

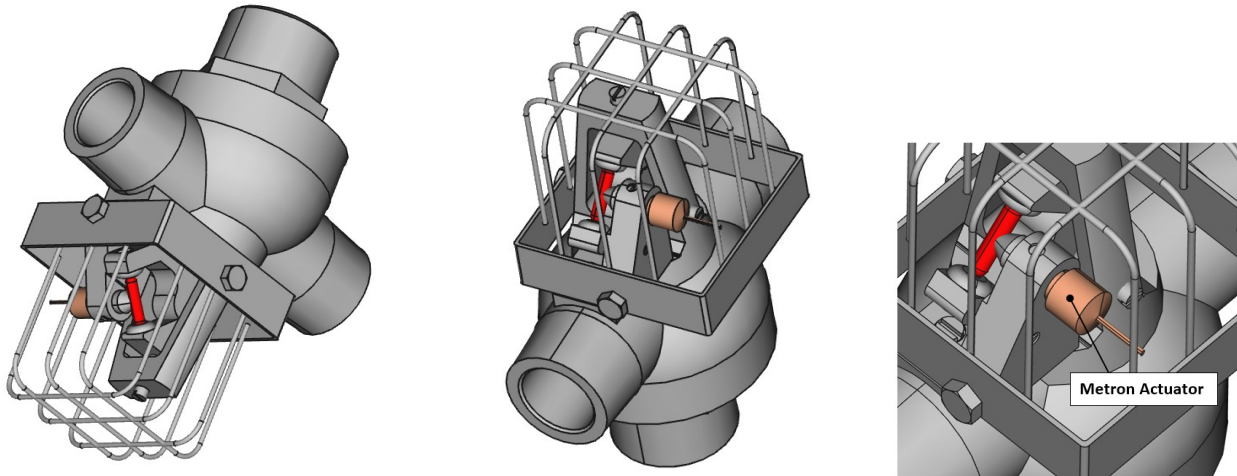
GW

MULTIPLE JET CONTROL (MJC)

50mm (2") / heat (5mm bulb) & electrically activated



GW SPRINKLER A/S



General Description

The GW MJC is a one directional inline valve with double outlet, held closed by a frangible glass bulb heat sensitive element. MJC valves are particularly used in applications where a small number of nozzles (open sprinklers) need to activate simultaneously and form a concentrated spray pattern over a defined area.

Electrically actuated MJCs are fitted with a pyro-electric Metron actuator. When an electrical current is applied to the actuator a piston is instantly propelled from the Metron body shattering the frangible glass bulb.

If, for any reason, the Metron actuator is not activated, the glass bulb will shatter and trip the MJC when exposed to heat – like an automatic sprinkler. The MJC housing is cast gunmetal. However, the internal mechanism is **not** suitable for use with sea water or corrosive liquids.

Technical Specification

Seal	Nickel Silver (metallic seal)
Weight	3,2 kg
Body (material)	Gunmetal
Max. pipe work velocity	4,6 m/s
Max. working pressure	12 bar
Max. test pressure	18 bar (for max. 1 hour)
Heat sensitive element (bulb)	Glass (quartzoid) – Ø5mm
Release temperature	57 – 68 – 79 – 93 – 141 -182 - 260 °C
RTI (response time index)	Standard A: RTI > 100
Metron Actuator (standard)	2003 / C3 (red, twisted pair), 1 m length
* (optional) – for EMC	2003 / C35 (white, braided), 1 m length

*) If non-standard Metron Actuator (C35) is required, this must be specified when contacting GW.

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Data Sheet: GW Multiple Jet Control
50mm, heat & electrical

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Issue / Date: 05th January 2022

