

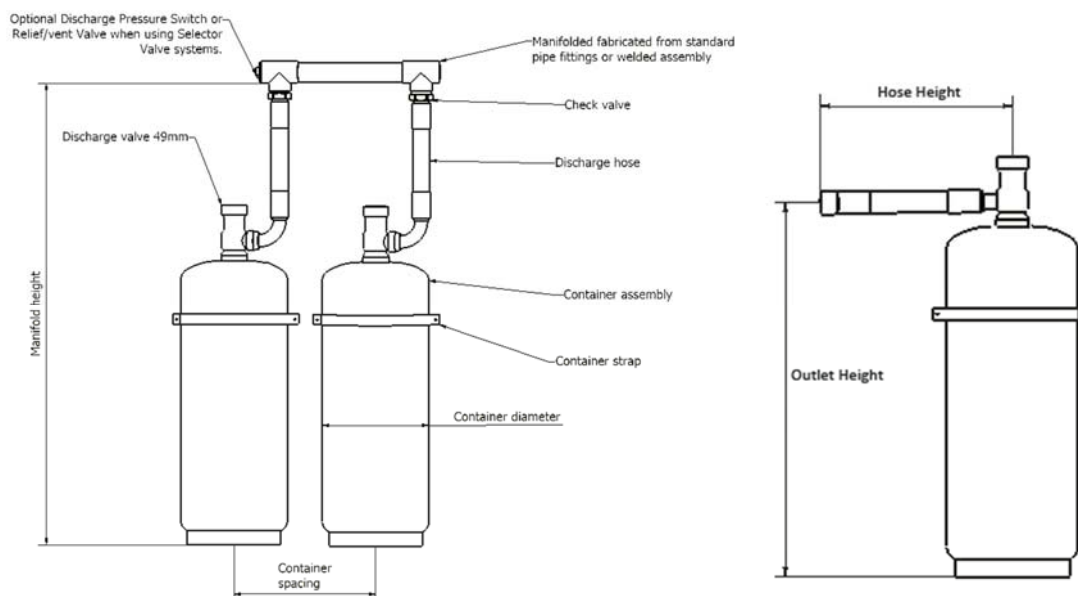
# Technical Datasheet

Container Assemblies and Connections  
Multiple Part Numbers



## Container Assemblies and Connections • ISS CG<sup>2</sup>

*designed for use with*  
**Clean Agent Chemical Gaseous Suppression Systems**



### 25 bar Container Assemblies

| Assy Part no. | Container Assembly | Valve | Empty wt. kg | Vol. l | Dia. | Cont. Spacing | Outlet height | Hose length | Manifold height | Bracket |
|---------------|--------------------|-------|--------------|--------|------|---------------|---------------|-------------|-----------------|---------|
| NF2201502*B   | 15 litre 25bar     | 33    | 19.5         | 15     | 254  | 314           | 453           | 500         | NA              | 9254    |
| NF2203020*N   | 30 litre 25bar     | 33    | 34           | 30     | 300  | 360           | 604           | 500         | 1160            | 9300    |
| NF2203020*B   | 30 litre 25bar     | 33    | 28.5         | 30     | 254  | 314           | 773           | 500         | 1325            | 9254    |
| NF2205020*N   | 50 litre 25bar     | 33    | 45           | 50     | 300  | 360           | 899           | 500         | 1455            | 9300    |
| NF2205020*B   | 50 litre 25bar     | 33    | 42           | 50     | 324  | 384           | 809           | 500         | 1358            | 9324    |
| NF2208020*N   | 80 litre 25bar     | 49    | 63           | 80     | 300  | 360           | 1364          | 550         | 1920            | 9300    |
| NF2212020*B   | 120 litre 25bar    | 49    | 90.5         | 120    | 406  | 466           | 1192          | 550         | 1810            | 9406    |
| NF2215020*B   | 150 litre 25bar    | 49    | 105          | 150    | 406  | 466           | 1432          | 550         | 2060            | 9406    |
| NF2218020*B   | 180 litre 25bar    | 49    | 129          | 180    | 462  | 522           | 1322          | 550         | 1950            | 9462    |

### 42 bar Container Assemblies

| Assy Part no. | Description     | Valve | Empty wt. | Vol l | Dia. | Cont. Spacing | Outlet height | Hose length | Manifold height | Bracket |
|---------------|-----------------|-------|-----------|-------|------|---------------|---------------|-------------|-----------------|---------|
| NF2208040*    | 80 litre 42bar  | 33    | 101       | 80    | 270  | 323           | 1759          | 500         | 2314            | 9267    |
| NF2215040*    | 150 litre 42bar | 33    | 170       | 150   | 356  | 410           | 1912          | 500         | 2467            | 9356    |

Code \* = 0 No integrated solenoid (slave) \* = 1 Inc. integrated solenoid (master)

