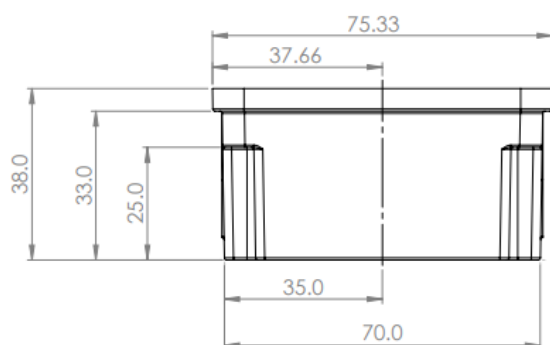
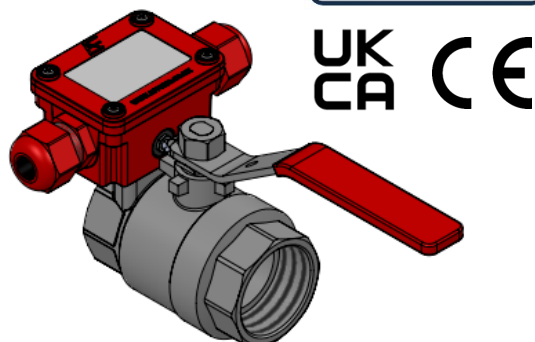


## AE-MBV - Monitored Ball Valve



Electrical Protection: IP54

Compliant to BS 9251: 2021

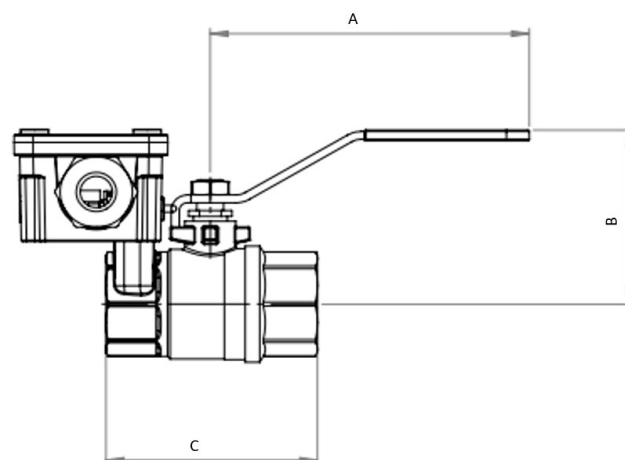
\*WRAS approval pending for 2 1/2" & 3"

Applications Engineering's Monitored Ball Valve (MBV) is designed to monitor the fully open position of a ball valve. The MBV has a toggle switch, which is activated when the ball valve handle is moved from the fully open position.

The MBV can be fitted onto an Applications Engineering Ball Valve or onto an Applications Engineering Fire Sprinkler Valve Set. For both options it currently comes in size 1", 1 1/4", 1 1/2", 2", 2 1/2" and 3".

Part	Material
Housing	Fire Resistant ABS
Ball Valve	Nickel Plated Brass

Please see the [AE-BVFF](#) datasheet for more information on the ball valve.



DN	A	B	C
1"	119.00	66.20	78.90
1 1/4"	140.00	78.70	87.64
1 1/2"	157.00	85.00	97.00
2"	157.00	93.00	120.50
2 1/2"	237.00	122.00	150.00
3"	237.00	138.00	177.50

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**APPLICATIONS**  
ENGINEERING LTD

# AE-MBV - Monitored Ball Valve

## Installation of Monitor

All Applications Engineering monitored ball valves come pre-fitted and wired, eliminating the need for on-site installation, however, the below instructions can be used for retro-fitting a monitor onto an existing Applications Engineering ball valve.

**IMPORTANT NOTE** - Applications Engineering monitors can only be used on Applications Engineering ball valves, this is due to the positioning of the handle and clamp. Monitors fitted to other ball valves are not covered by warranty and we can't be held responsible for faults.

The latest versions of the Applications Engineering ball valves come with an integrated clamp within the valve, eliminating the use of the retro-fitted two part plastic clamps used on previous version, these are still compatible with the current monitors

