

## JetControlMobile 631-004

### Multi-monitor controller for mobile machinery

#### Short description

The multi-monitor controller JCM-630 combines outstanding video features with high-performance HMI and PLC disciplines in one system.

A powerful 32-bit CPU with 800 MHz clock rate forms the heart of the automation functions. Four CAN interfaces, Gbit Ethernet connectivity, USB, LIN, and RS232 offer high connectivity for complex architectures.

The visualization takes place on 2 displays via LVDS interfaces with one connector per display being sufficient. A host of supported display formats and configurations allow a high flexibility in the arrangement of the screens.

6 camera images from 8 camera channels can be processed simultaneously in one FPGA with minimal latency. The images can be freely scaled, cut, positioned or superimposed with graphic and text elements. This way, operating concepts exceeding the level of integration into modern middle-class cars can be physically established in special-purpose vehicles with moderate application expense.

The IEC-61131-3-compliant programming language STX, a plug-in for programming in C, and scalable vector graphics support by JetViewSoft offer a highly efficient workflow for control and visualization. The JCM-630 is available with ISOBUS stack.

#### Features

- Powerful PLC with high connectivity
- Excellent HMI features on two displays
- Free positioning, size adjustment and scaling of 6 camera images
- Integrated programming environment to IEC-61131-3 JetSym and JetViewSoft
- Plug-in for programming in C or 3rd party software
- Can be updated via USB flash drive



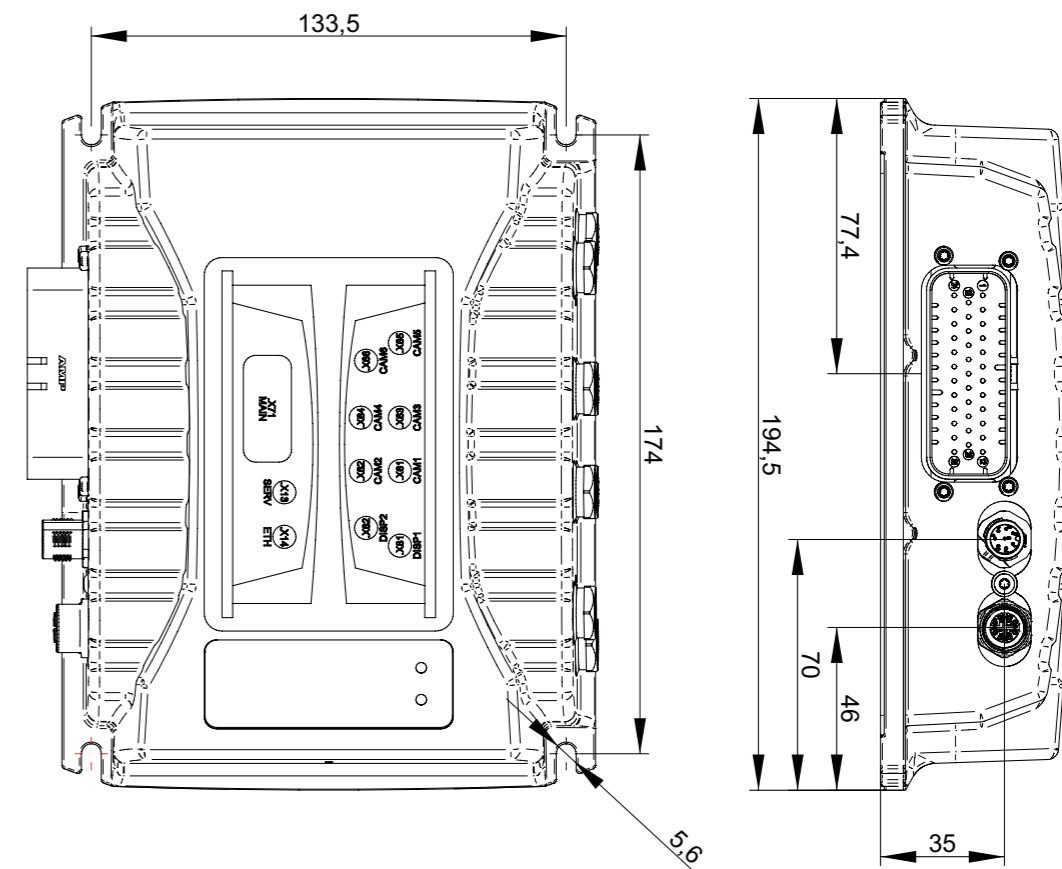
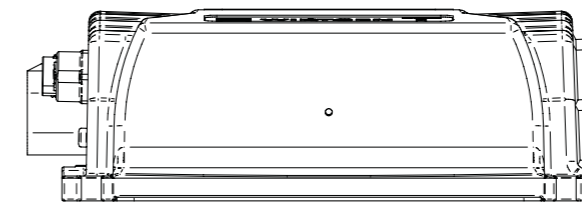
# JetControlMobile 631-O04

