

MultiViu[®] Compact 4

*Product Basic Information



Description

The MultiViu Compact 4 is a flexible full digital display instrumentation, which comes at an affordable price. Thanks to its bright TFT Module it stays readable even under direct sunlight.

Its tablet like design, with its 4,3" TFT, can easily be adapted to give the customer its individual product. The customization options start with a branded Cover Glass, individual Telltales and menu buttons and reaches up to a specific housing. It can be used for Agriculture, Construction, Stationary Engines and Powersports.

Features:

- › Robust and versatile design
- › CAN-capability (SAE J1939)
- › Video interface
- › Analogue and digital input
- › Protection class IP67 Front & Back
- › Ambient light sensor
- › Sunlight Readable 1000cd/m² typ.
- › Optional Bluetooth for Smartphone Connection


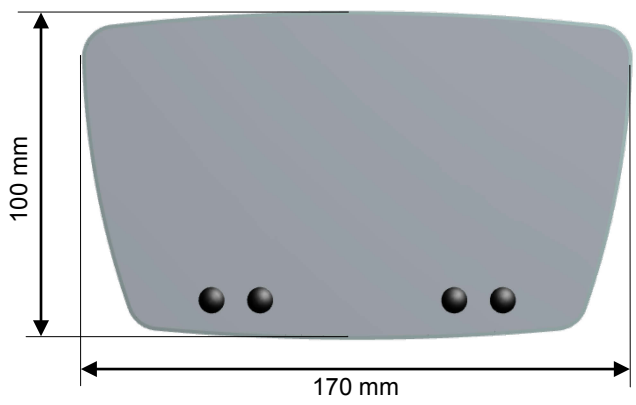
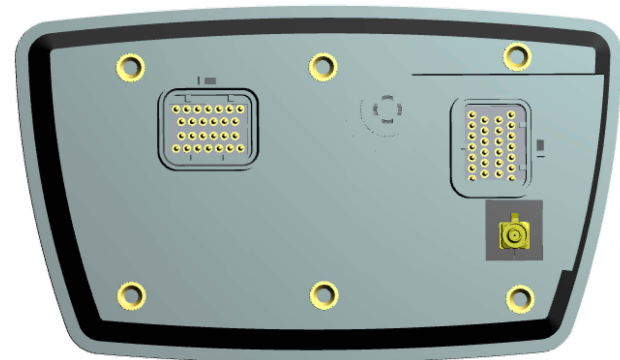
Variants

	Entry	Basic	Basic BT
Internal memory	Flash 64 MByte SRAM: 192 kByte	Flash: 64 MByte SRAM: 192 kByte	Flash: 64 MByte SRAM: 192 kByte
Video input	1 x analog video (PAL or NTSC)	1 x analog video (PAL or NTSC)	1 x analog video (PAL or NTSC)
Digital inputs	4x	16x	16x
Analog inputs		3x Resistive, 3x Voltage, 2x Frequency	3x Resistive, 3x Voltage, 2x Frequency
Digital outputs	2	2	2
Menu buttons	4	4	4
Telltails	10 (+2)	10 (+2)	10 (+2)
(Low Energy Bluetooth)	-	-	Yes

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1. Order Numbers	MultiViu® Compact 4
TBD	MultiViu@Compact 4 Entry
TBD	MultiViu@Compact 4 Basic
TBD	MultiViu@Compact 4 Basic BT
TBD	Dashboard mounting kit for MultiViu@Compact 4
A2C59506634	26 pins Tyco Connector
TBD	Power cable MultiViu@Compact 4

2. Mechanical	
Dimensions MultiViu® Compact 4	
Side view	
Front view	
Back view	

Label	TBD
Mounting	<ul style="list-style-type: none"> › Front mounting › Flush mounting › 6 x M6 fixation points
Weight	370g

3. Display	
Type	TFT LCD with LED backlight
Size	4.3", transmissive
Resolution	480 x 272 pixel, WQVGA, 16:9
Colours	16.7 Mio.
Brightness	typ. 1000 cd/m ²
Contrast Ratio	typ. 800:1

4. Input Devices	
Menu buttons	<ul style="list-style-type: none"> › Button 1: Home/ Back › Button 2: Up › Button 3 : Down › Button 4: Enter (from left to right)

