

ECU



# ECU – ELECTRONIC CONTROL UNITS

HVAC + R

STANDARD

CABIN / MUX

PREMIUM



WIDE



FLEX



COMPACT



## MAIN FUNCTIONS

The Electronic Control Unit (ECU) modules are systems that interface with the application's I/Os (inputs and outputs). Globus ECUs present high level of reliability and add modularity and safety, replacing relays and fuses with 100% electronic components.

They interact with human-machine interfaces, such as panels, displays, sensors, and other peripherals, depending on the client's application needs.

## CHARACTERISTICS

- Customizable software
- Data Logger
- Configurable I/Os
- CAN Bus Interface
- LIN Interface
- One Wire interface
- RS-485 Interface
- USB Interface  
(Not recommended for new projects)

## CONFIGURATION OPTIONS

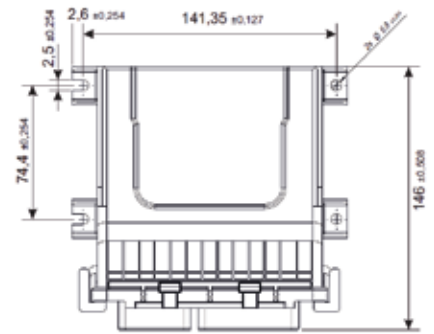
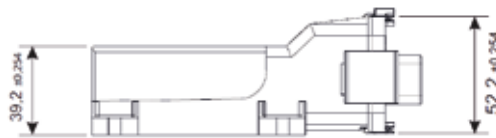
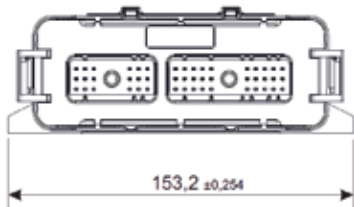
INPUT: Analogs and Digitals

OUTPUT: Analog, Digital Positive, Digital Negative, PWM and Bridge H

## AVAILABLE ENERGY



# ECU PREMIUM



Approximated weight: 490g

## CONNECTORS



MODICE CINCH 18 ways  
Part Number: 581-01-18-023  
Terminal - PN: 425-00-00-872  
Manufacturer: Modice Cinch



MODICE CINCH 30 ways  
Part Number: 581-01-18-029  
Cavity Plug Seal - PN: 581-00-00-011  
Manufacturer: Modice Cinch

### TECHNICAL DATA

OPERATING VOLTAGE	24 VDC
OPERATING VOLTAGE RANGE	18 VDC to 30 VDC
MAXIMUM VOLTAGE	32 VDC during 5 min
OUTPUT MAXIMUM CURRENT	500mA
OUTPUT SHORT-CIRCUIT	Protected*
REVERSE POLARITY	Protected*
OPERATING TEMPERATURE RANGE	-40°C to +85°C / -40°F to +185°F
STORAGE TEMPERATURE	-40°C to +85°C / -40°F to +185°F
TEMPERATURE SENSOR	NTC
PROTECTION DEGREE	IP 68K
COMMUNICATION	CAN Bus / LIN
MAXIMUM CURRENT CONSUMPTION	17mA **
STANDBY CONSUMPTION	**

\* According to product configuration. \*\* Consumption may vary according to customer specifications.  
We keep the right to update or change information regarding products without prior notice.

## FUNCTIONS UNDER REQUEST



WI-FI<sup>1</sup>



BLUETOOTH<sup>1</sup>



CELL PHONE  
INTERFACE<sup>2</sup>



CAN BUS



REMOTE I/O  
NETWORK



DATA  
LOGGER<sup>1</sup>



# ECU

# PREMIUM

## PRODUCT CONFIGURATIONS

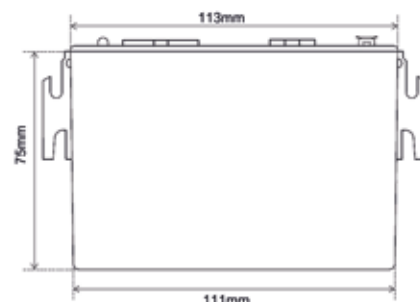
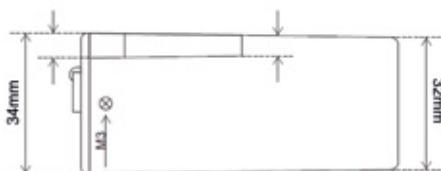
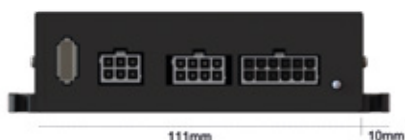
Choose the best options for your system

