General Description
The GW MJ C is a one directional inline valve, single or double outlet, held closed by a frangible glass bulb heat sensitive element. All MJCs are marked with the direction of the water flow cast on the body. When sufficient heat is applied to the glass bulb shatters and releases the link mechanism allowing water to flow (similar to the function of an automatic sprinkler). Electrically actuated MJCs are fitted with a Metron actuator. When an electrical current is applied to the actuator a piston is propelled from the Metron body breaking the frangible glass bulb. If the Metron is not activated for any reason the glass bulb will shatter with the application of heat in the normal way.

The bodies of MJCs are cast in gunmetal. However the internal mechanism is not suitable for use with sea water or corrosive liquids.

Installation (Non electrical)
The MJC is designed to be installed in accordance with recognized installation standards. Deviation from the standards or any alteration to the MJC after it has left the factory including, but not limited to: painting, plating, coating or modification/repair, may render the valve inoperative and will automatically nullify any approval or guarantee made by GW Sprinkler A/S. Always install MJCs in the pendent position, which is with the heat sensitive glass bulb at the bottom and the water inlet on top. Discharge pipework must be supported at a maximum of 600mm from each MJC outlet.

- Always tighten using the spanner flats provided on valve body.
- **Never tighten MJCs on to the water inlet by inserting a spanner handle or pipe into the outlets.** This may damage the seal mechanism inside or unscrew the body of the MJC from the inlet spigot. Always handle the MJC-valve carefully and avoid any physical impact on the product!
- Never install an MJC valve that has been dropped or damaged.
- Never install any MJC if the glass bulb is cracked and/or there is loss of liquid from the bulb.

Installation – Metron actuated MJCs
For Metron MJCs follow the guidelines for non-electrical MJCs above with the addition of the following:

Take precautions to ensure that the Metron unit and its wiring are not damaged during storage or installation.
Before making electrical connections ensure the wiring is not live and preferably shorted out to prevent accidental firing.
Metron actuators are one shot devices and therefore cannot be tested. However, it is possible to check electrical continuity using a very low current. For details of firing and testing currents refer to GW data sheet: Metron Actuator Model C3.
Under some circumstances electrical machinery can induce eddy currents in wires leading to Metron actuation. Where Metron MJCs are installed close to electrical machinery it is advisable to use shielded wiring.
Pressure Testing
MJC valves are water and air tight on the inlet side (upstream). They are not intended to be air or water tight on the outlet side (downstream), which is normally connected to a range of open spray nozzles.
When pressure testing downstream pipework (normally unpressurized in service), water may be seen to drip from above the bulb / lever assembly, this is not detrimental to the operation of the MJC.

Care and Maintenance
GW MJC valves should be inspected monthly for damage, corrosion or the build up of dirt. Where corrosion or dirt is a problem it may be advisable to remove a proportion of the installed MJCs and return them to GW for inspection and refurbishment on an annual cycle.
Where an MJC becomes coated in dirt or corrosion it should not be cleaned on site since removing the coating may damage the release mechanism. Return to GW for refurbishment.
Where MJCs become coated in dust, this can be removed with a light brush.
**Do not use compressed air – and avoid contact with the glass bulb!**

Life of MJCs
MJC valves installed in good conditions should give many years of trouble free and reliable service. MJCs fitted with a Metron have a service life of 10 years under good conditions. After 10 years the MJC shall be refurbished (by GW) and the Metron be replaced with a new.
Where conditions are poor units may need to be refurbished at shorter/regular intervals.

After a fire, accidental actuation or damage
GW MJC valves are factory built and cannot be reset or rebuilt on site. Always return damaged or actuated units to GW Sprinkler A/S for refurbishment.
Replacement units should always be held on site so that damaged or actuated units can be replaced quickly.