Universal Mobile Controller for Graphics Applications

HY-Vision

Description

The HY-Vision is the basic version of the independent-display graphic controller. The main task is the visualization of vehicle parameters and camera images in the driver's cab.

For this purpose, the two independent LVDS (Low Voltage Differential Signaling) interfaces allow widely different display types to be used – regardless of the manufacturer.

Various communication interfaces, such as RS-232, RS-485, Ethernet, LIN and CAN, allow additional hardware components to be connected, such as joysticks, keyboards and encoders, and also allow the visualization to be integrated into networked control systems.

Relevant operating data can be recorded using the iButton® interface.

It is protected by the robust IP65 housing designed for the off-highway vehicle industry.

Special features

- 32 bit Processor
- Up to 32 MB RAM
- Up to 64 MB flash memory
- Programming in CoDeSys® 2.3 or C/C++
- External temperature input
- Can drive 2 displays
- Various communication interfaces
- Robust aluminium die cast housing with a waterproof 154-pole male connection and pressure equalization via a waterproof Gore-Tex® membrane
- e12 type approval

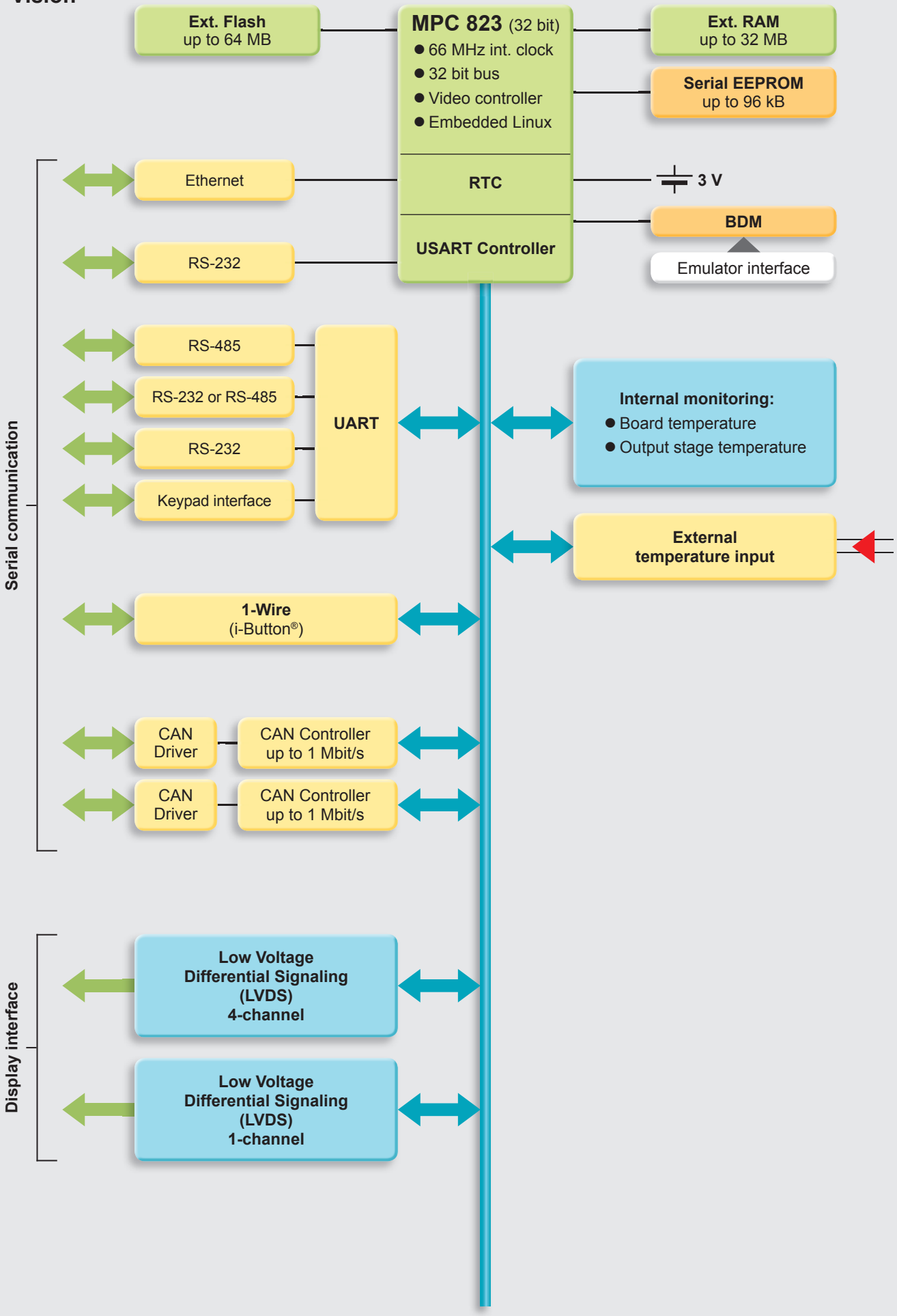
Technical data

Ambient conditions	
Operating temperature	-40 .. +70 °C
Operating altitude	0 .. 4,000 m
Supply voltage	9 .. 36 V
Peak voltage	52 V max. (1 ms)
Idle current	1 A max. at 9 V
Current consumption	30 A max. (complete voltage and temperature range)
Fulfils the following standards	
CE - mark	Compliant with 2004/108/EC
EMC	ISO 13766 (up to 100 V/m, 20 MHz .. 1 GHz)
ESD	IEC 61000-4-2
Protection class	DIN 40050 IP 6k9k EN 60529 IP 65
Temperature	EN 60068-2-1; -14Nb; -2; -78; -30
Vibration, Shock, Bump	IEC 60068-2-29; -64; -27; -32
Dimensions and weight	
Housing dimensions	234 x 181 x 48 mm
Minimum clearance for connection	292 x 203 x 50 mm
