Barantech
CUSTOMIZED HMI SOLUTIONS

Mini Keypad for Trains

A robust, tamper proof and resilient keypad, withstand extreme temperatures and weather conditions. The keypad communication is compatible to the on-board computer (OBC) and is certified in accordance to rail standards.

Key Characteristics

- No moving parts – completely sealed against the environment
- Enhanced touch activated - operation by hand, gloves or tools
- Modbus RTU, RS485 communication
- OLED Display 16X2 characters
- Certified to AAR S-9401 (2009) (MIL-STD 810E)
- Design for train safety system: Secure Positive Train Stop Release (PTSR)

Electrical Data

Power M12 Male 8pos. 2	Function	Description
Pin4	POWER (+)	15-24 VDC
Pin5	POWER (+)	15-24 VDC
Pin2	GND	Ground
Pin3	GND	Ground
Pin7	Data (-)	
Pin1	Data (-)	
Pin6	Address. Detection. Gpio. Input Pull-Up	(Pull-Up)
Pin8		Ground

LED1 (L1): POWER - HEALTH STATUS	BICOLOR RED/GREEN
LED2 (L2): HEARTBEAT STATUS	AMBER OR ORANGE COLOR
LED3 (L3): PTSO RELEASE STATUS	BLUE COLOR
LED4 (L4): SPTSR TERRITORY STATUS	GREEN COLOR

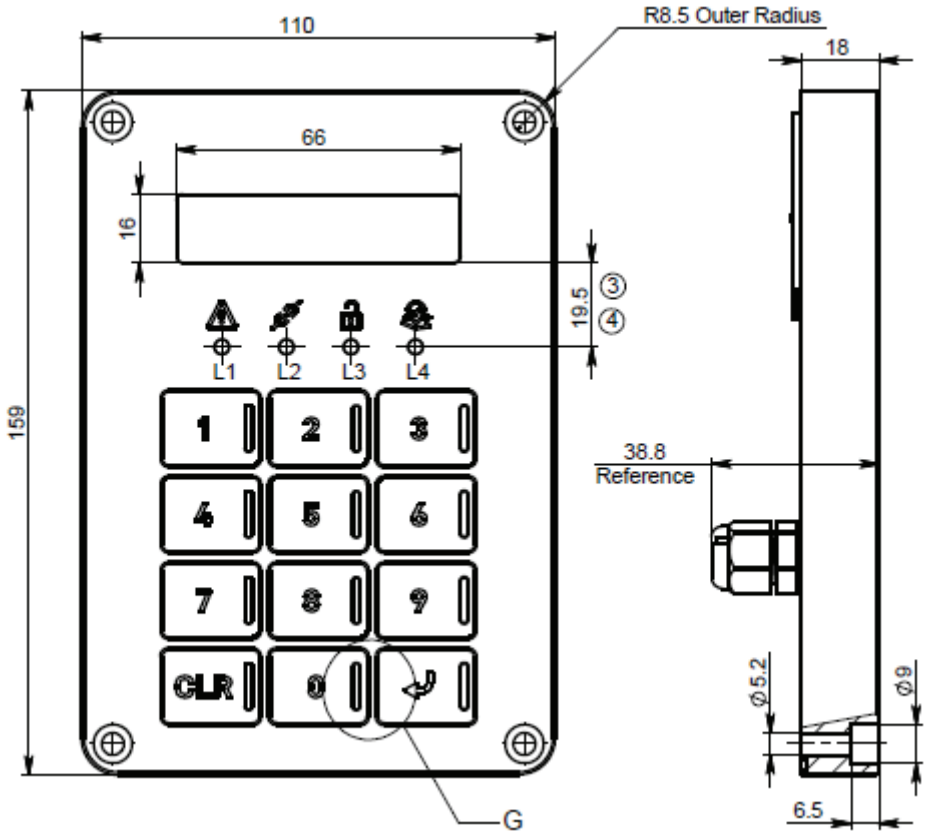
Mechanical Data

Housing Materials	Aluminum 6061 T651
OLED Module	2x16 Characters
Connection	M12 A-CODED MALE 8 Pos.+ CABLE 250 ±20mm
Programming Connector	IDC Female 6 pin' Pitch 2.54mm
Housing Finish	
Anodize Color	Natural
Print Color	Black

