

Monsoon Valve Interface Box (AMVIB)



The Angus Monsoon Valve Interface Modules are panels specially developed for the power supply and control of deluge and isolation valves. The standard solutions available are the following: AMVIB A, AMVIB B that allow the composition of various control architectures. In detail, VIB A contains the power components to manage 2 deluge valves (redundant), the VIB B version supplies 2 motorized valves in three-phase and single-phase voltage. The available solutions allow the composition of architectures suitable for installation both in a safe area and classified in accordance with the ATEX or IECEx directives.

This junction box must be inserted in the modular fibre optic control system, please refer to the following Datasheets, for the control part:

Main control module:
AMMCM

Technical characteristics

Power Module:

- Housing to be selected among:
 - Carbon Steel Sheets (1)
 - Stainless Steel AISI 316
 - Aluminium alloy (2)
 - Polyurethane Gasket (1)
 - Earth connection terminals for each component
 - Main switch
 - Anti-condensation heater
 - 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)
 - Reading of pressure switch or pressure transmitter installed on field mounted deluge valves
 - Possibility to connect the deluge valve operation test box

Finish:

- Natural finish
- Colour red RAL 3000
- Colour grey RAL 7035

Isolation Valve:

- Valve type:
 - Butterfly valve
 - Ball valve
- 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

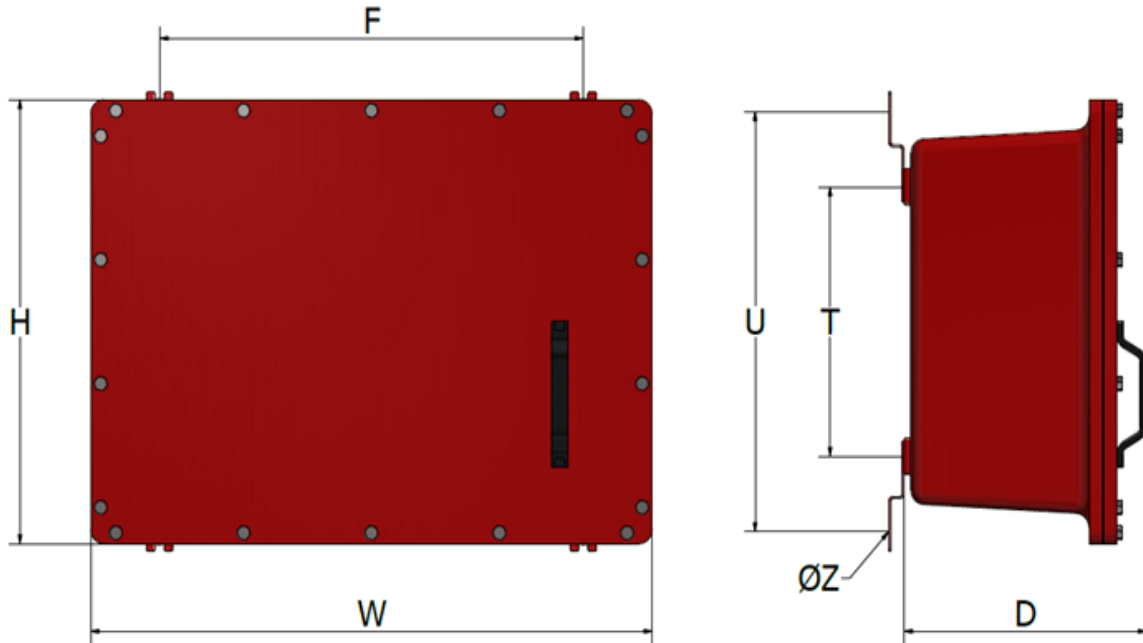
Deluge Valve

- Power Supply:
 - 24Vdc
 - 48Vdc
 - 110Vdc
- Operation:
 - Normally closed NC
 - Normally opened NO

