

Laboratory Airflow Monitors and Controls



AXAIR
FANS UK LIMITED
www.axair-fans.co.uk

2012 Edition

...About Axair Fans UK

Application Knowledge:

Over 20 years experience in general air movement; including corrosive, explosive and hot fume handling.

Stock Facility:

Large modern warehouse facility containing a vast selection of fans, fan components and general accessories.

Customised Build:

Fans and alarms assembled from standard components to create the perfect mechanical and electrical solution to safe fume extraction.

Customer Care:

Experience a sense of partnership with Axair Fans.



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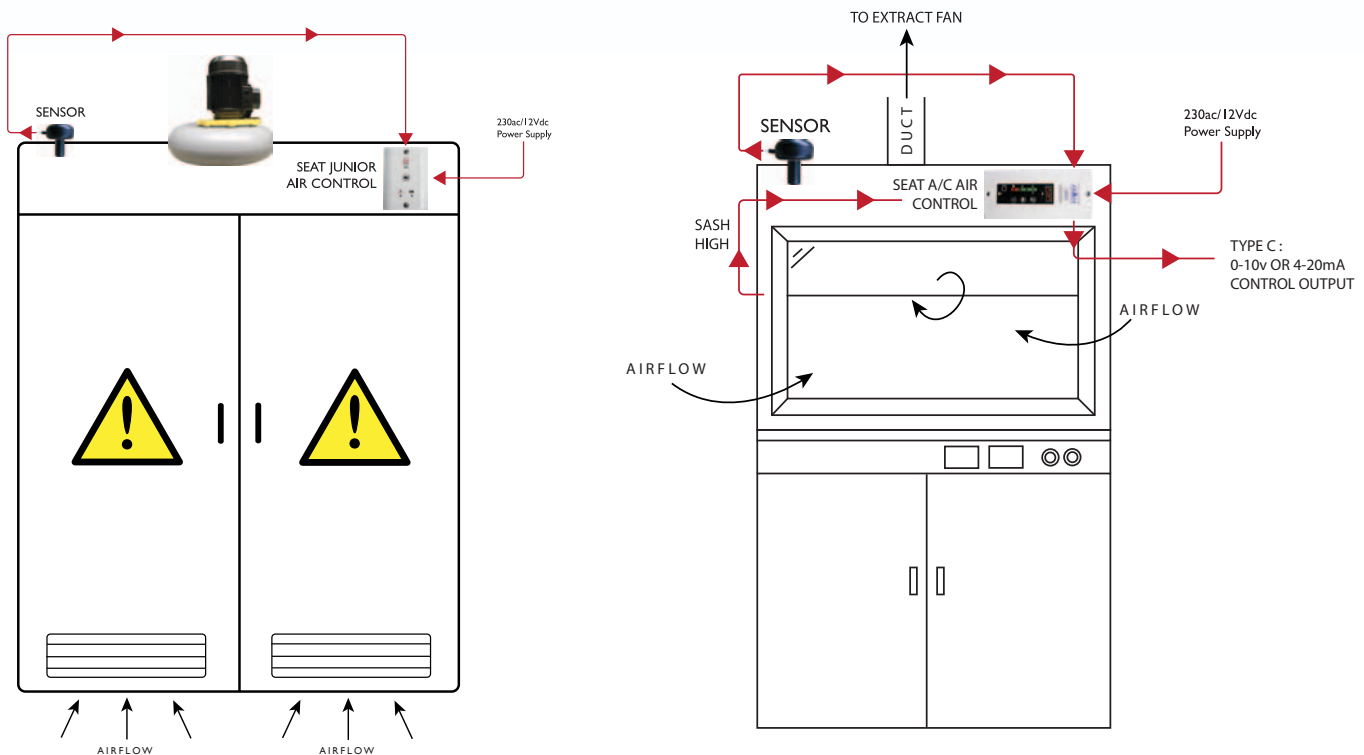
All specifications, data and drawings are subject to alterations without prior notice

General Description

Labair Controls for use with fume cupboards and chemical cabinets are available in J, A and C versions, offering from a basic low airflow alarm to airflow sash high alarms with control output for extract and make up fans on version C.

They are mainly used with fume cupboards or storage cabinet systems.

Schematic Diagrams and Operating Principles



When the fume extract fan is running, it causes negative pressure inside the fume cupboard. If the sash is lowered, the negative pressure increases causing air to be drawn faster through the sash opening. Conversely, if the sash is raised the negative pressure reduces and air velocity reduces.

The Labair sensor detects this change in velocity and sends a signal to the control which is used to produce a visual indication of velocity through the sash.

Labair J and A give both a visual and audible alarm for low velocity while the Labair C can send a signal to the fan speed controller to maintain a constant velocity irrespective of the sash height.