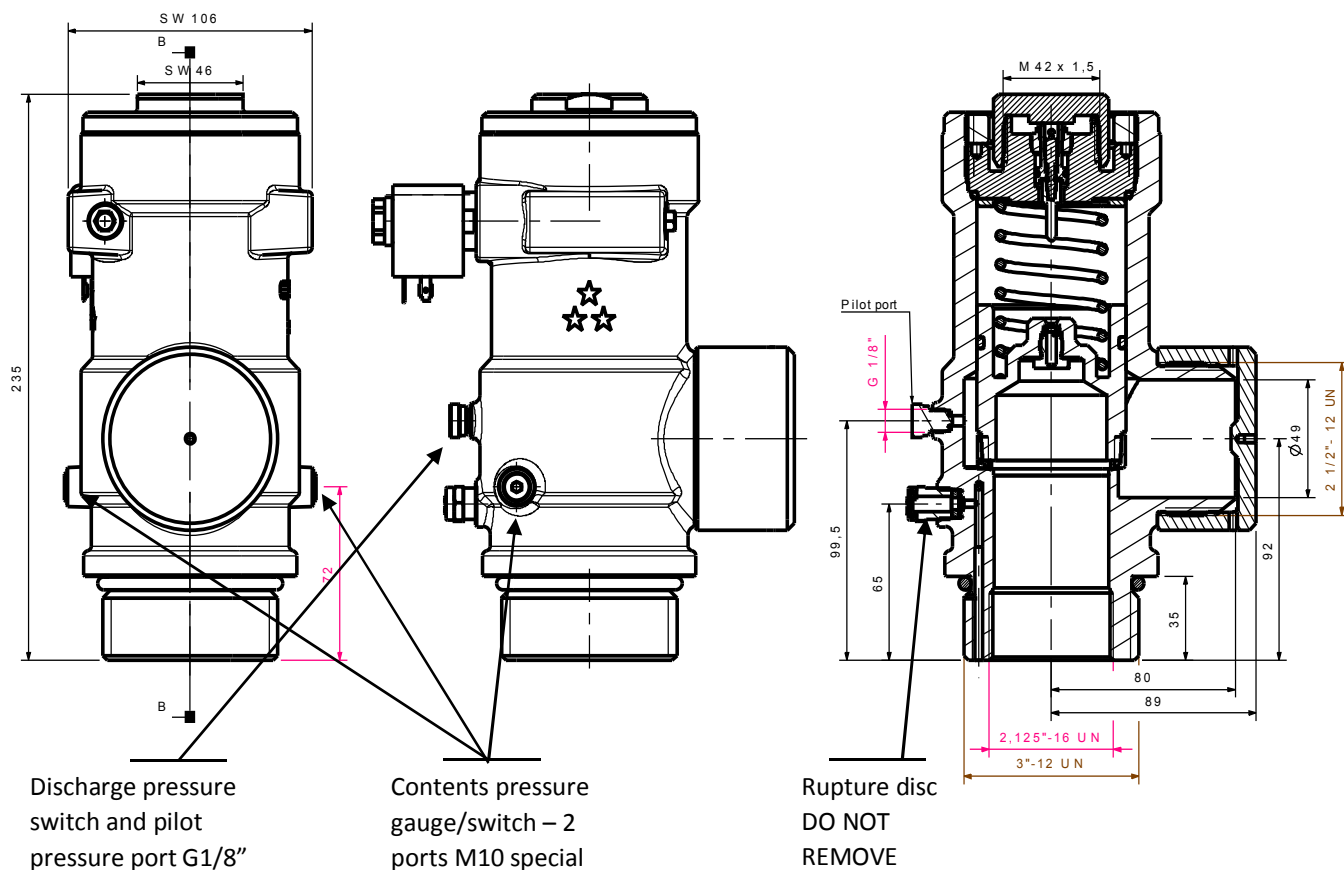
Tolerance +/- 10mm on cylinder heights Outlet spacer required on manifolded 180 litre



### Discharge Valve, Pressure Port Connections • ISS CG<sup>2</sup>

*designed for use with*

**Clean Agent Chemical Gaseous Suppression Systems**



Discharge pressure switch and pilot pressure port G1/8"

Contents pressure gauge/switch – 2 ports M10 special

Rupture disc  
DO NOT  
REMOVE

#### Discharge pressure switch and pilot pressure:

Use this port to actuate additional discharge valves and or the Discharge pressure switch. Use discharge pressure switch NF280210A or Pilot hose NF271560

