

## PERMANENT SYSTEM IG 541

IG 541 is used as agent for extinguishing fire in sensitive areas e.g.: computer rooms, machinery storage facilities, sensitive devices storage facilities etc.

IG 541 consists of Nitrogen (52%), Argon(40%) and Carbon Dioxide (8%). It is odourless, colourless, non-corrosive and because of the fact that it consists of gases that exist in the atmosphere, it has no effect on the ozone layer and has zero effect on the rising of the atmospheric temperature.

IG 541 extinguishes the fire by decreasing the existing oxygen levels of the area below 13% (most common materials stop burning at this level).

In the same time, the low level Carbon Dioxide of the mixture do not harm any human being trapped in the area from a low oxygen level. This effect occurs due to the fact that in case the Carbon Dioxide existing in the blood and controls our breath, rises, the oxygen transfer to the human brain rises equally.

Therefore, if a human being is trapped in area of oxygen level less than 21% -which is the normal condition-, then it is subjected to a very risky situation. The Carbon Dioxide of the mixture causes the arteries to expand and as a result a higher level of oxygen – approximately of 15% compared to normal conditions-is transferred to the brain.

IG 541 is stored in cylinder of various capacities e.g.: 16,40,60,67.5,80lt.

A Common System consists of:

Steel High Pressure Cylinders, seamless and of various capacities, electro statically painted in red with black-grey-green colour neck. Cylinders are certified according 99/36/EC and EN 1964-1 ( $\pi$ ) .

System Valves pneumatically-manually activated with potential use of a fuse.

Further to the above, an electrically activated valve can be used, depending on the needs of the user. Steel Pilot Cylinder 3lt capacity, containing nitrogen or CO<sub>2</sub>, with manually and fuse activated valve or electrically activated valve depending on the requirements of the user (Pilot Cylinder is used in case of a battery

of more than two cylinders). High Pressure Cylinder is CE certified according 97/23/EC by TUV (CE 0036).

High Pressure Collector, 300bar, galvanized, its diameter varies from 1 ¼" to 3" with ¾" inlet and outlet varying from ¾" to 3".

Non return valves ¾"-¾" are obligatory for the proper installation of the collector so as its wall brackets.

Also provided: Cylinder Stands, High Pressure Flexible Hoses for connecting the cylinders one another and their connecting to the collector, various types of nozzles depending on the Fire Safety Study's requirements.

## TECHNICAL SPECIFICATIONS

The IG 541 consists of:

NITROGEN 52%±4%, ARGON 40% ±4%, CARBON DIOXIDE 8%±4%

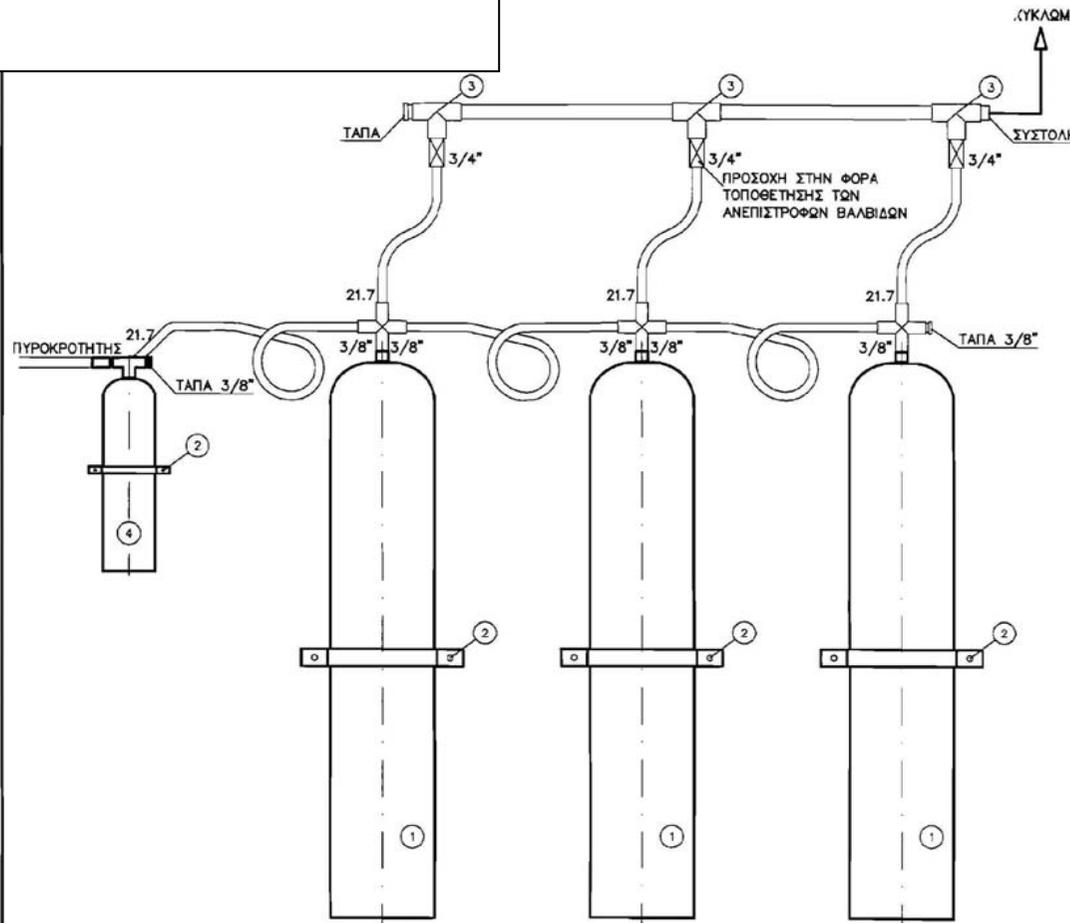
EN 1964-1 π99/36/EC

CE Pilot Cylinder 97/23/EC (TUV) – CE VALVE (BAM) CE 0589

## INSTALLATION INSTRUCTION FOR IG SYSTEM WITH MORE THAN 1PC CYLINDER IN A ROW

1. Install the brackets on the wall
2. Install the Cylinders in that way where the valve outlet is on the front side.
3. Assemble the Collector and install the non return valves
4. Connect the valves with each other using the flexible hoses ¾" – ¾". Fit the blind coupling ¾" to the final cylinder to seal the system.
5. Connect the valves with the non-return valves to the collector using the flexible hoses 21,78-¾"
6. Connect the Pilot Cylinder with the first Cylinder using a flexible hose 21,78-¾" . Install the fuse and the blind coupling ¾" to the pilot's valve.