Junior Air Control

Overall View



Benefits

- Safety: in accordance with the latest EU laboratory standard EN 14175.
- Ease of installation and maintenance.
- Stable and accurate sensor reading.
- Attractive design.



Applications

- Principally adapted for chemical storage cabinets and schools fume cupboards

Features

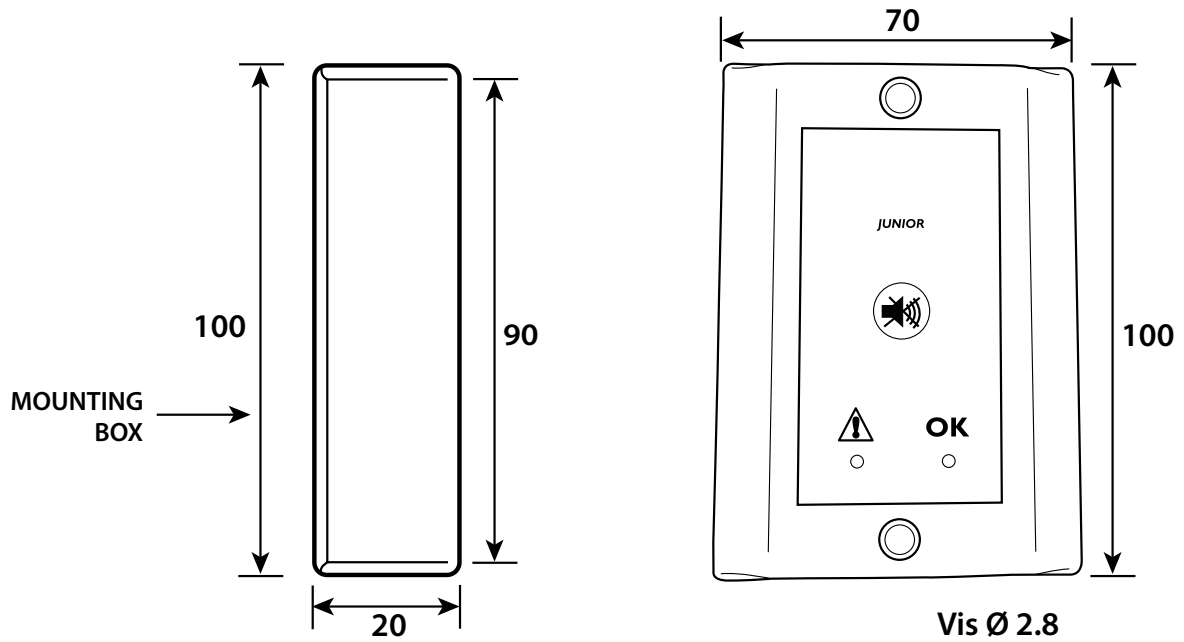
- Audio alarm
- 1 Push button: Mute
- 1 Red LED
- 1 Green LED

Specifications

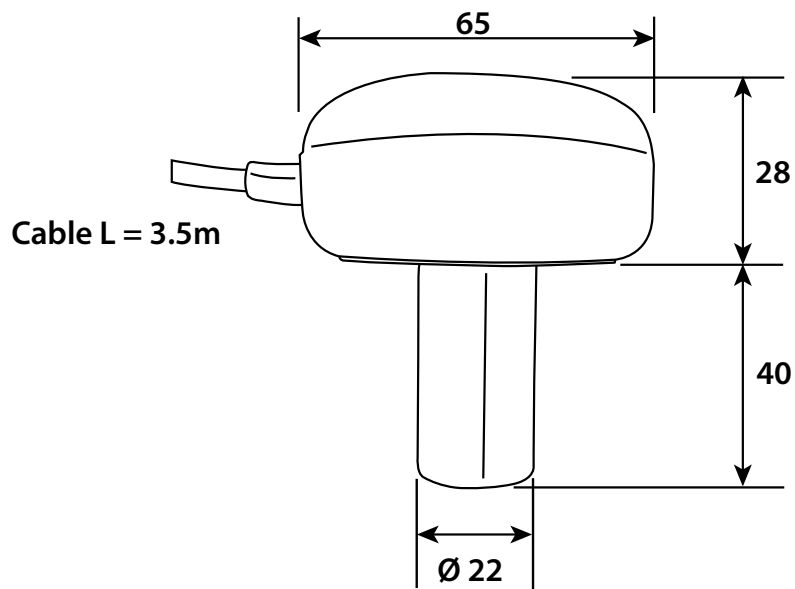
	Junior Air Control
	
Part Number	619699
Display-Visual	1 Green LED for normal airspeed 1 Red LED flashing for alarm No digital display
Below Set Point	Standard : Below 0.1m/s
Alarm Indication	1 Red LED flashing and audible buzzer
Alarm Mute	
Mounting	Flush or surface box
Calibration	Factory pre-calibrated @ 0.5m/s. Re-calibration possible
Power Requirement	12Vdc (Power supply indicated)
Orientation	Vertical only
Monitor Dimensions	Front fascia: 100L x 70W x 10D mm Surface Box: 100L x 20W x 20D mm