#### Contents pressure gauge/switch:

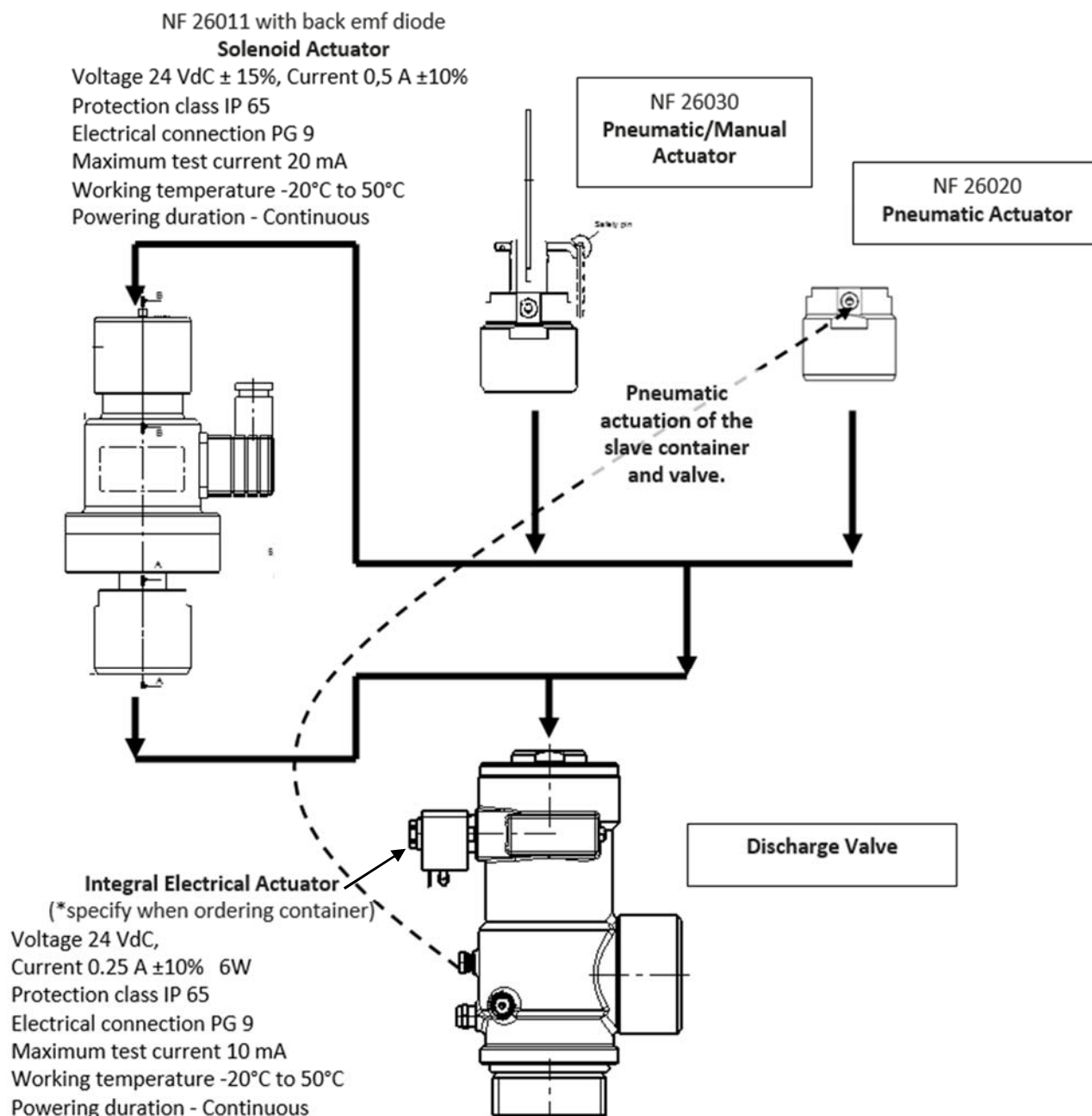
2 ports are provided on either side of the valve. Either or both may be used to connect Pressure gauge NF284004 or pressure switches which include a pressure gauge NF285012 (25bar systems) or NF285014 (42bar systems). Access is via a hexagon socketed plug. Screw the gauge/switch fully in and unscrew a maximum of 1 turn to orientate the gauge. Note, screwing in the gauge/switch opens an internal check valve which allows pressure to the device. Unscrewing the device closes the check valve to allow the exchange or removal of the gauge/switch. Refit the plug after removal.

#### Safety rupture disc.

Every valve is fitted with a safety rupture disc to protect the pressure vessel from over pressure. This port must not be tampered with.

### Actuation Options • ISS CG<sup>2</sup>

#### Clean Agent Chemical Gaseous Suppression Systems



\* Note: Integral Solenoid cannot be fitted after the container is filled.

#### Life of Actuators

The life of all actuators is indefinite.

Recommended maintenance:

- Visually check for corrosion and damage every 6 months
- Replace Integral Solenoid core every 10 years.

