

AIR-1-EX

FILTER FAN UNITS



KEY POINTS



Suitable for inflammable and/or explosive atmospheres



Very quiet running



Maintenance free



Independent Filter Fan Unit designed for large Cleanrooms and/or Laminated Airflow Systems in areas where hazardous, inflammable atmospheres can be present. The Filter Fan Units are designed for connecting to the Grid-HT.

The AIR-1EX Filter Fan Units are equipped by elettrofans in compliance to the directive 94/9/EU (ATEX), standard like prEN 14986:2004 (D), DIN EN 13463-1 and DIN EN 60079-14 have been taken into consideration: therefore they can be used where hazardous, inflammable atmospheres only arise occasionally (zone 1 and 2).

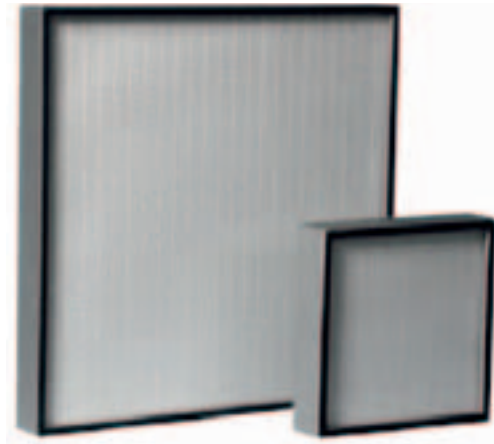
APPLIANCES

Cleanrooms and Laminar Airflow Systems with occasional rise of hazardous and/or inflammable atmospheres for the Microelectronic, Electronic, Optical, Mechanical, Aerospace, Pharmaceutical, Medical industries and Hospitals.



COMPONENTS' DESCRIPTION

- **Container box:** in natural aluminium plate, suitable bent and stiffened to create a strong and rigid structure, painted with polyester conductive painting.
- **Radial electric fan,** with an EX electric motor, coupled directly to an aluminium rotor with inverted blades.
- **Absolute filter** with low pressure drop, H14 class, in accordance to EN1822:2009, filter pack H=66 mm, compliant with the ATEX 94/9/EC directives.



OPTIONAL ACCESSORIES

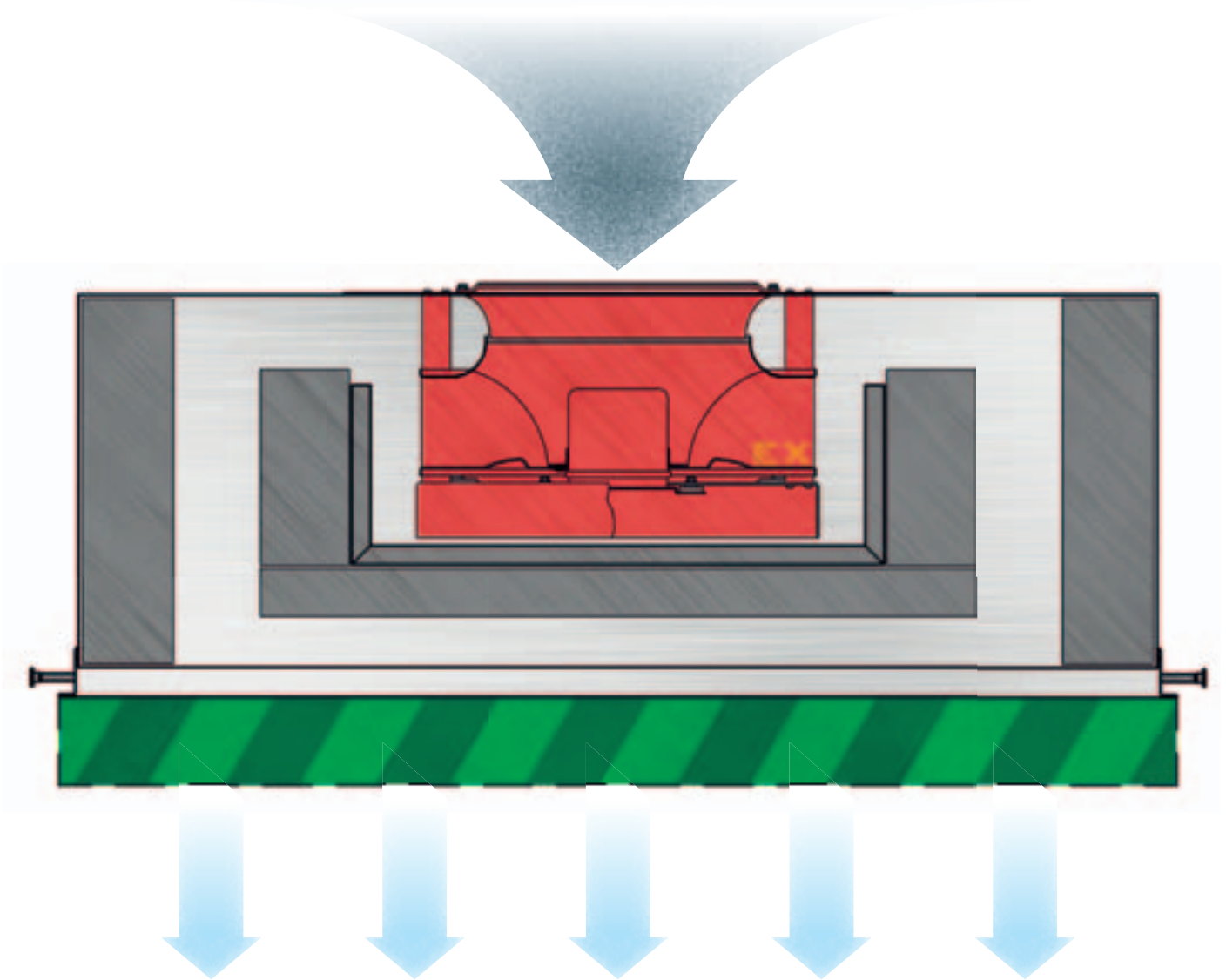
- **FFU supporting frames** to install traditional false ceilings, in anodised extruded aluminium, complete with fixing kit for the absolute filter and pawls to support the diffuser, if installed.
- **Diffuser in aluminium** or microperforated stainless steel, diameter 5 mm, pitch 8 mm.
- **Frequency converter** to change the delivery of one or more motor fan units.
- **PTC safety relay.**

