



MBV-FSS-L/O-L/C

The Castell MBV modular ball valve interlock is an integral valve interlock designed to enable the locking off, in either the open, closed or both open and closed conditions. The MBV is suitable for any quarter-turn valves including Ball, Plug and Butterfly Valves up to 2 1/2" bore size. Fitting the MBV enforces a logical, predetermined and safe sequence of operation where the control of flow paths is critical. The MBV is manufactured in stainless steel with either brass or stainless steel lock portions, which makes it ideal for use in harsh or corrosive environments where it is subject to heavy use.

Operation

The Castell MBV modular ball valve interlocks are used to prevent unauthorised opening (or closing) of a line ensuring that the valve is always locked in the crucial position.

MBV modular ball valve interlock, locked closed only condition

- 1 Valve is normally locked closed, key is free
- 2 Insert and turn key to unlock the valve
- 3 Valve is unlocked and opened, key is trapped



1. The service line is normally closed and the MBV modular ball valve interlock locks the valve in the closed condition. The key is free.
2. By inserting and turning the key in the MBV, you can release the valve from being locked closed to open the line.
3. The key stays trapped while the valve can be opened.

Operation

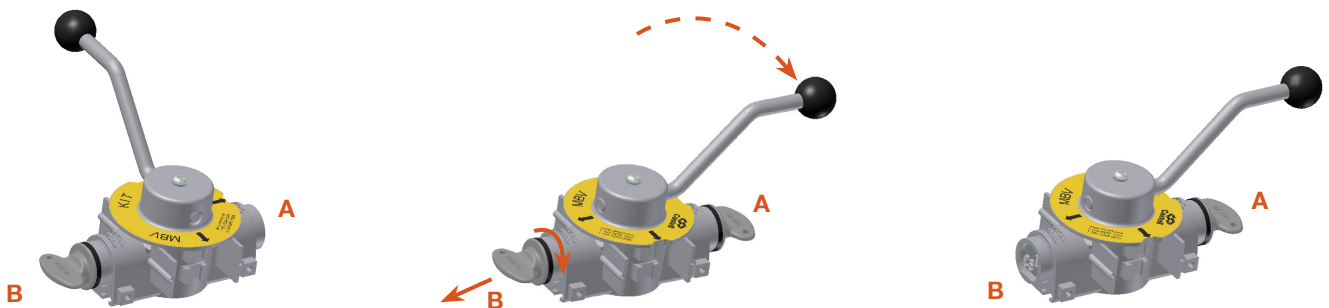
The Castell MBV modular ball valve interlocks with locked opened and locked closed condition are used to prevent unauthorised closing of one of lines (e. g. operational line) ensuring that one line is always open (e. g. service line).

MBV modular ball valve interlock, locked opened and locked closed condition

① Valve is locked opened, key B is trapped, key A is free

② Insert and turn key A to unlock the valve. Turn the valve to opened position. Turn and release key B to lock the valve in the new position.

③ Valve is closed, key A is trapped, key B is free



1. The service line is normally open and the MBV modular ball valve interlock locks the valve in the open position. Key A is free, while key B is trapped.
2. By inserting and turning key A in the MBV, you can release the valve from locked open condition and change it to closed. By turning and releasing the key B the valve is locked in the closed condition.
3. Key A stays trapped and key B is released while the valve locked closed.

Usage

The MBV Modular ball valve interlock should be used to prevent unauthorised closing of one of lines ensuring that one line is always open.

The MBV modular ball valve Interlock is not designed for large bore valves above 2 1/2 inches.



No hazardous substances were used in the manufacture of this product. The product can be disposed of in standard waste.

Installation

Fitting the MBV enforces a logical, predetermined and safe sequence of operation where the control of flow paths is critical.

The MBV interlocks are available in either the locked open, locked closed or both locked opened and locked closed conditions.

IMPORTANT:

The MBV interlock should only be fitted by the Castell Engineering Team. Please supply the valves to Castell to enable the MBV to be fitted.



The MBV Modular Ball Valve Interlock must be installed by a competent and qualified person who has read and understood these instructions. Please retain this document in your technical file.

Maintenance

Periodic visual checks should be carried out by the site manager/safety officer.
Do not lubricate lock barrel with oil or grease, use CK Dry Powder Graphite if necessary.



In case of defects being detected please contact your nearest Castell Support Department for further actions.
Please see Contact section for contact details.