# Technical Datasheet

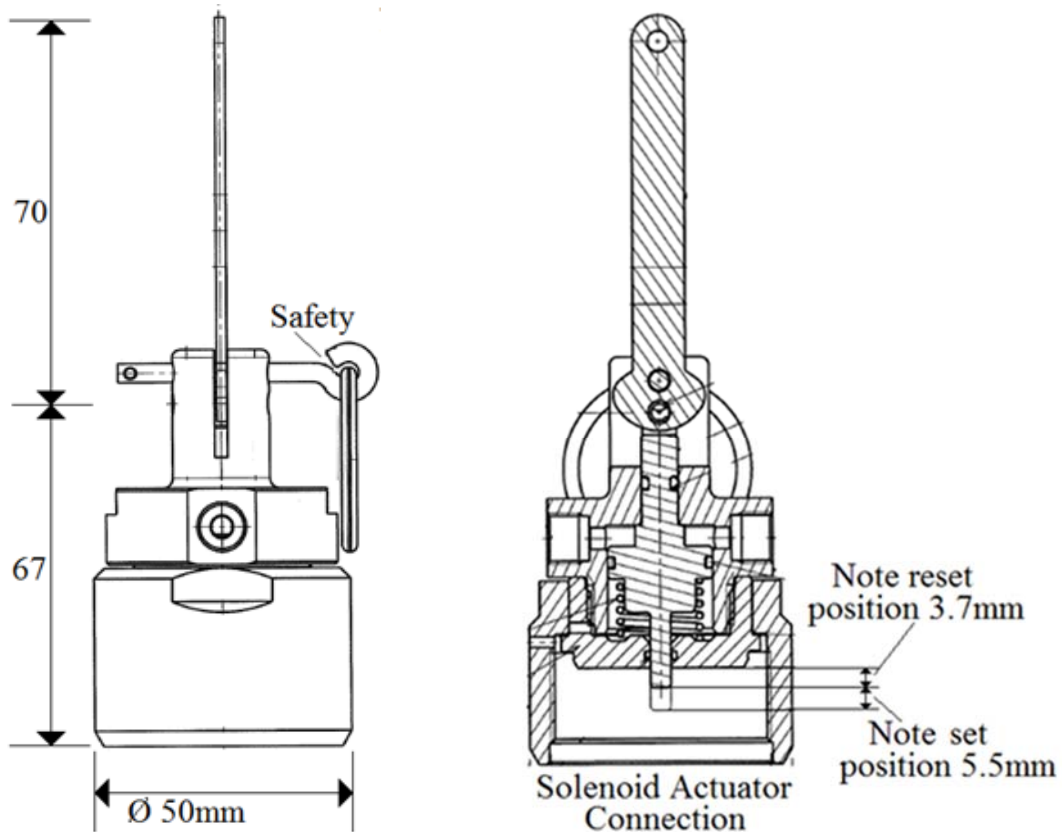
Pneumatic / Manual Actuator  
NF26030



## Pneumatic / Manual Actuator • ISS CG<sup>2</sup>

*designed for use with*

**Clean Agent Chemical Gaseous Suppression Systems**



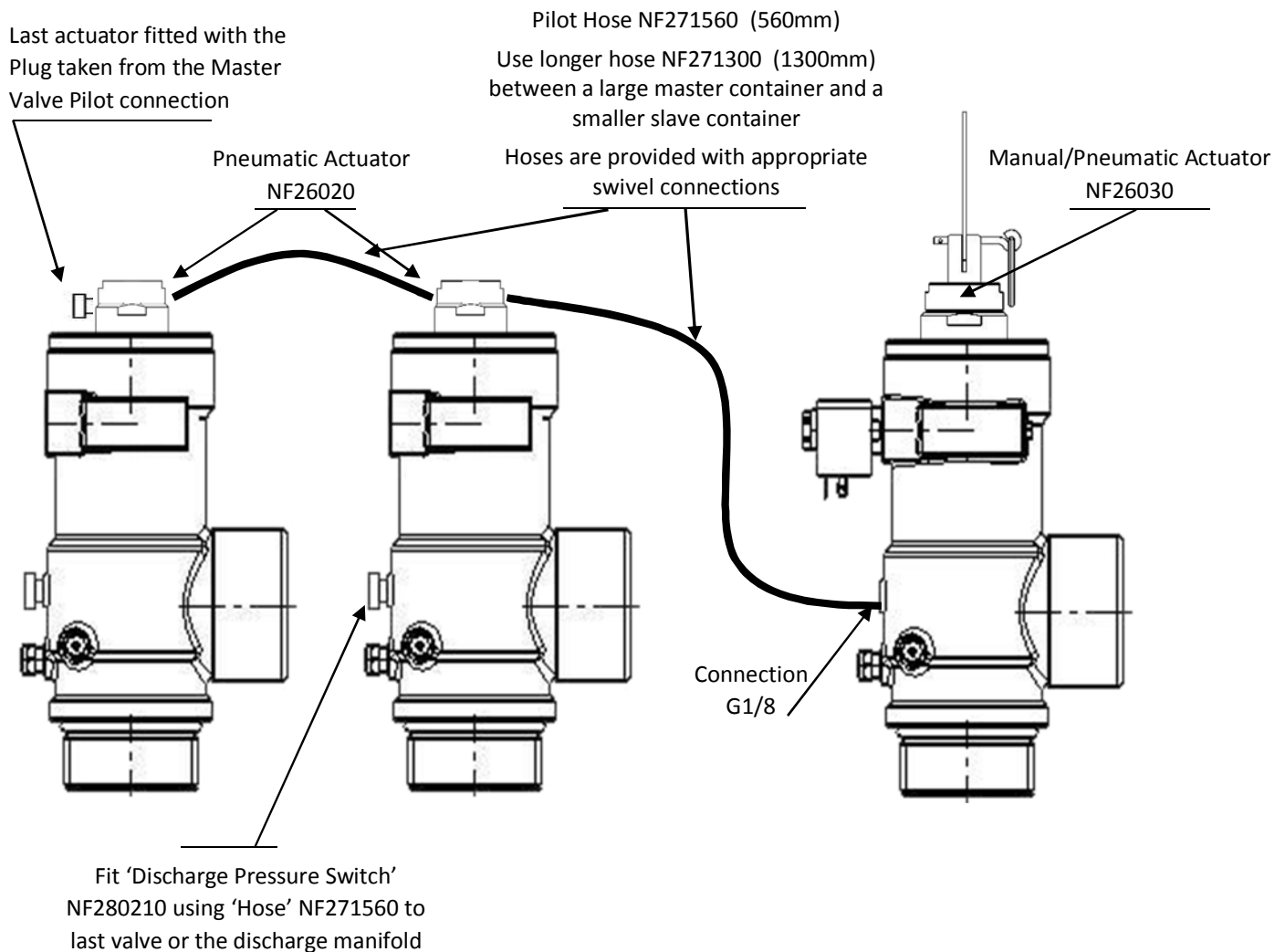
- Manual Actuation Force <150N
- Working Temperature -20°C to 50°C
- Minimum actuation pressure 16 Bar
- Connect the tripping mechanism to the valve using the M42 x 1.5 connecting thread with a torque of 50+0/-15 Nm. Screw fully down
- Connect the Pilot line using the G1/8" with PTFE tape
- To use only in combination with a solenoid actuator
- Refer to ISS CG<sup>2</sup> 227 Manual before assembling to system



### Pneumatic Slave Actuation • ISS CG<sup>2</sup>

*designed for use with*

#### Clean Agent Chemical Gaseous Suppression Systems



#### Extended pilot operation

The LPCB Approval included for the use of 4 pilot hoses and 4 pneumatic actuators.

For multiple container modular use our own testing has shown full operation of all the actuators with a pilot tube from the master valve of **30m, 10 Pneumatic Actuators and 10 Pilot hoses.** (Tube 4mm internal diameter gave a 0.75 s delay between the opening of the master valve to the operation of the last actuator).

