

GW C300 FLUID CONTROL VALVE ACTUATOR



GW SPRINKLER A/S



PART NUMBER			
	Ni. Al. Bronze	Super Duplex	Titanium
Non-latching	CV64.527.11	CV64.527.25	CV64.527.21
Latching	CV64.527.13	CV64.527.26	CV64.527.23

Function: This auxiliary actuator provides either pneumatic or hydraulic operation of a C-300 valve to open or close upon instruction.

Operation: In the normal (in service) energized mode, with air/hydraulic pressure on, the spindle controlling the internal valve ports is pushed to bottom position, and the ports CP3 and CP4 are connected open. At the same time the ports CP1 and CP2 are blocked. When the actuator is de-energized, the compression spring pushes back the spindle to its top position, whereby CP1 and CP2 are connected open – and CP3 and CP4 are blocked. CP5 is a non-regulated auxiliary port (normally plugged), by which the actuator pressure can be monitored (e.g. for an alarm).

The actuator is available with or without latch. If fitted, the latch (spring actuated) locks the actuator spindle in the top position, when the actuator is de-energized. This is a Safety feature to always keep the actuator in the actuated position, once it has been de-energized.

To reset the actuator, the manual reset latch (located under CP5) must be pulled (and kept pulled) while energy supply is reinstated.

Installation: Horizontally or vertically.

Design: The GW C-300 Actuator is developed and designed for maximum reliability when installed and operated in the harshest on-shore and off-shore environments. To prevent any malfunctioning due to components seizing, sticking or corroding, the number of moving mechanical parts has been reduced to an absolute minimum, and the few moving parts present are ALL 100% isolated from the flow media - i.e. no water contact. The only moving components in contact with the flow media are the elastomeric parts (pilot sleeve and rolling diaphragm).

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Page: 1 of 5

DATA SHEET No: **DV050 1015 C**

Date: 25.03.2020

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Material: All materials used in the valve have been rigorously selected to ensure durability when installed and operated in the heavy-duty applications the valve is designed for. All wetted parts are as standard in the material Nickel Aluminum Bronze.

Finish: Natural (metallic, non-painted surface).

Approval: FM-approved as part of GW C-300 Automatic Water Control valve trim. DNV-tested (Report FRC0403083 of 30.09.2004).

Weight: 5 kg (Ni. Al. Bronze material)

Maintenance: The actuator is typically a critical safety system component. A variety of (local) factors can affect the durability and performance of the actuator parts. In order to ensure a robust and reliable performance, a conservative **2-year service interval** is recommended, where the actuator should be disassembled, inspected, cleaned - and the elastomeric components replaced – i.e. replace the pilot sleeve and rolling diaphragm. Local conditions may require more frequent servicing – or allow for longer service intervals.

Pressure data:	Min.	Max.	Note
Design pressure		20 bar	
Recommended operating pressure	1 bar	20 bar	
Max. tested hydrostatic pressure		100 bar	DNV FRC0403083
Pilot pressure (air/water)	3 bar	12 bar	
Actuator trip pressure (switch point)	0 bar	0,4 bar	falling pressure

Materials:	Valve		
	Ni.Al.Bronze	Super Duplex	Titanium
Wetted parts	Ni.Al.Bronze to UNS C95800, UNS C63000	SuperDuplex Cr.25 to ASTM A890, UNS J92205	Titanium (unalloyed) to ASTM B367, B348 UNS R50400 – Gr.2
Non-wetted parts	Gun Metal to UNS C93200, St.Steel to UNS S31600 /03	Gun Metal (NiSn plated) UNS C93200, St.Steel to UNS S31600 /03	Gun Metal (NiSn plated) UNS C93200, St.Steel to UNS S31600 /03
Pipes	Cupronickel CuNi 9010, UNS C70600	Titanium (unalloyed) to ASTM B338, UNS R50400 – Gr.2	Titanium (unalloyed) to ASTM B338, UNS R50400 – Gr.2
Compress fittings	Ni.Al.Bronze to UNS C63000	SuperDuplex Cr.25 to UNS S32750	Titanium (unalloyed) to ASTM B348 UNS R50400 – Gr.2
Rolling diaphragm	Nitrile	Nitrile	Nitrile
Pilot sleeve	Natural Rubber	Natural Rubber	Natural Rubber

Material certification to EN10204 3.1, and PMI-test (Positive Material Identification) on request.

