

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 monitor's electric motors drive elevation and rotation movements. The fog and jet pattern delivery adjustment is solenoid valve operated in the MV model and linear actuator operated in the LA model.

Application

The SKUM FJM-EL Electric Monitor is designed for fixed mounting and optimized to deliver water and foam. The varying water to fog pattern delivery is adjustable by remote control.

Features

- Wide capacity range
- Adjustable flow to nominal capacity
- Compact and balanced design
- Easily manoeuvred because of low friction bearings
- Long throw length
- Adjustable stream pattern
- Corrosion resistant construction of stainless steel and bronze
- Integrated electrical junction box
- Available with ATEX approved electrical equipment

Connections

- Foam and water inlet: Flanged according to DIN PN 16, JIS 10 K or ANSI 150 lb

Optional Components

The following components are available upon 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
- S-version inbuilt inductor is available for most models
- Optional suction hose and valve available for the S-versions

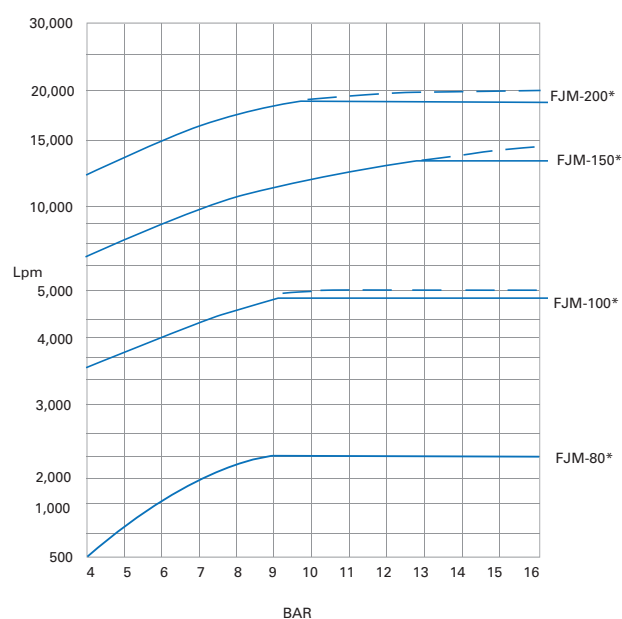


E000170

Listings and Approvals

- Det Norske Veritas (DNV)
- Bureau Veritas (BV) FJM-200 EL only
- Russian Maritime Register of Shipping (RMRS)
- CNBOP (Poland) FJM-100 EL only

Capacity Ranges



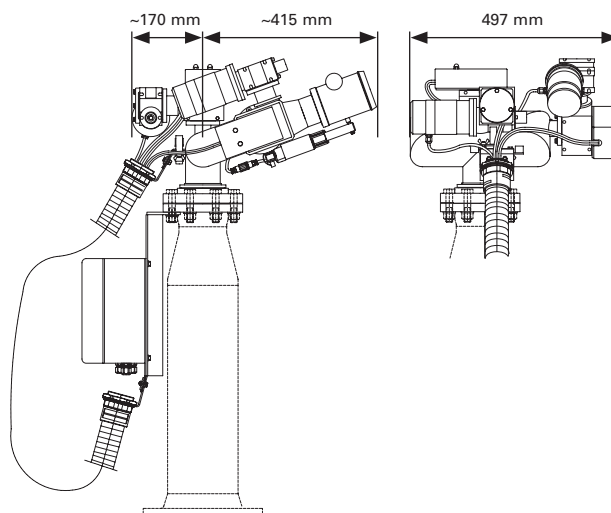
Ordering Information

When ordering the SKUM FJM-EL, 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

