WET ALARM VALVE
CPF FIRE
V.A.U. 3″
V.A.U. 4″

CE 1922

ILLUSTRATED
MANUAL
OF INSTALLATION, MAINTENACE

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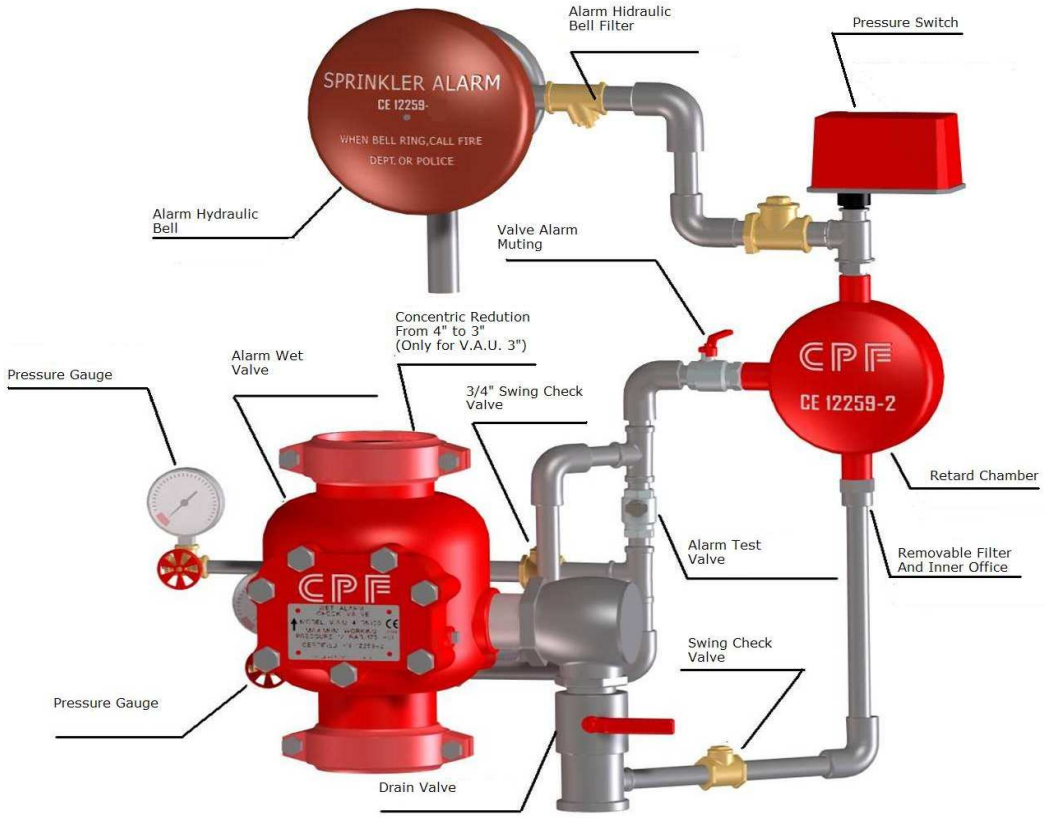
-Important-

The instruction manual is an integral and essential part of the product and must be delivered to the end user. Please read carefully the instructions contained in the manual as they provide important information on safe installation, use and maintenance.
Keep these instruction manual for future reference.
The installation must be performed in compliance with the current rules and standards, according to the manufacturer's instructions and carried out by personnel professionally qualified. Personnel professionally qualified are defined as those with specific technical skills in the field.
Incorrect installation can cause damage to people, animals and goods, for which the manufacturer is not responsible. After removing individual package, please verify the integrity of the content. In case of doubt, do not use the appliance, contact your supplier.
Packaging must not be left within reach of children as it is a potential sources of danger.
Before performing any cleaning or maintenance operation, disconnect pressure, drain the system and the piping completely.
Any product repairs must be carried using original spare parts only.
Failure to do so may compromise the security of the plant.
To ensure the efficiency of the system and its proper operation, the maintenance has to be performed periodically by qualified personnel according to the manufacturer instructions.
This plant will have to be used as expressly designed.
Any other use is considered improper and therefore dangerous.
Any contractual and extra-contractual liability of the manufacturer are excluded in case of damages caused by errors in the installation and use, and in any case due to non compliance with the instructions given by the manufacturer.

