

Windor is a flexible PVC double action door, available with one or two panels. With manual or automatic opening, it can be crossed in both directions and is a valid solution for use in both work and commercial environments. Thanks to the high quality of the materials, in addition to the production techniques, it ensures maintenance free,

smooth virtually limitless operating life.



Windor is a double action door, with flexible PVC panels, can be made with one or two leafs, depending on the size of the opening.

Its operation is simple and the high quality materials make it particularly resistant over time.

Panels are mounted at the top and bottom on rotating supports with ball bearings. During the opening phase, a torsion spring accumulates the force impressed by the panel, and then releases it allowing the closure.

The flexible panels, available in different combinations, are made of PVC and rubber, with high characteristics of flexibility, self-extinguishing, sound insulation and resistance to abrasion and low temperatures.

Windor can be manufactured with an AISI 304 stainless steel structure and can be easily placed in food stores, as well in supermarkets, warehouses, railway depots or emergency room entrances in hospital units.

Opening can be manual or automatic, with pneumatic devices.



Installation of perfectly flat PVC panels on WINDOR doors frames, is assured by a pre-heating process and vertically mounted on a specific structure. This vouches for many years of reliable door operation with plane plastic panels.





## **Technical features**

#### Structure

This is a sturdy construction made of cold-galvanised "Sendzmir" steel profile, with dimensions suitable to ensure maximum swing door resistance and elasticity.

### Door panels swing operation

Mounted on upper and lower rotating supports with ball bearings.

### Automatic door closing

Comprises two torsion springs positioned in the door upper section and in the lower guide supports. The spring torque resistance is adjustable as required by operating conditions.

### **Flexible panels**

Made of top quality PVC with high flexibility, self-extinguishing, sound insulation and resistance to abrasion and low temperatures.

#### Available in the following models:

**KRISTALL**: fully transparent PVC panels in 5, 6, 7 mm thickness, for total visibility and safety.

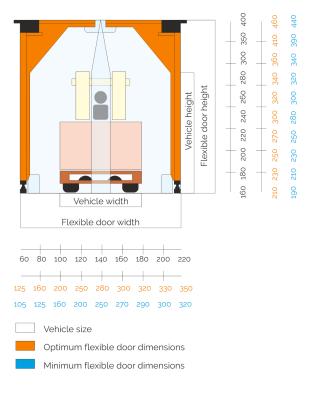
**KRISTALL GUM**: Reinforced Bottom black rubber panels 1300 mm. height with double thickness and Top panels in 9 mm thick clear transparent PVC for visibility and safety.

KRISTALL OPACO A: Opaque Grey or Yellow lower PVC panels with 1300 mm height. Top section made of clear transparent 5 mm thick PVC panels.

**KRISTALL OPACO B**: Lower and top sections in opaque grey or yellow PVC, with central section made of clear transparent 5 mm thick PVC for visibility and room lighting.

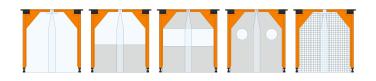
ALLOPACO: Fully opaque grey or yellow 5mm thick PVC panels, with clear portholes

KRISTALL BT: special clear PVC version for subzero temperatures (min.temp.-45°C/-58°F.). Recommended for deep freeze storage room applications



measures in cm

# The different combinations of flexible panels, made of PVC and rubber



## Automation options SP device

# Air operated, automatic dual directional door opening device

It is a pneumatic pushing device: with a slight pressure on the door wings, the door opens automatically in both directions. The device consists of a pair of ISO standard anodised aluminium air cylinders, equipped with adjustable end-stroke dampers and speed regulators for opening and closing; The device also includes a galvanised sheet metal protection and pelmet for clearance compensation between the cylinders. A light pressure actuates the air loaded cylinders and the closed door opens in both directions. In case of a temporary lack of plant air, the system allows a safe mechanical door opening.