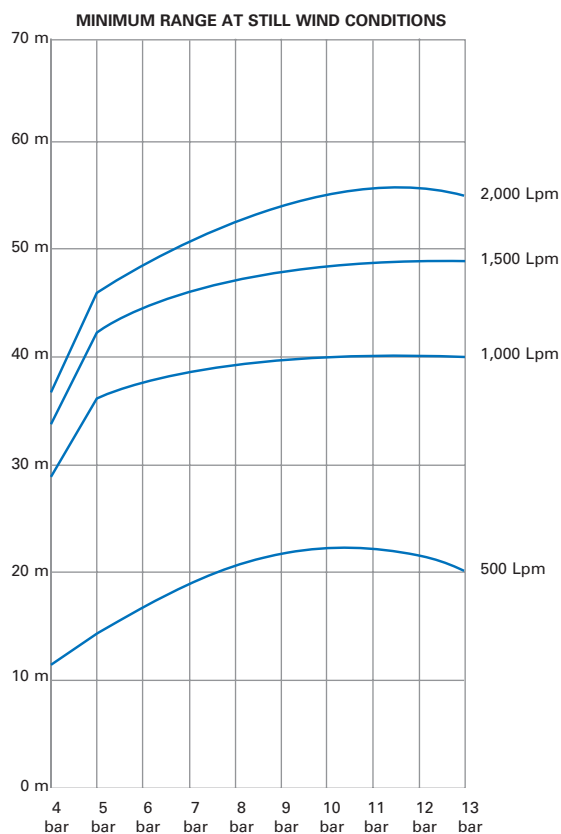
Standard Environment Part Number	Harsh Environment CI Model Part Number	Description
FJM-80 EL LA- Linear Actuator Model		
161508107	–	FJM-80 EL LA DIN/ANSI ^{1,3}
161508108	–	FJM-80 EL LA POS DIN/ANSI ³
168211118	–	Standard junction box and protection hose assembly
FJM-100 EL LA -Linear Actuator Model		
161550112	163450155	FJM-100 EL LA DIN
161550121	–	FJM-100 EL LA POS DIN
161550117	163450162	FJM-100 EL LA ANSI
161550559	163650158	FJM-100 EL LA Exde DIN
161550566	163650165	FJM-100 EL LA Exde ANSI
–	163450169	FJM 100 EL LA CI DIN with motors ⁴
–	163650172	FJM 100 EL LA CI Exde DIN with motors ⁵
FJM-150 EL LA - Linear Actuator Model		
161555125	163455149	FJM-150 EL LA DIN ANSI JIS
161555566	163655151	FJM-150 EL LA Exde ANSI JIS
–	163455156	FJM 150 EL LA DIN with motors ⁴
–	163655158	FJM 150 EL LA Exde DIN with motors ⁵
FJM-100 EL MV		
161510112	163410148	FJM-100 EL MV DIN
161510188	–	FJM-100 EL MV POS DIN
161510209	163410247	FJM-100 EL MV ANSI
161510126	163410153	FJM-100 EL S MV DIN ²
161510223	163410252	FJM-100 EL S MV ANSI ²
161510552	163610151	FJM-100 EL MV Exde DIN
161510650	163610253	FJM-100 EL MV Exde ANSI
FJM-150 EL MV		
161515118	163415142	FJM-150 EL MV DIN/ANSI/JIS
161515517	163515145	FJM-150 EL MV Exde DIN/ANSI
–	16345147	FJM-150 EL S MV DIN/ANSI/JIS
FJM-200 EL MV		
161520115	163420144	FJM-200 EL MV DIN
161520216	163420243	FJM-200 EL MV ANSI
161010606	–	FJM-100 suction hose 2 in. 3 m
161015608	–	FJM-150 suction hose 2 in. 3 m

FJM-80 EL LA



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

FJM-80 Jet Range



Notes: 1. Not supplied with a terminal box or cable protection hose. Order separately (Part No. 168211118)