Wet valve group and its components



The wet valves are used in the water fire extinguishing systems with water presence upstream and downstream. They mainly have two purposes: the first one is to allow the passage of the water in the event of break-up of one or more sprinklers, the second is the activation of an alarm that doesn't depend from power supply. Additional alarm systems can be implemented by using pressure switches.
Wet valves characteristic is the extreme simplicity to access the clapet for the inspection and for the starting.
With the system idle, the water in the distribution pipelines maintains the disc of alarm valve in closed position.
With water's spillage from one or more sprinklers, the pressure in the pipeline decrease . Therefore the pressure of the feeding water prevails and determines the automatic opening of the disc necessary to feed the working nozzles.
Once the fluid flows, the valve signals the opening of the sprinklers operating a hydraulic bell.
With the use of the delay room of the possibilities of false alarms due to the normal pressure variations in the hydraulic network are eliminated.
The wet sprinkler system can be fed both by a system of water pumping and by the aqueduct network and it is suitable for installation in any environment where there is no risk of piping water freezing. The purpose is that to protect the building, the people and the content from the danger of fire. It can cover up to 12.000 sqm. of surface in one fire compartment only.
The system must be designed by qualified engineers in cooperation with the competent authorities for the correct consideration of the risk.
In order to test the system by the engineers and to obtain the plant installation and test certification by the responsible persons, C.P.F Industriale has decided to propose a preparation trim/wet valve at variable pressure with test valves of alarm muting.
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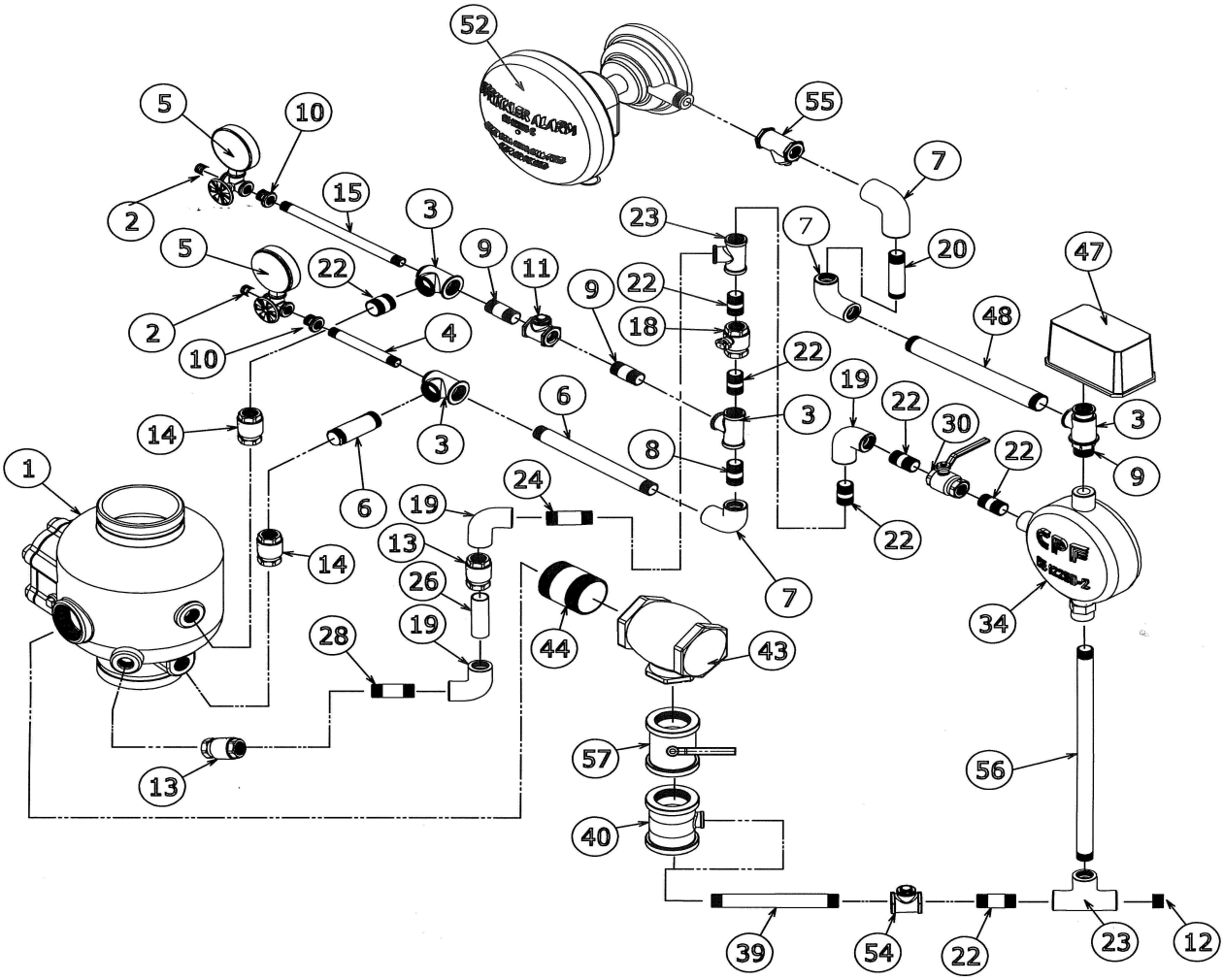
Technical drawing and CPF code



