

VFX40m Electronic Programmable Display

Programmed with Eaton Pro-FX™ Control Software

32-bit Processor, 4.3" WVQA Sunlight Viewable Display

The high performance VFX40m display is designed to provide an operator interface for mobile on and off highway applications. This HMI features a powerful processor, bright sunlight viewable optically bonded LCD assembly, configurable CAN channels and flexible IO to meet the needs of a variety of demanding applications.



Technical Data

Dimensions	7.69" x 4.00" x 2.34"
Weight	1.75 lbs
Case Material	ABS/Polycarbonate blend cases
Storage Temperature Range	-40°C to +85°C
Operating Temperature Range	-40°C to +85°C
IP Rating - Front	IP66, IP67
IP Rating - Back	IP66, IP67

Power Supply

Supply Voltage	6-32 VDC
Peak Supply Voltage	32 VDC
Max Power Consumption	10 W
Max Sleep Current	400 mA
Ignition Pin (K15)	Ignition pin will put the unit in 'sleep' mode when it powered off.



Powering Business Worldwide

Technical Data

CPU

CPU Type	Freescale i.MX357
Frequency	532 MHz
Bit Width	32 bits
Operating System	Linux

Memory

RAM	128 MB DDR2
Data Memory (RAM retain)	1 MB
Flash (ROM program & data combined)	256 MB

Standards

Vibration	7.86 G RMS (5-2000Hz) SAE J1455 Section 4.9.4.1
Shock	50g - SAE J1455 Section 4.10.4
Radiated immunity	SAE J1113-21 (150V/m), SAE J1113-26 (15kV/m), EN61000-4-3 (10V/m)
Radiated emission	SAE J1113-41 (Class 4), EN50121-3-2, EN60945, EN61000-6-3
Conducted immunity	SAE J1113-2 (3.0Vp-p), SAE J1113-4 (200mA), SAE J1113-11 (Level 4), SAE J1113-12 (Level 4), EN61000-4-4, EN61000-4-5, EN60945 Sec 10.3 (3V/10V RMS), EN50121-3-2 (10V RMS)

Certifications

CE Mark

Graphical Interface

Display Type	Bonded, Color Transmissive TFT LCD;
LCD Size	4.3"
Resolution	480 x 272, WQVGA
Color Format Supported	16-bit color
Aspect Ratio	16:9
Orientation	Landscape
Display Backlight	LED, 500-650 cd/m2 (30,000 hr lifetime)
Sunlight View ability	Direct sunlight

Touch Interface (Optional Feature - Not Included on all Models)

Touch screen technology	Projected capacitive
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Video Interface (Optional Feature - Not Included on all Models)

Video Type	2 NTSC/PAL
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Boot-up

Boot-up Screen	Customizable
Boot (first powered-on):	TYP. ~ 9 sec. to logo, 17 sec. to first screen
Wake (ignition switched):	TYP. ~1 sec.

Technical Data

Communications

CAN Interface 1

CAN Specification	2.0 A, 2.0B
Baud rates	Configurable 125 KBPS, 250 KBPS, 500 KBPS, or 1MBPS
Protocols	J1939 and CANOpen Master

CAN Interface 2

CAN Specification	2.0 A, 2.0B
Baud rates	Configurable 125 KBPS, 250 KBPS, 500 KBPS, or 1MBPS
Protocols	J1939 and CANOpen Master

USB Interface

USB Specification	USB 2.0
Baud rate	Supports USB Full Speed at 6Mbit/s

Note: USB interface is not protected against battery level faults.