Dimensions

Monitor & Mounting Box



Sensor



All dimensions in mm

Type A and C LED & Digital Controls

Overall View



Benefits

A Series Controller

- Safety: in accordance with the latest EU laboratory standard EN 14175
- Ease of installation and maintenance
- Fast and accurate sensor reading
- Attractive design available with LED of digital display

Range

- A LED: Monitors airflow, LED lights
- A DIGITAL: Monitors airflow, digital read out in meters per second or feet per minute

Features

- Audio and visual alarm for low velocity and sash high
- 3 Push buttons: Fan On/Off, Light On/Off, Mute
- 30sec purge following fan switch off
- Alarm disabled when fan switch off
- Sash High
- Auxiliary contacts

C Series Controller

- Safety: air flow is maintained at required speed at all sash heights
- Energy savings: only the lowest required amount of air is exhausted therefore reducing energy bill
- User comfort: Low air speeds ensure comfortable noise level
- Ease of installation and maintenance
- Stable and accurate analogical sensor reading
- Attractive design available with LED of digital display

- C LED: Monitors airflow, LED lights
- C DIGITAL: Monitors and controls air speed, digital read out in meter per second or feet per minute









- Audio and visual alarm for low velocity and sash high
- 0 to 10V or 4-20mA VAV system to link to inverter
- 3 Pushbuttons: Fan On/Off, Light On/Off, Mute
- Automatic pre-purge with inverter
- 30s purge following fan switch off
- Alarm disabled when fan switch off
- Auxilliary contact for fan make up, etc.

Options

- Surface Box mounting: Plastic enclosure to mount the face plate and to avoid profile cutting the service panel
- Alarm Relay: A remote alarm can be triggered from a relay on the control-ler pcb

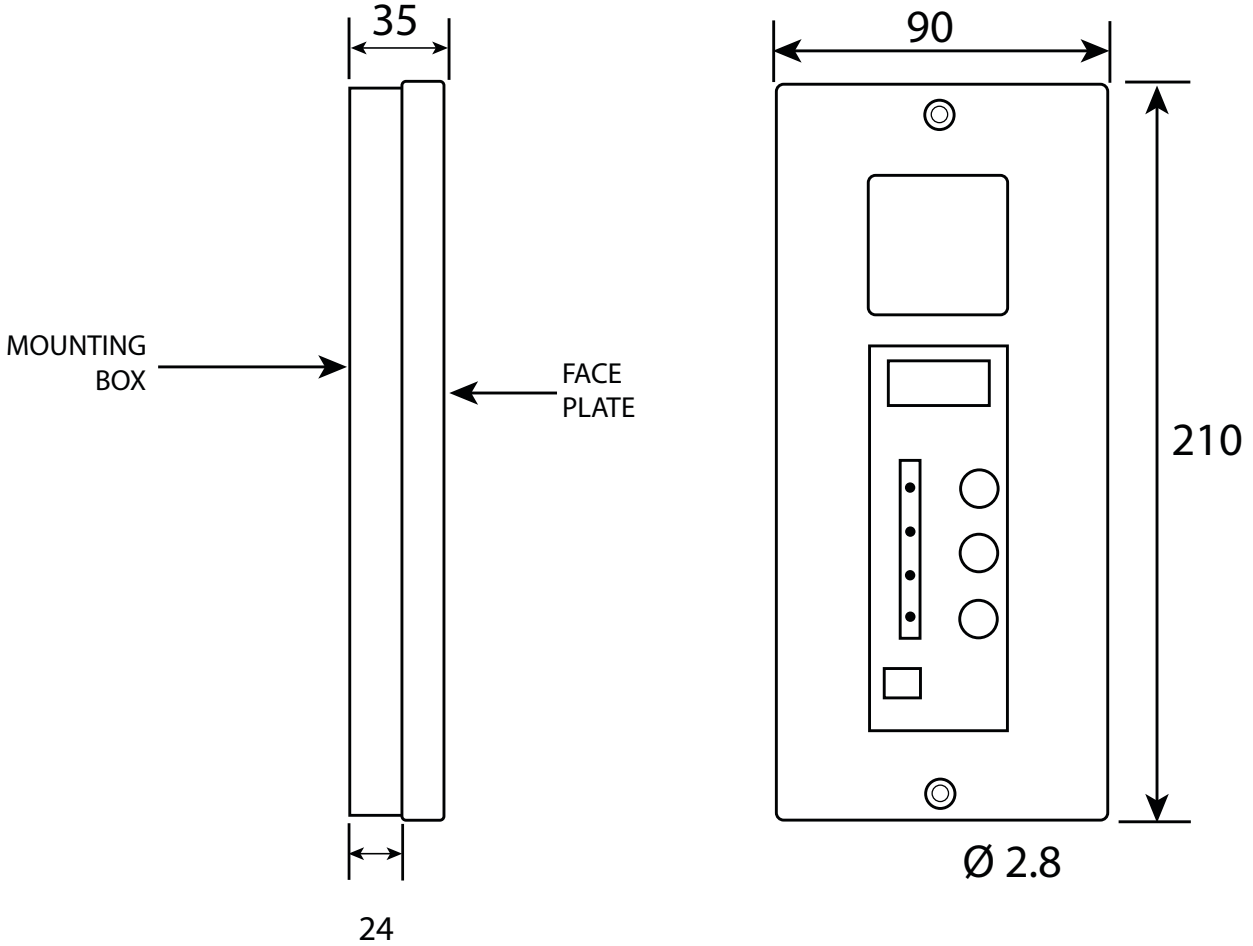
- Battery Back up: Red LED alarm is still functional up to 12 hours when unit loses power
- Custom resin stickers: Customisable resin stickers with logo, address, etc.

