



## MAIN FUNCTIONS

REFRIGERATION

CLIMATIZATION

CABIN CONTROL

MULTIPLEX

## CHARACTERISTICS

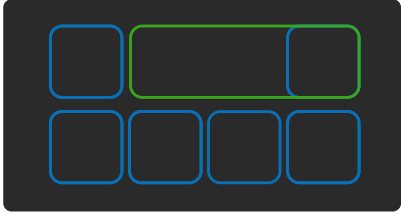
- Available as HMI - Human Machine Interface (CAN Bus)
- Compact size
- Exclusive design
- Graphic 128x64px OLED Display
- Friendly interface
- Backlit buttons
- Integrated or remote I/Os (ECU)
- USB interface through ECU (optional)
- Customizable Functions
- Automotive connector
- Diagnostics Menu
- Parameter Adjustment Menu
- Two temperature scales (°F or °C)
- Bluetooth and Wi-Fi Modules Interface
- Function Hourmeters
- 10 selectable languages via menu

## AVAILABLE FOR



# CUSTOMIZABLE CONTROLLER COMPLETE, COMPACT, EASY OPERATION.

## INTERFACE POSITIONS



MiD

### DISPLAY

7-SEGMENT LED DISPLAY  
3 or 4-Digits or 128x64px OLED Display  
°F and °C scales available



### BUTTONS

KEYBOARD WITH 5 OR 6 CUSTOM BUTTONS  
Custom Symbols  
Backlight  
Individual status indicators



## DISPLAY EXAMPLES

Menu		Function Pop-up	
Hourmeters		Failure Description	

## CONFIGURATION OPTIONS

INPUTS: Analog and Digital  
 OUTPUTS: Positive and Negative Digitals, Bridge (flap motor) and PWM or Analogs (external ECU)  
 OPTIONAL COMMUNICATION: One Wire, LIN Bus, CAN Bus, I/Os integrated remotely (through ECU), Telematics Module

## FUNCTIONS UNDER REQUEST



WI-FI



BLUETOOTH



CELL PHONE INTERFACE



CAN BUS



REMOTE I/O NETWORK



DATA LOGGER



CUSTOMIZABLE INTERFACES



HMI



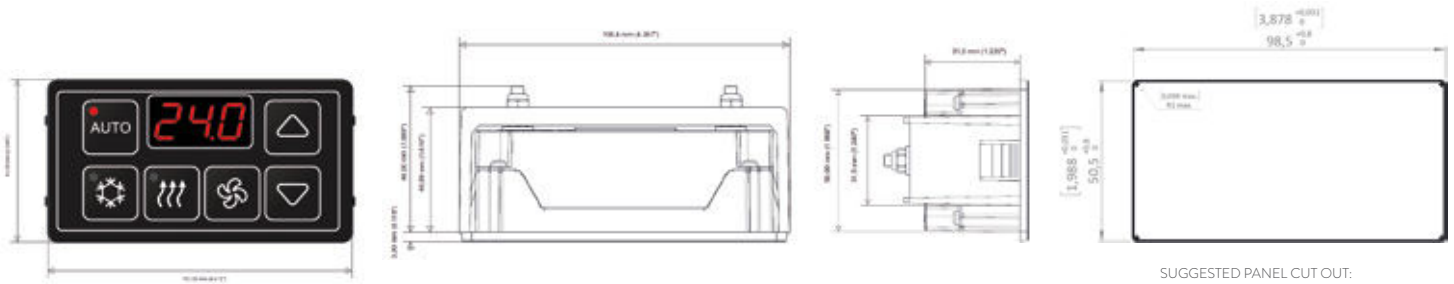
# TECHNICAL DATA



OEM

HVAC + R

CABIN / MUX



Approximated weight: 315g

SUGGESTED PANEL CUT OUT:  
 MINIMUM THICKNESS = 1,5 mm [0,059 in]  
 MAXIMUM THICKNESS = 3,0 mm [0,118 in]

## CONNECTORS



MATE-N-LOK 15 ways  
 Part Number: 1-480710 - 0  
 Terminal - PN: 350689-3  
 Manufacturer: Tyco Electronics

### TECHNICAL DATA

TECHNICAL DATA	
OPERATING VOLTAGE	12 VDC / 24 VDC
OPERATING VOLTAGE RANGE	10 VDC to 30 VDC
MAXIMUM VOLTAGE	32 VDC during 5 min
MAXIMUM CURRENT PER OUTPUT	500mA
OUTPUT SHORT-CIRCUIT	Protected
REVERSE POLARITY	Protected
OPERATING TEMPERATURE RANGE	-40°C to +85°C / -40°F to +185°F (Normal or extended temperature range options)
STORAGE TEMPERATURE	-40°C to +85°C / -40°F to +185°F
TEMPERATURE SENSOR	NTC (Other types under request)
FRONTAL PROTECTION DEGREE	IP 54
COMMUNICATION	One Wire / CAN Bus
MAXIMUM CURRENT CONSUMPTION	110mA @ 12 VDC / 80mA @ 24 VDC *
STANDBY CONSUMPTION	48mA @ 12 VDC / 45mA @ 24 VDC *

