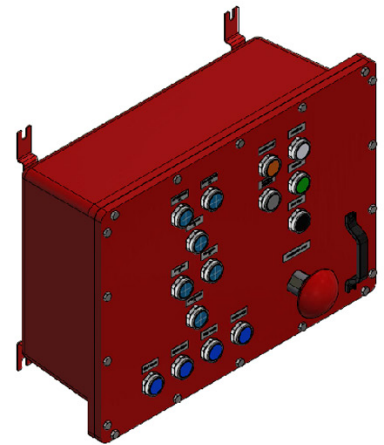# Monsoon Main Control Module (AMMCM)

ANGUS FIRE

The Angus Monsoon Main Control Module is used for remote control of electric and electro-hydraulic monitors. These panels are used to remotely control all their movements, including the automation of the water and foam isolation valves. The various combination available allow for the composition of systems architecture suitable for installation within safe or hazardous area in according to ATEX and IECEx directives. Every panel can be tailored to meet the specific project requirements in terms of controls, signaling and command type as well as panel housing materials and painting system. For complex solutions, where standard solutions do not find immediate application, contact Angus Fire to discuss the details of the desired architecture.

These control modules are the intelligent core of the fibre optic control system where the CPU and its acquisition modules are located. Please refer to the following datasheets for the power unit and accessories:

Monitor Interface Box:
AMMIB

Wireless Unit Kit:
AMWK

Technical Characteristics
Control Module:
Housing to be selected among:
• Carbon Steel Sheets (1)
• Stainless Steel AISI 316
• Aluminium alloy (2)
• Polyurethane Gasket (1)
• Disconnector switch for power supply
• Earth connection terminals for each component
• Emergency stop push button

• Amber LED indicator for fault
• White LED indicator for power presence
• Lamp test push button
• Power Supply:
  - 380/400/415 Vac 50Hz 3 Ph+G
  - 380/440/480 Vac 60 Hz 3 Ph+G
  - 230 Vac 50 Hz 1Ph+N+G
  - 230 Vac 60 Hz 1Ph+N+G
  - 110/120 Vac 60 Hz 1Ph+N+G
• Construction suitable for installation within:
• Safe Area protection grade IP 55, IP 65 or IP 67
• Classified area ATEX II (2)1 GD Ex-d II B / II B + H2 (2)
• Classified area IEC Ex II 2(1) Ga/Gb Ex-d II B / II B + H2 (2)
• Classified area ATEX Ex II 2(1) GD Ex-ia (3)
• Classified area IEC Ex Ex II 2(1) Ga/Gb Ex-ia (3)
• Enclosure formats:
• Podium / desk solution / desk evolution solution
• JB
• Commands:
  - Joystick (4)
  - Push buttons.
  - Touchscreen (only for desk evolution)
  - LED indicator command

Controllable monitors:
• Electric
• Electro-hydraulics
• Movements and Controls:
• Monitor Upwards / Downwards
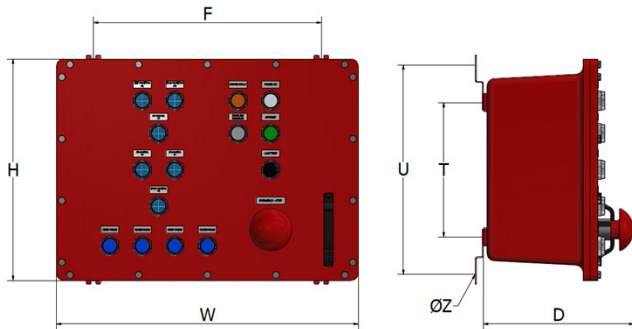• Monitor Rightwards / Leftwards
• Nozzle or Spreader Jet/Fog
• Main valve water
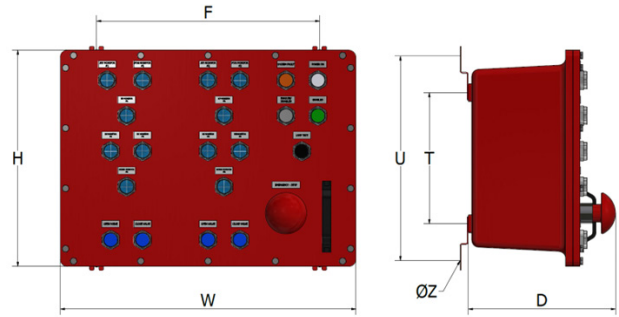• Foam Valve

