

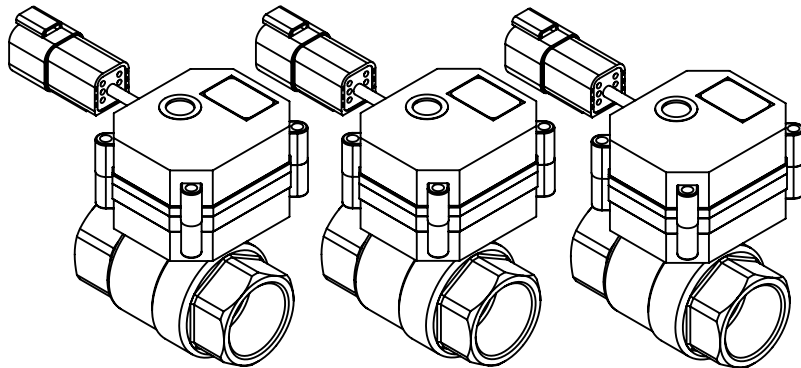
Ball Valve Kit with CANbus Manual

INSTRUCTION FOR INSTALLATION AND OPERATION

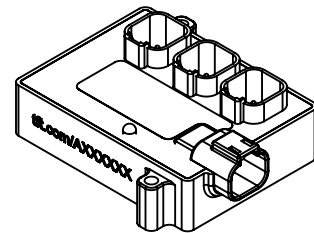
⚠ WARNING

Understand manual before use. Operation of this device without understanding the manual and receiving proper training is a misuse of this equipment. Obtain safety information at tft.com/serial-number

This instruction manual is intended to familiarize operators and maintenance personnel with the operation, servicing, and safety procedures associated with this product. This manual should be kept available to all operating and maintenance personnel.



VALVES



CANbus CONTROLLER

1.0 MEANING OF SAFETY SIGNAL WORDS

A safety related message is identified by a safety alert symbol and a signal word to indicate the level of risk involved with a particular hazard. Per ANSI Z535.6, the definitions of the four signal words are as follows:

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

2.0 SAFETY

⚠ WARNING

Using the wrong power source could cause electrocution, resulting in death or serious injury. The Ball Valve system operates using 12 or 24 VDC only. Do not use AC current.

⚠ WARNING

Equipment may be damaged if frozen while containing significant amounts of water. Such damage may be difficult to detect visually. Subsequent pressurization can lead to injury or death. Any time the equipment is subject to possible damage due to freezing, it must be tested and approved for use by qualified personnel before being considered safe for use.

⚠ CAUTION

Exceeding the maximum operating pressure on either side of the ball valve can result in injury or damage to equipment. Do not exceed the maximum operating pressure listed in the specifications.

⚠ CAUTION

Mismatched or damaged waterway connections may cause equipment to leak or uncouple under pressure. Failure could result in injury. Equipment must be mated to matched connections.

3.0 SPECIFICATIONS

Waterway Size	1" (25 mm)
Weight (per system)	4.7 lbs. (2.13 kg)
Maximum Pressure	145 psi (10 bar)
Minimum Pressure	0 psi
Open/Closing Speed	5 seconds
Voltage Range	9-35 VDC
Operating Temperature Range*	5°F to 122°F (-15°C to 50°C)
Current Draw	1 amp
Recommended Fuse or Circuit Breaker Size	2-1/2 amp
Environmental Rating	All components designed to meet minimum rating of IP67
Materials Used	304 Stainless Steel, ABS plastic
*For temperatures below 32°F (0°C), valves must be drained to avoid damage from freezing.	

3.1 USE WITH SALT WATER

Use with salt water is permissible provided the equipment is thoroughly cleaned with fresh water after each use. The service life of the equipment may be shortened due to the effects of corrosion, and is not covered under warranty.

4.0 INSTALLATION



This device is not rated as ignition proof, explosion proof, or intrinsically safe. Use only in locations with adequate ventilation and no hazard of flammable vapor buildup.



These Ball Valves and CANbus Controller do not meet the Ignition Protection requirements of the U.S. Coast Guard or National Electric code for use in marine engine compartments and fuel tank spaces. Install only in locations with adequate ventilation and no hazard of flammable vapor buildup.

4.1 MOUNTING THE ENCLOSURE

Select a flat, vertical location for the CANbus controller. The enclosure is surface mounted and attached using (2) #10 fasteners.

4.2 ELECTRIC INSTALLATION

Plug the valve cables into the CANbus controller. See the diagram below for connector pin designations.