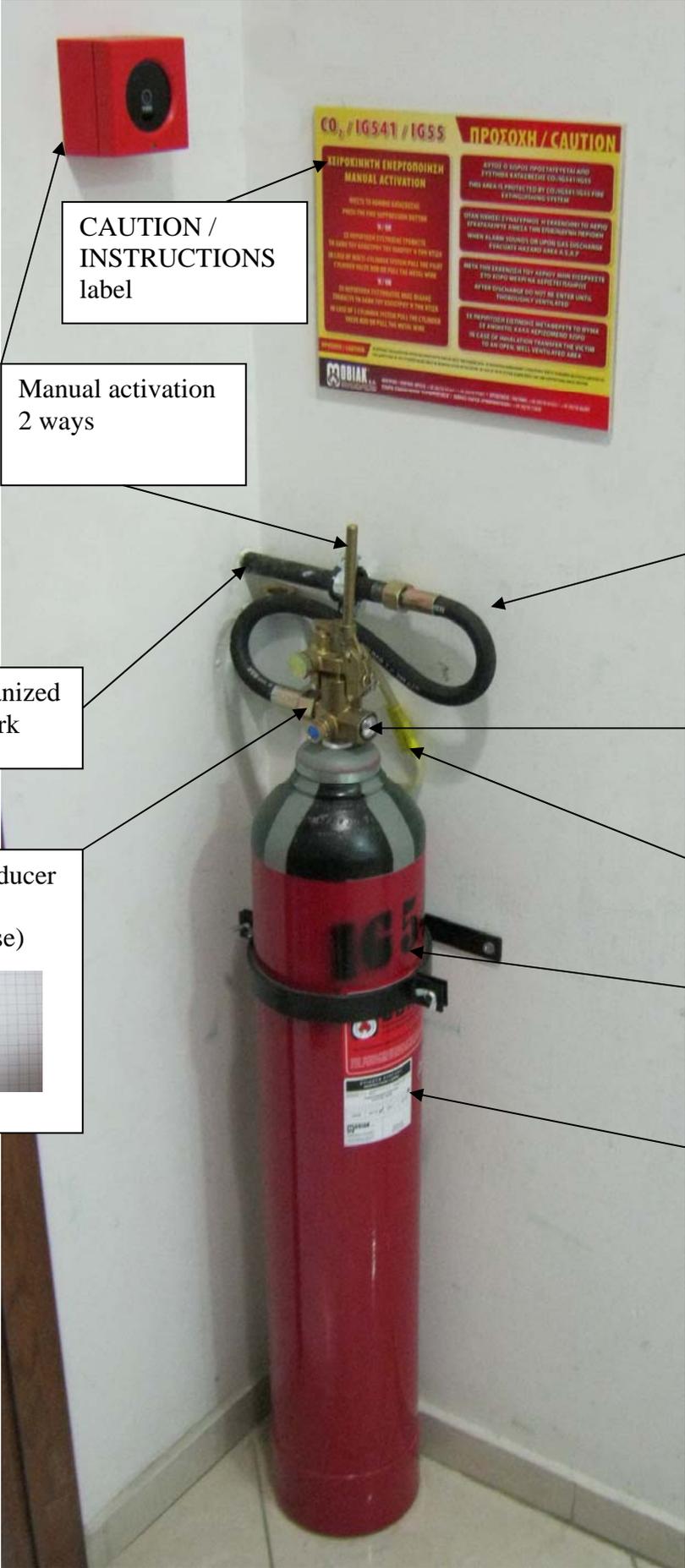
**INSTALLATION MANUAL FOR –  
IG541 SYSTEMS ( MORE THAN 1  
CYLINDER)**



1. secure and fasten the brackets in the wall (2)
2. secure the cylinders so as the outlet of valves be placed towards the room
3. Assemble the collector (3) and place the TAY spare parts (3)
4. connect the valves together and with flexible hoses 3/8'' – 3/8''. Place the cap 3/8'' on the last cylinder
5. Connect the valves in the collector using the flexible hoses 21.7 – 3/4''
6. connect the pilot cylinder in the first cylinder by using the flexible hose 21.7 – 3/4''. Place the Fuse and cap in the valve of pilot

1. gas cylinder
2. cylinder bracket
3. collector
4. pilot cylinder

IG 541 TYPICAL SYSTEM INSTALLATION ( 1PC CYLINDER)

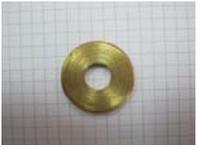


CAUTION / INSTRUCTIONS label

Manual activation 2 ways

Steel Galvanized Pipe network

Pressure reducer ( inside the flexible hose)



Flexible hose (connect valve with pipe network)

Valve with manometer

Detonator connected to valve and control panel

16ltr cylinder with bracket = placed outside the protected area

Inspection Label



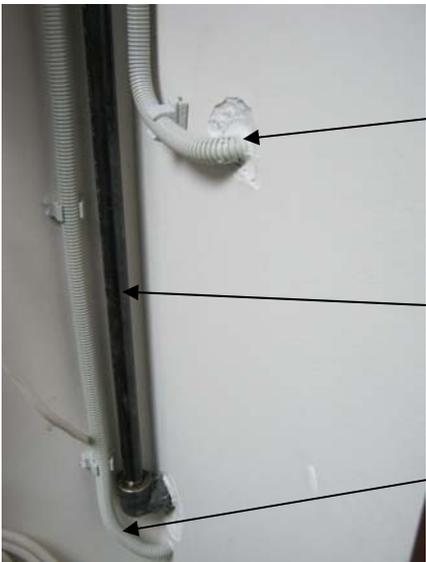
VALVE  
With gauge connected with flexible hose and detonator



Thermosensitive detector

Smoke detector

Nozzle IG541



Manual activation cable connected to control panel

Pipe network

Detonator cable connected to control panel