

SPECIFICATION		
<b>Environmental Performance</b>		
Temperature limits	Operation:	0 to +50 °C
	Storage:	-20 to 60 °C
Humidity limits (Non-condensing)	Operation:	5% to 80%
	Storage:	5% to 90% RH
	Altitude (max):	>2000 meters
Protection	Bezel and display:	IP65
	Sleeve:	IP20
Shock		BS EN61010
Vibration (10Hz to 150Hz)		BSEN60873 Section 9,18 1g peak
<b>Electromagnetic Compatibility (EMC)</b>		
Emissions/Immunity		BS EN61326
<b>Electrical safety</b>		
		BS EN61010 Installation category II, Pollution degree 2
<b>Power requirements</b>		
Supply voltage	Standard:	100-230 Vac ±15%; 47 to 63 Hz or 110 to 370
Power (max)		Vdc 50 W
Fuse type		None
<b>Input board</b>		
Isolation	Channel to channel:	300 V RMS or dc (double insulation)
	Channel to ground:	300 V RMS or dc (basic insulation)
Overvoltage protection		50 volts peak (150 V with attenuator)
Max number channels		48
<b>Relay Board</b>		
Isolation	Relay to relay:	300 V RMS (double insulation)
	Relay to ground:	300 V RMS (basic insulation)
Max ratings contact		250 Vac 2 Amps
Max switching power		500 VA
Max number of relays		9
<b>Serial Communications</b>		
Isolation	Term to ground:	50V RMS or dc (basic insulation)
<b>Event Input</b>		
Isolation	Channel to channel:	0V (common end)
	Channel to ground:	100V RMS or dc (basic insulation)
Logic level	Low:	-30 to +0.8 V
	High:	-2 to +30 V

Eurotherm: International sales and service

www.eurotherm.com


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Worldwide Offices

www.eurotherm.com/contact-us



Scan for local contacts

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**WARNING:** This product can expose you to chemicals including lead and lead compounds which are known to the State of California to cause cancer and birth defects or other reproductive harm.  
For more information go to:  
<https://www.P65Warnings.ca.gov>

China RoHS Compliance - 6180 AeroDAQ						
部件名称 Part Name	有害物质 - Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 Metal parts	X	O	O	O	O	O
塑料部件 Plastic parts	O	O	O	O	O	O
电子件 Electronic	X	O	O	O	O	O
触点 Contacts	O	O	O	O	O	O
线缆和线缆附件 Cables & cabling accessories	O	O	O	O	O	O

本表格依据SJ/T11364的规定编制。  
O: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。  
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

This table is made according to SJ/T 11364.  
O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.  
X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572.

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Eurotherm<sup>®</sup>  
by Watlow

6180AeroDAQ

AMS2750  
Data  
Management  
Solutions



HA029541ENG005/4

HA029541ENG005/4

08/2025

PRODUCT TOOLS UPDATES



<https://www.eurotherm.com/eurotherm-products/recorders-and-data-acquisition/recorders-software/>

SAFETY NOTES

WARNING

Any interruption of the protective conductor inside or outside the apparatus, or disconnection of the protective earth terminal is likely to make the apparatus dangerous under some fault conditions. Intentional interruption is prohibited.

**Note:** in order to comply with the requirements of safety standard BS EN61010, the recorder shall have one of the following as a disconnecting device, fitted within easy reach of the operator, and labelled as the disconnecting device.

- a. A switch or circuit breaker which complies with the requirements of IEC947-1 and IEC947-3.
- b. A separable coupler which can be disconnected without the use of a tool.
- c. A separable plug, without a locking device, to mate with a socket outlet in the building.

- Before any other connection is made, the protective earth terminal shall be connected to a protective conductor. The mains (supply voltage) wiring must be terminated within the connector in such a way that, should it slip in the cable clamp, the Earth wire would be the last wire to become disconnected.
- In the case of portable equipment, the protective earth terminal must remain connected (even if the recorder is isolated from the mains supply), if any of the I/O circuits are connected to hazardous voltages\*.
- The mains supply fuse within the power supply is not replaceable. If it is suspected that the fuse is faulty, the manufacturer's local service centre should be contacted for advice.
- Whenever it is likely that protection has been impaired, the unit shall be made inoperative, and secured against accidental operation. The manufacturer's nearest service centre should be contacted for advice.

