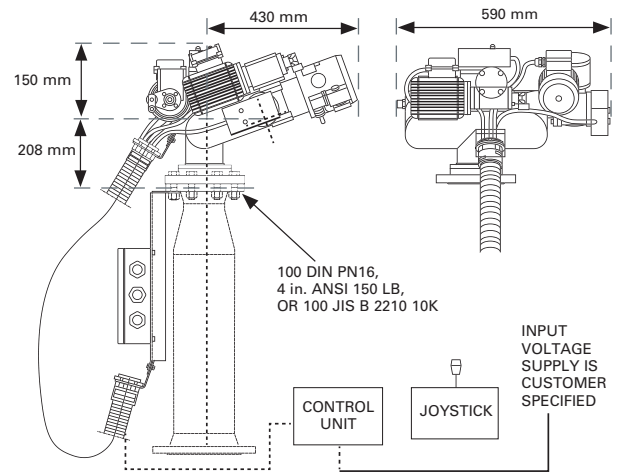


Note: Not supplied with a junction box and cable protection hose.

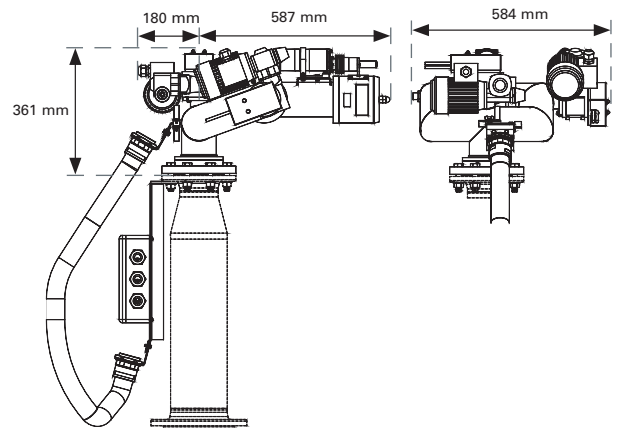
FJM-80 jet range



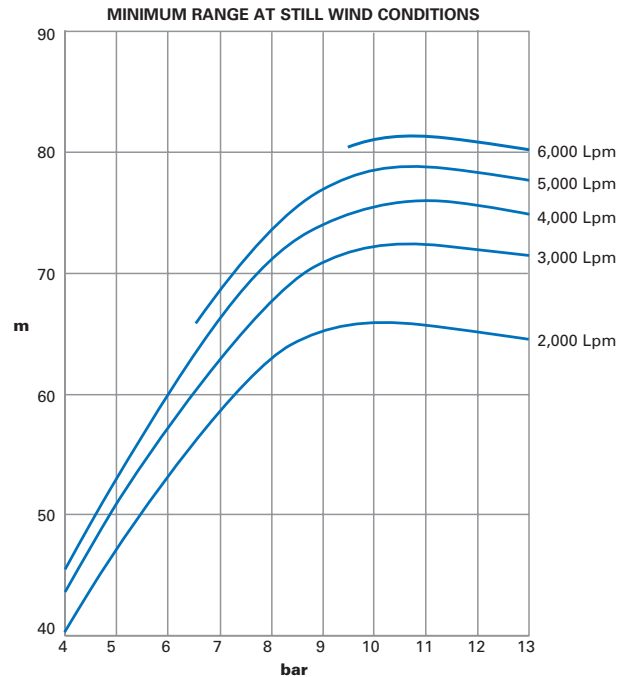
FJM-100 EL MV dimensions



FJM-100 EL LA dimensions

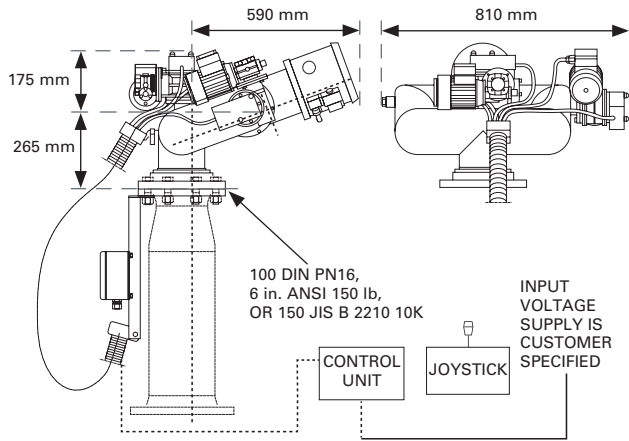


FJM-100 jet range

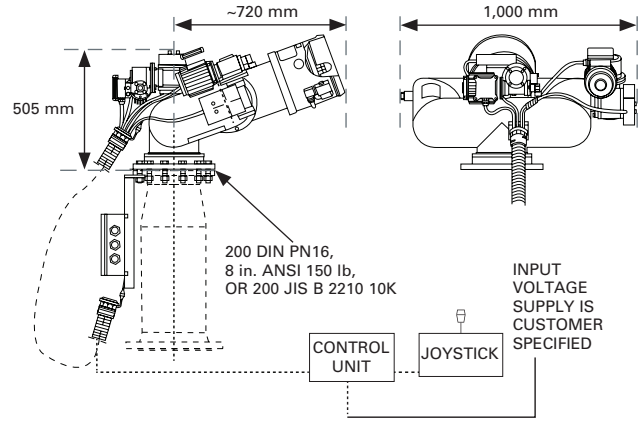


- Notes:**
1. Deduct 10% for the self-induction nozzle.
 2. Reaction force (N) = $0.233 \times (\text{Lpm}) \times \sqrt{p}$ (bar).