PIN CN1	ECU PREMIUM	POSSIBLE CONFIGURATIONS HARDWARE 1	
1	DIGITAL INPUT	OR	--
2	DIGITAL INPUT	OR	--
3	DIGITAL INPUT	OR	--
4	DIGITAL INPUT	OR	--
5	DIGITAL INPUT	OR	--
6	DIGITAL INPUT	OR	--
7	PWM OUTPUT	OR	--
8	DIGITAL INPUT	OR	DIGITAL OUTPUT POSITIVE 0.5A
9	PWM OUTPUT	OR	--
10	DIGITAL OUTPUT POSITIVE 0.5A	OR	--
11	DIGITAL OUTPUT POSITIVE 0.5A	OR	--
12	PWM OUTPUT	OR	--
13	DIGITAL OUTPUT POSITIVE 0.5A	OR	--
14	GND	OR	--
15	DIGITAL OUTPUT POSITIVE 0.5A 12V	OR	--
16	DIGITAL OUTPUT POSITIVE 0.5A	OR	--
17	GND	OR	--
18	DIGITAL OUTPUT POSITIVE 0.5A 12V	OR	--
PIN CN2			
1	LIN 2	OR	--
2	CAN2 L	OR	--
3	CAN2 H	OR	--
4	LIN 1	OR	--
5	CAN1 L	OR	--
6	CAN1 H	OR	--
7	ANALOG INPUT	OR	DIGITAL INPUT
8	TRANSDUCER POWER SUPPLY GND	OR	--
9	TRANSDUCER POWER SUPPLY 5V	OR	--
10	GND	OR	--
11	GND	OR	--
12	ANALOG INPUT	OR	DIGITAL INPUT
13	ANALOG INPUT	OR	DIGITAL INPUT
14	ANALOG INPUT	OR	DIGITAL INPUT
15	ANALOG INPUT	OR	DIGITAL INPUT
16	ANALOG INPUT	OR	DIGITAL INPUT
17	ANALOG INPUT	OR	DIGITAL INPUT
18	ANALOG INPUT	OR	DIGITAL INPUT
19	GND	OR	--
20	ANALOG INPUT	OR	--
21	GND	OR	--
22	ANALOG INPUT	OR	DIGITAL INPUT
23	DIGITAL INPUT	OR	--
24	ANALOG INPUT	OR	DIGITAL INPUT
25	GND	OR	--
26	DIGITAL INPUT	OR	--
27	GND	OR	--
28	POWER SUPPLY +VBAT	OR	--
29	POWER SUPPLY -VBAT	OR	--
30	POWER SUPPLY 12V OUT	OR	--



# ECU

# FLEX



Approximated weight: 130g

## CONNECTORS



MINI-FIT 6 ways  
Part Number: 4202P0612T1



MINI-FIT 8 ways  
Part Number: 39-01-2080



MINI-FIT 10 ways  
Part Number: 39-01-2100



MINI-FIT 12 ways  
Part Number: 39-01-2120



MINI-FIT 16 ways  
Part Number: 39-01-2160

Terminal - PN: 39-00-0038  
Manufacturer: Molex

### TECHNICAL DATA

OPERATING VOLTAGE	12 VDC / 24 VDC
OPERATING VOLTAGE RANGE	10 VDC to 30 VDC
MAXIMUM VOLTAGE	32 VDC during 5 min
OUTPUT MAXIMUM CURRENT	500mA
OUTPUT SHORT-CIRCUIT	Protected*
REVERSE POLARITY	Protected*
OPERATING TEMPERATURE RANGE	-40°C to +85° / - 40°F to +185°F
STORAGE TEMPERATURE	-40°C to +85° / - 40°F to +185°F
TEMPERATURE SENSOR	NTC
PROTECTION DEGREE	IP 30
COMMUNICATION	CAN Bus / One Wire / RS-485
MAXIMUM CURRENT CONSUMPTION	40mA @ 12 VDC / 60mA @ 24 VDC **
STANDBY CONSUMPTION	**

\* According to product configuration. \*\* Consumption may vary according to customer specifications.