Standard colours:
• Natural finish
• Colour red RAL 3000
• Colour grey RAL 7035

(1) Valid only for podiums   (3) Valid only for podiums
(2) Valid only for Ex-d panels   (4) Valid only for safe area
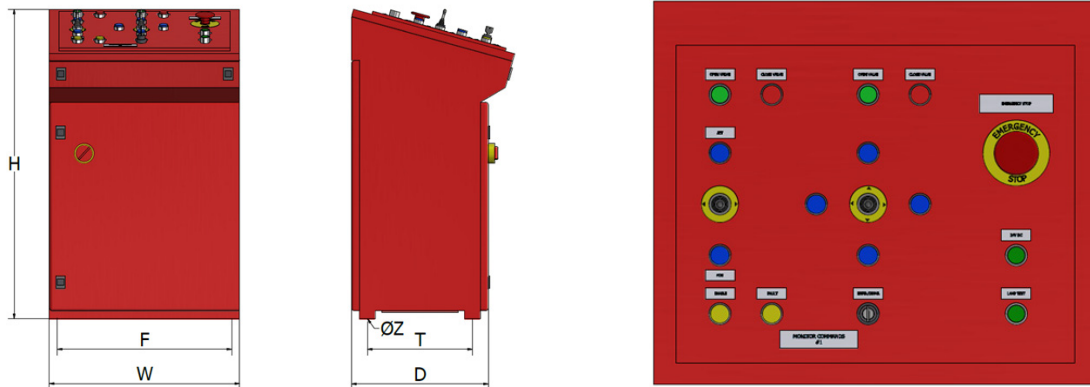
Monsoon Remote Control Panels
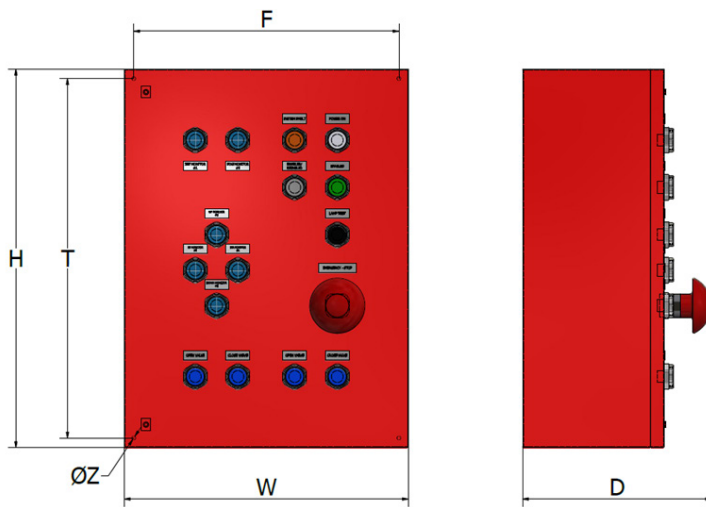
Main control module MCM-1

Main control module MCM

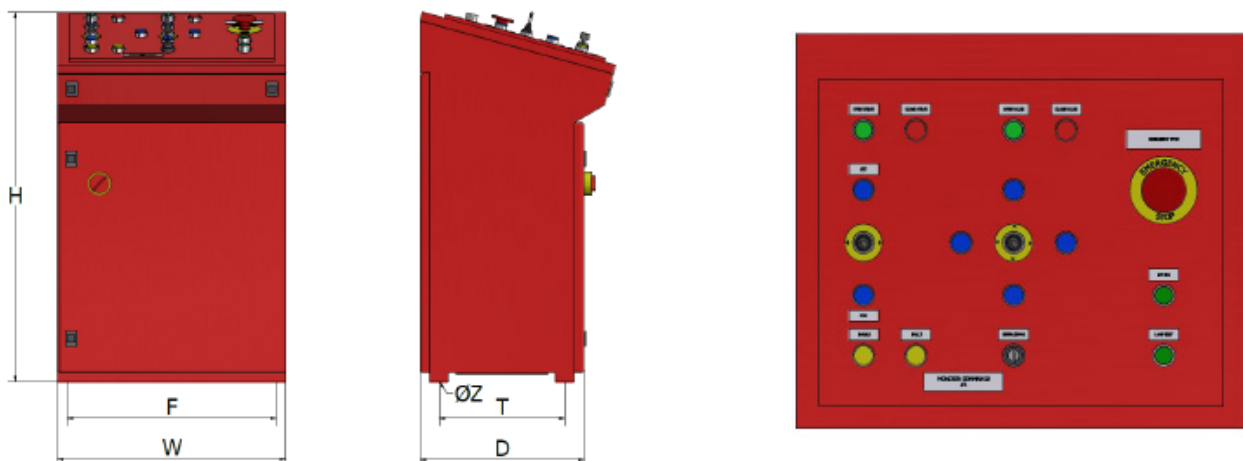| Installation	Panel Type	Controllable Monitors	Material	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	U mm (inch)	ØZ
Hazardous Area	Main Control Module (MCM)	1 Monitor or 2 Monitors	Aluminium	610 (24)	835 (32.8)	415 (16.3)	630 (24.8)	605 (23.8)	604 (23.7)	M10
Hazardous Area	Main Control Module (MCM)	1 Monitor or 2 Monitors	Stainless Steel	615 (24.2)	835 (21.4)	415 (16.3)	605 (23.8)	605 (23.8)	604 (23.7)	M16

