

Safety, Installation, & Operation Precautions

TESCOM

ELECTRONIC CONTROLLERS

DO NOT ATTEMPT TO SELECT, INSTALL, USE, OR MAINTAIN THIS CONTROLLER, OR ACCESSORY UNTIL YOU HAVE READ AND FULLY UNDERSTOOD THESE INSTRUCTIONS.

BE SURE THIS INFORMATION REACHES THE OPERATOR AND STAYS WITH THE PRODUCT AFTER INSTALLATION.

DO NOT PERMIT UNTRAINED PERSONS TO INSTALL, USE, OR MAINTAIN THIS CONTROLLER, OR ACCESSORY.



IMPROPER SELECTION, IMPROPER INSTALLATION, IMPROPER MAINTENANCE, MISUSE, OR ABUSE OF THIS CONTROLLER, OR RELATED ACCESSORIES CAN CAUSE DEATH, SERIOUS INJURY, AND/OR PROPERTY DAMAGE.

Possible consequences include but are not limited to:

- High velocity fluid (gas or liquid) discharge
- Electrocutation
- Parts ejected at high speed
- Contact with fluids that may be hot, cold, toxic, or otherwise injurious
- Explosion or burning of the fluid
- Lines/hoses whipping dangerously
- Damage or destruction to other components or equipment in the system



SAFETY PRECAUTIONS

1. Read and understand the user's manual before operating the controller.
2. Inspect the controller, and accessories before each use.
3. Operate the unit only under specified environmental conditions.
4. Follow instructions in the manuals for proper wiring.
5. Never connect the controller, or accessories to a supply source having a voltage greater than the maximum rated voltage of this controller, or accessory.
6. Never connect the controller, or accessories to a supply source having a pressure greater than the maximum rated pressure of this controller, or accessory.
7. Never use anything but clean dry inert gases or air into the electropneumatic controller.
8. Start up sequence for electropneumatic controllers is:
 - a. Feedback loop must be installed and operational.
 - b. Electrical power should be applied and system setpoint reduced to its lowest pressure output before turning on the pneumatic supply to the controller.
9. Refer to product label (modification specific) for maximum inlet pressures. If this rated pressure cannot be found, contact your local Tescom representative for the rated pressure prior to installation and use. Verify the designed pressure rating of all equipment (e.g., supply lines, fittings, connections, filters, valves, gauges, etc.) in your system. All must be capable of handling the supply and operating pressure.
10. Clearly establish flow direction of the fluid before installation of controllers, regulators, valves, and accessories. It is the responsibility of the user to install the equipment in the correct direction.



SAFETY PRECAUTIONS - continued

11. Do not tighten fittings, gages, or components in pressurized systems.
12. Never turn controller, regulator or valve body. Instead, hold the controller body and turn fitting nut.
13. If a controller, regulator or valve leaks or malfunctions, take it out of service immediately.
14. Do not modify equipment or add attachments not approved by the manufacturer.
15. Apply pressure to the system gradually, avoiding a sudden surge of fluid or pressure shock to the equipment in the system.
16. Regulators are not shut-off valves. Install a pressure relief device downstream of the regulator to protect the process equipment from operating pressure increases. Shut off the supply pressure when the regulator is not in use.
17. Periodic inspection and scheduled maintenance of your equipment is required for continued safe operation.
18. The frequency of servicing is the responsibility of the user based on the application. Never allow problems or lack of maintenance to go unreported.
19. Read and follow precautions on compressed gas cylinder labels.
20. It is important that you analyze all aspects of your application and review all available information concerning the product or system. Obtain, read, and understand the Material Safety Data Sheet (MSDS) for each fluid used in your system.
21. Oxygen service requires special expertise and knowledge of system design and material compatibility in order to minimize the potential for death, serious injury, and/or property damage.
22. Never use materials for controllers, regulators, valves, or accessories that are not compatible with the fluids being used.



SAFETY PRECAUTIONS - continued

23. Users must test under normal operating conditions to determine suitability of materials in an application.
24. Vent fluids to a safe environment, and in an area away from employees. Be sure that venting and disposal methods are in accordance with Federal, State, and Local requirements. Locate and construct vent lines to prevent condensation or gas accumulation. Make sure the vent outlet is not obstructed by rain, snow, ice, vegetation, insects, birds, etc. Do not interconnect vent lines; use separate lines if more than one vent is needed.
25. Do not locate controllers, regulators, valves, or accessories using flammable fluids near open flames or any other source of ignition. Use of Explosion Proof controllers may be necessary to be in accordance with local electric codes.
26. Some fluids, when burning, do not exhibit a visible flame. Use extreme caution when inspecting and/or servicing systems using flammable fluids to avoid death or serious injury to employees. Provide a device to warn employees of these dangerous conditions.
27. Many gases can cause suffocation. Make certain the area is well ventilated. Provide a device to warn employees of lack of oxygen.
28. Never use oil or grease on these controllers, regulators, valves, or accessories. Oil and grease are easily ignited and may combine violently with some fluids under pressure.
29. Have emergency equipment in the area if toxic or flammable fluids are used.
30. Upstream filters are recommended for use with all fluids.
31. Do not bleed system by loosening fittings.
32. Prevent icing of the equipment by removing excess moisture from the gas.
33. Always use proper thread lubricants and sealants on tapered pipe threads.

INSTALLATION

Inspect the controller, and accessories for physical damage and contamination. Do not connect the controller, or accessory if you detect oil, grease, or damaged parts. If the controller, or accessory is damaged, contact your local Tescom representative to have the controller cleaned or repaired.



Make sure that the components and materials used in the fluid handling system are compatible with the fluid and have the proper pressure rating. Make sure that the components used in the electronic system are compatible with and have the proper voltage rating.

REPAIR SERVICE

If a controller leaks or malfunctions, take it out of service immediately. You must have instructions before doing any maintenance. Do not make any repairs you do not understand. Have qualified personnel make repairs. Return any equipment in need of service to your equipment supplier for evaluation and prompt service. Equipment is restored to the original factory performance specifications, if repairable. There are flat fee repair charges for each standard model. The original equipment warranty applies after a complete overhaul.



SAFE COMPONENT SELECTION

1. Consider the total system design when selecting a component to ensure safe, trouble-free performance.
2. The user is responsible for assuring all safety and warning requirements of the application are met through his/her own analysis and testing.



SAFE COMPONENT SELECTION - continued

3. Tescom may suggest material for use with specific media upon request. Suggestions are based on technical compatibility resources through associations and manufacturers. Tescom does NOT guarantee materials to be compatible with specific media — THIS IS THE RESPONSIBILITY OF THE USER!
4. Component function, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system user.
5. The user is responsible to be in accordance with all the necessary mechanical and electrical codes required for installation and operation of the system. These requirements include but are not limited to all explosion proof controllers.
6. The user is responsible for the selection of the proper model number of the controller that would meet the application's possible hazardous environment or conditions.



Do not modify equipment or add attachments not approved by the manufacturer.

ASSEMBLY/INSTALLATION/WIRING DRAWINGS & BILLS OF MATERIALS
Drawings and parts lists for your product may be obtained by calling the number below. Tescom will provide these by fax or mail. Your local Tescom representative can provide additional assistance.

Call (800) 447-1204 or email to systems@tescom.com for assembly/installation/wiring drawings & bills of materials. Be sure to have your complete model number ready.

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