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## FUNCTIONS UNDER REQUEST



WI-FI<sup>1</sup>



BLUETOOTH<sup>1</sup>



CELL PHONE  
INTERFACE<sup>2</sup>



CAN BUS



REMOTE I/O  
NETWORK



DATA  
LOGGER<sup>1</sup>

<sup>1</sup>Through Globus Way module. <sup>2</sup>Through 3G/4G module.



# ECU

# FLEX

## PRODUCT CONFIGURATIONS

Choose the best options for your system

PIN CN1	ECU FLEX   POSSIBLE CONFIGURATIONS HARDWARE 1				
1	CAN L	OR	--	OR	--
2	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H1
3	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H1
4	CAN H	OR	--	OR	--
5	DIGITAL OUTPUT NEGATIVE 0.5A	OR	--	OR	--
6	DIGITAL OUTPUT NEGATIVE 0.5A	OR	--	OR	--
PIN CN2					
1	ANALOG OUTPUT	OR	--	OR	--
2	GND ANALOG OUTPUT	OR	--	OR	--
3	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H2
4	--	OR	--	OR	--
5	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
6	ANALOG OUTPUT	OR	--	OR	--
7	GND ANALOG OUTPUT	OR	--	OR	--
8	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H2
9	TRANSDUCER POWER SUPPLY	OR	--	OR	--
10	GND	OR	--	OR	--
PIN CN3					
1	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
2	GND	OR	--	OR	--
3	DIGITAL INPUT	OR	--	OR	--
4	DIGITAL INPUT	OR	--	OR	--
5	ONE WIRE	OR	--	OR	--
6	GND	OR	--	OR	--
7	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
8	GND	OR	--	OR	--
9	DIGITAL INPUT	OR	--	OR	--
10	DIGITAL INPUT	OR	--	OR	--
11	POWER SUPPLY	OR	--	OR	--
12	POWER SUPPLY	OR	--	OR	--