2. Excludes a suction hose

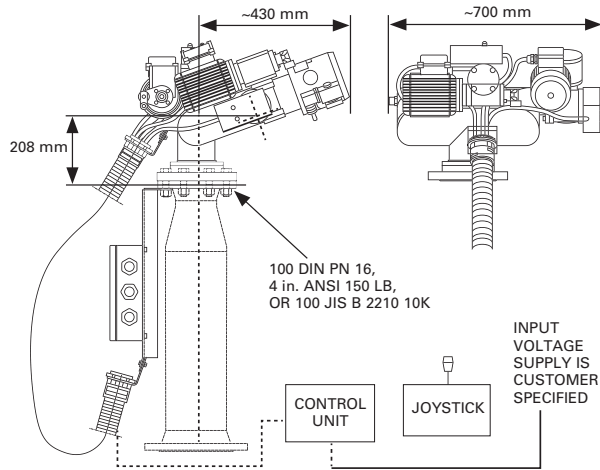
3. Complete with 24 VDC motors

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

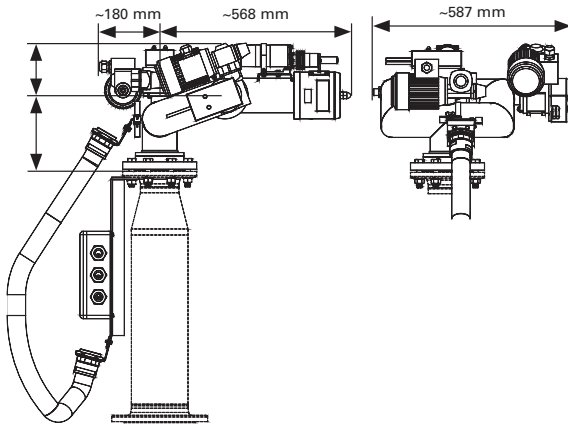
5. Complete with motors EExd
3 x 230/400 V, 50 Hz, 3 phase, IP56
linear motor 24 VAC