Podium control 1 monitor MCMIA

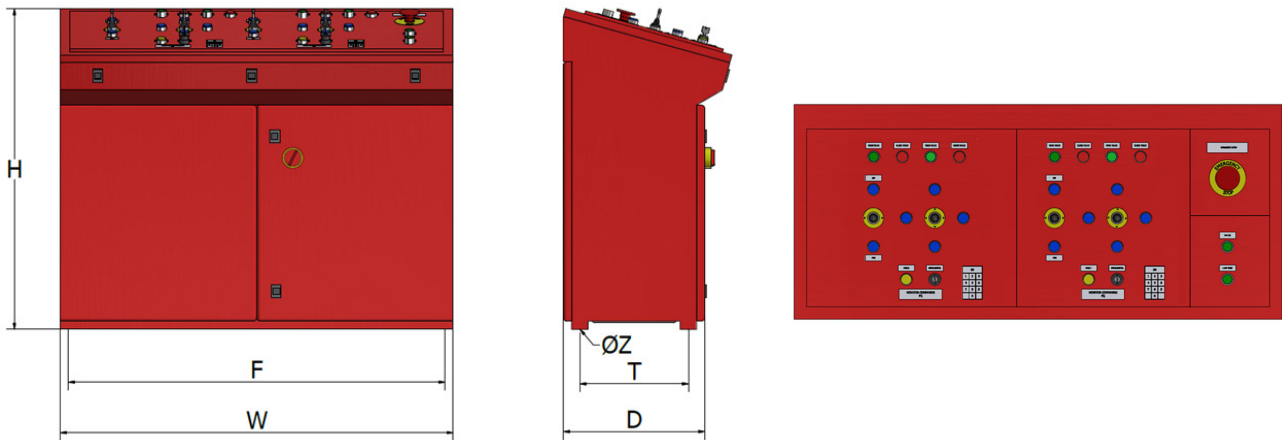| Installation	Panel Type	Controllable Monitors	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ mm (inch)
Safe	Main Control Module (MCMIA)	1 Monitor	800 (31.5)	1000 (39.3)	400 (15.7)	273 (10.7)	730 (28.7)	11 (0.4)

Wall Mounted Main Control Module Safe Area

Installation	Panel Type	Material	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ
Safe	Main Control Module (MCMS)	Carbon Steel	800 (31.5)	600 (39.3)	300 (15.7)	730 (28.7)	530 (20.8)	M8
Safe	Main Control Module (MCMS)	Stainless Steel	800 (31.5)	600 (39.3)	300 (15.7)	730 (28.7)	530 (20.8)	M8

Podium control 1 monitor MCMS-1

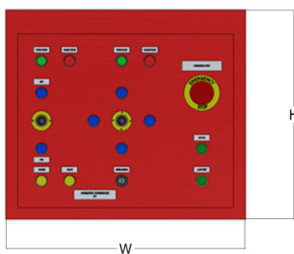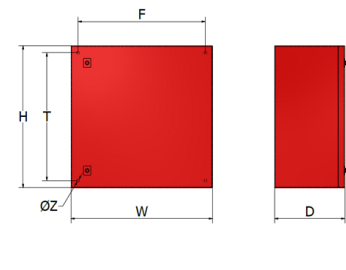| Installation	Panel Type	Controllable Monitors	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ mm (inch)
Safe	Main Control Module (MCMS)	1 Monitor	800 (31.5)	1000 (39.3)	400 (15.7)	273 (10.7)	730 (28.7)	11 (0.4)

