

# Epec 2040 Color Display

Simple interaction and usage of a machine are key elements in any machine application. Freely programmable graphical user interface provides an opportunity to maximize machine usability and efficiency. With a 5,7" TFT display size, the 2040 Color Display is an ideal solution for heavy duty applications like mining machines, excavators, forest machines, wheel loaders etc. Fully enclosed aluminum housing provides water and dust proof operation according to IP66. The temperature ranges from -20 °C to +60 °C.

The 2040 Color Display is equipped with two CAN bus interfaces, a hardware configurable serial interface (RS232/422/485), an Ethernet and USB interface via AMPSEAL connectors, thus allowing the display to be connected as an integral part of the embedded machine control system. The display has five integrated push buttons for operating, and, when using C programmed applications, it is also possible to connect an external user wheel or a standard USB mouse to further enhance the user experience.

Ethernet can be used to connect the machine to higher level information systems, such as databases for monitoring production, enterprise resource planning (ERP), etc.

The 2040 Color Display is a fully programmable display unit and CODESYS Visualization makes programming very easy. This graphical windows tool can be used to design display gauge meters, icons, buttons, texts, etc. Typically the display application may have several tens of windows, and is used to adjust and store system parameters, application back up copies, system event logs etc. The display also supports a feature where two separate displays are installed in the same machine. For C-programmable displays, licenses for Remote access library and Modbus/TCP Slave communication are available as an option.



EPEC PRODUCT CODE FOR C-PROGRAMMABLE DISPLAY WITH RS232 **E3002040-50**

EPEC PRODUCT CODE FOR C-PROGRAMMABLE DISPLAY WITH RS485/422 **E3002040-60**

EPEC PRODUCT CODE FOR REMOTE CONNECTIVITY LICENSE **MN0276**

EPEC PRODUCT CODE FOR MODBUS/TCP SLAVE LICENSE FOR C-PROGRAMMABLE DISPLAY **MN0277**

EPEC PRODUCT CODE FOR CODESYS VISUALIZATION PROGRAMMABLE DISPLAY WITH RS232 **E30B2040-10**

EPEC PRODUCT CODE FOR CODESYS VISUALIZATION PROGRAMMABLE DISPLAY WITH RS485/422 **E30B2040-20**



COLOR DISPLAY 2040								
RESOLUTION	320 X 240 PIXELS		PROCESSOR	ARM9 180 MHZ		MEMORY (FLASH/RAM/NVRAM)	64 Mbyte/64 Mbyte/512 kbyte	
OPERATING SYSTEM	LINUX	PROGRAMMING	CODESYS 2.3 / C		PROTECTION CLASS	IP66		
SIZE	181 X 120 X 53 mm		WEIGHT	1,0 kg				
NOMINAL OPERATING VOLTAGE		12/24 VDC		FULL OPERATING RANGE		11 ... 30 VDC	OVERVOLTAGE PROTECTION	70 VDC
OPERATING TEMPERATURE		-20 ... +60°C		CONNECTORS	1 X AMP8	1 X AMP23		
I/O INTERFACE, CONFIGURATION EXAMPLE			2 X DI/DO		3 X DI	I/O PINS TOTAL	5	
COMMUNICATIONS	2 X USB 1.1		1 X ETHERNET 10/100		1 X RS232/RS422/RS485		CAN1	CAN2 (OPTICALLY ISOLATED)

## ACCESSORIES

### USER WHEEL

2040 Display application can be operated with an external User Wheel which is connected to the display I/O pins with AMP23 connector. This User Wheel makes display operation very fast and easy. With the 360 degree rotating wheel, one is able to scroll through buttons and parameter values. Two selection buttons makes the user interface buttons and fields easy to operate .



PRODUCT ORDER CODE **E40001505**

### CONNECTION COVER FOR 2040 DISPLAY

A connection cover with full connector housing for 2040 Display is also available. The cover has a standard Ethernet connector, two USB connectors, serial connection and AMP8 connector on the bottom and left hand side. 2040 Connection Cover also has an integrated buzzer which can be controlled by the application software.



The cover is attached to the back side of the 2040 display with four M5 screws and covers the AMP8 and AMP23 connectors on display's backside.

PRODUCT ORDER CODE **E30802081**

### MOUNTING PEDESTAL 2040

The pedestal has rotating ball heads at both ends, so it is easy to adjust according to individual needs. The lower end is mounted firmly to its base by four screws and the upper end to the display by two screws, so there is no need for a separate adapter plate. The pedestal can be adjusted easily to suit individual needs according to each driver/machine operator.



PRODUCT ORDER CODE **MK0123**

### SHOCK ABSORBER FRAME FOR 2040 DISPLAY

A special protector cover made of black rubber may be used on the display to protect it from impacts. The rubber frame is simply stretched over the display leaving soft keys accessible.



PRODUCT ORDER CODE **MK0086**

