

**Corresponding use**
**Contact with mediums**

fluids / gases				Chemistry		particle
application area / resistance						
pressure [bar] / temperature [°C]						
temperature [°C]	pressure [bar] 1/4" - 1"	pressure [bar] 1 1/4"-1 1/2"	pressure [bar] 2"	According to: Resistance of materials (Resistance lists, inquiry at medien supplier) Risk avoiding National / International regulations		abrasive particle are not allowed
20	70	70	60			
60	65	55	40			
100	45	35	30			
150	7	6	5			
180	4	4	4			
200	0	0	0			

Freezing mediums causes damages on the armature especially on the seals.

**Identification**

PN / DN / Manufacturer / CE ab DN 32 – G 1 1/4

**Operation**
**Manual Operation**

- ➔ The ball valve will be open or close totally by using a handle or an pneumatic or electric actuator (option).  
(Angle of rotation 90° - hand-defined stop.)
- ➔ During the operation of the ball valves take care that there won't be insert any objects or limbs into the armature.  
Heavy injuries or damages will be the consequence. If it is necessary you have to install a protective device.

**Installation of drives**

- ➔ interface corresponds to ISO 5211

**Installation & Operational Safety Instructions**

***Before installation these instructions must be fully read and understood.***

**Storage Maintenance/Selection:**
**Storage**

Storage should be off the ground in a clean, dry indoor area.

## Maintenance

Spare parts and tightening of maintenance		
Art.-No.	Size [G]	TORQUE FOR HEXAGON NUT
22.390.01-S seal kit PTFE	1/4"	10
22.390.02-S seal kit PTFE	3/8"	10
22.390.03-S seal kit PTFE	1/2"	18
22.390.03-S seal kit PTFE	3/4"	18
22.390.05-S seal kit PTFE	1"	26
22.390.06-S seal kit PTFE	1 1/4"	38
22.390.07-S seal kit PTFE	1 1/2"	45
22.390.08-S seal kit PTFE	2"	50

## Installation:

***For safety reasons, it is important to take the following precautions before you start work on the valve:***

1. Personnel making any adjustment to the valves should use equipment and clothing normally for work with the process where valve is installed.
2. The line must be depressurized, drained and vented before installing the valve.
3. Handling and installation of all valves, their operators and actuators must be carried out by personnel trained in all aspects of installations.
4. Ensure that valve pressure/temperature limitations marked on the identification label are above or equal to service conditions.

## Installation

1. Direction of flow is optional.
2. Mounting position is optional.

### **butt welding end valve**

3. When installing welded valves they must be welded with the valve in the open position and not operated until they are quite cold. Weld with the maximum care.
4. Should there be any possibility particles (weld slag, sand, etc) within the piping system, this could damage valve seating/ball. The system will need to be flushed clean.

Applies to the following articles:

**Stainless steel ball valve 1.4401/1.4408, Thread design, Full passage**

Article No.	Type No.
103447 to 103454	390.01 to 390.08

**Stainless steel ball valve 1.4401/1.4408, Thread design, Full passage**

Article No.	Type No.
135910 to 135919	3390.01 to 3390.10