5. Electronics			
5.1 Processor platform			
CPU	32 bit		
RAM	192 kByte		
RTC	Internal calculation		
5.2 Interfaces			
5.2.1 Power supply			
12 or 24 Volt (separate variants)			
Operating voltage range	8 ... 32 V DC (Input accuracy is highest at nominal voltage)		
Protection	short circuit protection		
Overvoltage resistance	36V for max. 60 minutes		
Inverse polarity protection	up to -28 V DC for max. 60 seconds		
Current consumption (without external load), max	Power Mode	current at 12 V DC	current at 24 V
	On	300 mA	170 mA
	Off	5 mA	3 mA
5.2.2 CAN Interfaces			
2 x CAN-Interfaces <ul style="list-style-type: none"> › ISO 11898, CAN-specification 2.0 B active, › default 250 Kbit/s or 500 Kbit/s 			
5.2.3 Inputs			
4 x digital input (Entry), 16x digital input & 8 analog inputs (Basic, Basic BT)			
Digital	High or Low active, not direct driven		
Analog resistive	0 – 500 Ohm, 10 bit resolution		
Analog voltage	0 – 5 Volt, 10 bit resolution		
Frequency	-		
5.2.4 Outputs			
2x digital output			
short circuit protection	up to 32 V DC		

6. Connections	
Main connector (all variants)	26 pins Tyco AMP 3-1437290-7
2 nd Connector (Basic, Basic BT)	26 pins Tyco AMP 3-1437290-8
Video connector	Video FAKRA connector, "E" coded
Connector pin out	see chap. 9.

7. Software	
Operating System	OSEK OS
Application Programming	Logic: KIBES-32 logi.CAD Graphical: grADI
Bluetooth Functionalities	Use cases according to GATT Protocol : Sensor Data <ul style="list-style-type: none"> › Maximum application throughput up to 250 Kbit/s › Example: Send ODO to Smartphone › Forward information to a Cloud Indication <ul style="list-style-type: none"> › Incoming call number (incl. caller ID) › Incoming SMS › Social Network Messages Turn by turn navigation <ul style="list-style-type: none"> › Indication of turn-by-turn navigation instructions coming from Google Maps Navigation APP Media <ul style="list-style-type: none"> › Media Player control functions › Media Info Accept or decline calls, no Audio routing

8. Testing and Verification	
8.1 CE-Compliance	ISO 7637-3:2007 <ul style="list-style-type: none"> › Road vehicles -- Electrical disturbances from conduction and coupling -- Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines ISO 11452-4:2005 <ul style="list-style-type: none"> › Road vehicles -- Component test methods for electrical disturbances from narrowband radiated electromagnetic energy -- Part 4: Bulk current injection (BCI)
8.2 e - Certificate	EU Directive 72/245/EWG (Jan-2013)
8.3 Protection Level (IP Code)	IP 67 (front and rear) according to: <ul style="list-style-type: none"> › ISO 15003-2006: Agricultural engineering -- Electrical and electronic equipment -- Testing resistance to environmental conditions
8.4 Electrical Requirements	12 and 24V-Systems according to: <ul style="list-style-type: none"> › ISO 16750-2-2010: Road Vehicles – Environmental conditions and testing for electrical and electronic equipment – Electrical loads
8.5 Mechanical Requirements	Mechanical Shock: Level 2 according to: <ul style="list-style-type: none"> › ISO 15003-2006: Agricultural engineering -- Electrical and electronic equipment -- Testing resistance to environmental conditions Random Vibration: Class A according to: <ul style="list-style-type: none"> › JASO D001-94: Environmental Testing Methods for Automotive Electronic Equipment Sinusoidal Vibration: Level 2 according to: <ul style="list-style-type: none"> › ISO 15003-2006: Agricultural engineering -- Electrical and electronic equipment -- Testing resistance to environmental conditions Free Fall: Class C according to: <ul style="list-style-type: none"> › ISO 16750-3-2007: Road vehicles -- Environmental conditions and testing for electrical and electronic equipment -- Part 3: Mechanical loads
8.6 Climate Requirements	Operating Temperature Range: -30 ... +75°C Storage Temperature Range: -40 ... +85°C according to: <ul style="list-style-type: none"> › ISO 15003:2006 Agricultural Engineering – Electrical and electronic equipment – Testing resistance to environmental conditions