COUPLED FILTERS

TYPE FFU	TIGHTNESS		EFFICIENCY			HEIGHT mm		
	DRY	WET	H14	U15	U16	66	90	110
6P6	●	●	●	●	●	●	●	●
6P12	●	●	●	●	●	●	●	●
12P12	●	●	●	●	●	●	●	●

- Available
- Not available

DIMENSIONS



TECHNICAL DATA

TYPE	FFU dimensions mm	Grid pitch mm	Power W		Sound level dB(A)	Air Volume	Pressure Pa	Weight Kg
	LxPxH	LxPxH	Rated	0,45 m/s 160 Pa	0,45 m/s 160 pa	m³/h	Max	*
6P6	540x540x410	600x600	500	190	54,0	421	330	38
6P12	540x1140x410	600x1200	500	230	54,5	917	300	56
12P12	1140x1140x410	1200x1200	500	250	59,0	1996	320	103

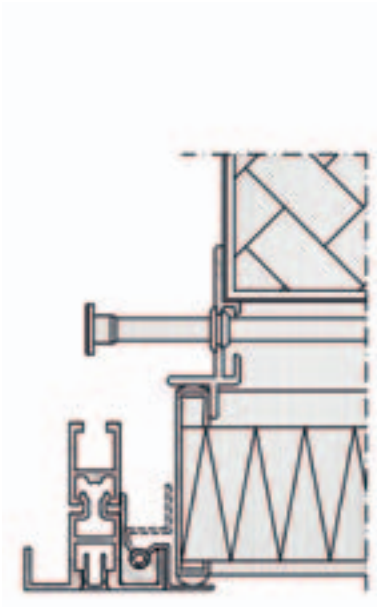
* Filters not included

Power supply 400 Vac - 3F - 50/60 Hz

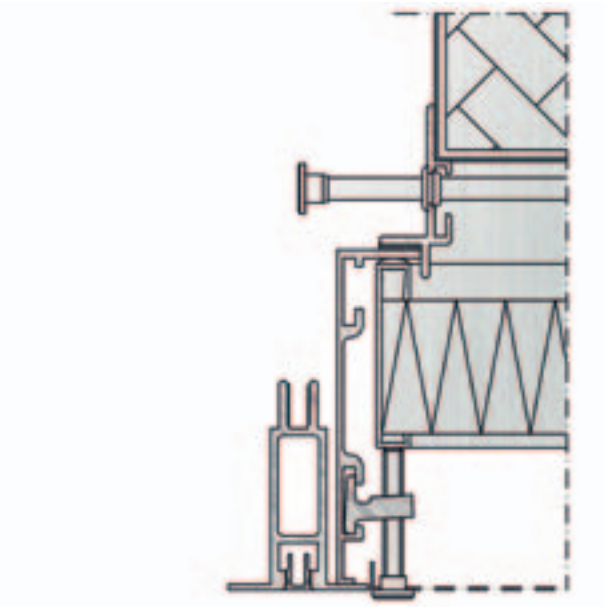
CONSTRUCTION DETAILS

INSTALLATION

INSTALLATION ON GRID-HT

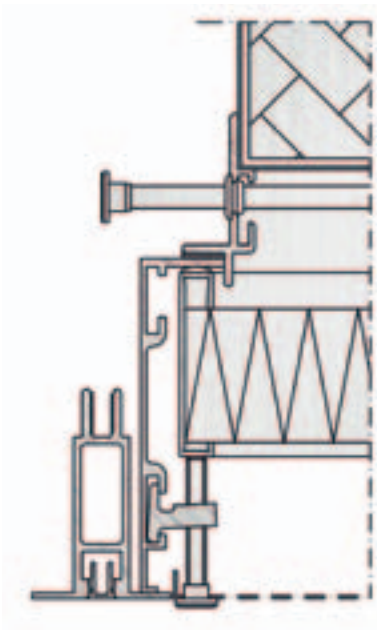


INSTALLATION ON GRID-HT

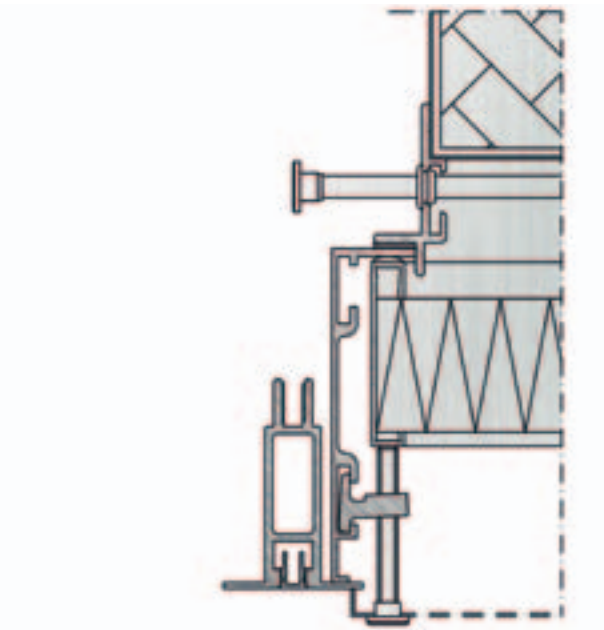


DIFFUSERS

FLUSH DIFFUSER



PROTRUDING DIFFUSER