RS-485 Interface

RS-485 Specification	Debugging Console
Modbus Ready	RS-485 port is dedicated to a Linux console.
Baud rate	115200 BPS

Real Time Clock

Estimated Battery Life	Minimum 300 day time/date retention between charges
Rechargeable	Yes, Li-ion (non-replaceable)

Keypads

Number of Buttons	8
Button Style	Tactile Feedback
Button Backlight	Yes

Input

Resolution	10 bits
Accuracy	+/- 1% FS
Measuring Ranges	Digital, 0-5V, 4-20mA, Resistive
Scan Rate	10Hz (100 ms)

Digital Input

Type	High Side In
Input Impedance	100kOhm
Switch-on Level	4.01V(80% Supply Voltage)
Switch-off Level	1.04V(20% Supply Voltage)

Voltage Input - 0 - 5V

Input Impedance	10kOhm
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Current Input - 0 - 24 mA

Input Impedance	200 Ohm
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Resistive (0-5V)

Pull-up Resistance	400 Ohm
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Technical Data

Outputs

Digital Output – 500 mA

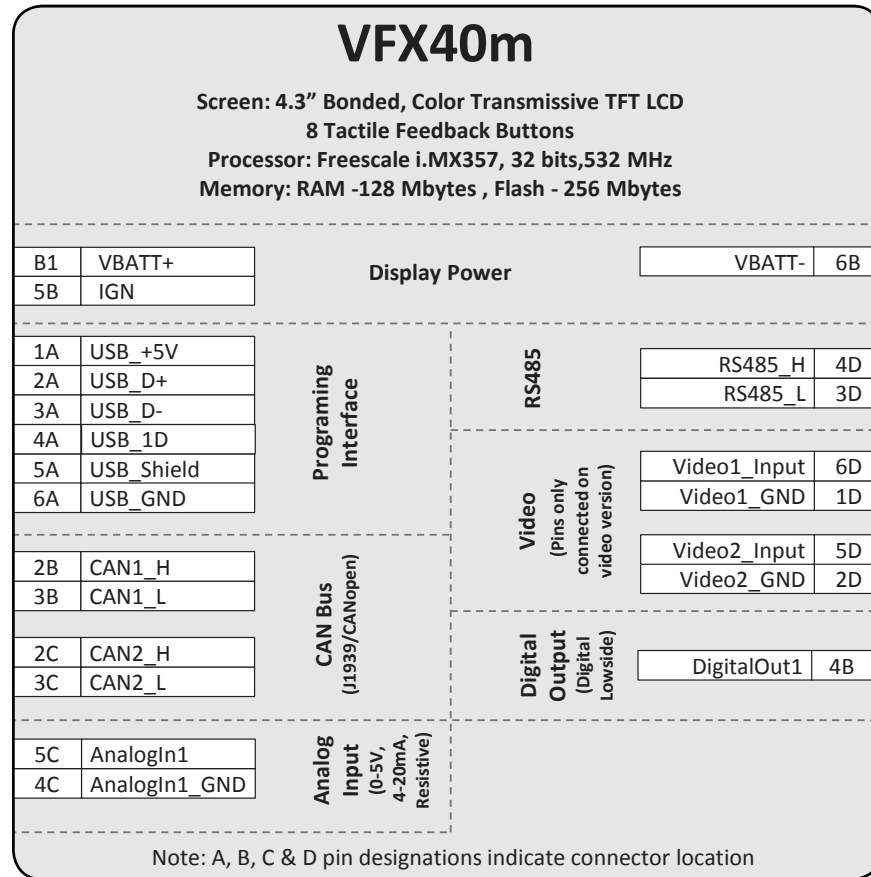
Type	Low-side
Amperage	500 mA Max
Diagnostics	Open/Short Circuit Protection

Connections

Connector – 4 x 6 pin

Manufacturer	Deutsch
Model	DT04-6P
Contact Surface	Nickel plated

Block Diagram



Connector Pins

Plug A

Type	Deutsch
Pin	Function
1	USB 5V
2	USB D+
3	USB D-
4	USB 1D
5	USB Shield
6	USB Ground

Plug B

Type	Deutsch
Pin	Function
1	Battery
2	CAN1 H
3	CAN1 L
4	Open-Drain Battery Output
5	USB Shield
6	USB Ground