Technical Data

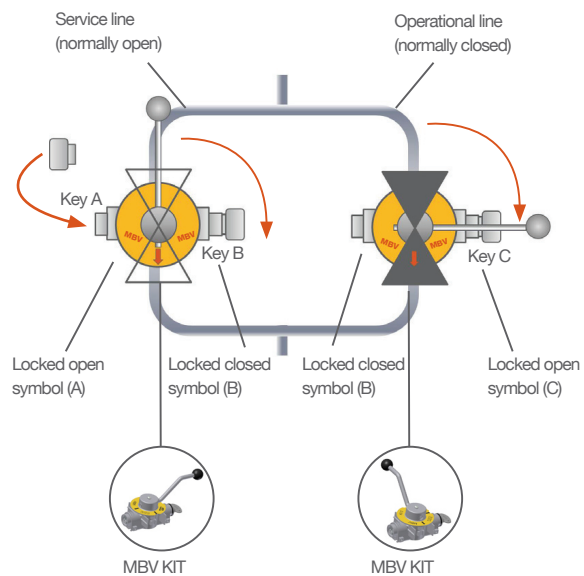
Temperature rating	Minimum: -40°C [-40°F] ice free for Q & FS type
	Maximum: 107°C [224,6°F] for Q type/140°C [284°F] for FS type or 288°C [550°F] upon request
Type of mounting	The MBV modular ball valve interlocks must be fitted to the valves by Castell engineering team
Weight	4,0 kg
Material	Stainless steel with either brass or stainless steel lock portions
MTTF Certification	Available on request

Application

The MBV is designed to operate as part of an integrated safety system controlling the operation of quarter turn ball valves in safety critical applications. The typical application of the MBV modular ball valve interlock is preventing unauthorised closing of one of the lines ensuring that one line is always open.

Interlock valves in both open and closed positions have an interchangeable key between the valves ensuring that the first valve is open before the second is closed. While the operational line is locked opened, the service line is locked closed. Prior to opening the service line it needs to be ensured the operational line is locked closed. By inserting key A (from control room) in the MBV, which controls the operational line, you can unlock the valve and bring it from opened to closed. By turning and releasing key B, you can lock the valve in the closed condition.

Key B can be taken to the next valve, which controls the service line. This valve can now be unlocked by inserting and turning key B in the MBV. The valve position can then be changed from closed to open and locked in the opened position by releasing key C. This key can then be taken to the control room.



EC-Declaration

We, the manufacturers, declare that the components, detailed herein and placed on the market, comply with all the essential health and safety requirements applying to them.

Empowered signatory:

Mr T.C. Whelan
Managing Director

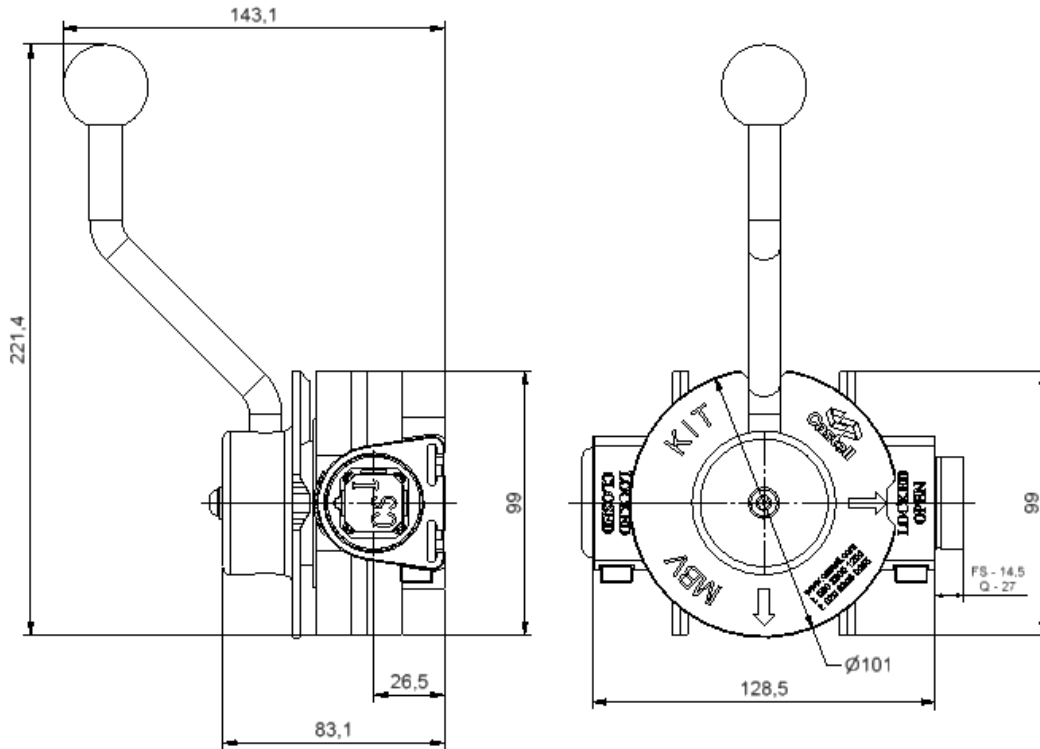


Drawing

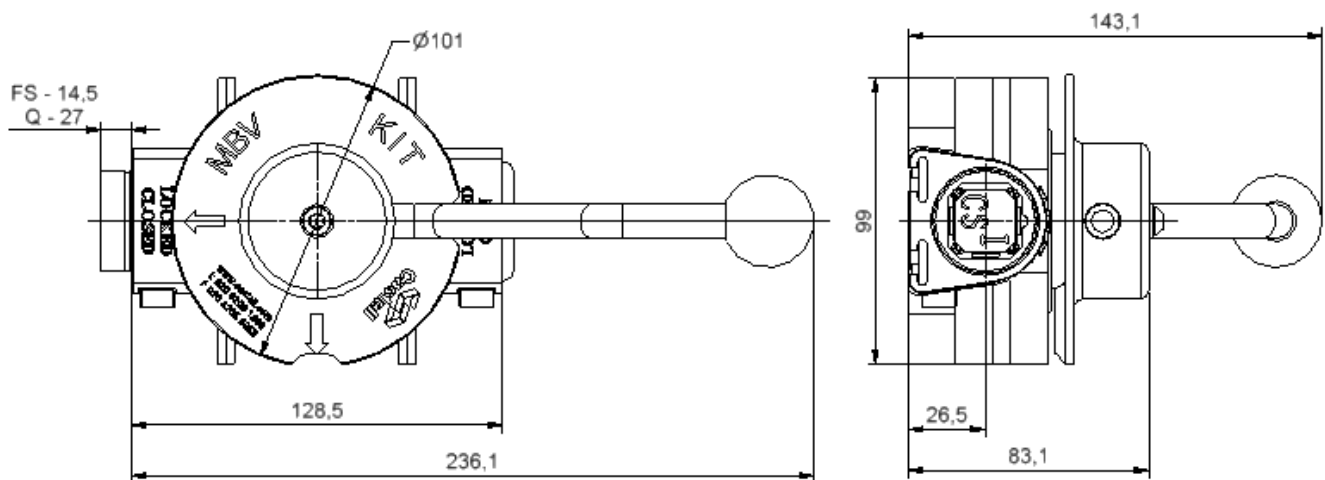
Dimensions:
in mm

Note: For safe mounting, use security screws

MBV, opened position



MBV, closed position



While every effort has been made to ensure the accuracy of the information provided, no liability can be taken for any errors or omission. Castell Safety International Limited reserves the right to alter specifications and introduce improvements without prior notice.

Order Information

	Product Type	1	2	3	4*
Part Number	MBV	-		-	
Example	MBV	-	FS	-	S
				-	L/O - L/C

5

L/O Symbol	A
L/C Symbol	B


1	Lock portion type	FS ⁽¹⁾ / Q ⁽¹⁾
2	Material	S = Stainless steel (standard)
3	Valve locked state	L/O = locked open L/C = locked closed L/O-L/C = locked open and closed
4*	Optional: additional features available	EEXDSW = complete with ATEX LIMIT SWITCH SWITCH = complete with ROLER MICRO SWITCH
5	Lock portion symbols	L/O Symbol = locked open symbol (please advise) L/C Symbol = locked closed symbol (please advise) FS ⁽¹⁾ up to 3 characters / Q ⁽¹⁾ up to 6 characters

(1) **FS - Lock type** **Q - Lock type**
Up to 3 characters Up to 6 characters



Special construction available upon enquiry

Accessories

	Product	Part number
	Flip Cap	FLIP-S

Contact Information

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