KEYCAN

Technical datasheet

MAIN FEATURES

- Reconfigurable icon plate
- RGB LED backlight button
- RGB LED status
- Suitable both for for 12 and 24V system
- CANBUS communication
- Rugged application
- Customizable color of plate
- Vertical or horizontal mount
- Ergonomic design

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DESCRIPTION

KEYCAN is a new concept of modular keyboard that allows customization of dashboard and driver control panels in accordance with the customer needs. Equipped with CANBUS line for the connection with ECU and stack J1939, KEYCAN is the best solution to reduce the volume of wire harness under the dashboard and increase the space for others devices. KEYCAN module is composed of 4 membrane push buttons fully programmables with 3 RGB LED able to change brightness of its 7 colors. Icons in the middle of each push button is removable and customizable by a laser printing process, this allows also that KEYCAN can be installed horizontally or vertically.

TECHNICAL DATA

ELECTRICAL

Nominal voltage	Vehicle electrical battery system	12Vdc and 24Vdc
	Operating range	6 Vdc to 32Vdc
Current consumption		100mA max @ 12Vdc
		70mA max @ 24Vdc
Interfaces	CAN 2.0B (ISO11898)	1
LED indicator	RGB button status	12
	RGB button backlight	4
Microcontroller	Main MCU: ST 32 bit	1
Memory	FLASH	512KB
	RAM	32KB

MECHANICAL

Material	Front and back cover	PBT-30GF
	Plate	ABS painted
	Keypad	Silicon rubber

RELIABILITY

MTTFd	14 years
B10d	99349

TECHNICAL DATA

Environmental Compatibility

Operating Temperature	min	-30°C (-40°C for 24h)
	max	+85°C (for 96h)
Storage Temperature	**min**	-55°C
	max	+105°C
Ingress protection		IP65 (following EN60529)

Electromagnetic compatibility

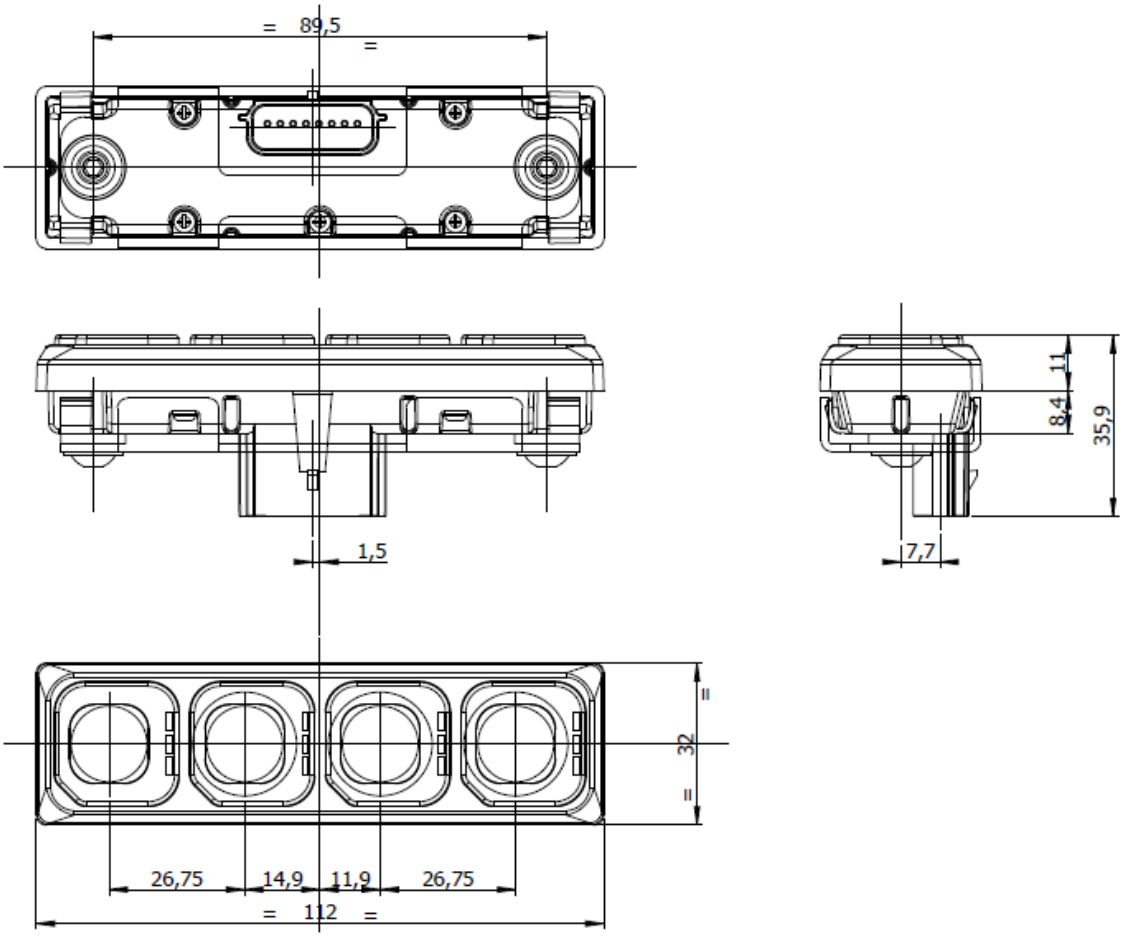
Radiated Immunity		ISO14982:1998 6.6 (200-1000MHz @30V/m
		Bulk current injection 20-400MHz dist. 150mm level 60mA
Broadband Radiated Emission		ISO 14982:1998 6.4 and 6.5 (30-1000MHz
Electrostatic discharge		ISO 10605-8-9
Electrical performance	LOAD DUMP	ISO 7637 and ISO16750-2 sec 4.6.4.2.2 Test A
	Reverse polarity protection	ISO 16750-2 4.7.2.3
	Switching spyke	ISO 7637-2 Pulse 3a Pulse 3a: Us = -300V Pulse 3b: Us = +300V