Weight	~ 790 g
Features	
32-Bit MPC 823 E processor, 66 MHz	
Up to 64 MB Flash, up to 32 MB RAM, RTC	
2 x serial EEPROM 32 kB, 1 x 8 kB FRAM	
1 x RS-232 modem (incl. handshake signal lines)	
1 x RS-232 (mainly used for debugging)	
2 x RS-485 or 1 x RS-485 + 1 x RS-232	
1 x Keypad interface (up to 19200 bit/s)	
2 x CAN, up to 1 Mbit/s	
1 x Ethernet as per IEEE 802.3 (10 Mbit/s)	
1 x 1-Wire® (i-Button® interface)	
2 x LVDS interface (1 x 1-channel, 1 x 4-channel) for different LCDs	
Touchpanels can be driven via RS-232	
External and on-board temperature sensor	
Connector types: 60-pole Tyco PN 284742-1 / 94-pole Tyco PN 284743-1	
Programming: C/C++, CoDeSys® 2.3	

Note: All I/Os and interfaces are protected against short circuit to GND and BAT+.

Block circuit diagram

HY-Vision



Model code

HY-Vision – XX – X – X– 00 XX 00 – B – 000

Firmware
CD = CoDeSys® run-time system
for CoDeSys® development environment
CP = for “C/C++” programming without CoDeSys®

RAM memory
L = 16 MByte
M = 32 MByte

Flash memory
K = 8 MByte → *Only in conjunction with RAM “L” (16 MByte)*
N = 64 MByte → *Only in conjunction with RAM “M” (32 MByte)*

Functional safety
00 = standard (not provided)

Equipment options
00 = none
01 = with CAN termination

Operating options
00 = none

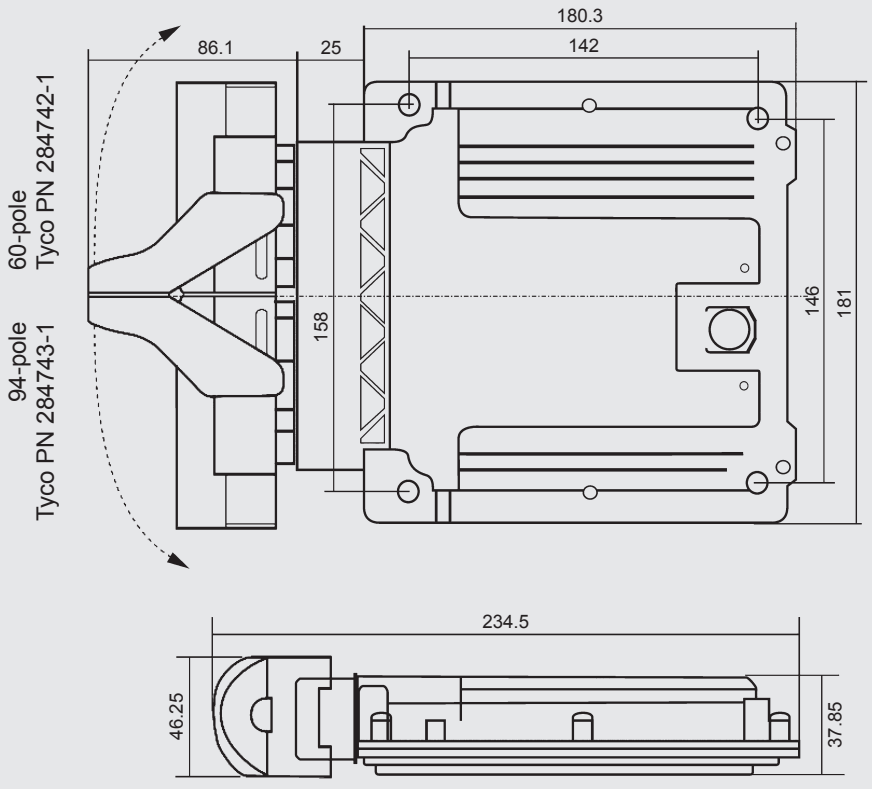
Resolution (Display drive)
B = 400 x 240 Pixels

Modification number
000 = standard

Note
On instruments with a different modification number, please read the label or the technical amendment details supplied with the instrument.

Accessories
Appropriate accessories, such as cables and connectors, service tools, software etc. can be found in the Accessories section.

Dimensions



Note

The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

HYDAC ELECTRONIC GmbH
Hauptstr. 27, D-66128 Saarbrücken
Tel.: +49 (0)6897 509-01
Fax: +49 (0)6897 509-1726
E-mail: electronic@hydac.com
Internet: www.hydac.com