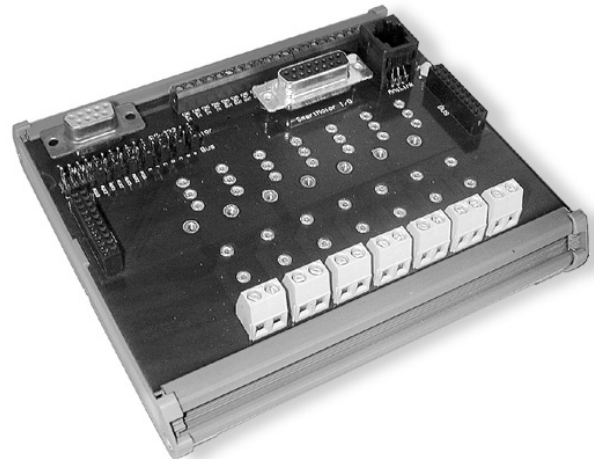


The DINIO7 is a DIN Rail mount adapter that allows the SmartMotor to easily interface with popular Input/Output blocks like those produced by Gordos, Grayhill, OPTO-22™ and other manufacturers.

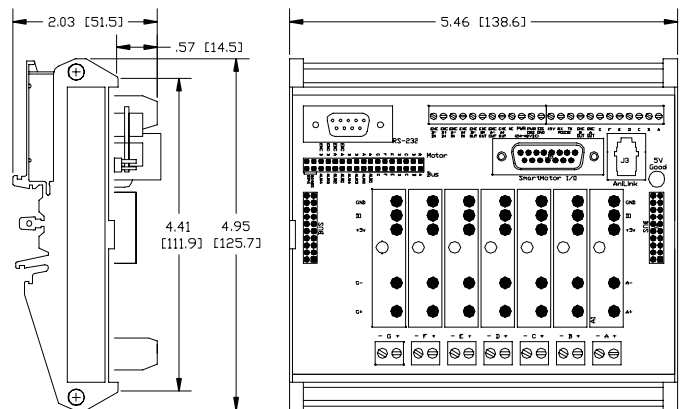
The DINIO7 has slots for seven industry standard OPTO Modules and can be used with either input or output modules.

The DINIO7 has a 9 pin connector for direct connection to a personal computer serial RS232 communications port and an AniLink™ network connector. It is also equipped with an expansion bus to allow it to interface with other Animatics DIN rail mount adapters. Wiring Input/Output up to your SmartMotor is made simple with the DINIO7 breakout board.



Mfg.*	DC Input	DC Output	AC Input	AC Output
Opto-22	G4-IDC5	G4-ODC5	G4-IAC5	G4-OAC5A
Grayhill	70G-IDC5	70G-ODC5A	70G-IAC5A	70G-OAC5A
Crydom	X4IDC5	X4ODC5	X4IAC5	X4OAC5
Gordos/Crouzet	C4-IDC5	C4-ODC5	C4-IAC5	C4-OAC5
	(3-32VDC high side)		(120VAC high side)	

* Please consult with appropriate manufacturer for details.



* All sizes are given in inches, sizes in brackets are in mm

Features	Benefits
DB-15 or screw terminal access to your SmartMotor.	Easy connection for panel environment.
AniLink port for expansion to other AniLink devices.	Cascadable.
7 main I/O buses to cross connect I/O to other motors.	Flexible use.
Aux buses to interconnect encoders between motors.	Simplifies encoder connections.
Differential encoder I/O expansion (optional).	Strong noise immunity.
Jump-in RS485 terminal resistors.	No added parts necessary for RS485 termination.
On board DB-9 for fast RS232 access.	Uses standard cables.
Easy din rail mount and screw terminal I/O hook-up.	No screws needed for mounting.

Electrical

Power bus line voltage:	19V to 48VDC
Isolated communications:	4.5V to 5.5V
Optional differential XCVR power:	90 mA typical

Mechanical

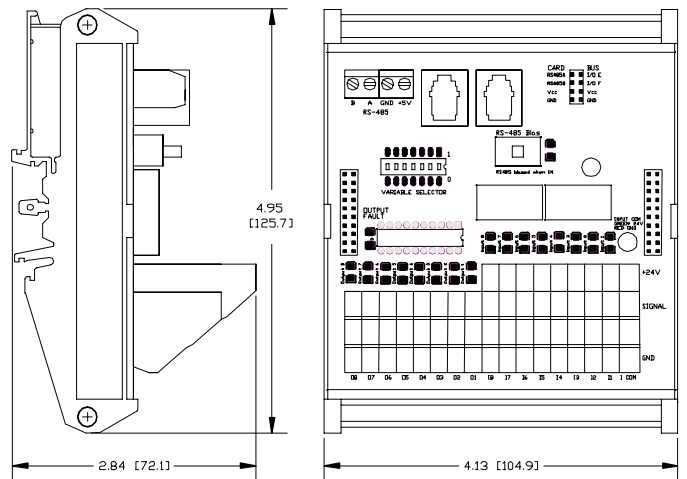
Dimensions:	see figure
Weight:	15 oz (425 g)

The DINIO-RS485 is a DIN Rail Mount, 16 channel (8 inputs and 8 outputs) 24V optically isolated, field addressable, expanded Input/Output board. It communicates over an optically isolated RS485 network, and can be set to baud rates between 2400 and 38400 bps. Each DINIO-RS485 has 2 RJ-45 connectors as well as screw terminal access to allow easy connection of up to 102 blocks (816 inputs and 816 outputs) on a given RS485 network. Communications are via standard PRINT1 commands on Com Port 1 of any SmartMotor.