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-100 EL

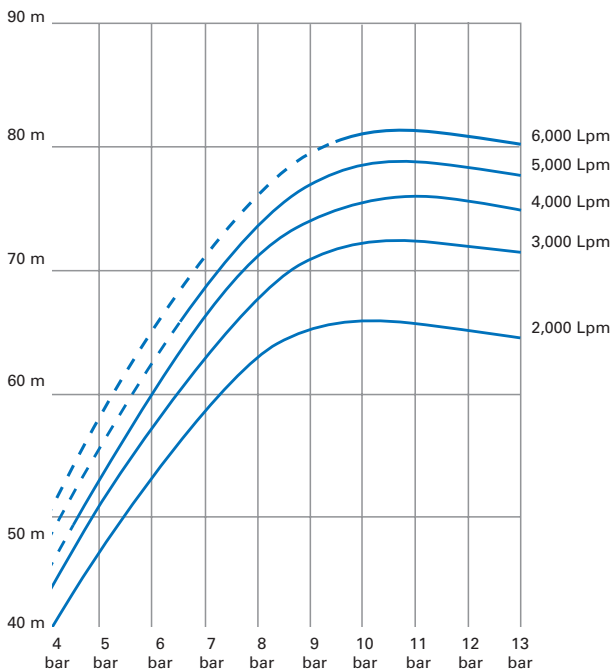


FJM-100 EL LA



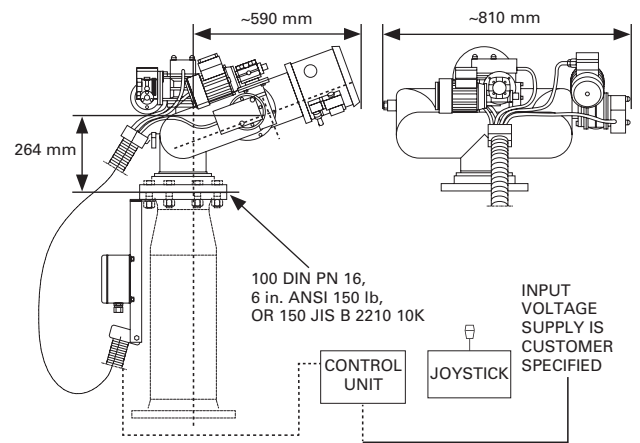
FJM-100 Jet Range

MINIMUM RANGE AT STILL WIND CONDITIONS

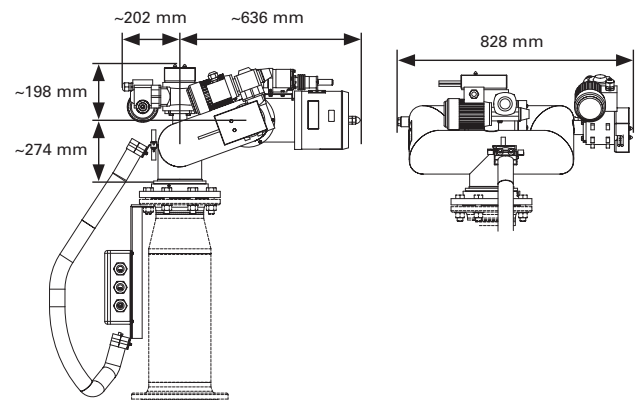


- Note:** 1. Deduct 10% for self induction nozzle.
 2. Reaction force (N) = $0.233 \times (\text{Lpm}) \times \sqrt{p} (\text{bar})$.
 3. Achieving the values in the range of jet graph depends on the monitor's elevation angle. See the length-height relationship graph.