# ECU

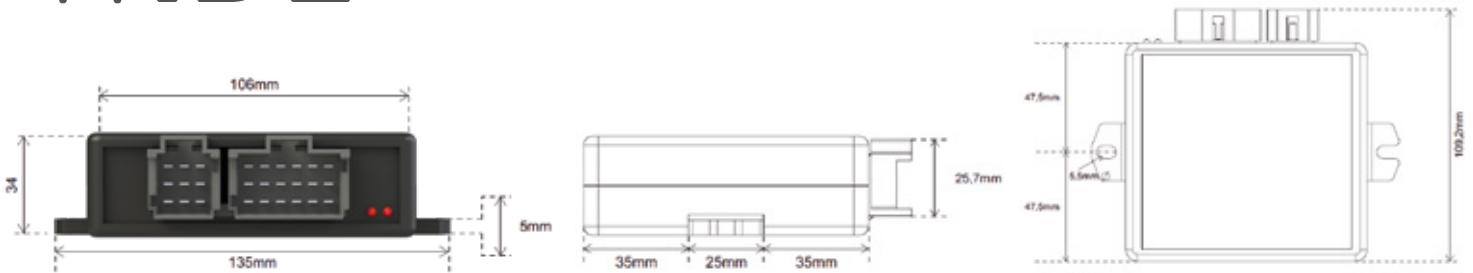
# FLEX

## PRODUCT CONFIGURATIONS

PIN CN1	ECU FLEX   POSSIBLE CONFIGURATIONS HARDWARE 2						
1	TRANSDUCER POWER SUPPLY 5V	OR	--	OR	--	OR	--
2	POWER SUPPLY	OR	--	OR	--	OR	--
3	CAN L	OR	--	OR	--	OR	--
4	CAN H	OR	--	OR	--	OR	--
5	GND	OR	--	OR	--	OR	--
6	RS-485 D+	OR	--	OR	--	OR	--
7	RS-485 D-	OR	--	OR	--	OR	--
8	ONE WIRE	OR	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
PIN CN2							
1	GND	OR	--	OR	--	OR	--
2	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H1	OR	PWM OUTPUT
3	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H2	OR	PWM OUTPUT
4	DIGITAL OUTPUT NEGATIVE 0.5A	OR	PWM OUTPUT	OR	--	OR	--
5	DIGITAL OUTPUT NEGATIVE 0.5A	OR	PWM OUTPUT	OR	--	OR	--
6	DIGITAL OUTPUT NEGATIVE 0.5A	OR	PWM OUTPUT	OR	--	OR	--
7	GND	OR	--	OR	--	OR	--
8	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H1	OR	PWM OUTPUT
9	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H2	OR	PWM OUTPUT
10	DIGITAL OUTPUT NEGATIVE 0.5A	OR	PWM OUTPUT	OR	--	OR	--
11	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	--
12	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	--
PIN CN3							
1	ANALOG OUTPUT - 50MA	OR	--	OR	--	OR	--
2	GND	OR	--	OR	--	OR	--
3	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
4	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
5	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
6	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
7	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
8	GND	OR	--	OR	--	OR	--
9	ANALOG OUTPUT - 50MA	OR	--	OR	--	OR	--
10	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
11	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
12	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
13	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
14	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
15	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
16	GND	OR	--	OR	--	OR	--



# ECU WIDE



Approximated weight: 180g

## CONNECTORS



MCP AMP 9 ways  
Part Number: 8 - 968971 - 1



MCP AMP 18 ways  
Part Number: 8 - 968974 - 1

TERMINAL - PN: 1-968851-1  
Manufacturer: AMP

### TECHNICAL DATA

OPERATING VOLTAGE	12 VDC / 24 VDC
OPERATING VOLTAGE RANGE	10 VDC to 30 VDC
MAXIMUM VOLTAGE	32 VDC during 5 min
OUTPUT MAXIMUM CURRENT	10A / 500mA / 5A
OUTPUT SHORT-CIRCUIT	Protected*
REVERSE POLARITY	Protected*
OPERATING TEMPERATURE RANGE	-40°C to +85° / - 40°F to +185°F
STORAGE TEMPERATURE	-40°C to +85° / - 40°F to +185°F
TEMPERATURE SENSOR	NTC
PROTECTION DEGREE	IP 30
COMMUNICATION	CAN Bus / One Wire
MAXIMUM CURRENT CONSUMPTION	36mA @ 12 VDC / 41mA @ 24 VDC **
STANDBY CONSUMPTION	**

\* According to product configuration. \*\* Consumption may vary according to customer specifications.

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## FUNCTIONS UNDER REQUEST



WI-FI<sup>1</sup>



BLUETOOTH<sup>1</sup>



CELL PHONE  
INTERFACE<sup>2</sup>



CAN BUS



REMOTE I/O  
NETWORK



DATA  
LOGGER<sup>1</sup>



<sup>1</sup>Through Globus Way module. <sup>2</sup>Through 3G/4G module.