Capabilities include:

- Read an individual input (0 through 815) state
- Read an individual output state
- Set an output state to "ON" (sourcing) or "OFF"
- Read all inputs and outputs on all Input/Output cards present
- Responses are global and are received by any and all SmartMotors on the RS485 network
- Selectable byte wide responses to array variables
- Selectable single bit/channel responses to the variable z

These capabilities allow for convenient event-driven coding where only a specific input event is needed to trigger another event across any SmartMotor on the bus.



* All sizes are given in inches, sizes in brackets are in mm

Features	Benefits
8 Inputs, sink/source user selectable.	Byte read capability.
8 overload protected sourcing outputs.	Byte write capability.
+24 and/or ground rail connections on each channel.	Input/Output devices are easily and conveniently wired.
LED Indications include over-load fault, sink/source selection, and Input/Output channel status.	Diagnostics at a glance.
Feed-thru Bus.	Compatible with other Animatics DIN-rail mount bus products.

Electrical

Module input voltage:	12V to 30VDC
Module input current:	200 mA with no outputs active
Nominal input current:	5.7 mA @ 24V
Max output current:	200 mA/channel or 650mA total

Mechanical

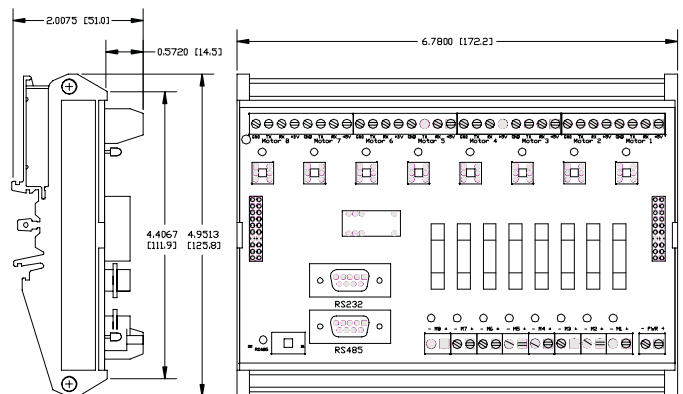
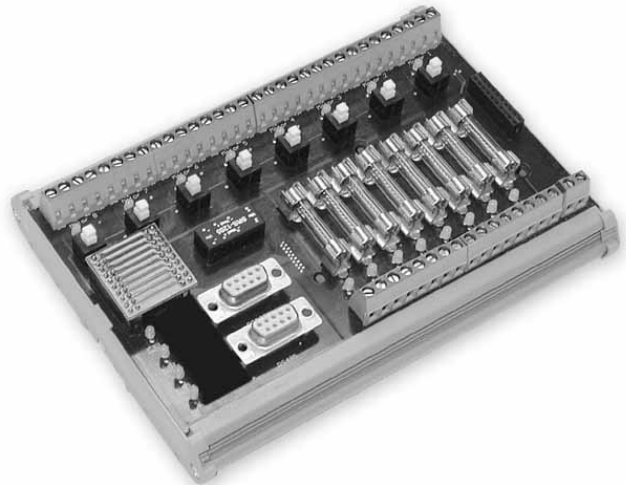
Dimensions:	see figure
Weight:	15 oz (425 g)

The DIN-RS232 is a DIN Rail Mount breakout for the OEM and Legend Series RS232 communications. It allows a single master to communicate with up to eight SmartMotors over RS232 without the loss of bandwidth typical of daisy chain propagation. Since this operation is nearly identical to the operation of an RS485 bus, the DIN-RS232 can also accommodate an RS485 master.

The DIN-RS232 master communications circuitry can take its power from any industry standard 24V power supply. The eight communications links to each of the SmartMotor breakouts are electrically isolated from the master, and are individually powered by its associated SmartMotor. This isolation can be critical to reliable systems where there may be ground bounce in the power runs between the motors.

The DIN-RS232 is able to transmit simultaneously to eight SmartMotors because all of the links are in parallel. This means that the eight transmit and receive lines are functionally tied together. For this reason, the user must treat the eight SmartMotors on this unit as if they were on a parallel communications bus, like RS485. While the user can transmit to all SmartMotors on the bus simultaneously, care must be taken to assure that no two SmartMotors reply at the same time. The DIN-RS232 also has a fused power bus to allow the convenient connection of SmartMotors to a central power input.

Like all DINIO products, the DIN-RS232 has an expansion bus. This will allow the master unit to communicate with more motors, eight at a time, by linking in additional DIN-RS232 units.



* All sizes are given in inches, sizes in brackets are in mm

Features	Benefits
Eight RS-232 communications ports.	Isolated interface to eight SmartMotors without daisy chain propagation delay penalty.
Power bus.	Fused interconnection to up to eight SmartMotors.
Expansion bus.	Allows interface to other DIN rail adapters for expanded capability.
Selectable master.	Choose RS232 or RS485 to be the communications master.

Electrical

Power bus line voltage: 19V to 48VDC
 Isolated communications bus power: 4.5V to 5.5V, 35 mA

Mechanical

Dimensions: see figure
 Weight: 15 oz (425 g)