FUNCTIONAL SCHEME

CONTROL ROOM

MONITORING STATION

PC

PLC PLANT

PLC



ELECTRIC PANEL

400 Vac - 3F - 50/60 Hz

RS-485 Modbus



0-400 V - 3F

POWER SUPPLY



Relay PTC



Relay PTC



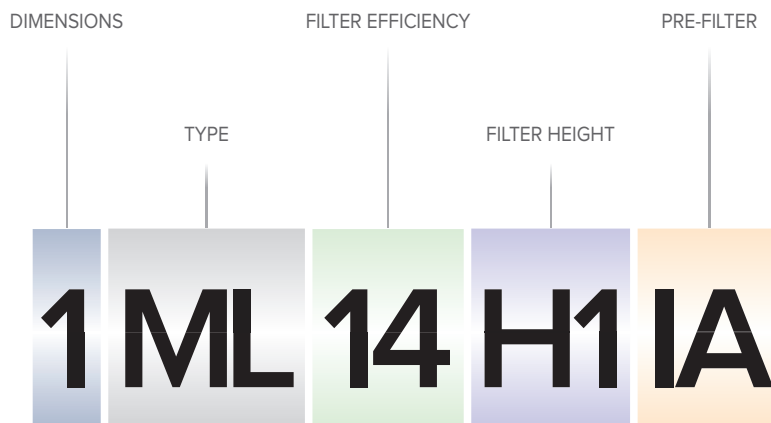
Relay PTC



CLEAN ROOM



EXAMPLE OF CODING



DIMENSIONS

- 1 6P6** (540x540 mm)
- 3 6P12** (540x1140 mm)
- 6 12P12** (1140x1140 mm)

FILTER HEIGHT

- H1** 66 mm

INSTALLATION TYPE

- ML** Dry tightness with a rotating supporting tab
- MT** Dry tightness with frame

DIFFUSER

- IA** Microperforated aluminium inside
- II** Microperforated stainless steel inside
- EA** Microperforated aluminium outside
- EI** Microperforated stainless steel outside

FILTER EFFICIENCY

- 14** H14



“ ... because technological
excellence can be
achieved only in
contamination-free areas ”


Galvani[®]
Clean technology

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