- Any adjustment, maintenance and repair of the opened apparatus under voltage, should be avoided as far as possible and, if inevitable, shall be carried out only by a skilled person who is aware of the hazard involved.
  - Where conductive pollution (e.g. condensation, carbon dust) is likely, adequate air conditioning/filtering/sealing etc. must be installed in the recorder enclosure.
  - Signal and supply voltage wiring should be kept separate from one another. Where this is impractical, shielded cables should be used for the signal wiring.
  - If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment might be impaired.
- \* A full definition of 'Hazardous' voltages appears under 'Hazardous live' in BS EN61010.  
Briefly, under normal operating conditions, hazardous voltages are defined as being > 30 V RMS (42.2 V peak) or > 60 Vdc.

ELECTRICAL INSTALLATION

Supply Voltage Wiring

AC Supply  
Recommended wire size  
16/0.2 (0.5 mm<sup>2</sup>) (AWG20)

Signal Wiring

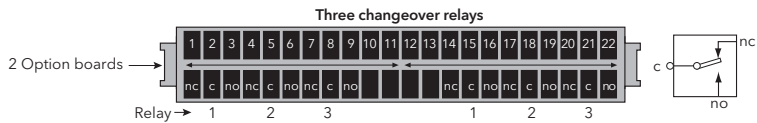
Supply  
See Specification Side 2 for ratings

Recommended wire size  
28-11 AWG (0.081 mm<sup>2</sup>- 4.13 mm<sup>2</sup>)  
Use Copper conductors only  
3.5 Lb-in (0.35 Nm) Terminal tightening torque

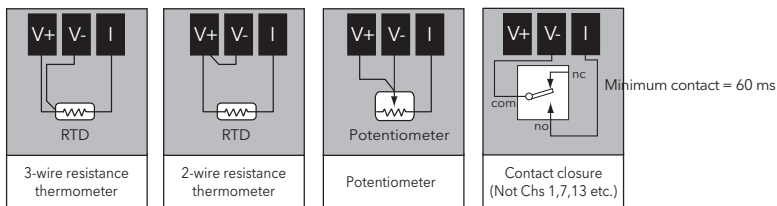
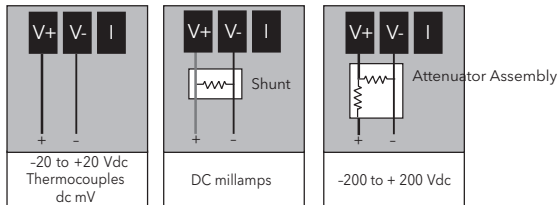
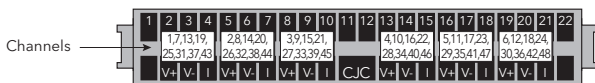
Diagrams show connector locations for the  
input channel wiring and optional relay output  
wiring for the basic large frame recorders.