Valves shown with the pressure gauges removed for clarity.

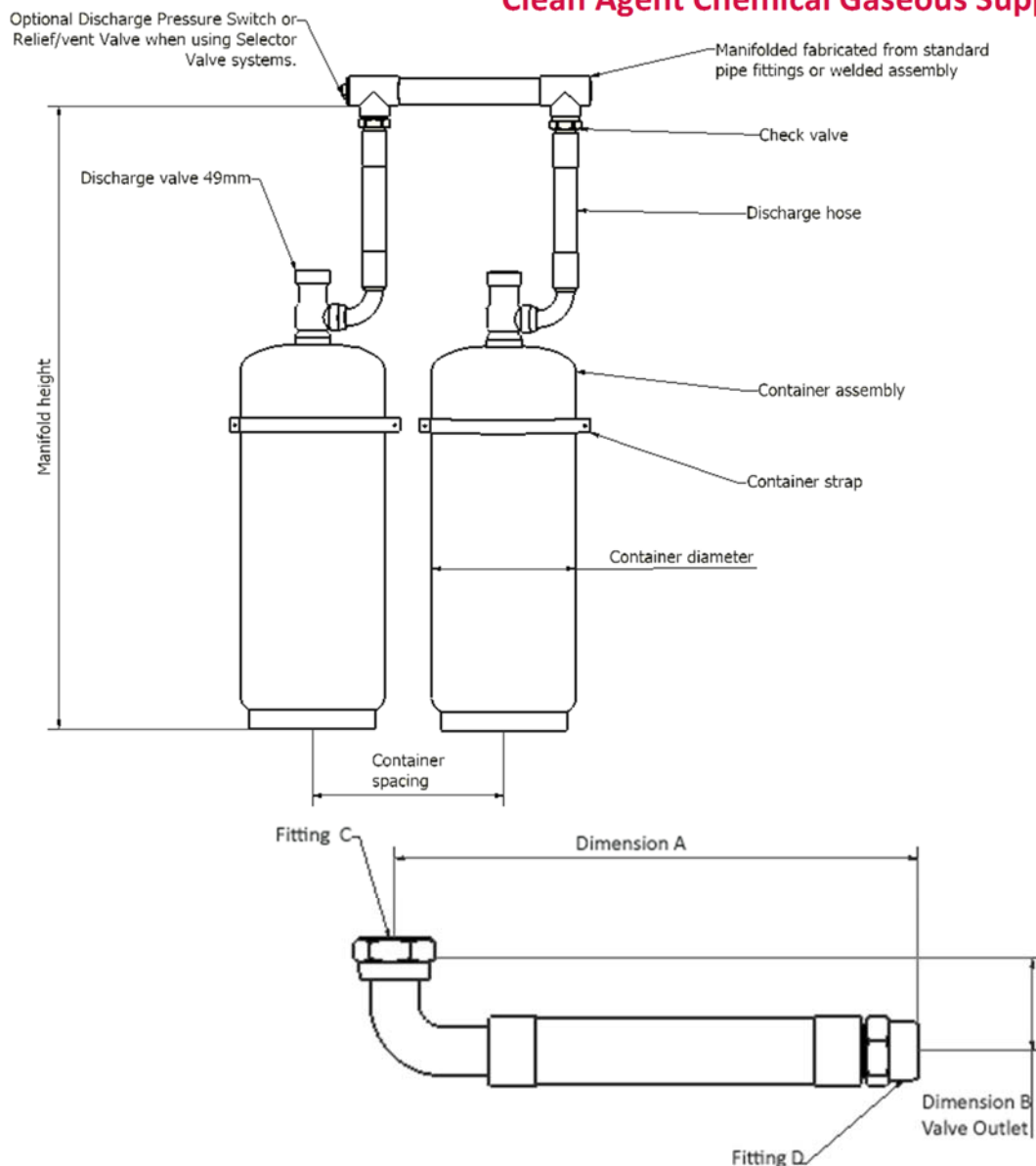
Drawings not to scale.



### Container Discharge Hoses • ISS CG<sup>2</sup>

*designed for use with*

### Clean Agent Chemical Gaseous Suppression Systems



| Hose Assembly | Min. bend radius | Dimension A | Dimension B | Valve Fitting C JIC | Fitting D ISO 7-1* | Min. through bore |
|---------------|------------------|-------------|-------------|---------------------|--------------------|-------------------|
| NF2333500     | 500              | 500         | 77          | 1-7/8 x 12          | R 1-1/2            | 33.3              |
| NF2349550     | 635              | 550         | 99          | 2-1/2 x12           | R 2                | 44.5              |

\*Connect to Check Valve or discharge pipe work before attaching to the discharge valve with the swivel connection.

