PENTAIR

K-BALL

Before installation these instructions must be fully read and understood

Contents

This sheet applies to the following products: F110-F120-F130-F133-F138-F150-F170-F180-F190.
These products have been designed, manufactured and tested under the supervision of a certified Quality Assurance system in accordance with Module H (categories I, II and III) of Annex 3 of European Directive 97/23/CE concerning pressure equipment.

The products are designed to guarantee your safety during the installation, operation and maintenance under the condition of applying the following recommendations, of respecting the conditions of use defined in the technical data sheets of the products and not being in an exceptional situation. The products covered by this document are standard valves in manual version or actuated version. For the other products, a complementary instruction sheet will be attached if required.
It is imperative that these instruction sheets accompany the products to their final destination. The control of the distribution of these documents, translated into the language (*) where the end-user is located, is under your responsibility.
(*) This only applies to European countries.

1 - Protection / Storing

Protection
Except for particular customer specification at the time in the order, the valves are delivered in conformity with Pentair packaging procedures. The package ensures the protection of the product against the shocks in the conditions of road and railway transport and of storage in clean and dry premises. The protection caps mounted on the valves, in order to protect the seats and discs from ulterior damages, must not be removed before the moment of the installation of the valve on the line. For storing or transporting in conditions different from those mentioned above, it belongs to the customer to condition the product in an adapted way to protect it or to specify it in the order.

Storing
The storing must be done separate from the ground in a dry location, and indoor.
In the case the valves are delivered with watertight package with a desiccative product (provided for a long storing time before installation), the desiccative product bags must be replaced for any storing period exceeding 6 months. The package must be kept watertight again.

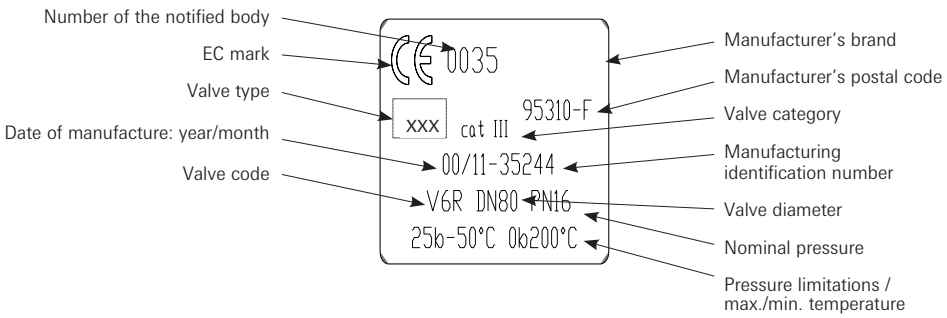
2 - Installation / Operation

WARNING

For safety reasons, it is important to respect the following precautions before beginning the installation of the valve:

1. Installation and maintenance of valves and actuators must be carried out by personnel trained in all the appropriate mechanical, electrical and pneumatic aspects required by such an operation.
2. Any person intervening on the installation of the valve, even for a simple adjustment must use equipment and clothes adapted in function of the process on which the valve is installed.
3. The installer must check that the pressure and temperature limits of the valve, indicated on the identification plate (see use curve on the technical sheet) are appropriate to the operation conditions of the installation.
4. If the valve is to be used in a “fire-safe” situation, the user must ensure that the valve has been designed for such a use (see technical documents).
5. The installer must ensure that the materials from which the valve is made are suitable for the operation for which they are to be used (see the corrosion/fluid/concentration/temperature combination).
6. The line must be depressurized before any intervention. The line must be drained, rinsed (and decontaminated in the case of noxious fluid) before installation of the valve.
7. If the user should carry out any alterations to our product, he will be responsible for ensuring that those changes do not compromise the safety or the operation of the valve.
8. Physical access to the closure (disc, ball, plug, etc.) is not authorized unless it is absolutely certain that this cannot be operated unintentionally.
9. The valves under pressure can be subject to a cavity overpressure at the body level when the valve is in closed position. This is due to some fluids, which can be subject to rapidly provoking overpressure. In this case, the installation necessitates an adapted means to relieve the excessive inner pressures.
   For more information, contact Pentair VALVES & CONTROLS (www.pentair.com/valves).

Explanation of the markings on the valve identification plate.



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Installation

1. Ensure that connecting ends in the line are clean, undamaged and correctly lined up (axially and radially).
2. Remove the protective covers from the valve ends.
3. The valve can be gripped by the handle, provided that it is correctly fitted along the operating axis.
4. An arrow on the body indicates the direction of flow for valves that are designed to be used only one-way.
5. Place the valve between the connecting parts in such a way that it can be easily accessed for operation before assembly.
6. Where there are flange connections, nuts and bolts must be tightened as specified and according to the appropriate standards.
7. For the welded assemblies, the piping must be cleaned and freed of all slurries before the valve is operated (risk of abrasive particles, sand, welding particles, etc. in the pipings that could damage the seats and ball disks).

Operation

All the manually operated valves are closed by clockwise rotation except if a different specification is mentioned in the customer order.
The closed position is indicated either by the position of the lever, or by an arrow, positioned at 90° from the axis of the valve and pipeline bore.
The particular operation conditions (seism, strong moment of reaction within the installation, or water hammer superior to 1,5 times the nominal pressure of the valve) must be the object of a specific prior request to our engineering department.

3 - Maintenance

Servicing

No servicing is required except from periodical inspections to ensure proper operation.
Any indication of leak of the packing-gland must be immediately repaired by depressurizing the valve and by gradually and regularly tightening the gland.
If no further adjustment is possible, or if a leak at the level of the seat or of the body seal is detected, the valve will require a full revision. The dismounting of the valve must be done after the depressurizing of the line and of the valve (**) by respecting the maintenance instructions. Only the original parts must be used.
(**) Open and then close the valve. Leaving the valve in closed position, secures the handling of the valve in the case of possible retentions of dangerous products within the body.
If the valve is actuated, the user must without fail disconnect the power source before dismantling to avoid any possible danger from the closure moving. Instructions available upon request.
A maintenance instruction leaflet will be provided on request.

Spare Parts

The valves are identified by a supplier letter symbol, a heat number and a material designation marked on the side of the body and an identification plate. These elements must be mentioned for any assistance, for the spare parts or the repair orders.