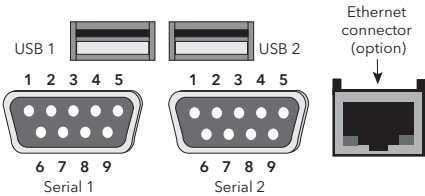
RELAY BOARD WIRING



INPUT BOARD WIRING

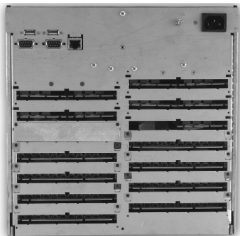


SERIAL COMMS

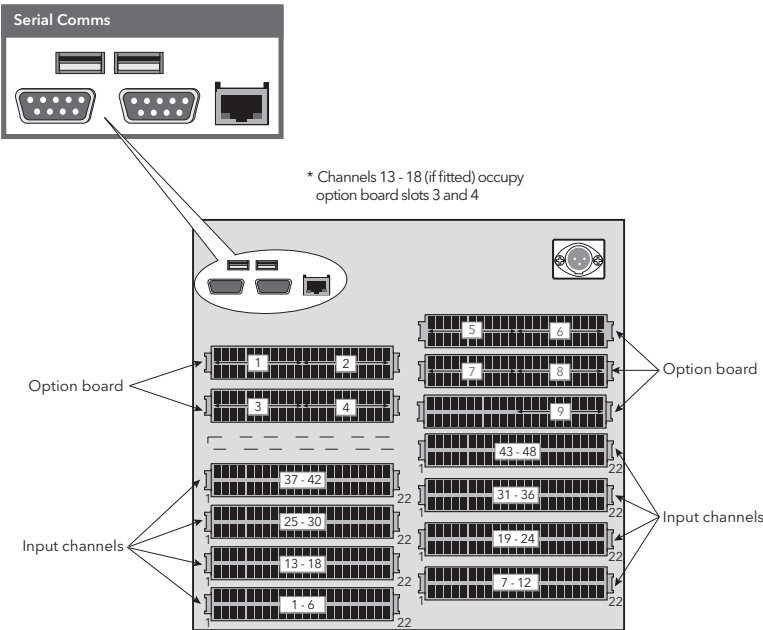


Serial communication port pinout

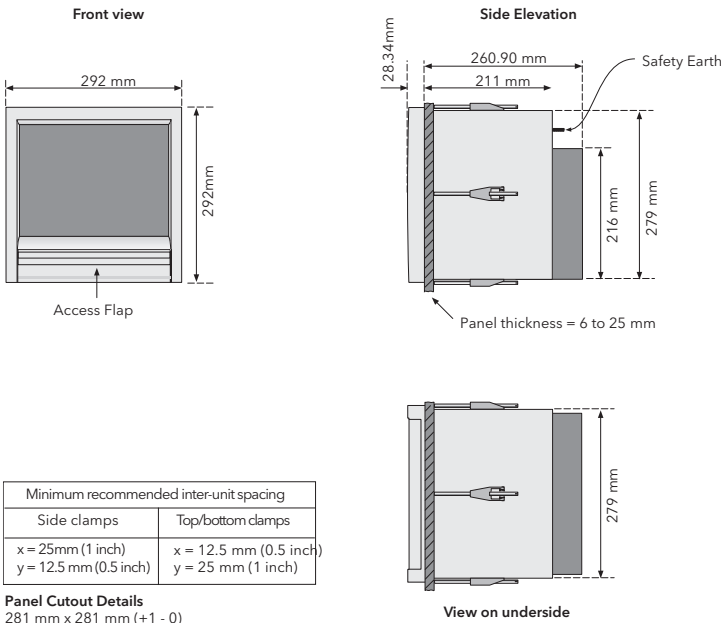
Pin	EIA232	EIA485 (5-wire)	EIA485 (3-wire)
1	Not connected	RxA	Link to pin 7
2	Rx	Not connected	Not connected
3	Tx	Not connected	Not connected
4	DTR	Not connected	Not connected
5		Signal ground	
6	Not Connected	RxB	Link to pin 8
7	Not Connected	TxA	TxA/RxB
8	Not Connected	TxB	TxB/RxA
9		5.0V via 1500Ω	



6180AeroDAQ CONNECTION LOCATIONS

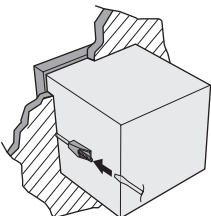
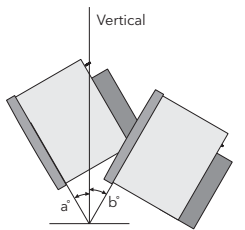


6180AeroDAQ MECHANICAL INSTALLATION DETAILS

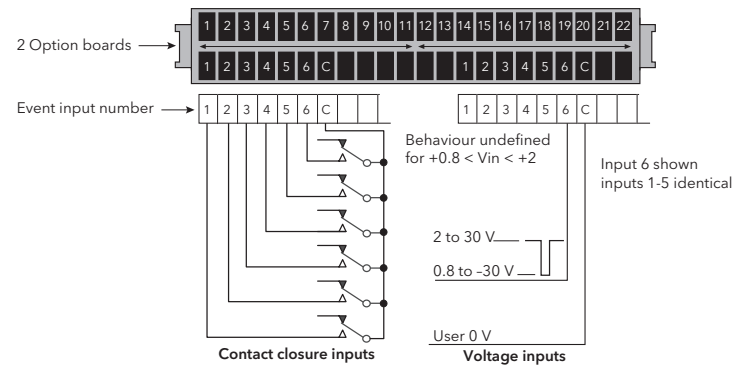


Minimum recommended inter-unit spacing	
Side clamps	Top/bottom clamps
x = 25mm (1 inch) y = 12.5 mm (0.5 inch)	x = 12.5 mm (0.5 inch) y = 25 mm (1 inch)

Panel Cutout Details  
281 mm x 281 mm (+1 - 0)



EVENT INPUT WIRING



RECORDER LABELLING

One or more of the symbols below may appear on the recorder labelling.

	Refer to the AeroDAQ Manual for instructions		Risk of electrical shock
	Protective Earth		Precautions against static electrical discharge should be taken when handling this unit
	This recorder for ac supply only		Ethernet connector
	This recorder for either ac or dc supply only		USB connector
			Serial communications connector