Note: Maximum bend between centre lines of fittings 20 degrees

## Technical Datasheet

DN49 JIC Outlet Adapter

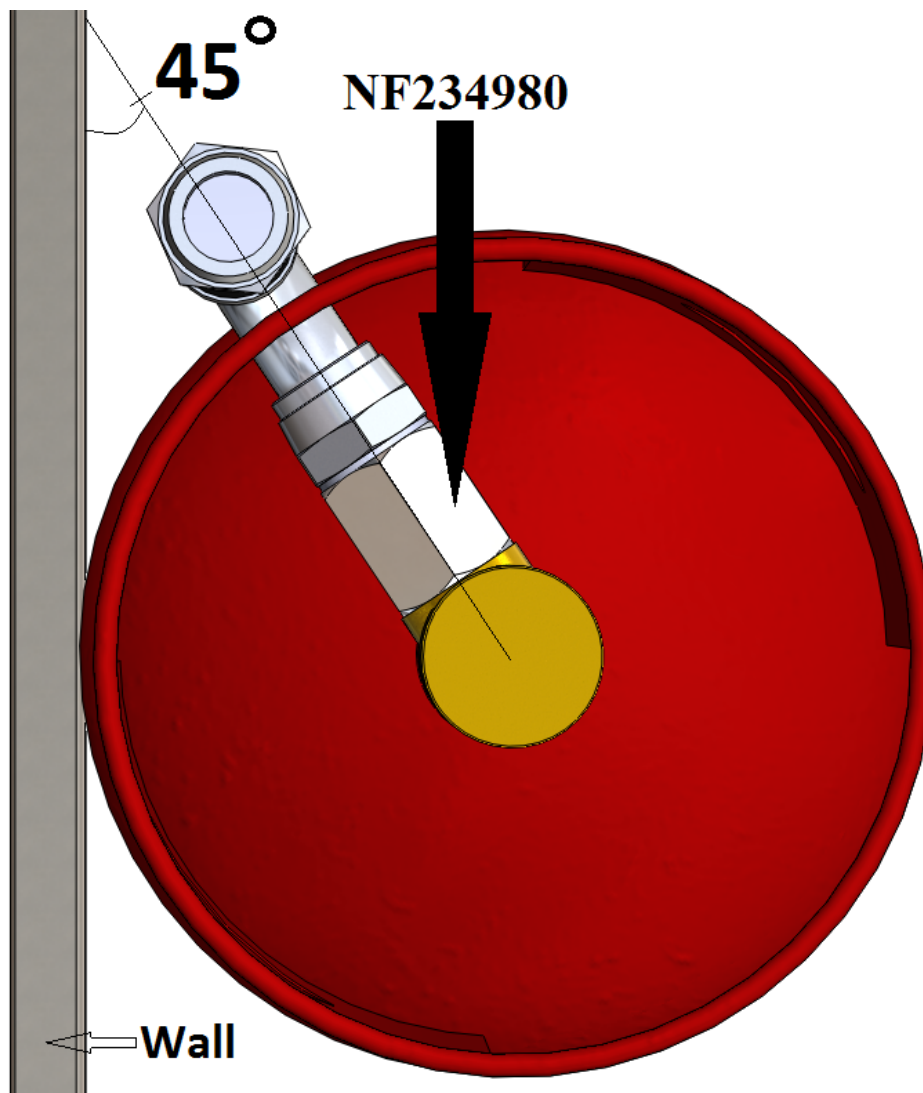
NF234980



### 49mm Discharge Outlet Spacer • ISS CG<sup>2</sup>

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- Material – Steel
- Finish – Zinc Plated
- Use only with ISS CG<sup>2</sup> Clean Agent Chemical System 180 Litre Cylinders when using a discharge hose

# Technical Datasheet

Container Valve Low Pressure Switch  
NF285022



## Container Valve Low Pressure Switch (option) • ISS CG<sup>2</sup>

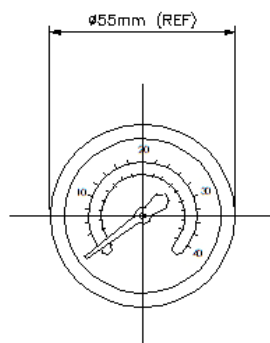
*designed for use with*  
**Clean Agent Chemical Gaseous Suppression Systems**

The pressure gauge incorporating low pressure switch is connected to the cylinder valve via the M10 x 1 port. An optional M10 x 1 port is provided on the other side of the valve so when the cylinder is bracketed to the wall the valve outlet can be positioned in either direction. Ensure the unused port is sealed with a blanking plug.

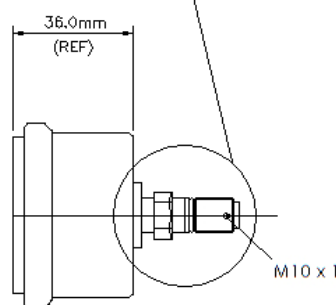
When fitting the pressure gauge screw it into the port until it stops (finger tight) and then turn back if necessary for a maximum of one revolution for correct orientation of the gauge dial.

Before screwing in the gauge check to see that the 'O'-ring seal and back-up ring are not damaged. If 'O' ring replacement is required note the installation diagram (Detail A) shown here.

The gauge can be mounted and removed with the valve pressurized.



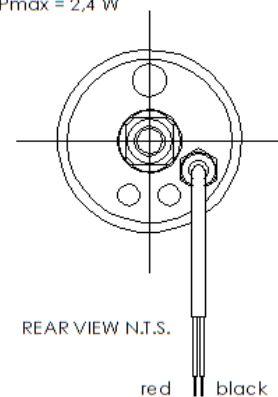
FRONT ELEVATION N.T.S.



SIDE VIEW N.T.S.

