

TECHNICAL SPECIFICATIONS

Housing:	
Dimensions (mm)	<i>Controller only:</i> 215(W) x 135(H) x 27(D) <i>Metal cabinet:</i> 426(W) x 300(H) x 83(D)
Rating	UL94 V-0
Electrical:	
Power Requirements	<i>PoE/PoE+</i> IEEE802.3af (PoE); IEEE 802.3at (PoE+) <i>PoE/PoE+</i> Power consumption (EntroStar only) 3.5W DC: 14V (+10%/–25%) 50W (max) Note: DC input incorporates reverse polarity protection.
Power Available for External Equipment	<i>PoE:</i> 7.2W (min) 9.3W (max) total <i>PoE+:</i> 17.7W (min) 24.9W (max) total DC: 45W (max) total Note: Each Output A/Output B pair is limited to 800mA (PoE/PoE+) and 1.5A (DC). Each reader port is limited to 500mA @ 25°C de-rated to 300mA @ 70°C
Battery	<i>Type:</i> Lead-acid <i>Voltage:</i> 12V <i>Capacity:</i> 7Ah (recommended) Note: Battery charge times will be extended when using a larger capacity battery. Battery connection incorporates reverse polarity protection
Outputs	<i>Contact Rating:</i> 2A 30V DC
Environmental:	
Temperature	<i>Storage/Operating:</i> –40°C to +70°C
Humidity	Up to 93% humidity (non-condensing at +40°C)



INSTALLATION GUIDE

PRODUCT CODES

1. EN-DC-0001P	EntroStar Controller
2. EN-DC-0001P-DUO	EntroStar Controller, 2 Reader
3. EN-DC-0002P	EntroStar Controller, Metal Cabinet
4. EN-DC-0002P-DUO	EntroStar Controller, 2 Reader, Metal Cabinet
5. EN-DC-0003P	EntroStar Controller, Metal Cabinet, PSU
6. EN-DC-0003P-DUO	EntroStar Controller, 2 Reader, Metal Cabinet, PSU
7. EN-RA-0001P	RJ45/Screw Terminal Adapter
8. EN-RN-0001P/...-0002P	Input Termination Unit (single/pack of 25)*
9. EN-SD-0001P/...-0002P	Suppression Diode (single/pack of 25)*

*4-off (EN-RN-0001P) and 2-off (EN-SD-0001P) supplied with items (1) to (6)

Declaration of Compliance:

EntroStar is certified to EN55024, EN55022 and EN60950-1 in accordance with the '2006/95/EC Low Voltage' and '2004/108/EEC EMC' directives and has been designed to be compliant with UL294 and UL1076.



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INS-13-002 ISSUE 2

Ethernet (PoE/PoE+)

DC supply (alternative to PoE) [+ve
14V min / 50W max] -ve
DC supply earth

Lead-acid battery [+ve
12V / 7Ah max] -ve

Standard Door:
Door Contact=1*
RTE Button=2*
Break Glass Unit=3*
Lock Monitor=Aux Input 1
Lock=A*
General Purpose=B*

Turnstile:
Entry Contact=1*
RTE Button=2*
Break Glass Unit=3*
Exit Contact=Aux Input 1*
Entry Lock=A*
Exit Lock=B*

+12V
Output A
Output B
0V
Input 1
Input 2
Input 3



Enclosure tamper switch (not tamper-protected)

Input 1
Input 2
Input 3
Auxiliary

Inputs:
General Purpose=1*
General Purpose=2*
General Purpose=3*

+12V
Output A
Output B
0V
Input 1
Input 2
Input 3

Door 2

Standard Door:
Door Contact=1*
RTE Button=2*
Break Glass Unit=3*
Lock Monitor=Aux Input 2
Lock=A*
General Purpose=B*

Turnstile:
Entry Contact=1*
RTE Button=2*
Break Glass Unit=3*
Exit Contact=Aux Input 2*
Entry Lock=A*
Exit Lock=B*

*Default assignments.
For future use.

Micro SD card #

USB 2.0 #

RJ45 Connectors	
Pin-out (to card reader)	
1	+12V
2	0V
3	Wiegand D1
4	Wiegand D0
5	Green LED
6	Not used
7	Sounder
8	Tamper
LEDs	
	D0 data active
	D1 data active

LED Behaviour		
<p>All inputs: OFF = Normal; SOLID = Active FLASHING = Tamper (fast flash for short circuit; slow flash for open circuit)</p> <p>All outputs: OFF = Inactive; SOLID = Active</p> <p>All inputs and outputs: LEDs cycle through multiple conditions</p> <p>Inputs:</p> <ul style="list-style-type: none"> Door Contact RTE Button Break Glass Unit Lock Monitor Input 1 Input 2 Input 3 <p>Outputs:</p> <ul style="list-style-type: none"> Output A Output B 	<p>Start-up sequence: Successful: fades to fades to Failed: Operational status (all FLASHING):</p> <ul style="list-style-type: none"> Normal with card holders and paired destination Normal but not paired with any destination Normal but without card holders Events cannot be delivered to some paired destination(s) Events cannot be delivered to any paired destination Failure of an internal process 	<p>Power source:</p> <ul style="list-style-type: none"> 14V DC PoE PoE+ Battery <p>Green LED flashes for a DC source of <14V (battery won't charge). Red LED flashes to indicate reversed battery polarity, and fades to indicate decreasing battery power.</p>

Accessories
<p>Required for tamper protected inputs</p>
<p>Required for electric locks</p>
<p>Optional for card reader connectors</p> <p>RJ45/Screw Terminal Adapter</p>

Notes
<p>PoE/PoE+: Ensure that the overall power requirement is within the PoE/PoE+ limits (9.3W/24.9W; details in 'Power Available for External Equipment' in the technical specifications overleaf). Also, readers and locks may sometimes demand peak currents that cannot be met by the PoE/PoE+ supply. To overcome this, connect a lead-acid battery to the battery terminals.</p> <p>Inputs: Tamper protected inputs require an Input Termination Unit (ITU) connected at the sensor. See 'Accessories'.</p> <p>Outputs: Outputs that service electric locks require a suppression diode fitted at the lock. See 'Accessories'.</p> <p>Default assignments: To change assignments from their defaults, refer to the EntroWatch (or other security management system) documentation.</p> <p>EntroStar variants: Standard 'EntroStar' supports up to four readers across two doors, while 'EntroStar DUO' supports up to two readers across two doors.</p>

Recommended Cable Specifications
<p>Inputs: Standard alarm cable (max length 100m)</p> <p>Outputs: Suitable 2A-rated cable (max length dependent on load)</p> <p>PoE/PoE+: CAT5 FTP (max length 100m)</p> <p>Card readers: CAT5 FTP (max length dependent on card reader)</p> <p>DC supply/battery: Suitable 5A-rated cable (max length 3m)</p>