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





## VENTILATION AND TEMPERATURE

OEM

HVAC

CABIN / MUX

### AIR CONDITIONING CONTROL PANEL WITH OLED DISPLAY\*

- Graphic OLED display
- Backlit symbols and buttons
- Client logo on panel (optional)
- Fixation without frontal screws
- Up to 2 indication LEDs per button



### AIR CONDITIONING CONTROL PANEL WITH 7-SEGMENT DISPLAY\*

- 7-segment display
- Backlit symbols and buttons
- Client logo on panel (optional)
- Fixation without frontal screws
- Up to 2 indication LEDs per button



## REFRIGERATION

OEM

HVAC

CABIN / MUX

### REFRIGERATION CONTROL PANEL WITH OLED DISPLAY\*

- Graphic OLED display
- Backlit symbols and buttons
- Client logo on panel (optional)
- Fixation without frontal screws
- Up to 2 indication LEDs per button



Choose the best options for your system

PIN	MID   POSSIBLE CONFIGURATIONS - HARDWARE 1						
1	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
2	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
3	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	--
4	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
5	GND	OR	--	OR	--	OR	--
6	GND	OR	--	OR	--	OR	--
7	POWER SUPPLY	OR	--	OR	--	OR	--
8	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	CAN H
9	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	CAN L
10	ANALOG INPUT	OR	DIGITAL INPUT	OR	--	OR	--
11	DIGITAL OUTPUT NEGATIVE 0.5A	OR	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
12	DIGITAL OUTPUT NEGATIVE 0.5A	OR	ANALOG INPUT	OR	DIGITAL INPUT	OR	ONE WIRE
13	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	--
14	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	--
15	DIGITAL OUTPUT NEGATIVE 0.5A	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	--

PIN	MID   POSSIBLE CONFIGURATIONS - HARDWARE 2						
1	POWER SUPPLY	OR	--	OR	--		
2	GND	OR	--	OR	--		
3	ANALOG INPUT	OR	DIGITAL INPUT	OR	--		
4	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--		
5	ANALOG INPUT	OR	DIGITAL INPUT	OR	--		
6	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--		
7	GND	OR	--	OR	--		
8	DIGITAL OUTPUT POSITIVE 0.5A	OR	DIGITAL OUTPUT NEGATIVE 0.5A	OR	BRIDGE H		
9	ANALOG INPUT	OR	DIGITAL INPUT	OR	--		
10	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--		
11	ANALOG INPUT	OR	DIGITAL INPUT	OR	--		
12	DIGITAL OUTPUT POSITIVE 0.5A	OR	POWER SUPPLY 5V – TRANSDUCER	OR	--		
13	ANALOG INPUT	OR	DIGITAL INPUT	OR	--		
14	DIGITAL OUTPUT POSITIVE 0.5A	OR	DIGITAL OUTPUT NEGATIVE 0.5A	OR	BRIDGE H		
15	GND	OR	--	OR	--		
16	ANALOG INPUT	OR	DIGITAL INPUT	OR	--		
17	PWM OUTPUT	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	ANALOG OUTPUT		
18	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--		
19	DIGITAL OUTPUT POSITIVE 0.5A	OR	ANALOG INPUT	OR	DIGITAL INPUT		
20	GND	OR	--	OR	--		
21	DIGITAL OUTPUT POSITIVE 0.5A	OR	ONE WIRE	OR	--		
22	POWER SUPPLY 5V – TRANSDUCER	OR	--	OR	--		
23	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--		
24	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--		

# PRODUCT CONFIGURATION

PIN	MID   POSSIBLE CONFIGURATIONS - HARDWARE 3				
1	POWER SUPPLY	OR	--	OR	--
2	GND	OR	--	OR	--
3	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
4	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--
5	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
6	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--
7	GND	OR	--	OR	--
8	DIGITAL OUTPUT POSITIVE 0.5A	OR	DIGITAL OUTPUT NEGATIVE 0.5A	OR	BRIDGE H
9	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
10	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--
11	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
12	DIGITAL OUTPUT POSITIVE 0.5A	OR	POWER SUPPLY 5V - TRANSDUCER	OR	--
13	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
14	DIGITAL OUTPUT POSITIVE 0.5A	OR	DIGITAL OUTPUT NEGATIVE 0.5A	OR	BRIDGE H
15	GND	OR	--	OR	--
16	ANALOG INPUT	OR	DIGITAL INPUT	OR	--
17	PWM OUTPUT	OR	DIGITAL OUTPUT POSITIVE 0.5A	OR	ANALOG OUTPUT
18	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--
19	DIGITAL OUTPUT POSITIVE 0.5A	OR	ANALOG INPUT	OR	DIGITAL INPUT
20	DIGITAL OUTPUT POSITIVE 0.5A	OR	PWM OUTPUT	OR	--
21	DIGITAL OUTPUT POSITIVE 0.5A	OR	ONE WIRE	OR	--
22	POWER SUPPLY 5V - TRANSDUCER	OR	ANALOG INPUT	OR	DIGITAL INPUT
23	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--
24	DIGITAL OUTPUT POSITIVE 0.5A	OR	--	OR	--



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



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