 3. Achieving the values in the range of jet graph depends on the monitor's elevation angle. See the length-height relationship graph.

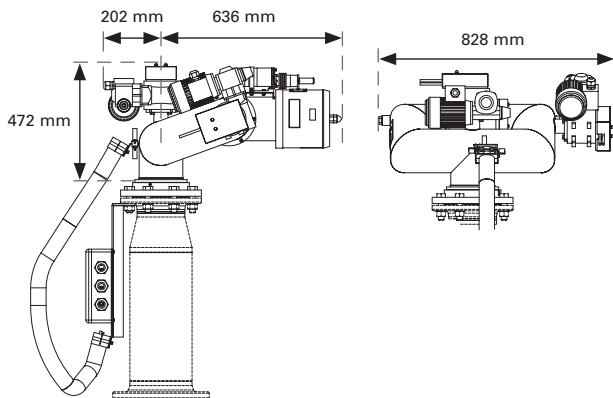
FJM-150 EL MV dimensions



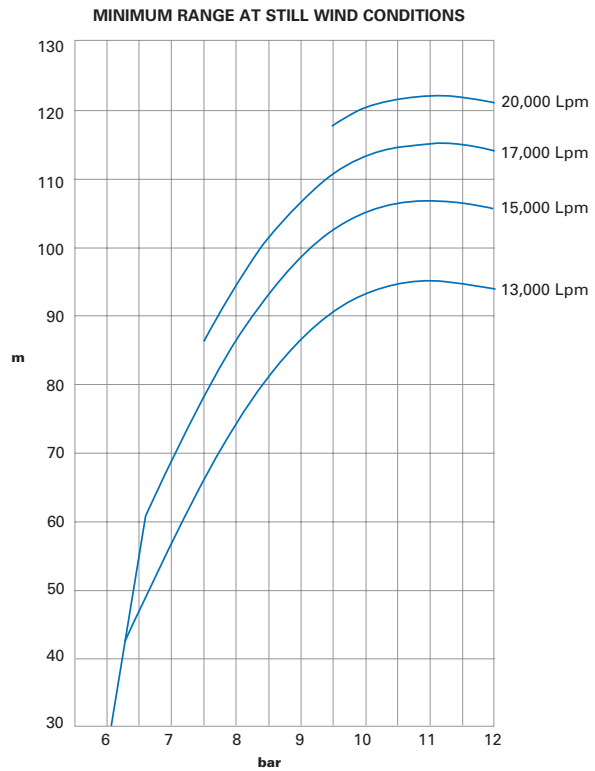
FJM-200 EL MV dimensions



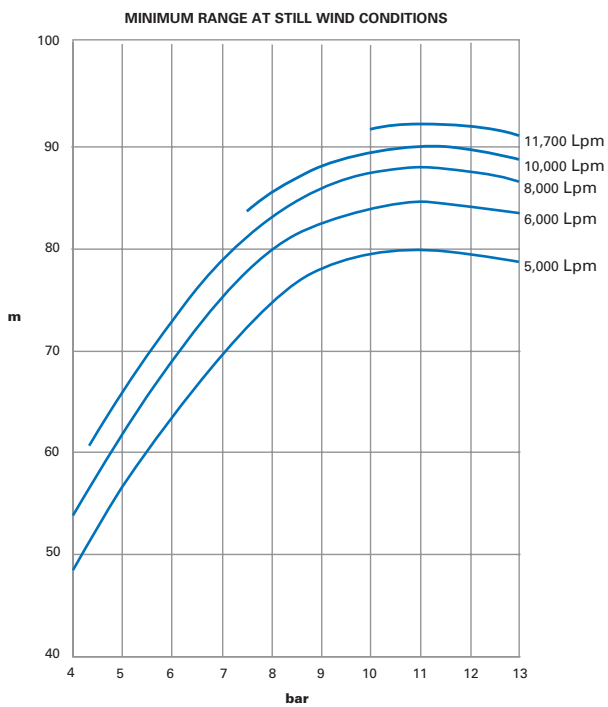
FJM-150 EL LA dimensions



FJM-200 jet range



FJM-150 jet range



Note: Achieving the values in the range of jet graph depends on the monitor's elevation angle. See the length-height relationship graph.