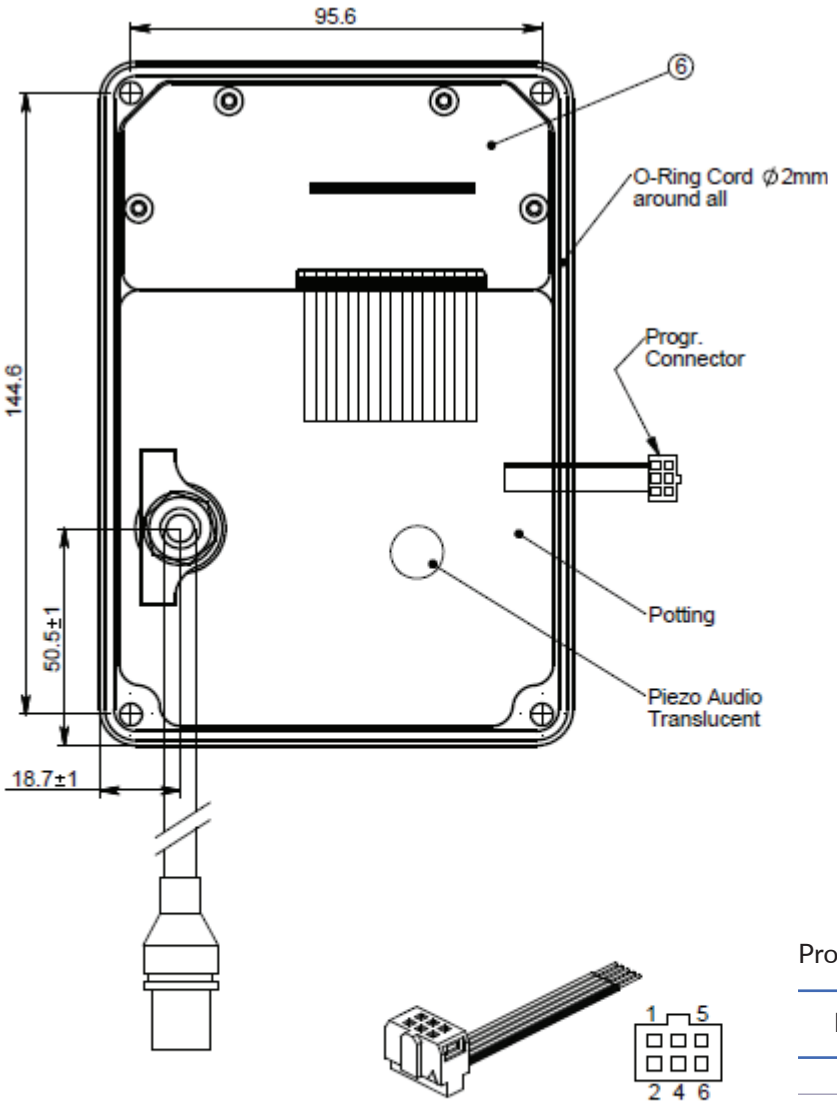
Environmental Data

Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Certified to AAR S-9401 (2009)	

Mechanical Drawing



Graphics	Function
1	0x01
2	0x02
3	0x03
4	0x04
5	0x05
6	0x06
7	0x07
8	0x08
9	0x09
CLR	0x0a
0	0x00
Arrow	0x0b



Programming Connector

Pin Number	Function
1	VPP/MCLR
2	5V VCC
3	GND
4	PGD
5	PGC
6	Not connected