TECHNICAL DATA

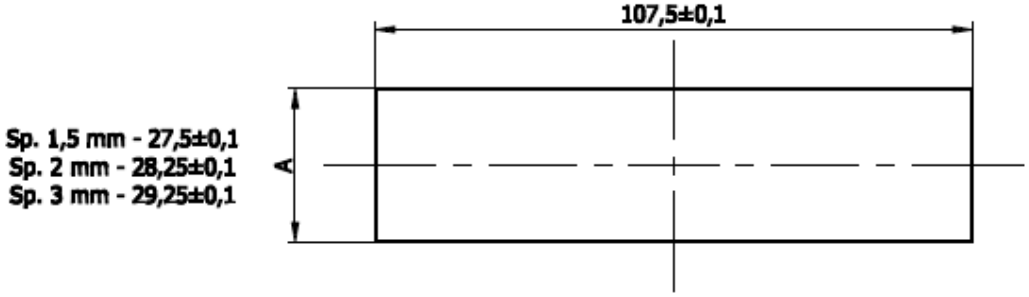
Physical Compatibility

Vibration	Random	ISO16750-3
Mechanical life		1M actuations per key (internal testing)

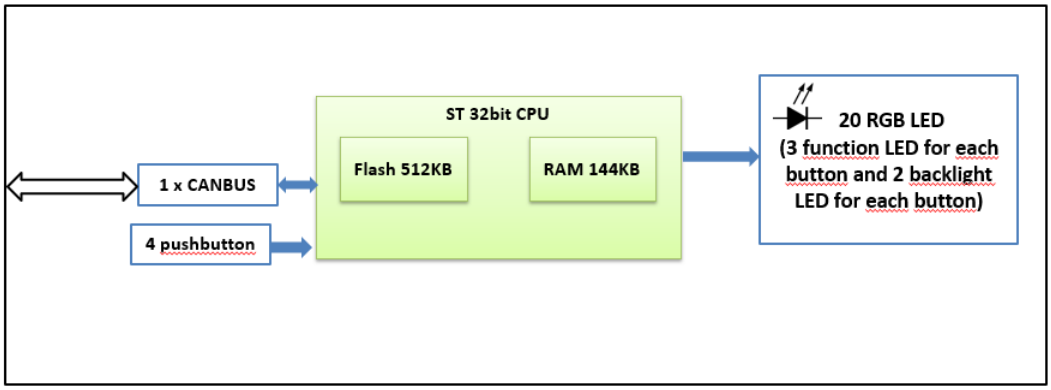
DIMENSIONS (in mm)



PANEL CUT OUT DIMENSIONS

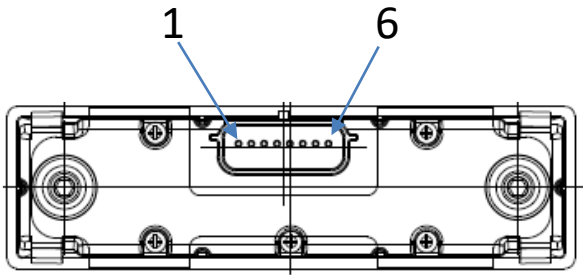


Block diagram

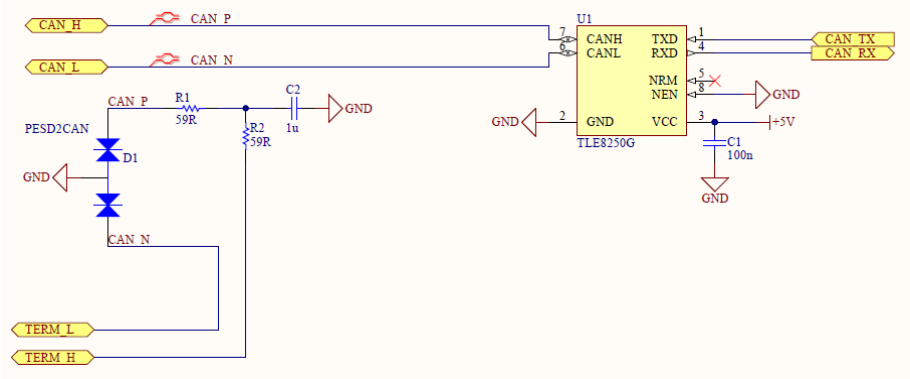


PINOUT CONNECTION

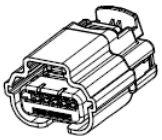
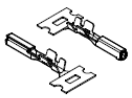
PIN	Function
1	120 OHM TERM_L
2	120 OHM TERM_H
3	CAN_H
4	CAN_L
5	GND
6	+Vcc



INTERNAL CANBUS CIRCUIT



CONNECTOR FOR HARNESS CABLE

	Manufacturer: MOLEX Model: MX64 314036110
	Manufacturer: MOLEX Model: MX64 334680003 Conductor AWG 18-20

ACCESSORIES

AMA Code: IMEL.151 Complete harness cable to help for develop and prototype phase.
50cm of cable pre-crimped on contact

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