FJM-150 EL

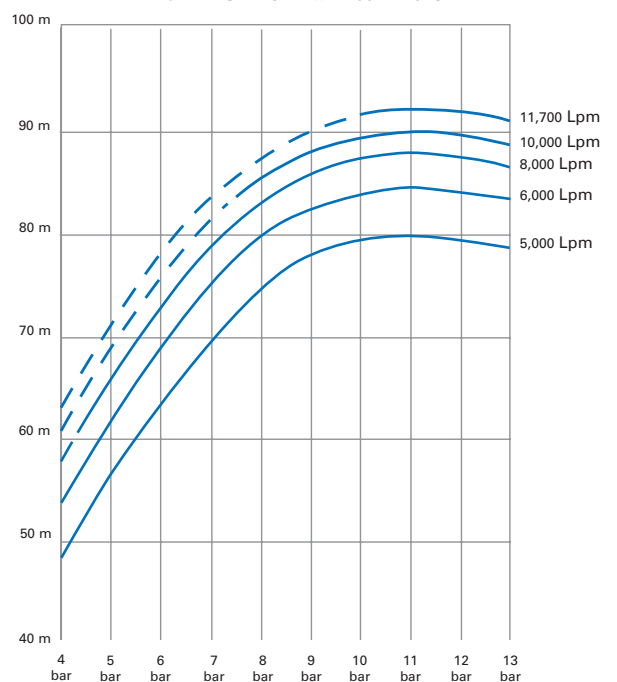


FJM-150 EL LA



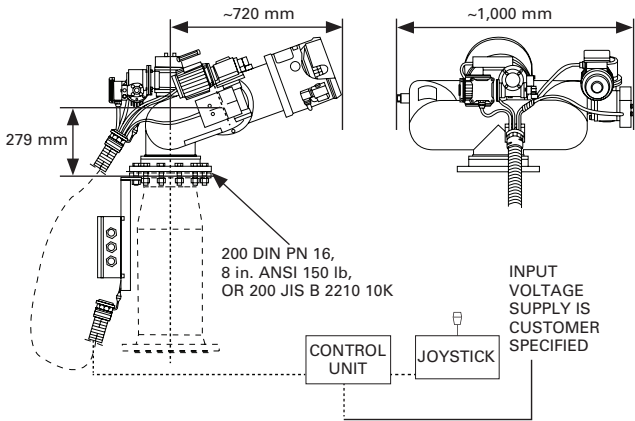
FJM-150 Jet Range

MINIMUM RANGE AT STILL WIND CONDITIONS

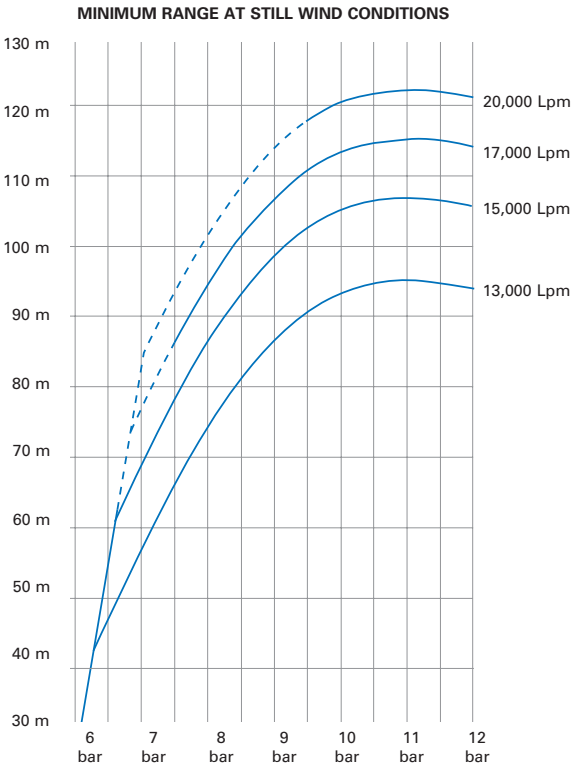


- Note:** Achieving the values in the range of jet graph depends on the monitor's elevation angle. See the length-height relationship graph.

FJM-200 EL



FJM-200 Jet Range



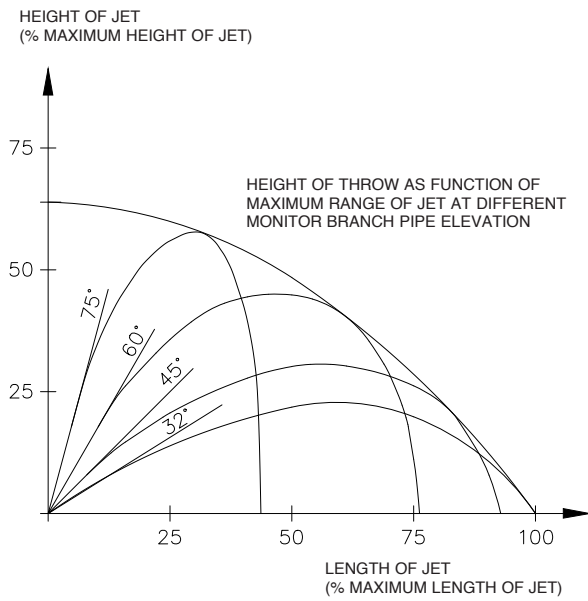
- Note:**
1. Deduct 10% for self induction nozzle.
 2. Reaction force (N) = 0.233 × (Lpm) × √p (bar)
 3. Achieving the values in the range of jet graph depends on the monitor's elevation angle. See the length-height relationship graph.

Performance Data

FJM series standard		FJM-80	FJM-100	FJM-150	FJM-200
Water capacity	Maximum	2,500 Lpm	6,000 Lpm	11,700 Lpm	20,000 Lpm
	Minimum	500 Lpm	1,000 Lpm	3,000 Lpm	8,000 Lpm
Design pressure		4 – 16 bar	4 – 16 bar	4 – 16 bar	4 – 13 bar
		Optimum 10 – 12 bar	Optimum 10 – 12 bar	Optimum 10 – 12 bar	Optimum 10 –12 bar
Rotation		±175°	±175°	±175°	±175°
Elevation		–65° or +70°	–70° or +70°	–70° or +70°	–60° 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 – 16 bar	4 – 16 bar
	Optimum 10 – 12 bar	Optimum 10 – 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

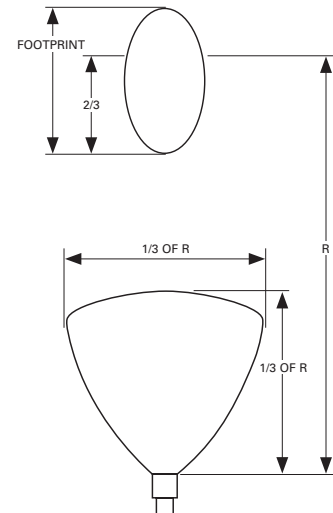


$$\text{Reaction force (N)} = 0.233 \times Q \text{ (Lpm)} \times \sqrt{p \text{ (bar)}}$$

Note: The converted values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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Average Fog/Jet Pattern in Still Air



- Note:**
1. This diagram is for all FJM Monitors.
 2. R = Jet range.