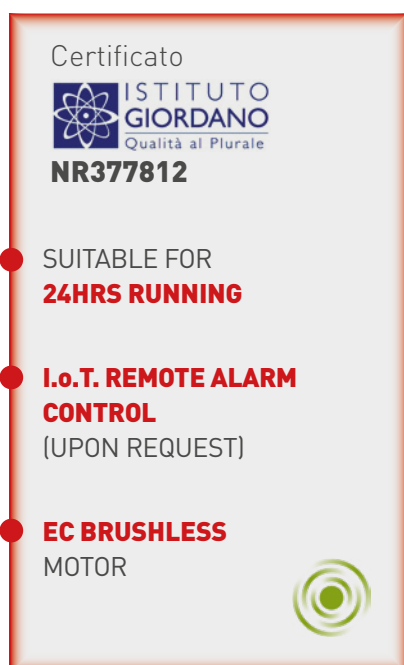




SVP5

Pressurizing
units for fire-fighting lobbies

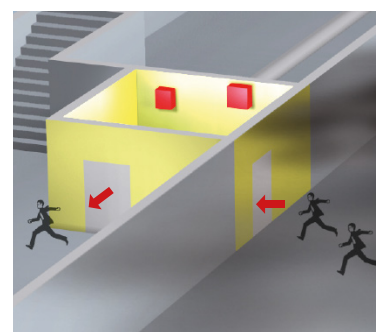


Description

Firefighting lobbies are spaces inside buildings which are enclosed in fire resisting construction. They normally separate horizontal and vertical circulation spaces (e.g. corridor and stairs or lifts) **and/or** separate circulation spaces from accommodation spaces (e.g. between flats and corridors).

The **SVP5** pressurization system is a passive fire protection device which aim is to keep in overpressure, in case of fire, the fire-fighting lobby in which it is installed and therefore to limit the effects of fire and to guarantee people's safety.

The device is designed and built according to the **EN12101-6** standard.



Operation

The pressurisation system **can be activated, in emergency conditions, either independently** (if connected to conventional smoke and / or heat detectors at the SMOKE input) **or from an external signal from a fire protection control unit** (if connected to a N.C. contact at the EXT.A input).

The REI fire doors of the fire lobby are closed through the automatic release of the locks. At the same time the pressurizer (fan) **puts the room under overpressure, reaching the minimum threshold of 30 Pa.**

Il sistema funziona per un minimo di **120 minuti, anche in caso di blackout** (che può essere indotto dai Vigili del Fuoco), grazie alle batterie tampone mantenute cariche durante la normale alimentazione.

Once this value is reached, the pressurisation unit modulates its operation, decreasing its performance, and resumes working at full capacity when the pressure switch detects a pressure below minimum threshold of 30 Pa.

The **system works for a minimum of 120 minutes**, even in the event of a blackout (which can be induced by the Fire Brigade), thanks to the buffer batteries kept charged during normal power supply.

Specifications

MODEL	SVP5
Code	1SV0115
Code batteries	1SV0113
Capacity/Max airflow [m ³ /h]	6.500
Max pressure [Pa]	400
I _{max} [A]	3.9
Power supply	230/50-60-1
Max power pressuring unit [W]	640
Control panel IP protection grade	20
Pressuring unit IP protection grade	24
Batteries type	2x(12V-75A/h)
Pressuring unit weight [Kg]	11 (5.5 cad.)
Control panel weight [Kg]	9.6
Sound pressure L _{pA} -dB(A)	59.2
Pressione sonora L _{pA} -dB(A)	78

Tender text

Device for the pressurization of fire-fighting consisting of: a control panel with microprocessor settable and verifiable with function test via key command; a pressurization unit with maximum capacity of 6,500 m³/h and maximum pressure of 400 Pa; an EC Brushless motor with power supply at 24V power and 0-5V signal supplied by the control panel. The SVP5 pressurization system can operate without the auxiliary batteries if electrically connected to a safety emergency power system for fire-fighting systems (with voltage 230V / 50Hz). It is anyway mandatory to use the SVP4 BATTERY module when the SVP5 system is not connected to a safety emergency power supply system for fire prevention systems. The batteries module consists of n. 2 buffer batteries with 12V nominal voltage and capacity and nominal capacity of 75Ah each. It also includes an electronic card for the management of the charging phase.

The pressurization system can be activated, in emergency conditions, either autonomously (if connected to smoke detectors and / or conventional heat at the SMOKE inlet) or from an external signal coming from a fire protection control unit (if connected to an N.C. at the EXT.A entrance).

Certified by Istituto Giordano (test report N ° 377812 dated 30/11/2020).

Installation

The correct installation requires the realisation of a dedicated power line protected with a suitably sized magnetic circuit breaker in accordance with current laws and standards.