(1) Valid only for IP junction box

(2) Valid only for Ex-d junction box

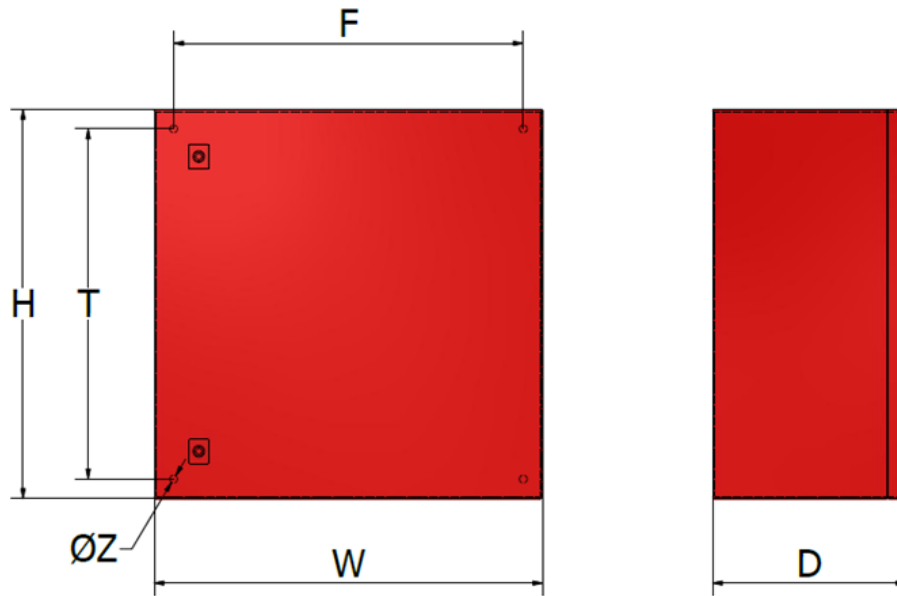
Monsoon Valve Interface Box



Valves Interface Box AMVIB

Type	Installation	N°1 Deluge Valve	N°2 Deluge Valve	N°1 Motorised Valve	N°2 Motorised Valve	Material	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	U mm (inch)	ØZ
AMVIB A	Hazardous Area	✓	✓	✗	✗	Aluminium	595 (23.4)	540 (21.2)	365 (14.3)	400 (15.7)	545 (21.4)	559 (22.1)	M16
AMVIB B		✗	✗	✓	✓	Aluminium	595 (23.4)	540 (21.2)	365 (14.3)	400 (15.7)	545 (21.4)	559 (22.1)	M10
AMVIB A		✓	✓	✗	✗	Stainless Steel	600 (23.6)	545 (21.4)	325 (12.7)	405 (15.9)	550 (21.6)	538 (21.1)	M16
AMVIB B		✗	✗	✓	✓	Stainless Steel	600 (23.6)	545 (21.4)	325 (12.7)	405 (15.9)	550 (21.6)	538 (21.1)	M16