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Page: 2 of 5

DATA SHEET No: DV050 1015 C

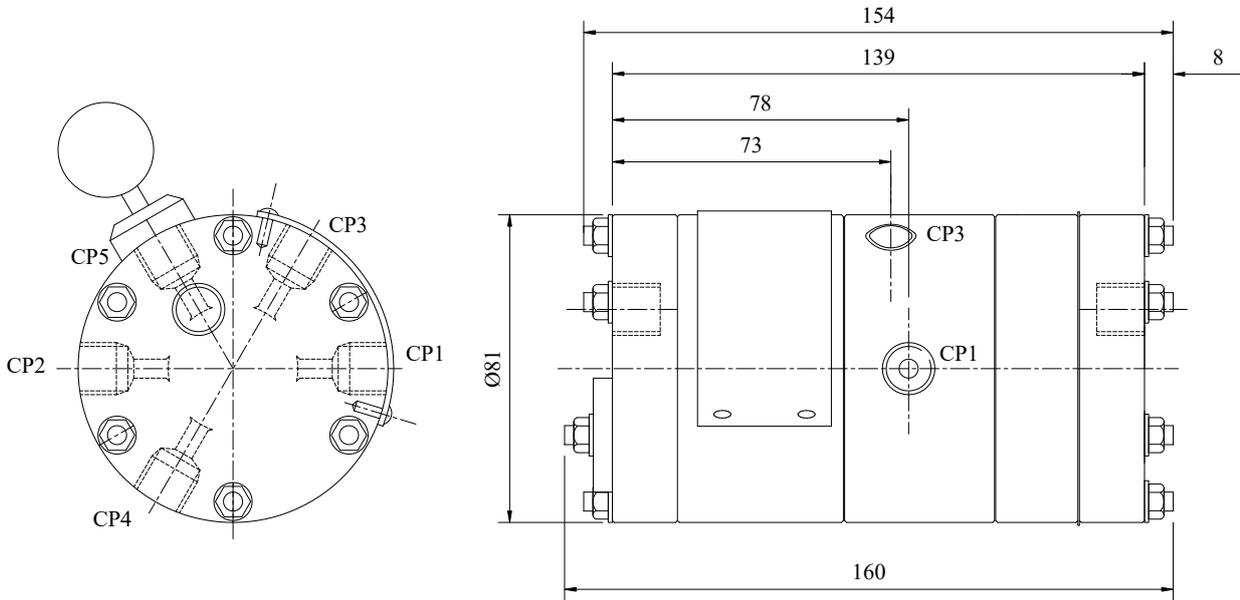
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Dimensions:



Hydraulic

connection: All connection ports (CP1 to CP5 + top port) are threaded ¼" NPT (female).

Spare parts: Item 1 to 4 below are included in the GW Actuator Spares Kit, and shall be replaced as part of the regular maintenance program.

Item no.	Description	Qty.	Part Number
	GW Actuator Spares Kit	1	CV64/90125
1	Rolling diaphragm	1	CV64/70135
2	Pilot sleeve	1	CV64/70085
3	Ø8 Ball (SS316)	4	CV50/71052
4	Compression spring	1	CV64/70136

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Page: 3 of 5

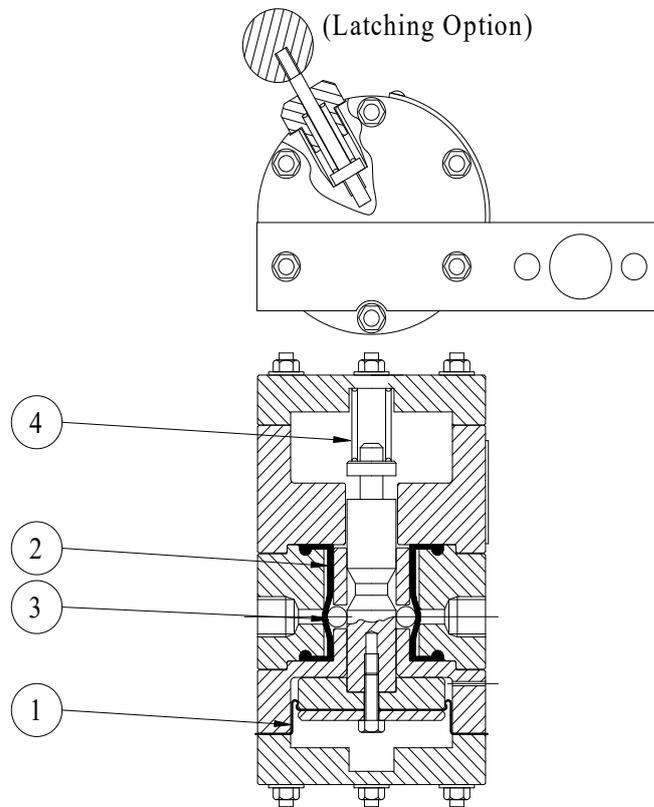
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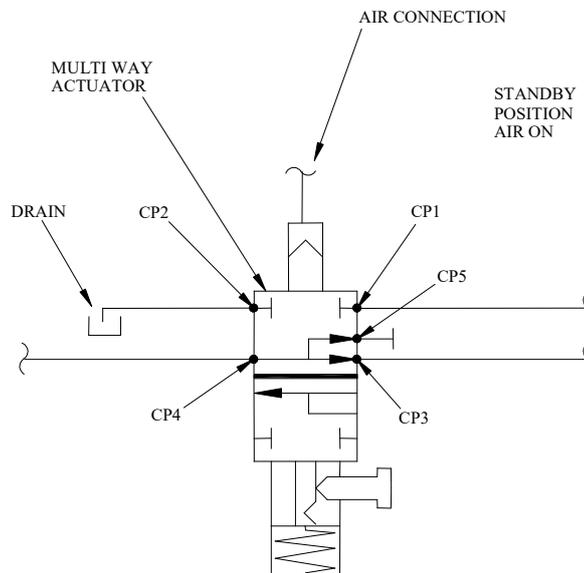
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Page: 4 of 5

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Testing: Every actuator is factory tested - i.e. static body & seat pressure test + functional flow test. An individual test report is issued for each valve.

Service: If required, GW Sprinkler A/S can undertake a full overhaul/refurbishment of your GW C-300 deluge valve at the factory in Denmark. This will include complete dismantling of the valve, glass blast cleaning of corroded parts, assessment of wear/corrosion, replacement of elastomeric parts, replacement of corroded/damaged parts (in dialogue with customer), static pressure test, functional test, set-pressure adjustment, full test report.

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