9. Pin out																																																																																		
Main connector pin out (all variants)	<table border="1"> <thead> <tr> <th>Pin no.</th> <th>assignment</th> <th>description</th> </tr> </thead> <tbody> <tr><td>1</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>2</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>3</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>4</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>5</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>6</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>7</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>8</td><td>DIG_OUT1</td><td>Digital output 1</td></tr> <tr><td>9</td><td>DIG_OUT2</td><td>Digital output 2</td></tr> <tr><td>10</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>11</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>12</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>13</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>14</td><td>TRM15</td><td>Ignition</td></tr> <tr><td>15</td><td>IN_DIG_02_X</td><td>Digital input 2</td></tr> <tr><td>16</td><td>IN_DIG_03_X</td><td>Digital input 3</td></tr> <tr><td>17</td><td>IN_DIG_04_X</td><td>Digital input 4</td></tr> <tr><td>18</td><td>GND</td><td>supply voltage - ;terminal 31</td></tr> <tr><td>19</td><td>GND</td><td>supply voltage - ;terminal 31</td></tr> <tr><td>20</td><td>CAN1_LOW</td><td>CAN 1 Low</td></tr> <tr><td>21</td><td>CAN1_HIGH</td><td>CAN 1 High</td></tr> <tr><td>22</td><td>CAN0_LOW</td><td>CAN 0 Low</td></tr> <tr><td>23</td><td>CAN0_HIGH</td><td>CAN 0 High</td></tr> <tr><td>24</td><td>n. c.</td><td>Not connected</td></tr> <tr><td>25</td><td>TRM 30</td><td>supply voltage +; terminal 30</td></tr> <tr><td>26</td><td>TRM 30</td><td>supply voltage +; terminal 30</td></tr> </tbody> </table>	Pin no.	assignment	description	1	n. c.	Not connected	2	n. c.	Not connected	3	n. c.	Not connected	4	n. c.	Not connected	5	n. c.	Not connected	6	n. c.	Not connected	7	n. c.	Not connected	8	DIG_OUT1	Digital output 1	9	DIG_OUT2	Digital output 2	10	n. c.	Not connected	11	n. c.	Not connected	12	n. c.	Not connected	13	n. c.	Not connected	14	TRM15	Ignition	15	IN_DIG_02_X	Digital input 2	16	IN_DIG_03_X	Digital input 3	17	IN_DIG_04_X	Digital input 4	18	GND	supply voltage - ;terminal 31	19	GND	supply voltage - ;terminal 31	20	CAN1_LOW	CAN 1 Low	21	CAN1_HIGH	CAN 1 High	22	CAN0_LOW	CAN 0 Low	23	CAN0_HIGH	CAN 0 High	24	n. c.	Not connected	25	TRM 30	supply voltage +; terminal 30	26	TRM 30	supply voltage +; terminal 30
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Second connector pin out (Basic + Basic BT)

Pin no.	assignment	description
1	IN_DIG_1	Digital Input 1
2	IN_DIG_2	Digital Input 2
3	IN_DIG_3	Digital Input 3
4	IN_DIG_4	Digital Input 4
5	IN_DIG_5	Digital Input 5
6	IN_DIG_6	Digital Input 6
7	IN_DIG_7	Digital Input 7
8	IN_DIG_8	Digital Input 8
9	IN_DIG_9	Digital Input 9
10	IN_DIG_10	Digital Input 10
11	IN_DIG_11	Digital Input 11
12	IN_DIG_12	Digital Input 12
13	n. c.	Not connected
14	IN_ANA_1	Analog input 1 (voltage)
15	IN_ANA_2	Analog input 2 (voltage)
16	IN_ANA_3	Analog input 3 (voltage)
17	IN_ANA_4	Analog input 4 (resistor)
18	IN_ANA_5	Analog input 5 (resistor)
19	IN_ANA_6	Analog input 6 (resistor)
20	IN_ANA_7	Analog input 7 (Frequency)
21	IN_ANA_8	Analog input 8 (Frequency)
22	n. c.	Not connected
23	n. c.	Not connected
24	n. c.	Not connected
25	n. c.	Not connected
26	n. c.	Not connected



view on rear side



Video connector pin out

Pin no.	
1	VidSig+
2	VidSig GND

Video- Connector, Fakra