### TECHNICAL SPECIFICATION

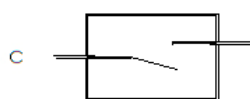
Prange = 0 - 40 bar  
Pswitch = 22,5 bar  $\pm$  0,9 bar  
U = 4,5 - 24VDC / VAC  
I = 5 - 100 mA  
Pmax = 2,4 W



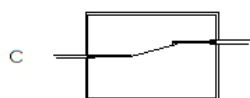
### Kentec Sigma XT

| Event           | Message             | Fault       | Alarm  |
|-----------------|---------------------|-------------|--------|
| Switch Open     | Exting Press Fault  | Fault Light | Buzzer |
| Short Circuit A | Low Press I/P Fault | Fault Light | Buzzer |
| Open Circuit B  | Low Press I/P Fault | Fault Light | Buzzer |

### WIRING INFORMATION



'Normally Open' when cylinder pressure low i.e. <22.5 bar

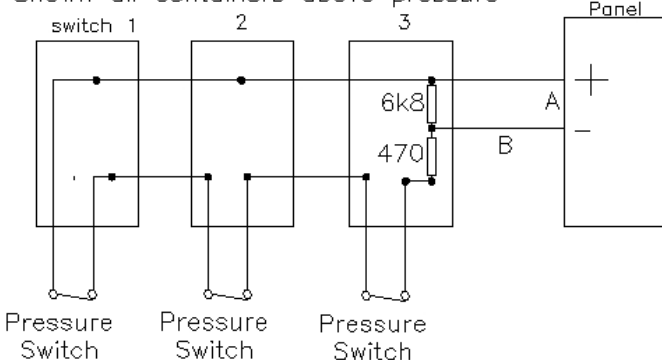


'Normally Closed' when connected to pressurized cylinder.

Above 22.5 Bar switch is 'Normally Closed'. (Correctly pressurized cylinder 25 bar).

If cylinder pressure drops below 22.5 bar the switch opens and the circuit is broken. Minimum 22.5 Bar required to keep switch closed and maintain monitoring circuit.

Shown all containers above pressure



### For Kentec Panel:

- Low pressure switch input 'Inverted' on panel.
- Circuit Valid For Sigma XT+Series 21000 Other panels may Vary.

# Technical Datasheet

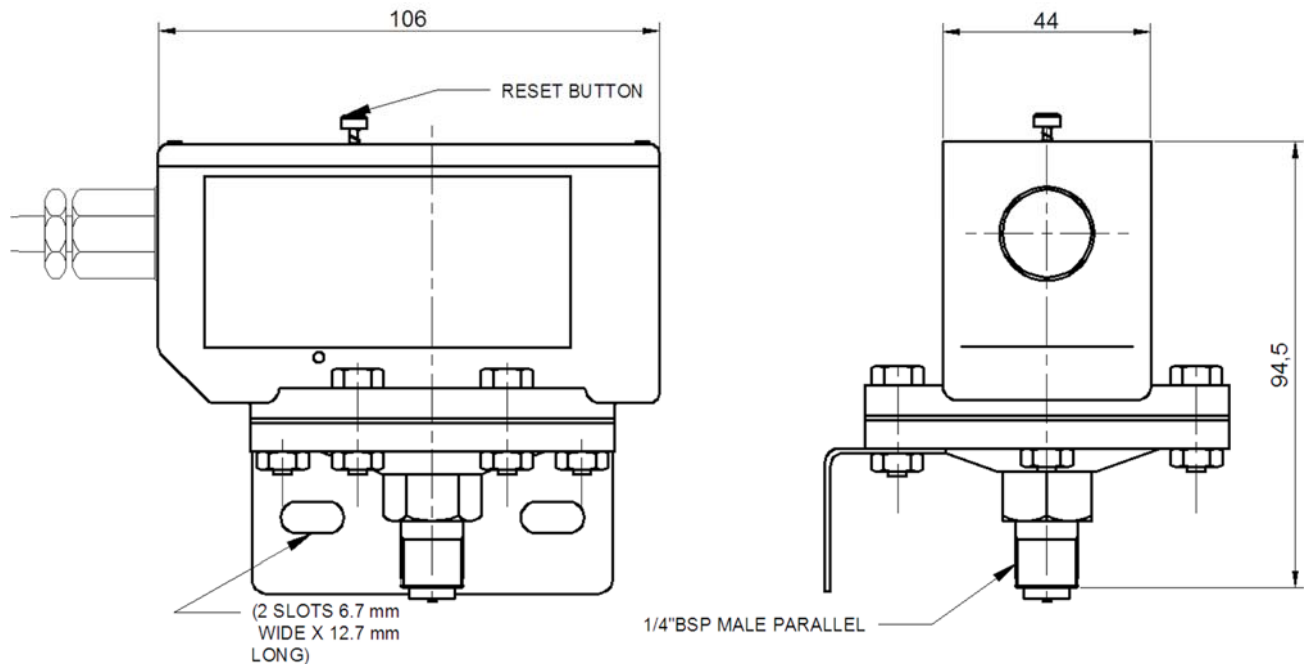
Discharge Pressure Switch  
NF280210A



## Discharge Pressure Switch (inc. Hose) • ISS CG<sup>2</sup>

*designed for use with*

**Clean Agent Chemical Gaseous Suppression Systems**



### Discharge pressure switch

Use to confirm the discharge of a system. The switch is wall mounted and connected to either the 'Discharge pressure switch and pilot pressure port' on the discharge valve, the discharge manifold or discharge pipe work using the pilot hose NF280211.