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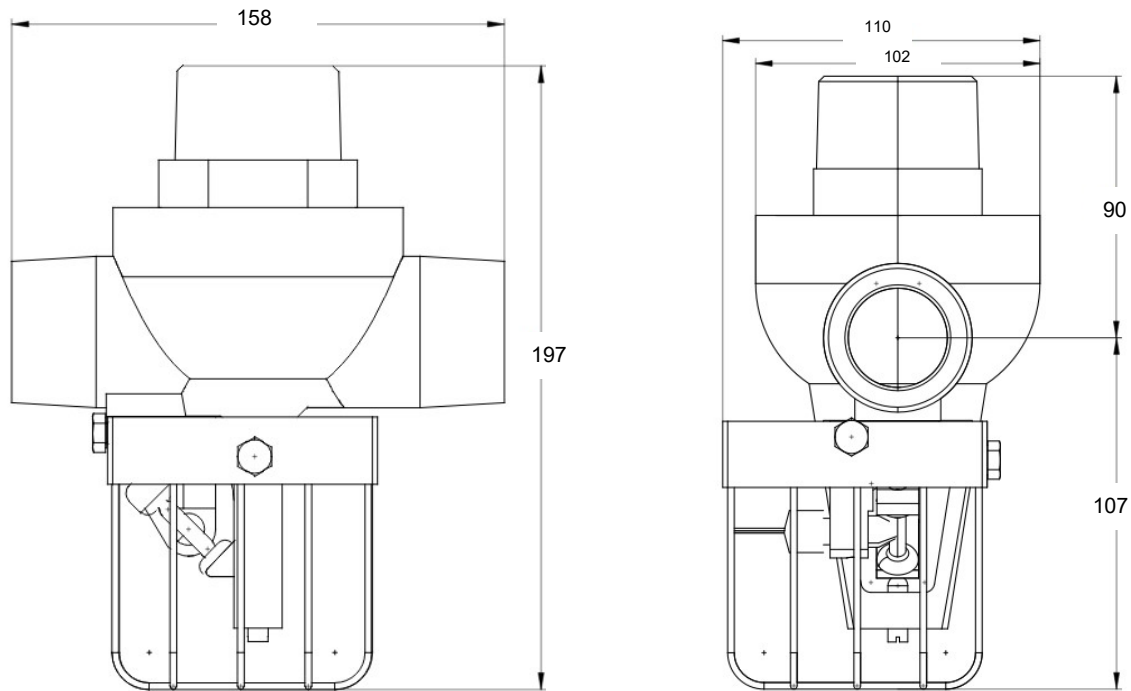
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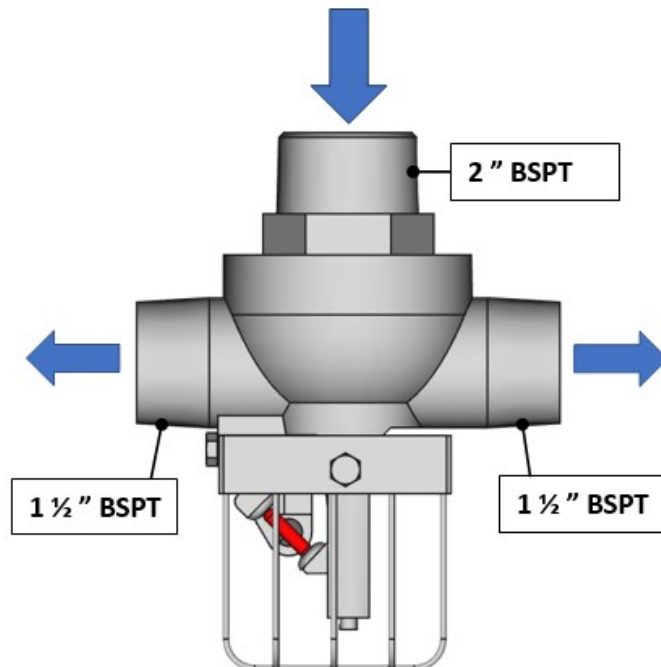


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Dimensions



Flow & Connections



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Pressure loss through 50mm MJC valve

Flow rate (lpm)	Flow Rate (GPM)	Pressure Loss (bar)	Pressure Loss (PSI)
100	26,5	0,01	0,15
200	52,9	0,03	0,44
300	79,3	0,11	1,60
400	105,8	0,18	2,61
500	132,3	0,28	4,06
550	145,5	0,37	5,36

Installation – Metron actuated MJCs

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.

Do not unpack MJCs until required for fitting to pipework to avoid damage to threads or the release mechanism. Preferably install MJCs to pipework that is already in place and not lying on the ground or on a bench, to avoid mechanical damage. Use contract or site approved pipe sealant.

- 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 with utmost care** 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.

Take precautions to ensure that the glass bulb and Metron Actuator unit and its wiring are not impacted or 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 or C35.

Under some circumstances electrical machinery can induce eddy currents in wires potentially leading to Metron actuation. Where Metron actuated MJCs are installed close to electrical machinery, or where electromagnetic fields exist, it is advisable to use shielded/braided wiring (type C2003 / C35).

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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, paint, corrosion, signs of leakage, deposits or build-up of dirt/salts.

Where corrosion or dirt is an issue it may be advisable to remove a proportion of the installed MJCs and return them to GW for inspection.

Where MJCs become coated in dust, this can be carefully removed with a light brush.

Do not use compressed air – and avoid contact with the glass bulb!

Conduct inspections using qualified persons. This may include the installing contractor or a contractor licensed, certified, or approved by local authorities.

Life of MJC's

MJC valves installed in good conditions should give many years of trouble free and reliable service.

MJCs fitted with a Metron Actuator have a service life of 10 years under good conditions. After 10 years the complete MJC valve shall be replaced with a new unit.

After a fire, accidental actuation or damage

GW MJC valves are factory built one-shot units, and cannot be reset or rebuilt on site.

Replacement units should always be held on site so that damaged or actuated units can be replaced quickly.

Approval:

Electrically activated MJC-valves hold no approvals.

Additional information

SS035 1002 - Data sheet – Metron Actuator DR2003 / C3

SS035 1003 - Data sheet – Metron Actuator DR2003 / C35

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