Podium control at least 2 monitors MCMS

Installation	Panel Type	Controllable Monitors	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ mm (inch)
Safe	Main Control Module (MCMS)	From 2 to 128 Monitors	1200 (47.2)	1000 (39.3)	400 (15.7)	273 (10.7)	1130 (44.4)	11 (0.4)

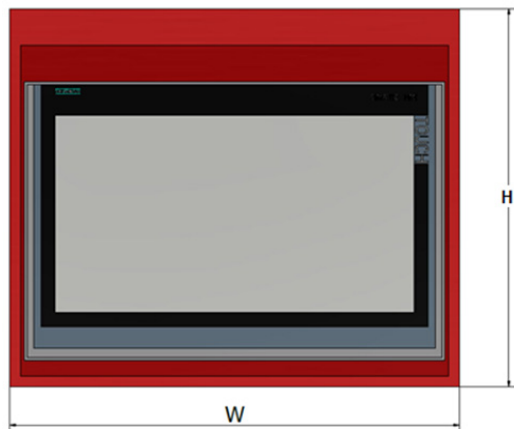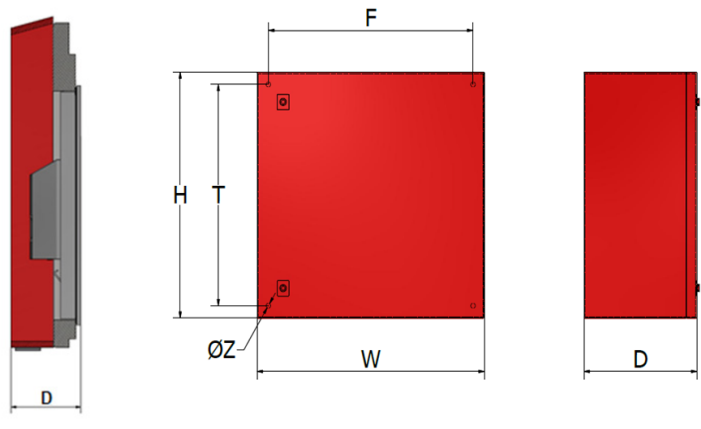**Command monitor desk solution MCMS-1**

Command monitor desk solution MCMS

Control module

Installation	Panel Type	Controllable Monitors	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ
Safe	Desk Top	1 Monitor	960 (37.8)	635 (25)	215 (8.46)			M8
Safe	Desk Top	From 2 to 128 Monitors	1700 (66.9)	635 (25)	215 (8.46)			M8
Safe	Wall Mounted	From 2 to 128 Monitors	800 (31.5)	600 (39.3)	300 (15.7)	730 (28.7)	530 (20.8)	M8

Command monitor desk evolution solution MCMS   **Control module**

Installation	Panel Type	Controllable Monitors	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ
Safe	Main Control Module MCMS Desk Evolution solution	From 2 to 128 Monitors	960 (37.8)	635 (25)	215 (8.46))			M8
Safe	Main Control Module MCMS	From 2 to 128 Monitors	800 (31.5)	600 (39.3)	300 (15.7)	730 (28.7)	530 (20.8)	M8

• **Multimode Fibre optic cable OM3 MOD FC001**
Core: n.4 (1Tx + 1Rx + 2 Spare)
LC Connector
Core Diameter: 50 ± 2,5 μm
Cladding Diameter:125 ± 2 μm
External Diameter: 7,0 mm
Glass fibre for rodent protection and tensile strength
Stripping wire: PET
Sheath: LSZH compound (Indoor installation) or
Polyethylene (Outdoor installation)
Bending radius:(during the laying 15 cm) (installed 10 cm)
Wavelength: 850 nm-1300 nm
Bandwidth: ≥ 1500 MHz x km - ≥ 500 MHz x km
refractive index:1482 - 1477

• **Signal cable 12x1.5mm2 MOD.SM1 (Command monitor Signals)**
Flexible bare copper class 5 acc. standards
Fire resistant Mica glass tape over each conductor
Insulation: special XLPE compound
Internal wire colour: white – black (both numbered)
Total assembly: pairs twisted with optimal lay length
Inner sheath: special low smoke zero halogen compound
Armour: galvanized steel wire armour, nominal wire diameter 1,6mm
Outer sheath: special low smoke zero halogen hydrocarbon resistant
compound type M1 according CEI EN 50363

Cable gland in nickel-plated brass or in stainless steel suitable for armoured cable, available in metric or imperial size

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