| MVS.B3E | 5'' DIGITAL TOUCH-SCREEN HMI |

- Suitable for landscape/ portrait, standalone or in-dash mounting
- High resolution LCD display with adjustable backlight
- Linux operating system
- Several communication ports for serial line (RS232), CAN networks, ethernet and high-speed USB port
- 2 version available: Basic and Full version

TECHNICAL FEATURES

	BASIC VERSION	FULL VERSION
MASTER CODE	MVS.B3EB50	MVS.B3EF50
POWER SUPPLY	8 ÷ 36 VDC with protections | CONSUMPTION ≤775 mA @ 12 VDC	
LED	N.1 LIGHT SENSOR N.1 MULTI-COLOR LED	
CAN BUS	N. 2 PORTS: 2.0 A/B COMPLIANT - (11, 29 BIT) - ISO 11898 UP TO 1MBIT/S (default 250 Kbit/s)	
SERIAL	N. 1 PORT: RS232 (Type: EIA232 (only RxD, TxD, GND) - Speed: max. 115.200baud	
RTC	Buffered by gold cap for 2 weeks. Deviation max. 1 s/day	
AUXILIARY PORTS	N.1 USB HOST 2.0 Side connector	N.2 USB HOST 2.0 side and back connector N.1 ETHERNET: (10/100 Mbit/s Base T or Automotive Interface)
TOUCH	CAPACITIVE TOUCH	
PUSH BUTTON	SIDE PUSHBUTTON FOR POWER ON/OFF	
DISPLAY	LCD TYPE: TFT Color Graphic LCD with LED backlight RESOLUTION: 800 X 480px (WQVGA), 15:9 SIZE: 5", 108 mm (W) x 64.8 mm (H) LUMINANCE: typ. 800 cd/m² CONTRAST RATIO: typ. 700:1	
BUZZER	YES – 90dB 10 cm distance	
AUDIO OUTPUT	-	N.1 (L, R, GND) AC97 COMPATIBLE
TEMPERATURE	WORKING: -30°C +75°C STORAGE: -40°C +80°C	
CASE	ALUMINIUM DIE CAST, POWDER COATED FRONT-GLASS	
VIDEO INPUT	-	N.1 CAMERA INPUT

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CiA member
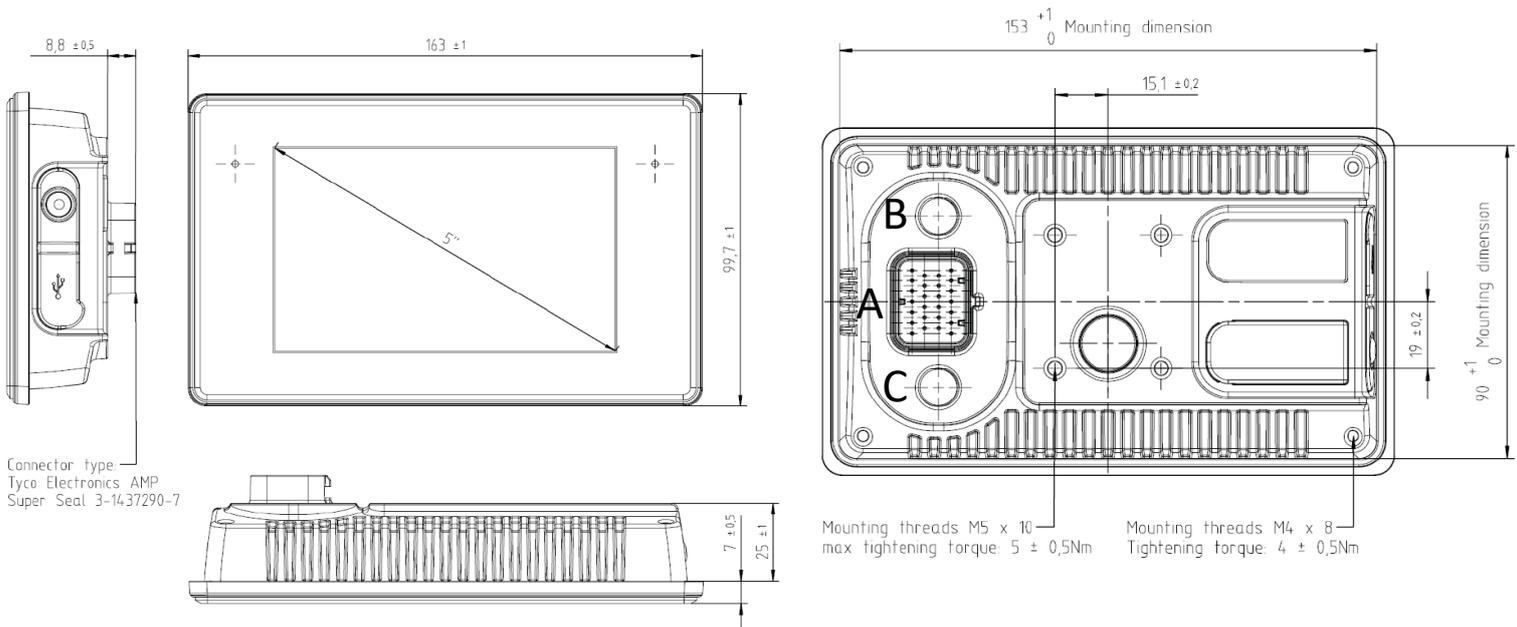
STANDARDS