### Specification:

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Pressure connection   | G1/4" (1/4" BSP male parallel)                             |
| Material wetted parts | Brass with beryllium copper diaphragm                      |
| Switch housing        | Connection M20x1.5. Ingress protected to IP65              |
| Electrical            | SPDT Microswitch 10A 250V 50Hz, 1A 30V dc inductive loads. |
| Set pressure          | 2 bar rising. Latching manual reset by top mounted button. |
| Mounting bracket      | Included.                                                  |

# Technical Datasheet

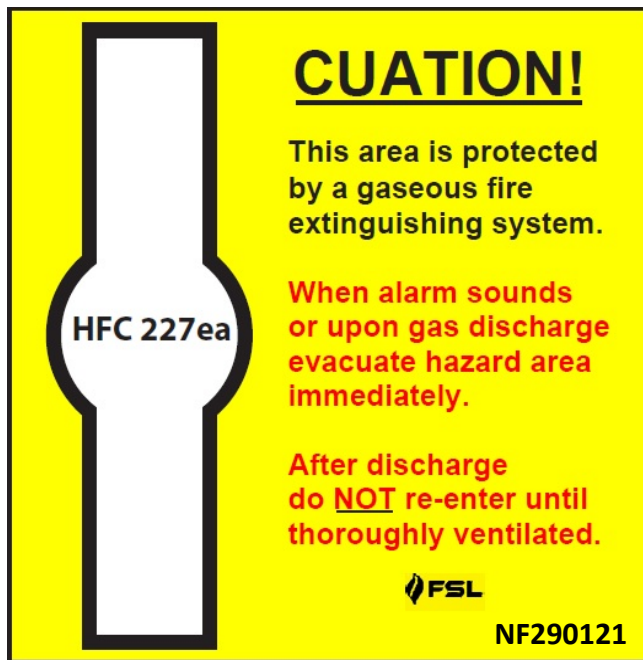
Entrance Label - Cutation - NF290221

Manual Release Label - NF290121



## Entrance Label - Caution

A Entrance labelis required at each entrance to the risk to advise people they are entering a protected area.



## Manual Release Label

A notice should be located at each manual release position.



### Technical Information

|               |                          |
|---------------|--------------------------|
| Material      | 2 mm (0.08") Craylon     |
| Finish        | Gloss, scratch resistant |
| Overall Size: | 215mm (L) x 215mm        |
| Weight:       | 0.025 kg (0.055 lbs)     |

### Technical Information

|               |                          |
|---------------|--------------------------|
| Material      | 2 mm (0.08 in) Craylon   |
| Finish        | Gloss, scratch resistant |
| Overall Size: | 215mm (L) x 85mm (W)     |
| Weight:       | 0.011 kg (0.024 lbs)     |

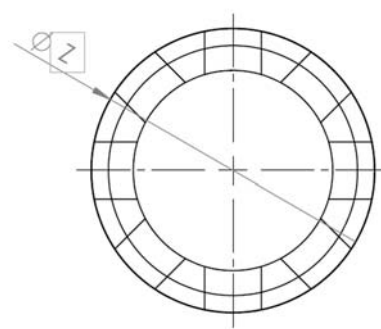
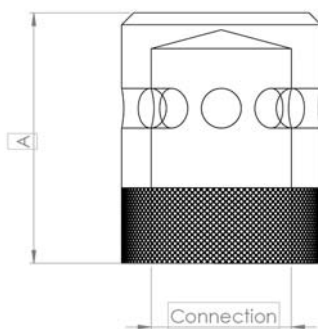
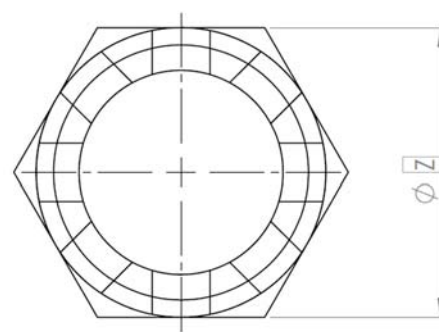
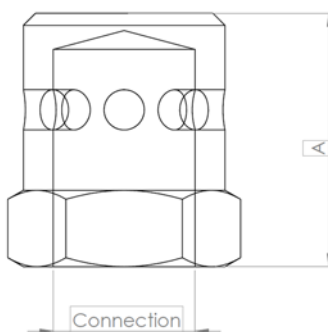
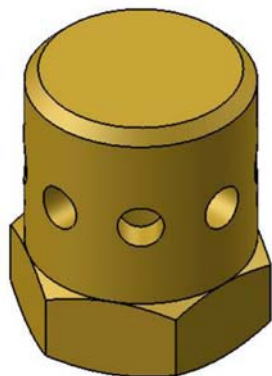
# Technical Datasheet

Discharge Nozzles  
Multiple Part Numbers



## Discharge Nozzles 180 & 360 Degree Coverage • ISS CG<sup>2</sup>

*designed for use with*  
**Clean Agent Chemical Gaseous Suppression Systems**



### Nozzle Information

| Dimension               | Length, mm   |              |            |                |                |            |
|-------------------------|--------------|--------------|------------|----------------|----------------|------------|
|                         | 1/2"<br>DN15 | 3/4"<br>DN20 | 1"<br>DN25 | 1 1/4"<br>DN32 | 1 1/2"<br>DN40 | 2"<br>DN50 |
| <b>A</b>                | 34           | 41           | 51         | 63             | 71             | 103        |
| <b>ZØ</b>               | 24           | 32           | 40         | 50             | 60*            | 75*        |
| <b>Connection</b>       | 1/2" BSP     | 3/4" BSP     | 1" BSP     | 1 1/4" BSP     | 1 1/2" BSP     | 2" BSP     |
| <b>Part Number 1800</b> | NF 251521    | NF 252021    | NF 252521  | NF 253221      | NF 254021      | NF 255021  |
| <b>Part Number 3600</b> | NF 251522    | NF 252022    | NF 252522  | NF 253222      | NF 254022      | NF 255022  |