Specifications

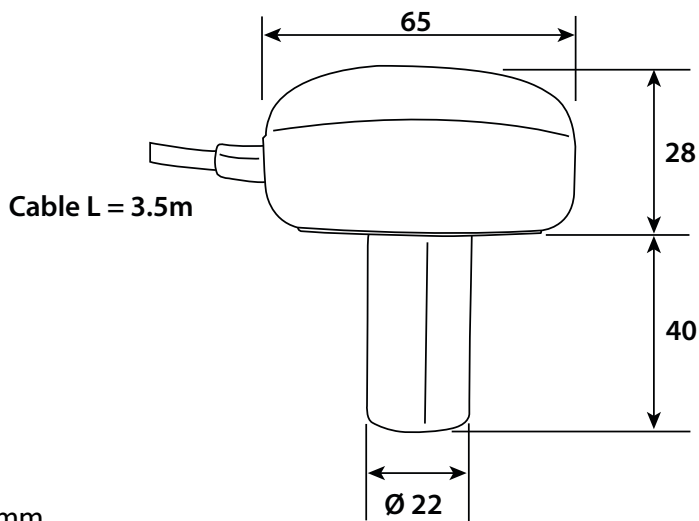
	AirControl Standard		AirControl Digital	
				
Part Number	A: 819700	C: 819703	A: 819401	C: 819704
Display-Visual	2 Green LED for normal air speed 3 Green LED for high air speed 1 Red LED flashing for alarm No digital display		2 Green LED for normal air speed 3 Green LED for high air speed 1 Red LED flashing for alarm 3 digit display with velocity reading	
Units	N/A		meter per second (m/s)	
Display Range	N/A		0 - 2.00 m/s	
Alarm Setpoint	Standard : Below 0.1m/s		Standard : Below 0.1m/s	
Alarm Delay	Selectable: 0s, 10s or 30s		Selectable: 0s, 10s or 30s	
Analog Output	A: N/A C: 0-10V or 4-20mA		A: N/A C: 0-10V or 4-20mA	
Alarm Indication	1 Red LED flashing and audible buzzer		1 Red LED flashing and audible buzzer	
Purge	Selectable: for 30s after fan is off		Selectable: for 30s after fan is off	
Alarm Mute				
Light On/Off				
Fan On/Off				
Alarm Relay	Yes, optional		Yes, optional	
Battery Back up	Yes, optional		Yes, optional	
Sash High Input	Audible alarm and orange flashing LED indicate sash position switch has been tripped		Audible alarm and orange flashing LED indicate sash position switch has been tripped	
Mounting	Flush or surface box (option)		Flush or surface box (option)	
Calibration	Factory pre-calibrated @ 0.5m/s. Re-calibration possible		Factory pre-calibrated @ 0.5m/s. Re-calibration possible	
Power Requirement	12Vdc (Power supply included)			
Orientation	Vertical/Horizontal		Vertical Only	
Monitor Dimensions	Front fascia: 210L x 90W x 10D mm Surface Box: 205L x 85W x 14D mm		Front fascia: 210L x 90W x 10D mm Surface Box: 205L x 85W x 14D mm	

Dimensions

Monitor & Mounting Box



Sensor



All dimensions in mm



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