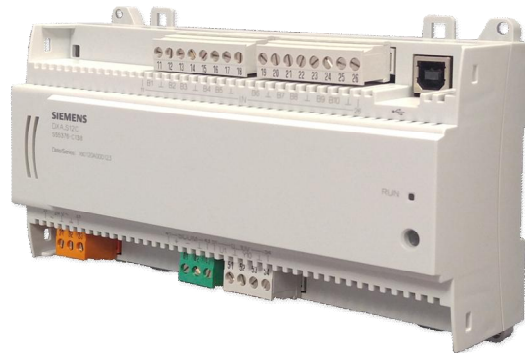


Sash Open Area Module (SOAM)

DXA.S12C



The Sash Open Area Module (SOAM) provides advanced sash management for DXR2 and PTEC based Fume Hood Controllers.

- Sash management for advanced fume hoods with 2-10 sashes
- Supports DXR2 lab and PTEC based Fume Hood Controllers
- Supports vertical and horizontal sash combinations
- Support for retractable cable sash and UniTrack sensors
- LED's for communications (sensor failure, calibration and SCOM communication status)
- Local tool interface for sash sensor calibration

Use

These applications measure the fume hood sash positions and calculate a total face area. The face area is available for use both as a 0 to 10 V analog output or a digital signal for use with DXR2 lab controllers.

- 2950 – slave mode (does not calculate face area)
- 2951 – Bench style fume hoods – 4 independent vertical sashes
- 2952 – Floor Mounted style fume hoods – 2 independent sets of 2 vertical sashes, one on top of the other
- 2953 – Dual – Floor Mounted style fume hoods – 4 independent sets of 2 vertical sashes, one on top of the other
- 2954 – Bench style fume hoods – 2 to 10 horizontal sashes
- 2955 – Bench style fume hoods – 1 vertical carrier with 2 to 9 horizontal sashes
- 2956 – Floor Mounted style fume hoods – 2 vertical sashes, with top sash having 2 to 8 horizontal sashes
- 2957 – Dual Bench style fume hoods – 2 vertical carries (non-overlapping) each with 2 to 4 horizontal sashes in the vertical carrier
- 2958 – Floor Mounted style fume hoods – 2 vertical sashes (overlapping), with each sash having 2 to 4 horizontal sashes



NOTE:

Daisy chaining of two SOAMs together is supported for custom hoods with a large number of sashes.

Be aware that this will slightly increase response time to sash movements.

Functions

LED support for communications and operational status.

- Communication only with DXR2
- Calibration status or failed sensor

Local HMI tool port to interact with the technicians.

Type summary

Type	Stock number	Inputs	Outputs
DXA.S12C	S55376-C138	10 sash (resistance), 1 AI (0 to 10V)	1 AO (0 to 10V), 1 Digital comm. (sensor bus)

Accessories

50" Retracting Cable Sash Sensor	546-04000
80" Retracting Cable Sash Sensor	546-04001
30" Vertical UniTrak Sash Kit	546-00490
32" Vertical UniTrak Sash Kit	546-00489
35" Vertical UniTrak Sash Kit	546-00488
40" Vertical UniTrak Sash Kit	546-00487
44" Vertical UniTrak Sash Kit	546-00486

53" Vertical UniTrak Sash Kit	546-00485
71" Vertical UniTrak Sash Kit	546-00484
85" Vertical UniTrak Sash Kit	546-00443
34" Horizontal Sash Kit	546-00495
43" Horizontal Sash Kit	546-00493
52" Horizontal Sash Kit	546-00492
70" Horizontal Sash Kit	546-00491
84" Horizontal Sash Kit	546-00442

Product documentation

Topic	Title	Document ID:
Installation, sash wiring	Fume Hood Sash Open Area Module (SOAM) Installation Instructions	A6V10801244
Installation, sash wiring	Retracting Cable Sash Sensor	570-112
Installation, sash wiring	UniTrak Sensor Assembly Kit	546-00449
Technical Spec, FH Controller	PTEC FHC cut sheet	149-857
Technical Spec, Lab Room Controller	PTEC LCM cut sheet	149-855

Related documents such as environmental declarations, CE declarations, etc., can be downloaded at the following Internet address:

<http://siemens.com/bt/download>

Technical data

Power supply

Power supply	
Operating voltage	AC 24 V ($\pm 20\%$)
Frequency	50/60 Hz.
Power consumption including connected field devices	Max. 5 VA

Inputs



NOTE:

Do not apply power to the resistive inputs, the controller will not work properly.

Voltage measurement, analog

Type	Range	Resolution	Accuracy
AI 0...10 V	0...11 V	2 mV	$\pm 0.1 V$
Open circuit: Negative voltage -1.5 V, 8 μ A (line failure detection)			

Resistive measurement, analog

Type	Range	Resolution	Relative Accuracy
AI 720 k	0...720 k Ω	0.25 inch	± 0.25 inch
Failure detection for open circuits			

Outputs

Analog outputs	
AO	0 to 10 V

Interfaces

Interfaces	
USB (2.0)	Plug: Type B. Data rate: 1.5 Mbps and 12 Mbps. Galvanic isolation to ground. No isolation from I/O ground.
Sensor Bus	Digital communication to DXR Lab Controller

Wiring connections

Wiring connections	
Pluggable screw terminals	Copper wire or copper strands with ferrules 1 x 0.6 mm (0.02 in) dia. to 2.5 mm ² (0.004 in ²) or 2 x 0.6 mm (0.02 in) dia. to 1 mm ² (0.0015 in ²). Copper strands without ferrules 1 x 0.6 mm (0.02 in) dia. to 2.5 mm ² (0.004 in ²) or 2 x 0.6 mm (0.02 in) dia. to 1.5 mm ² (0.002 in ²).
Slotted screws	Size 1, tightening torque 0.6 Nm (0.44 lb-ft).
Wiring lengths for signals.	Signal lines 80 m (263 ft).

Ambient conditions and protection classification	
Climatic ambient conditions <ul style="list-style-type: none"> • Transport (packaged for transport) as per EN 60721-3-2 • Operation as per EN 60721-3-3. 	<ul style="list-style-type: none"> • Class 2K3 Temperature -25...70 °C (-13... 158 °F) Air humidity 5...95%. • Class 3K5 Temperature -5...50 °C (23... 122 °F) Air humidity 5...95%.

Standards, directives and approvals	
EU conformity (CE)	EN61000-6-3/EN61000-6-2
RCM conformity	AS/NZS 61000-6-3
UL Certification	UL916
cUL and CSA Certification	CSA C22.2 No. 205
Federal Communications Commission	FCC CFR 47 Part 15 Class B.

Disposal



The device is considered electrical and electronic equipment for disposal in terms of the applicable European Directive and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

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