## SE device

# Electro-pneumatic remote-controlled single direction automatic door opening.

This remote controlled electro-pneumatic device allows automatic door opening in a single direction. The system consists of two quality ISO standard anodized aluminium air cylinders fitted with individual opening/closing speed control with damping at stroke end. The device also includes a galvanized metal guard with a small shield for clearance compensation between the cylinders. A light pressure actuates the air loaded cylinders and the closed door opens in a single direction. An electro-pneumatic control panel is imbedded in a sturdy cabinet with IP 55 protection complying with updated EC/CEI 44/5 -DIN standards performs all necessary functions and interfaces with remote controls.

The system includes:

- mains power switch
- programme selector switch
- programmable electronic logic controls
- low voltage transformer 220 Volt to 24 Volt
- 3-way electro valve

In case of a temporary lack of plant air, the system allows a safe mechanical door opening.

## **DE device**

#### Double action electro-pneumatic device

For large entries, we recommend installations of big flexible swing doors featuring DE dual action pneumatic cylinders to avoid door opening caused by strong wind force or negative pressures.

In such a contingency the air cylinders which actuate the door opening are permanently kept under pressure when the door is closed. In this situation, the door cannot open without a command from a remote control. In case of plant air failure, the door can be opened manually and automatic closing is ensured mechanically by the torsion spring incorporated in the door frame.

## SAM modular automation for swing doors

Pneumatic or electro-pneumatic opening controls for swing doors. Automatic single or bi-directional opening of impact swing doors, or remote-controlled single or bi-directional automatic door opening.

It can be used to automate any type of swing door on the market, without having to modify its structure.

Particularly suitable for sanitizing and environmental hygiene requirements. It is available both in the bidirectional push version (SAM SP model) and in the pre-controlled version.

The pre-controlled version can be realized for automatic one-way opening (SAM SE model) or bidirectional door opening (SAM model).

The system includes:

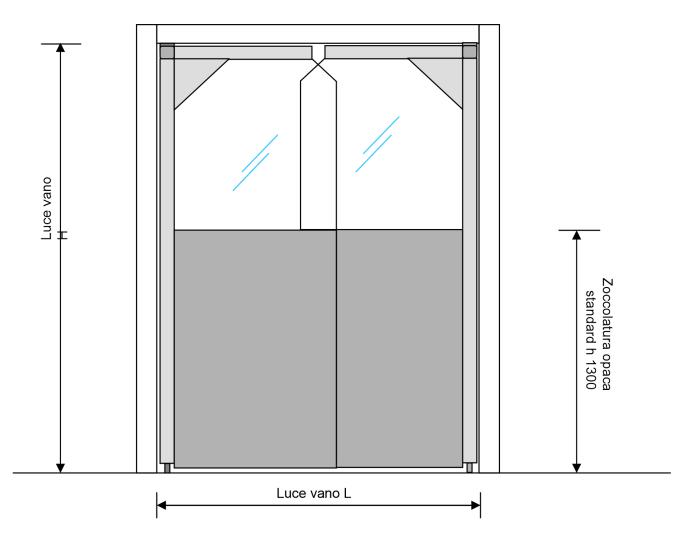
- A self supporting box enclosure made of galvanized steel or AISI 304 Stainless Steel, complete with the actuating stirrup and a hinged inspection cover.
- A pneumatic impact actuator (SAM SP) or electro-pneumatic actuators (SAM SE or remote SAM)
- An air cylinder with aluminium tubing complying with ISO standards
- Dual adjustable damping device
- Speed regulators
- Air discharge ports
- 5-way electric valve with solenoids having 24 V .coils (SAM & SAM SE)
- Electro-pneumatic control panel with a rugged cabinet complying with IP 55 protection and updated EC/IEC 44/5 + DIN standards, providing full controls and interface with remote commands.

The door panel opening and closing speeds are individually adjustable for each transit direction. The function logic for remote controlled version can be programmed to connect with traffic lights. In case of power failure, the door can be operated manually.

In this case the operation is guaranteed by the torsion spring mechanism that allows automatic closing.

The device is compatible with radio-controlled COIL opening systems such as push buttons and Microchains IP55 certified.





## Warranty

Manufactured with the best electronic materials and components, WINDOR doors are tested in the most severe applications in industry and commerce and are covered by a standard 12-month warranty.



## For more information:

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