# ECU

# WIDE

# PRODUCT CONFIGURATIONS

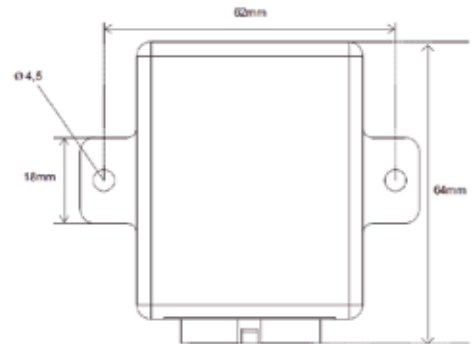
Choose the best options for your system

PIN CN1		ECU WIDE   POSSIBLE CONFIGURATIONS HARDWARE 1		
1	ANALOG INPUT	OR		DIGITAL INPUT
2	GND	OR		--
3	DIGITAL INPUT	OR		--
4	ANALOG INPUT	OR		DIGITAL INPUT
5	GND	OR		--
6	ANALOG INPUT	OR		DIGITAL INPUT
7	ANALOG INPUT	OR		DIGITAL INPUT
8	GND	OR		--
9	ANALOG INPUT	OR		DIGITAL INPUT
PIN CN2				
1	POWER SUPPLY	OR		--
2	GND	OR		--
3	POWER SUPPLY	OR		--
4	POWER SUPPLY	OR		--
5	GND	OR		--
6	POWER SUPPLY	OR		--
7	DIGITAL OUTPUT POSITIVE 10A	OR		--
8	* THE SAME OUTPUT OF PIN 7	OR		--
9	--	OR		--
10	DIGITAL OUTPUT POSITIVE 10A	OR		PWM OUTPUT 5A
11	DIGITAL OUTPUT POSITIVE 0,5A	OR		--
12	--	OR		--
13	DIGITAL OUTPUT POSITIVE 5A	OR		PWM OUTPUT 5A
14	DIGITAL OUTPUT POSITIVE 0,5A	OR		--
15	CAN H	OR		--
16	DIGITAL OUTPUT POSITIVE 5A	OR		--
17	DIGITAL OUTPUT POSITIVE 5A	OR		--
18	CAN L	OR		--

PIN CN1		ECU WIDE   POSSIBLE CONFIGURATIONS HARDWARE 2						
1	POWER SUPPLY	OR	--	OR	--	OR	--	
2	GND	OR	--	OR	--	OR	--	
3	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--	
4	DIGITAL INPUT	OR	--	OR	--	OR	--	
5	GND	OR	--	OR	--	OR	--	
6	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--	
7	GND	OR	--	OR	--	OR	--	
8	GND	OR	--	OR	--	OR	--	
9	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--	
PIN CN2								
1	DIGITAL OUTPUT NEGATIVE 0.5A	OR	PWM OUTPUT	OR	--	OR	--	
2	DIGITAL OUTPUT NEGATIVE 0.5A	OR	PWM OUTPUT	OR	--	OR	--	
3	DIGITAL OUTPUT NEGATIVE 0.5A	OR	PWM OUTPUT	OR	--	OR	--	
4	DIGITAL OUTPUT POSITIVE 3A	OR	--	OR	--	OR	--	
5	DIGITAL OUTPUT NEGATIVE 0.5A	OR	--	OR	--	OR	--	
6	DIGITAL OUTPUT NEGATIVE 0.5A	OR	--	OR	--	OR	--	
7	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H1	OR	--	
8	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 3A	OR	BRIDGE H2	
9	TRANSDUCER POWER SUPPLY	OR	--	OR	--	OR	--	
10	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 3A	OR	BRIDGE H1	
11	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 3A	OR	BRIDGE H2	
12	DIGITAL INPUT	OR	ANALOG INPUT	OR	--	OR	--	
13	CAN H	OR	ONE WIRE	OR	--	OR	--	
14	DIGITAL INPUT	OR	ANALOG INPUT	OR	--	OR	--	
15	DIGITAL INPUT	OR	ANALOG INPUT	OR	--	OR	--	
16	CAN L	OR	--	OR	--	OR	--	
17	DIGITAL INPUT	OR	ANALOG INPUT	OR	--	OR	--	
18	GND	OR	--	OR	--	OR	--	