N°	DESCRIPTION	C.P.F CODE	QNT.
1	Alarm Valve 3"/4"CE'	GC 501	1
2	Plug 1/4"	26-2-110-4537	2
3	3/4"x3/4"x1/2" TEE	28-2-110-3678	4
4	Nipple 1/2"	15-2-110-0065	1
5	Pressure Gauge	GC 017+GC 220	2
6	Nipple 3/4"	15-2-110-0066	1
7	Elbow 3/4"	28-2-110-3679	3
8	Nipple 3/4"	15-2-110-0067	1
9	Nipple 3/4"	28-2-110-3687	3
10	Reduction 1/2" a 1/4"	28-2-110-3685	2
11	No Return Valve 3/4"	76-2-890-0016	1
12	Plug 1/2"	26-2-110-4538	1
13	Nozzle attachment 1/2" M/F'	28-2-110-3680	2
14	Nozzle attachment 3/4"M/F'	28-2-110-3682	2
15	Nipple 1/2"	15-2-110-0068	1
18	Alarm Valve Muting 1/2"	68-2-090-0027	1
19	Elbow 1/2"	28-2-110-3681	5
20	Nipple 3/4"	15-2-110-0069	1

N°	DESCRIPTION	C.P.F CODE	QNT.
22	Nipple 1/2"/ 1/2"	28-2-110-3682	6
23	1/2"x1/2"x1/2" Tee	28-2-110-3683	2
24	Nipple 1/2"	15-2-110-0070	1
26	Nipple 1/2"	15-2-110-0071	1
28	Nipple 1/2"	15-2-110-0072	1
29	Nipple 1/2"	15-2-110-0073	1
30	Valve 1/2"	68-2-090-0028	1
34	Ritard Chamber Sub-Group-CE	GC 223 3" /GC 223 4"	1
39	Nipple 1/2"	15-2-110-0074	1
40	2"x2"x1/2" TEE	28-2-110-3684	1
43	Elbow 2" M/F'	28-2-110-3691	1
44	Nipple 2"	28-2-110-3686	1
47	Pressure switch-UL/FM	GC 006	1
48	Nipple 3/4"	15-2-110-0075	1
52	Alarm Hidraulic Bell-CE	GC 222	1
54	No Return Valve 1/2"	76-2-890-0017	1
56	Nipple 1/2"	15-2-110-0064	1
57	Drain Valve 2"	68-2-090-0029	1

Sale configuration and CPF codes

COMPLETE GROUP WET VALVE . 3" WITH BUTTERFLY VALVE

ARTICLE	ALARM GROUP DIAM.	CONNECTION
GS940	3"	GROOVED
GS938	3"	FLANGED

COMPLETE GROUP WET VALVE 3" WITH SHUTTER

ARTICLE	ALARM GROUP DIAM.	CONNECTION
GS936	3"	FLANGED

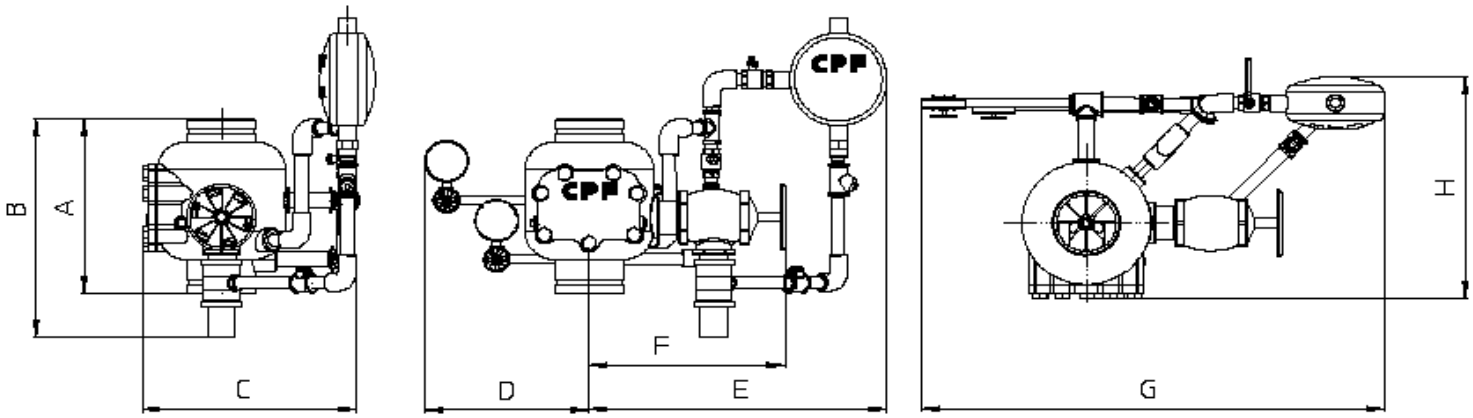
COMPLETE GROUP WET VALVE 4" WITH BUTTERFLY VALVE