EU Directive 2014/30/EU (EMC)	EN 13766-1 (part 1); EN ISO 14982; EN 50498; EN 61000-6-2; EN 61000-6-4;
E1 – Type approval	EU Directive ECE R 10.4
IP GRADE	IP 66 according to ISO 20653: Road Vehicles – Degrees of protection (IP-Code) – Protection of electrical equipment against foreign objects, water and access

ELECTRONIC FEATURES

OS	Linux Kernel 5.43.53 or higher
APPLICATION PROGRAMMING	OPUS Projektor // COESYS 3.x // C/C++ // ISO-HORIZON
CPU	Freescale I.MX6®, 800 MHz
MEMORY	Mass storage: BASIC VERSION: 2 GByte (approx. 700 MB for customer use) FULL VERSION: 4 GByte (minus space for OS & application) RAM: 512 MB

SIZE (mm)

Connector type:
Tyco Electronics AMP
Super Seal 3-1437290-7

Mounting threads M5 x 10
max tightening torque: 5 ± 0,5Nm

Mounting threads M4 x 8
Tightening torque: 4 ± 0,5Nm

CONNECTION

(A) MAIN: Tyco-AMP 1437288-6
(B) ETHERNET: M12 CONNECTOR, FEMALE, 4-POLE, D-CODED ACC. TO EN 61076-2-101
**(C) VIDEO INPUT**: M12 CONNECTOR, FEMALE, 5-POLE, B-CODED, ACC. TO EN 61076-2-101

MAIN (A) MATING CONNECTOR
Tyco-AMP 3-1437290-7
MATING CRIMP CONTACT (CUSTOMER):
Tyco-AMP 3-1447221-4
DUMMY PLUG (CUSTOMER):
Tyco AMP 4-1437284-3

(A) MAIN CONNECTOR PINOUT

PIN	ASSIGNMENT	DESCRIPTION
1	VCC	SUPPLY VOLTAGE + ; TERMINAL 30
2	IGNITION INPUT	IGNITION INPUT; TERMINAL 15
3	GND	SUPPLY VOLTAGE - ; TERMINAL 31
4	WAKE	WAKE INPUT «DOORSWITCH»
5	AUDIO OUT LEFT	Audio line out, MAX POWER ~50mW
6	AUDIO OUT RIGHT	
7	AUDIO OUT GND	Audio line out, GROUND
8	CAN 1 H	CAN 1 HIGH
9	CAN 1 L	CAN 1 LOW
10	CAN 2 H	CAN 2 HIGH
11	CAN 2 L	CAN 2 LOW
16	RS232 RxD	RS232 receive data
17	RS232 TxD	RS232 transmit data
18	RS232 GND	RS232 ground
23	ENA	Service enable
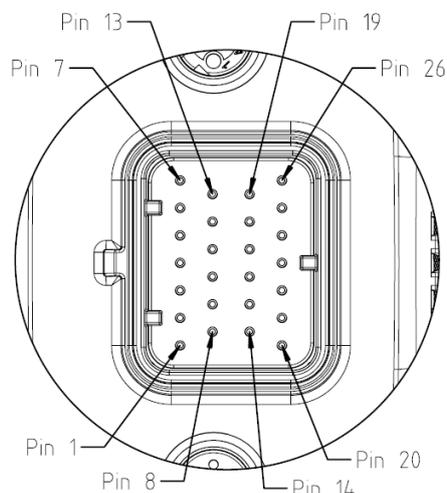
(B) ETHERNET CONNECTOR PINOUT

100Base-Tx		AUTOMOTIVE ETHERNET	
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	TD+	1	D+
2	RD+	2	-
3	TD-	3	D-
4	RD-	4	-
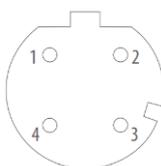
(C) VIDEO INPUT CONNECTOR PINOUT

PIN	ASSIGNMENT
1	VID SIG +
2	SWITCH
3	POWER 12V
4	POWER GND
5	VID SIG GND
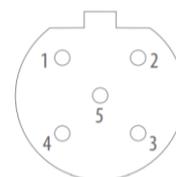
FEATURES

MECHANICAL RESISTANCE TESTS	VIBRATION: NOISE, SINUSOIDAL AND ENDURANCE TEST MECHANICAL SHOCK / DROP PACKAGE DROP
CLIMATE TESTS	SALT SPRAY CHEMICAL REISSTANCE DAMP HEAT STEADY / CYCLIC TEMPERATURE CYCLING / SHOCK UV RESISTANCE
POWER SUPPLY	SHORT CIRCUIT PROTECTION. OVER-VOLTAGE PROTECTION UP TO 48 V FOR MAX. 5 MIN. INVERSE POLARITY PROTECTION UP TO -48 V DC FOR MAX. 5 MIN
CAMERA INPUT	VSS INPUT CAMERA SUPPLY: 12 VDC – MAX CURRENT 300 mA CAMERA CONTROL OUTPUT (OPEN DRAIN) FOR SPECIAL FUNCTIONALITY (MIRROR, SHUTTER, HEATING ETC.)
USB PORT	USB HOST 2.0 Type A High speed Guaranteed 900 mA @ 5V

We reserve the right to make technical alterations without prior notice