# ECU COMPACT



Approximated weight: 50g

## CONNECTORS



MINI-FIT 12 ways  
Part Number: 39-01-2120

TERMINAL - PN: 39-00-0038  
Manufacturer: MOLEX

### TECHNICAL DATA

OPERATING VOLTAGE	12 VDC / 24 VDC
OPERATING VOLTAGE RANGE	10 VDC to 30 VDC
MAXIMUM VOLTAGE	32 VDC during 5 min
OUTPUT MAXIMUM CURRENT	500mA
OUTPUT SHORT-CIRCUIT	Protected*
REVERSE POLARITY	Protected*
OPERATING TEMPERATURE RANGE	-40°C to +85° / - 40°F to +185°F
STORAGE TEMPERATURE	-40°C to +85° / - 40°F to +185°F
TEMPERATURE SENSOR	NTC
PROTECTION DEGREE	IP 30
COMMUNICATION	CAN Bus / One Wire
MAXIMUM CURRENT CONSUMPTION	15mA @ 12 VDC / 30mA @ 24 VDC **
STANDBY CONSUMPTION	**

\* According to product configuration. \*\* Consumption may vary according to customer specifications.  
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## FUNCTIONS UNDER REQUEST



WI-FI<sup>1</sup>



BLUETOOTH<sup>1</sup>



CELL PHONE  
INTERFACE<sup>2</sup>



CAN BUS



REMOTE I/O  
NETWORK



DATA  
LOGGER<sup>1</sup>



<sup>1</sup>Through Globus Way module. <sup>2</sup>Through 3G/4G module.

# ECU

# COMPACT

## PRODUCT CONFIGURATIONS

Choose the best options for your system

PIN	ECU COMPACT		POSSIBLE CONFIGURATIONS HARDWARE 1		
1	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
2	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
3	DIGITAL OUTPUT NEGATIVE 0.5A	OR	--	OR	--
4	DIGITAL OUTPUT NEGATIVE 0.5A	OR	--	OR	--
5	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H
6	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	BRIDGE H
7	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
8	ANALOG INPUT	OR	DIGITAL INPUT	OR	DIGITAL OUTPUT POSITIVE 0.5A
9	DIGITAL OUTPUT NEGATIVE 0.5A	OR	GND (SENSOR)	OR	--
10	ONE WIRE	OR	--	OR	--
11	GND	OR	--	OR	--
12	POWER SUPPLY	OR	--	OR	--

PIN	ECU COMPACT		POSSIBLE CONFIGURATIONS HARDWARE 2	
1	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
2	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
3	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
4	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
5	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
6	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
7	POWER SUPPLY	OR	--	--
8	ANALOG INPUT	OR	DIGITAL INPUT	--
9	ANALOG INPUT	OR	DIGITAL INPUT	--
10	CAN H	OR	--	--
11	CAN L	OR	--	--
12	GND	OR	--	--

PIN	ECU COMPACT		POSSIBLE CONFIGURATIONS HARDWARE 3	
1	ANALOG INPUT	OR	DIGITAL INPUT	--
2	--	OR	--	--
3	--	OR	--	--
4	DIGITAL INPUT	OR	--	--
5	--	OR	--	--
6	POWER SUPPLY	OR	--	--
7	ANALOG INPUT	OR	DIGITAL INPUT	--
8	ANALOG OUTPUT	OR	--	--
9	ANALOG OUTPUT	OR	--	--
10	ANALOG INPUT	OR	DIGITAL INPUT	--
11	DIGITAL OUTPUT NEGATIVE 0.5A	OR	--	--
12	GND	OR	--	--

PIN	ECU COMPACT		POSSIBLE CONFIGURATIONS HARDWARE 4	
1	CAN H	OR	--	--
2	CAN L	OR	--	--
3	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
4	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	--
5	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT 0.5A	--
6	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT 0.5A	--
7	ANALOG INPUT	OR	DIGITAL INPUT	--
8	ANALOG INPUT	OR	DIGITAL INPUT	--
9	ANALOG INPUT	OR	DIGITAL INPUT	--
10	ANALOG INPUT	OR	DIGITAL INPUT	--
11	GND	OR	--	--
12	POWER SUPPLY	OR	--	--





WE ARE TODAY.  
WE ARE TOMORROW.  
WE ARE GLOBUS!



**Globus**  
Electronics



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[www.globuselectronics.com](http://www.globuselectronics.com)