- Notes:**
1. Deduct 10% for self induction nozzle.
 2. Reaction force (N) = $0.233 \times (\text{Lpm}) \times \sqrt{p}$ (bar)
 3. Achieving the values in the range of jet graph depends on the monitor's elevation angle. See the length-height relationship graph.

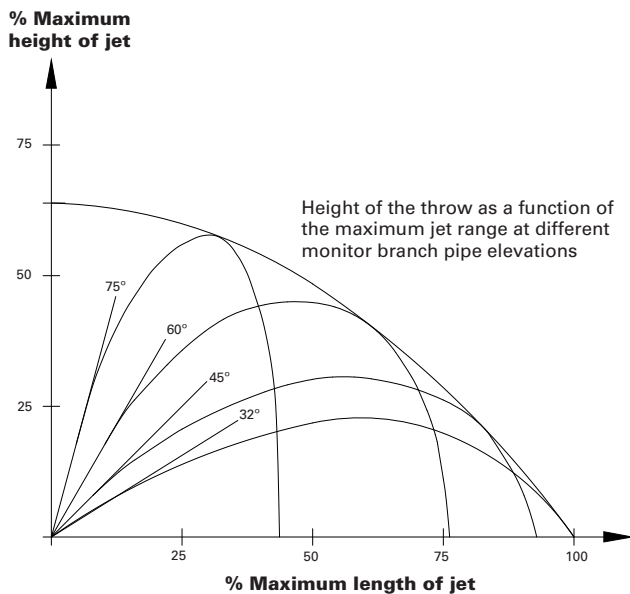
Performance data

Table 2: Performance data

FJM series standard	FJM-80	FJM-100	FJM-150	FJM-200
Maximum water capacity	2,000 Lpm	6,000 Lpm	11,700 Lpm	20,000 Lpm
Minimum water capacity	500 Lpm	1,000 Lpm	3,000 Lpm	8,000 Lpm
Design pressure	4 bar to 16 bar	4 bar to 16 bar	4 bar to 16 bar	4 bar to 13 bar
	Optimum 10 bar to 12 bar	Optimum 10 bar to 12 bar	Optimum 10 bar to 12 bar	Optimum 10 bar to 12 bar
Rotation	±175°	±175°	±175°	±175°
Elevation (MV)	–	–70° or +70°	–70° or +70°	–60° or +70°
Elevation (LA)	–65° or +70°	–90° or +70°	–90° or +70°	–
Weight	28.5 kg	69 kg	98 kg	139 kg

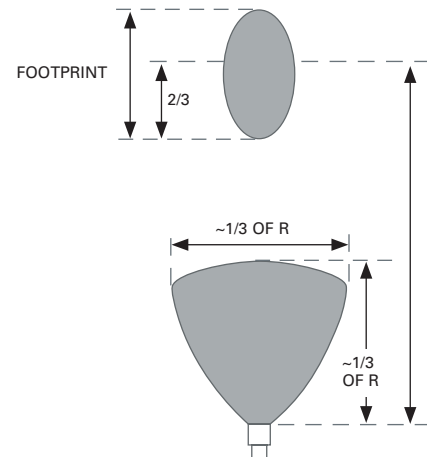
FJM series inbuilt inductor	FJM-100 S	FJM-150 S
Maximum water capacity	6,000 Lpm	11,700 Lpm
Minimum water capacity	1,000 Lpm	3,000 Lpm
Design pressure	4 bar to 16 bar	4 bar to 16 bar
	Optimum 10 bar to 12 bar	Optimum 10 bar to 12 bar
Maximum foam capacity	320 Lpm	600 Lpm
Rotation	±178°	±178°
Elevation	–45° or +70°	–45° or +70°
Suction connection	2 in. BSP male	2 in. BSP male
Weight	72 kg	101 kg

Length-height relationship



$$\text{Reaction force (N)} = 0.233 \times Q \text{ (Lpm)} \times \sqrt{p \text{ (bar)}}$$

Average fog/jet pattern in still air



- Note:**
1. This diagram applies to all FJM monitors.
 2. R = Jet range.

Note: The converted values in this document are provided for dimensional reference only and do not reflect an actual measurement. SKUM, and the product names listed in this material are marks and/or registered marks. Unauthorized use is strictly prohibited.