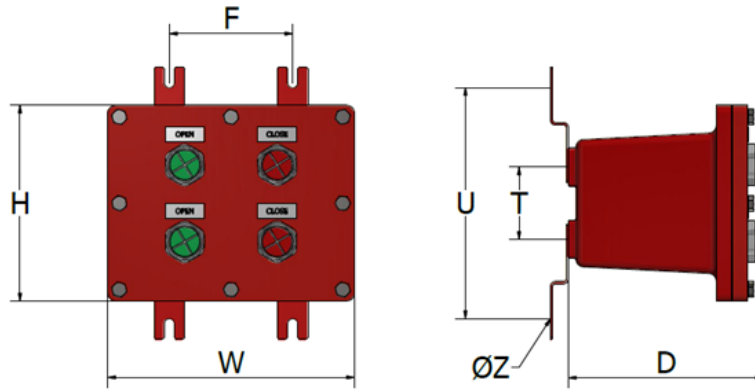
Monsoon Valve Interface Box



Valves Interface Box AMVIBS

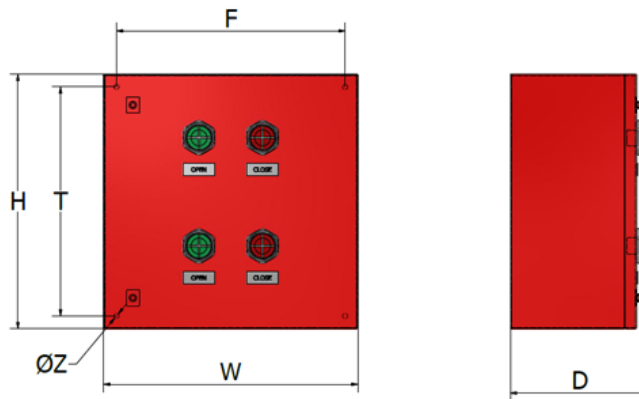
Type	Installation	N°1 Deluge Valve	N°2 Deluge Valves	N°1 Motorised Valve	N°2 Motorised Valves	Material	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ
AMVIB A	Safe Area	✓	✓	✗	✗	Carbon Steel	500 (19.6)	500 (19.6)	200 (7.9)	430 (16.9)	430 (16.9)	M8
AMVIB B		✗	✗	✓	✓	Carbon Steel	500 (19.6)	500 (19.6)	200 (7.9)	430 (16.9)	430 (16.9)	M8
AMVIB A		✓	✓	✗	✗	Stainless Steel	500 (19.6)	500 (19.6)	200 (7.9)	430 (16.9)	430 (16.9)	M8
AMVIB B		✗	✗	✓	✓	Stainless Steel	500 (19.6)	500 (19.6)	200 (7.9)	430 (16.9)	430 (16.9)	M8

Monsoon Valve Interface Box



Remote Actuation Unit AMRAU

Type	Installation	Test Control	Material	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	U mm (inch)	ØZ
AMRAU	Hazardous Area	2 Deluge Valves	Aluminium	315 (12.4)	250 (9.8)	225 (8.8)	180 (7.1)	265 (10.4)	241 (9.5)	M8
AMRAU		2 Deluge Valves	Stainless Steel	320 (12.6)	255 (10.0)	232 (9.1)	175 (6.8)	270 (10.6)	258 (10.1)	M10

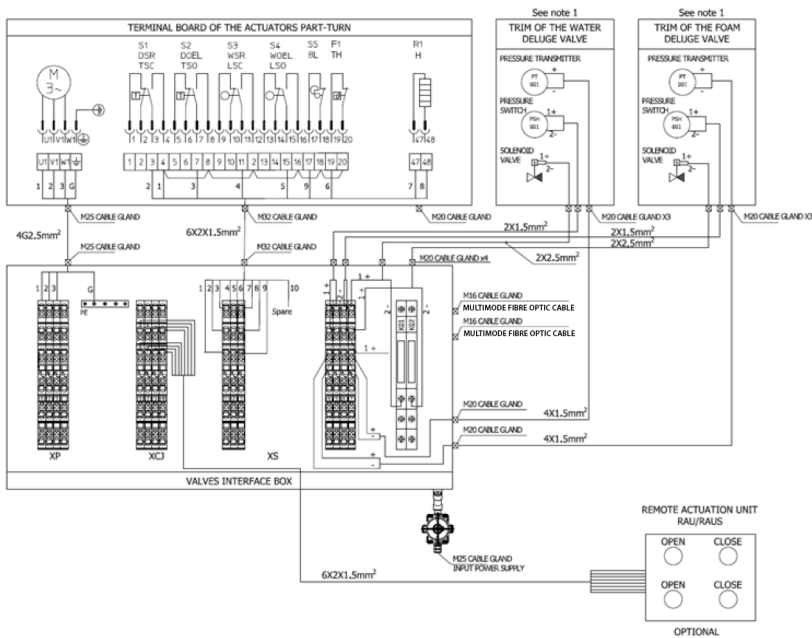


Remote Actuation Unit AMRAUS

Type	Installation	Test Control	Material	W mm (inch)	H mm (inch)	D mm (inch)	T mm (inch)	F mm (inch)	ØZ
AMRAUS	Safe Area	2 Deluge Valves	Carbon Steel	250 (9.8)	300 (11.8)	150 (5.9)	230 (9.0)	180 (7.0)	M8
AMRAUS		2 Deluge Valves	Stainless Steel	250 (9.8)	300 (11.8)	150 (5.9)	230 (9.0)	180 (7.0)	M8