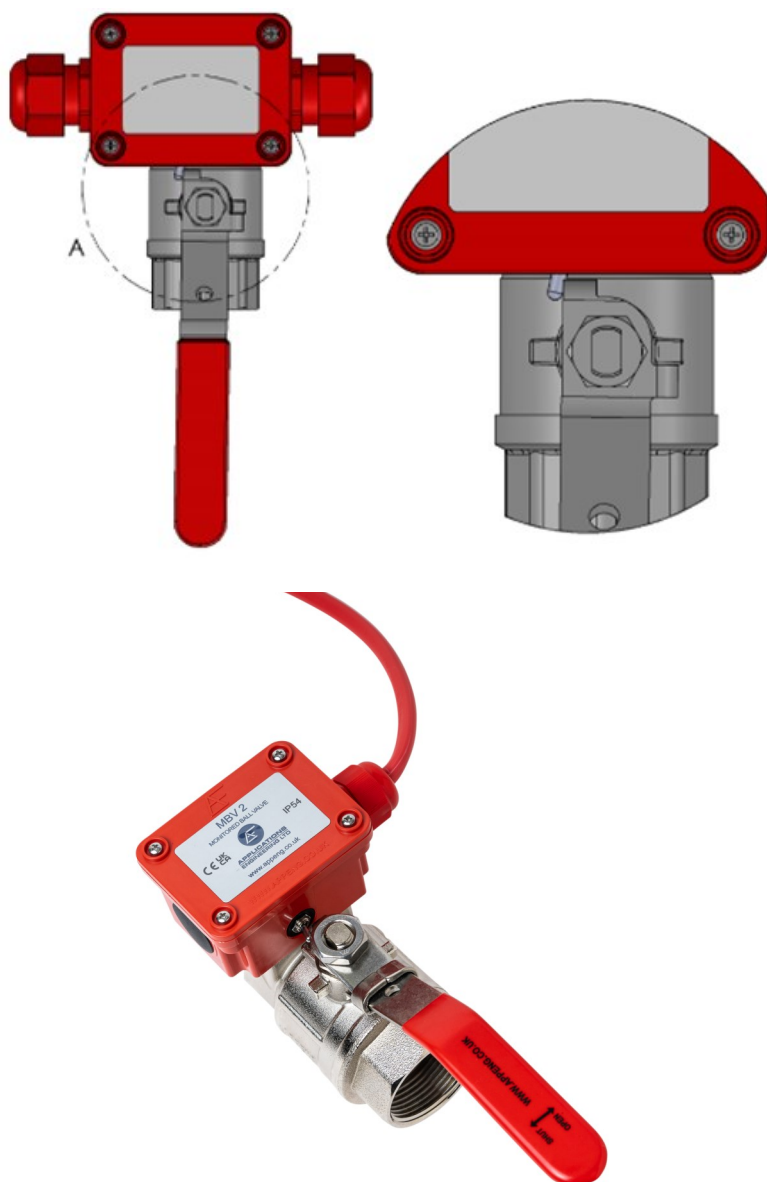
To attach the monitor to the valve, use the locating lugs on the bottom of the monitor to fit onto the two locating holes on the top of the clamp. Then, using the two captive screws within the monitor housing, screw both into the corresponding screw holes within the clamp, ensuring the monitor is secure.

Ensure the ball valve is fully open and the toggle is fully engaged against the handle when housing is secure, as per figure 1, any movement from this position will result in an activation.

After wiring as required, secure the lid to the MBV housing with the four captive screws in the lid.



Figure 1



The Monitor is a 1-piece construction that makes mounting easy and fully retrofittable to any Applications Engineering ball valve or valve set. The housing can be easily screwed into place from the top into the pre-moulded clamps.

# AE-MBV - Monitored Ball Valve

## Monitored Ball Valve Wiring

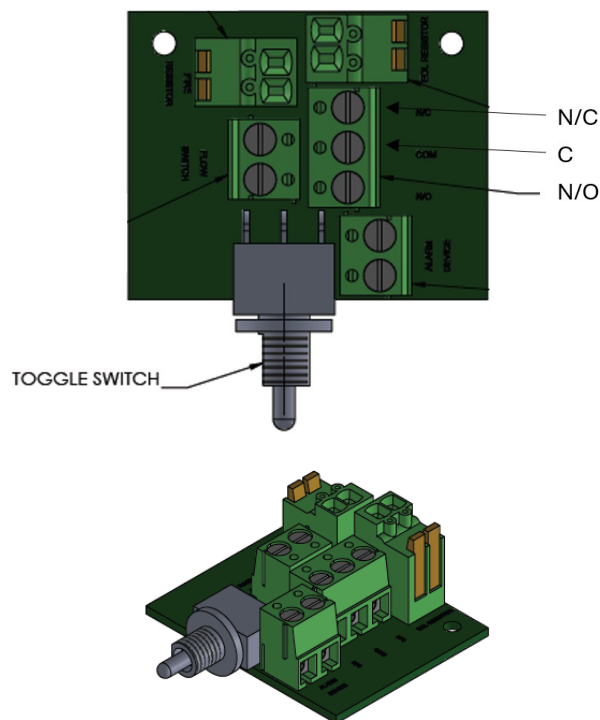
### Instructions:

Applications Engineering monitored ball valves come pre-wired with a 1m length of FP200 cable

The monitors are pre-wired to normally open as standard, for normally closed operation rewire to the common/ normally closed terminals.

To monitor fault and activation, install an EOL resistor EOL & ALARM across the output terminals. Each panel manufacturer require different resistor values, ensure use of the panel's correct resistor value for circuit supervision.

Ensure the ball valve is fully open and the toggle is fully engaged against the handle, any movement from this position will result in an activation.



Order Number	Description
AE-MBV-100-BV-W	1" Ball Valve, MBV and 1m of FP200 cable pre-wired
AE-MBV-125-BV-W	1 ¼" Ball Valve, MBV and 1m of FP200 cable pre-wired
AE-MBV-150-BV-W	1 ½" Ball Valve, MBV and 1m of FP200 cable pre-wired
AE-MBV-200-BV-W	2" Ball Valve, MBV and 1m of FP200 cable pre-wired
AE-MBV-250-BV-W	2 1/2" Ball Valve, MBV and 1m of FP200 cable pre-wired
AE-MBV-300-BV-W	3" Ball Valve, MBV and 1m of FP200 cable pre-wired
AE-MBV-100-BB-W	1" Ball Valve, MBV, 1m of FP200 cable pre-wired & 2 CPVC adaptors fitted
AE-MBV-125-BB-W	1 ¼" Ball Valve, MBV, 1m of FP200 cable pre-wired & 2 CPVC adaptors fitted
AE-MBV-150-BB-W	1 ½" Ball Valve, MBV, 1m of FP200 cable pre-wired & 2 CPVC adaptors fitted
AE-MBV-200-BB-W	2" Ball Valve, MBV, 1m of FP200 cable pre-wired & 2 CPVC adaptors fitted

### Maintenance

**All Applications Engineering valves & monitored ball valves requires no regular maintenance, however, it is advisable to inspect and ensure proper operation of the unit annually.**