ARTICLE	ALARM GROUP DIAM.	CONNECTION
GS939	4"	GROOVED
GS937	4"	FLANGED

COMPLETE GROUP WET VALVE 4" WITH SHUTTER

ARTICLE	ALARM GROUP DIAM.	CONNECTION
GS935	4"	FLANGED

Plant dimensions



VAU	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)
3″	*480	*430	350	380	440	370	820	400
4″	330	350	350	380	440	370	820	400

1.Diagram for DN100 valve—For all the other sizes, it is necessary to sum-up the reduction height from DN 100 a DN 80(*).
2. CPF Industriale SPA reserves the possibility to change the aforementioned data without the obligation to communicate it.

Plant installation

1-Please verify that the supplied packaged material complies with the specifications of the order confirmation.
2-Our valve is pre-assembled in the workshop, with the possibility of the installer to define any modification during the assembly of the pressure switch and of the alarm bell, to better integrate the valve in the plant
3- Please verify that the alarm valve has been released from any plastic caps and/or blocks of foam inserted to keep the clapet closed.

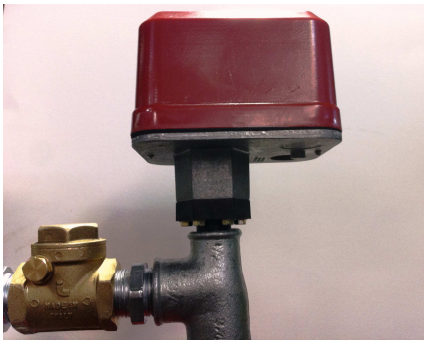
4- Please verify your availability of grooved concentric reductions from 4 "to 3" if you want to install the VAU 3 "

5-Please insert the interception valve as specified in the order confirmation

6-Install manometers upstream and downstream of the alarm valve, so that it will be easy to read values during future inspections and testing.

7– Connect 2" drain to the draining system.

8– Downstream of the stainless steel delay chamber install a T from 3/4",3/4",1/2", giving the possibility to install the water alarm pressure switch in the correct way.



9– Verify if Y filter is present inside the alarm hydraulic bell packaging, that it will be placed upstream of it to preserve internal devices from eventual deposits present in the water.
10– Read carefully the instruction manual in the packing to install the alarm hydraulic bell.

11– At this point it is necessary to connect the water alarm motor output to the dumping, verifying to have sufficient flow to drain all water avoiding counter pressure.

Alarm working testing
and potential leakage detection

To test the system working and all its components assembled, we will start to open the alarm test valve.
This valve is normally close and it has to keep closed also during normal working of the system. for this reason we have decided to replace the normal manual valve with one like "ant tampering".
For this testing only, we will operate the valve by taking the water directly upstream of the clapet activating all our alarms and testing the tightness's.
Obviously during this period of time the alarm mute valve has to be opened together with the alarm test valve.

Alarm test valve "anti-.tampering"

Alarm mute valve

<u>WARNING:</u> At the end of the test, close the alarm test valve and make is safe in "anti-tampering" mode keeping opened the alarm mute valve.

Now your plant is installed and ready for the working.

Problems and solutions

The wet alarm plant is controlled and tested in all its components and built to maintain their performance over time, small problems may sometimes happen, but they are easy to solve, please see below :

Problem: small leaks from the drain of hydraulic alarm bell or activation of the alarm bell/pressure switch PS10 notwithstanding there is no activation of the system.

Problem: the pressure gauges upstream and downstream of the valve indicate the same pressures

Solution A: Close the shutter at the base of the main wet valve, drain the system from the main drain valve.
Verify that the seal of the clapet of the non return valve of the 3 / + trim shown in the figure is efficient and that the sit is clean. Reassemble the valve.

Solution B: close the main shutter at the base of the wet valve, drain the system from the main drain valve. Remove the front cover of the alarm valve body without damaging the seal, remove the cover with the cap, check the status of the seal of the clapet and if damaged or not more efficient replace it with a new one.
Reassemble the valve. Clean the seat of the clapet from possible residues, reassemble everything, taking care to tighten the bolts of the star clapet.
At this point proceed as shown in section COMMISSIONING.

Problem: The hydraulic bell does not ring

Solution: clean the filter located on the 3 /4 " pipe that brings the power supply to the motor of the hydraulic bell t2

CERTIFICATE CE 1922

copy of the original certificate

THE MANUFACTURER RESERVES THE RIGHT TO MAKE ANY CHANGE, or impro-vments without prior notice and at any time