Electrical Wiring Diagram

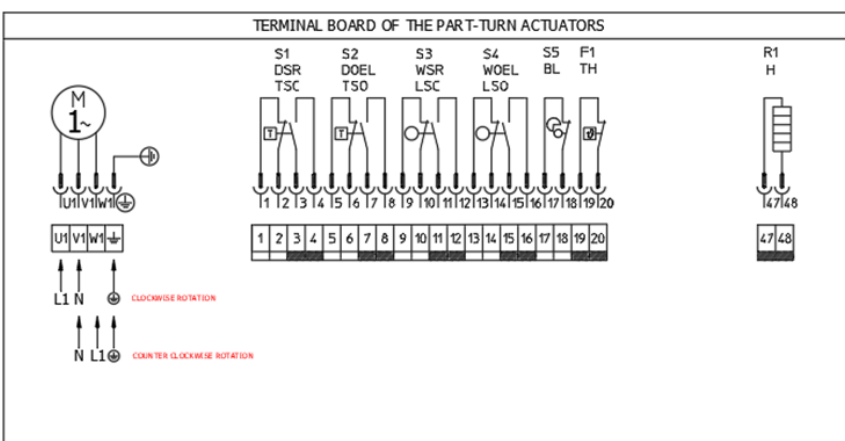
Version 380/400/415 Vac 50 Hz 3Ph+G
Version 380/440/480 Vac 60 Hz 3Ph+G



- 1- S1 DSR/TSC Torque switch, 1- S1 DSR/TSC Torque switch, closing, clockwise rotation
 - 2- S2 DOEL/TSO Torque switch, closing, counter-clockwise rotation
 - 3- S3 WSR/LSC Limit switch, closing, clockwise rotation
 - 4- S4 WOEL/LSO Limit switch, closing, counter-clockwise rotation
 - 5- S5 BL Blinker transmitter
- 1 - In case of presence of the deluge valves, follow the below electrical diagram. For each valve is possible connected 1 or 2 pressure switch, 1 or 2 pressure transmitter and 1 or 2 solenoid valve.

Electrical Wiring Diagram

Version 230 Vac 50 Hz 1Ph+N+G
Version 230 Vac 60 Hz 1Ph+N+G
Version 110/120 Vac 60 Hz 1Ph+N+G



Isolation Valve Actuator

Accessories

- **Signal cable 6x2x1.5mm² MOD.SC1 (Motorized valve 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)
 Pairs assembly: cores twisted in pairs
 Total assembly: pairs twisted with optimal lay length
 Separator tape: Polyester tape
 Overall shield: Aluminium/polyester tape with stranded tinned copper drain wire, nominal section 0,50mm² (7x0,30mm)
 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+

- **Power Cable 4G2.5mm² MOD.PC1 (Motorized valve power)**

Flexible bare copper class 5 acc. standards
 Fire resistant Mica glass tape over each conductor
 Insulation: special XLPE compound
 Internal wire colour: black numbered + yellow/green
 Total assembly: cores 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

- **Power Cable 2x2.5mm² MOD.DP1 (Solenoid valve)**

Flexible bare copper class 5 acc. standards
 Fire resistant Mica glass tape over each conductor
 Insulation: special XLPE compound
 Internal wire colour: black numbered + yellow/green
 Total assembly: cores 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

- **Power Cable 2X1.5mm² MOD.DS1 (Pressure switch)**

Flexible bare copper class 5 acc. standards
 Fire resistant Mica glass tape over each conductor
 Insulation: special XLPE compound
 colour: black numbered + yellow/green
 Total assembly: cores 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

- **Power Cable 4X1.5mm² MOD.DS1 (Pressure Transmitter)**

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: cores 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

- **Multimode Fibre optic cable OM3 MOD FC1**

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

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

- Remote Actuation Unit RAU (hazardous area) or RAUS (safe area) used to remotely test the correct opening and closing of the deluge valves.

EMERGENCY FOAM SERVICE Call +44 (0) 15242 61166 – 24 hours a day, every day

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