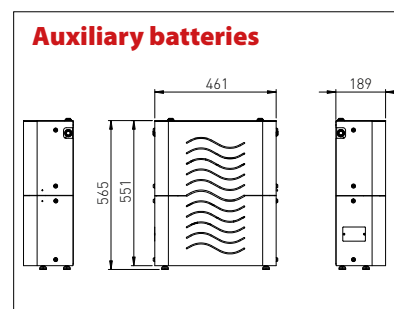
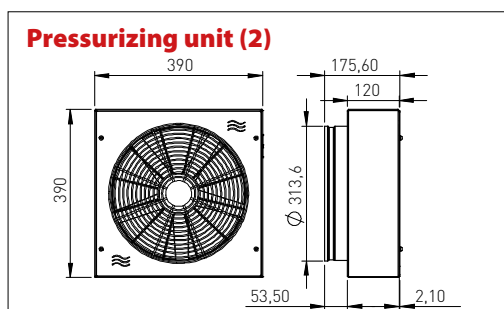
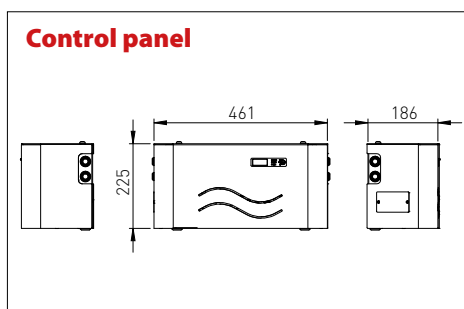
An **air duct system** is also required, to be realised using EI120 certified ducts, appropriately sized, of the **REIDUCT** type series, with the least possible number of bends and deviations and with no restrictions.

The pressurisation unit must be placed at the upper limit of the wall or on the ceiling in such a way not to put users directly and frontally into the airflow.

The control panel must be placed at an accessible height in compliance with current laws and standards on electrical installations, and must absolutely NOT be placed in areas with automatic extinguishing systems or that are exposed to weathering. It is the plant designer's responsibility to decide whether placing the control panel inside or outside the filter.

SVP5 systems should never be placed in rooms with fire loads.

Dimensions (mm)



Components of the system

① CONTROL PANEL

Made in galvanized steel with epoxy finish, it can be installed in the lobby or outside, in the adjacent safe area. It contains:

- A **microprocessor electronic pcb** with four inputs and three outputs which supervises the operation of the system by managing the alarm signal from a central fire or smoke detection sensor. In addition, it automatically switches the power supply to the fan from the mains to the backup batteries.
- An **integrated differential pressure sensor** which controls the level of overpressure in the fire-fighting lobby to ensure its efficiency, maintaining the correct pressure level.

② PRESSURIZING UNIT

To be installed inside the fire-fighting lobby on a wall. For an installation in false ceilings, it is necessary to use the fixing base (available as accessory).

Two units with housing made in galvanized steel with epoxy finish and each containing a fan which provides to the air input into the lobby from outside or from a safe zone through certified ducts with fire resistance EI120 such as Maico series **REIDUCT**. EC brushless motor with power supply at 24V and 0-5V signal.

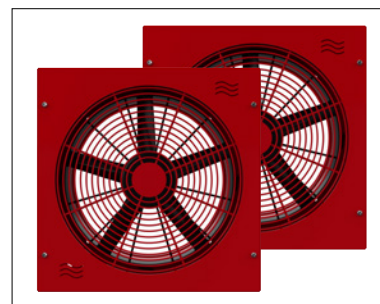
③ AUXILIARY BATTERIES

The **SVP5** pressurization system can operate without the auxiliary batteries if electrically connected to a safety emergency power system for fire-fighting systems (with voltage 230V / 50Hz).

It is anyway mandatory to use the SVP5 BATTERY module when the SVP5 system is not connected to a safety emergency power supply system for fire prevention systems.

The batteries module consists of n. 2 buffer batteries with 12V nominal voltage and capacity and nominal capacity of 75Ah each. It also includes an electronic card for the management of the charging phase.

The batteries are contained in a module made in galvanized steel with epoxy finish.



Accessories and spare parts

Item	Code	Description	SVP1	SVP2	SVP2+	SVP4	SVP5
	1SV0004	Auxiliary batteries 2x(12Vx28A/h)	■	■			
	1SV0113	Auxiliary batteries 2x(12Vx75A/h)				■	■
	5RF0001	Smoke sensor	■	■	■	■	■
	1C05032	Base for sensor	■	■	■	■	■

Item	Code	Description	SVP1	SVP2	SVP2+	SVP4	SVP5
	5PL1501	Fixing base 60x60 for false ceiling installation	■	■	■	■	■
	1C05042	Watertight emergency button	■	■	■	■	■
	1C05034	Optical and acoustical alarm panel IP65	■	■	■	■	■
	1SE9018	Shutter BD EAJ 300x300	■	■	■		
	5PR0001	IPD - Differential pressure sensor	■				
	5PE2156	PCB for control panel	■				
	5PE2169	PCB for control panel		■	■		

Aeraulic ducts EI120 – REIDUCT series

Complementary ducting components to SVP **SVP** systems. Certified by APPLUS for fire resistance 120' according to EN 1366-1. With **REIDUCT** ducting system it is possible to design highly valuable aeraulic systems ensuring the correct fire division areas in perfect compliance with the regulations.

REIDUCT-QSC Square section

- Classification:
EI120 (ve/ho o->i) S 500 multi



REIDUCT-C Circular section

- Classification:
EI120 (ve/ho o->i) S



The SVP range

SVP1

- Max airflow: 2.700 m³/h
- Max pressure: 270 Pa
- Emergency operation only



SVP2

- Max airflow: 2.200 m³/h
- Max pressure: 300 Pa
- EC brushless motor
- Suitable for 24 hrs running



SVP2+

- Max airflow: 3.300 m³/h
- Max pressure: 400 Pa
- EC brushless motor
- Suitable for 24 hrs running



SVP4

- Max airflow: 4.400 m³/h
- Max pressure: 650 Pa
- EC brushless motor
- Suitable for 24 hrs running



SVP5

- Max airflow: 6.500 m³/h
- Max pressure: 400 Pa
- EC brushless motor
- Suitable for 24 hrs running

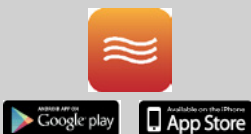


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