

SIU-700 STEERING INTERFACE UNIT

O 030 110 020 000

The SIU-700 Steering Wheel Interface Unit is a local sensor and switch interface unit designed to become an integral part of an assembly such as a racing car steering wheel. All sensor/switch data is linked by a CAN-FD compatible CAN bus to a main control unit which reduces the harnessing while expanding the analogue and digital input capabilities of the system.

ELECTRICAL

- Supply voltage:
 - 11.5V to 16.0V DC (full operation)
 - 7.0V to 11.4V (fully operational except external 10V strain gauge supply)
 - 6.7V to 6.9V (All parameters within specified accuracies except for external 10V strain gauge supply and external 5V potentiometer supply)
- Supply Voltage not to exceed 17V continuous (unit is protected against transients and reverse polarity)
- Supply Current operating less than 300mA typical @13.8V including typical transducer loads (user defined LEDs off)

ELECTROMAGNETIC COMPATIBILITY

- Complies with the essential protection requirements of 2014/30/EU

MECHANICAL

- Weight less than 50g (as a subassembly)
- Board approx. dimensions 50mm x 45mm x 10.2mm

CONNECTION DEFINITION

- Samtec Quad row FOLC female connector (4x25pin) Part no. FOLC-125-04-S-Q-LC
- Mating connector part no. MOLC-125-01-S-Q-LC

DIAGNOSTICS

- 1x internal diagnostic temperature sensor
- 1x internal diagnostic 5V output supply
- 1x internal diagnostic vehicle supply voltage

APPLICATION

- Interface to remote sensors and switches, e.g. controls on steering wheel



INPUTS

- 18x digital switch inputs
- 11x 0V to 5V analogue inputs (10bit resolution)
- User selectable analogue input (16bit resolution): Amplified strain gauge input / 0V to 5V analogue input
- 1x reset input

OUTPUTS

- 1x 10V output supply for strain gauge transducer
- 1x 5V supply for potentiometers and transducers
- 3x user defined high side LED drivers
- 2x Microcontroller Diagnostic high-side LED drivers

COMMUNICATIONS

- 1x CAN FD bus interface
- Compatible with CAN 2.0B

ENVIRONMENTAL

- Board operating temperature range 0°C to +70°C
- Storage temperature -10°C to +85°C
- Vibration 24 hours in 3 axes, PSD

Frequency (Hz)	Amplitude (g ² /Hz)
100	0.00797
200	0.171757
300	0.54279
650	0.00965
1000	0.02080

- Shock test: 50g, ½ sine, 11ms duration, 5 times per axis.

PRODUCT SUMMARY | SCR XXXX | REV YY | LAST UPDATE: DD/MM/YY

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