## Technical Data

JetControlMobile 630	
CPU	iMX 6, 32-bit, 800 MHz
Memory: RAM - Application - Non-volatile	1 GB ... 4 GB eMMC flash
Co-CPU ( CAN 3, 4 / watchdog)	120 MHz, 128 KB ... 512 KB flash
Graphics programming	JetViewSoft - Logics: IEC61131-3 STX
Controller programming	JetSym - Logics: IEC61131-3 STX
Operating system	LINUX (5.xx LTS Kernel)
Power management	Boot-up duration < 10 s (until application screen appears)
Operating/storage temperature	-30 ... +75 °C/-40 ... +85 °C
Ports and interfaces	
FPD-LINKII	2; Display, display power supply, CAN
CAN	4; CANopen®, SAE J1939, ISOBUS 11783 - 125 kB/s to 1 MB/s
USB	1
Ethernet	1; (option)
CVBS cameras	8; 6 of them can simultaneously be displayed (camera supply included)
RS-232	2; (option)
LIN	1; (option, uses DI3)
Inputs	1; Camera supply
Inputs, digital	1; Ignition 3; Digital input active-high, input impedance 43 kΩ
Outputs, digital	2; Peak current 3 A
RTC	Yes, various backup modes, battery included
Degree of protection	IP65
Vibration	DIN EN 60068-2-64, Cat. 2
Shock	DIN EN 60068-2-64, 30g
Protection against polarity reversal	Yes

Further details and order information are available on request. Specifications are subject to change without notice. Errors and omissions excepted.

## Dimensional drawing



# JetControlMobile 631-004

## Connector pinout

JCM-630	
35-pin male connector	
Ignition, U <sub>ign</sub> (terminal 15)	1
GND, battery - (terminal 31)	2
UB, battery + (terminal 30)	3
n.c. (not connected)/option: CAN3 L	4
CAN2 L	5
CAN1 L	6
n.c./option: CAN4 L	7
n.c./option: CAN4 H	8
GND for RS-232 (COM2)	9
GND (supply) for CAM8	10
DO1	11
DO2	12
Supply DC 12 V DC 12 V/24V for CAM8	13
Video input for CAM7	14
Video input + for CAM8	15
n.c./option: CAN3 H	16
CAN2 H	17
CAN1 H	18
GND	19
GND	20
GND (supply) for CAM7	21
GND	22
Shield	23
Power supply DC 12 V/24 V for CAM7	24
Video input + for CAM7	25
Video input for CAM8	26
RS-232 TX (COM2)	27
RS-232 RX (COM2)	28
DI1	29
Output power camera (OUT)/DO3 to 3 A	30
Power consumption camera (IN: DC 12 V/24 V)	31
DI2	32
n.c./option: DI3	33
Shield	34
Shield	35

JCM-630	
M12 male connector - Service port 1	
USB signal VCC5 + I/O	1
USB signal DATA -	2
USB signal DATA +	3
- (do not connect)	4
Screen for USB	5
RS-232 RX (COM1)	6
RS-232 TX (COM1)	7
GND	8

JCM-630	
M12 female connector - Service port 2 (Gbit Ethernet)	
D1 +	1
D1 -	2
D2 +	3
D2 -	4
D4 +	5
D4 -	6
D3 -	7
D3 +	8

JCM-630	
M12 socket - WLVD5 1 ... 2 - OUT	
24-V supply	1
GND (supply)	2
GND (supply)	3
LVDS 1 ... 2 +	4
CAN1 Low	5
LVDS1...2 -	6
24-V supply	7
CAN1 High	8

JCM-630	
M12 socket - CAM1 ... CAM6	
Video input - for CAM1 ... 6	1
GND (supply)	2
Video input + for CAM1 ... 6	3
Supply DC 12 V / 12 V for CAM1 ... 6	4
GND (supply)	5

