

Service Instructions for Fisher™ Digital Isolation™ Triple Offset Valve (TOV) Solution

Contents

Introduction	1
Scope of Manual	1
Component Specifications	2
Component Instruction and Maintenance Manuals ..	2
Actuator Mounting Bracket-to-Valve Bolt Torque ..	3
Educational Services	4
Parts Ordering	4

Figure 1. Fisher Digital Isolation TOV Solution



X1550

Introduction

Fisher Digital Isolation Solutions leverage Emerson’s automation expertise with time-tested products to provide a complete and dependable isolation valve solution for your most critical isolation, SIS, and ESD valve applications.

Scope of Manual

This instruction manual includes the web links for product specifications, installation and maintenance instructions for each component.

Do not install, operate or maintain this product without being fully trained and qualified in valve, actuator and accessory installation, operation and maintenance. To avoid personal injury or property damage it is important to carefully read, understand, and follow all of the contents of this manual, including all safety cautions and warnings. If you have any questions about these instructions, contact your [Emerson sales office](#) before proceeding.

Component Specifications

For product specifications click on the following web link ([TOV Specs](#)) where you will find the technical specifications documents for the components used on Fisher Digital Isolation Solutions products.

Component Instruction and Maintenance manuals

For Component Instruction and Maintenance manuals click on the following links ([ASCO](#), [TopWorx](#), [DVC6200 SIS](#), [BETTIS](#)) where you will find the documents for the components used on Fisher Digital Isolation Solutions.

If a paper copy of component specifications or Instruction/Maintenance manuals is required please consult your Emerson sales office.

⚠ WARNING

Avoid personal injury and property damage from sudden release of process pressure or bursting of parts. Before performing any maintenance operations:

- Do not remove the actuator from the valve while the valve is still pressurized.
 - Always wear protective gloves, clothing, and eyewear when performing any maintenance operations.
 - Disconnect any operating lines providing air pressure, electric power, or a control signal to the actuator. Be sure the actuator cannot suddenly open or close the valve.
 - Use bypass valves or completely shut off the process to isolate the valve from process pressure. Relieve process pressure on both sides of the valve. Drain the process media from both sides of the valve.
 - Depending on the actuator construction, it will be necessary to manage the pneumatic actuator spring pre-compression. It is essential to refer to the relevant actuator instructions in this manual to provide safe removal of the actuator from the valve.
 - Use lock-out procedures to be sure the above measures stay in effect while you work on the equipment.
 - The valve packing box may contain process fluids that are pressurized, *even when the valve has been removed from the pipeline*. Process fluids may spray out when removing the packing hardware or packing rings, or when loosening the packing box pipe plug.
 - Check with your process or safety engineer for any additional measures that must be taken to protect against process media.
-

Actuator Mounting Bracket-to-Valve Bolt Torque

SA 193-B7/zinc plated

Fastener Size	N • m	Ft • lb
5/16"	30	22
3/8"	53	39
7/16"	84	62
1/2"	130	96
9/16"	176	130
5/8"	230	170
3/4"	380	280
1"	786	580
1-1/4"	1424	1050

SA193 Grade B8 CL2

Fastener Size	N • m	Ft • lb
5/16"	19	14
3/8"	35	26
7/16"	56	41
1/2"	85	63
9/16"	123	91
5/8"	163	120
3/4"	258	190
1"	536	395
1-1/4"	969	715

SA 193-B7/zinc plated

Fastener Size	N • m	Ft • lb
M10	69	51
M12	116	86
M16	241	178
M20	413	305
M24	656	484
M30	1164	859

SA193 Grade B8 CL2

Fastener Size	N • m	Ft • lb
M10	48	35
M12	80	59
M16	165	122
M20	284	209
M24	451	333
M30	800	590

Lubrication should always be used with the SA 193-B8 Class 2 bolt material to prevent galling.

Educational Services

For information on available courses for Fisher Digital Isolation products, as well as a variety of other products, contact: Emerson Automation Solutions

Educational Services - Registration
Phone: 1-641-754-3771 or 1-800-338-8158
E-mail: education@emerson.com
emerson.com/fishervalvetraining

Part Ordering

Each Fisher Digital Isolation package has a unique Fisher serial number. When corresponding with your [Emerson sales office](#) about this equipment, always mention the valve serial number.

Neither Emerson, Emerson Automation Solutions, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

Fisher and Digital Isolation are marks owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. Emerson Automation Solutions, Emerson, and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

Emerson Automation Solutions
Marshalltown, Iowa 50158 USA
Sorocaba, 18087 Brazil
Cernay, 68700 France
Dubai, United Arab Emirates
Singapore 128461 Singapore

www.Fisher.com