Plug C

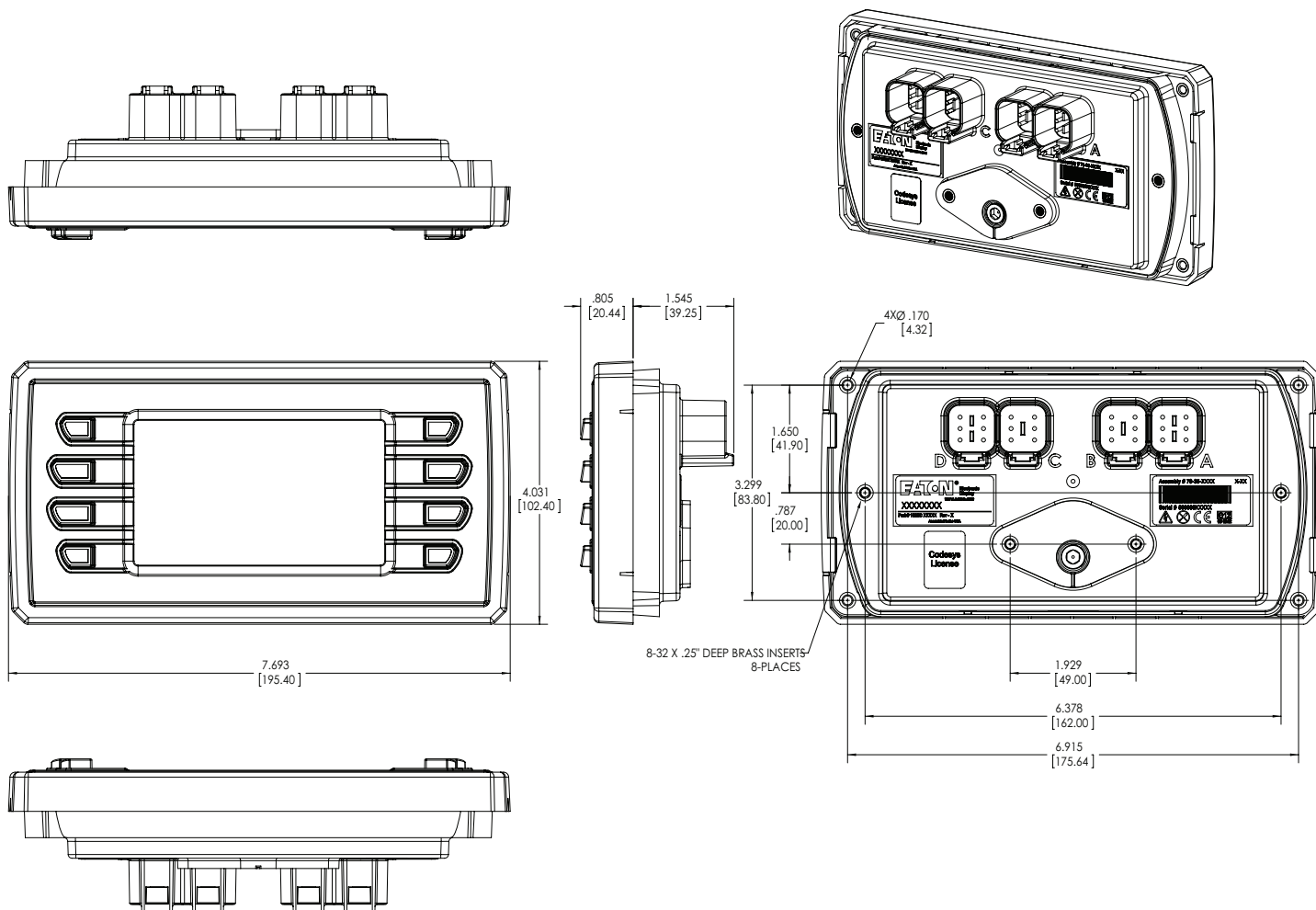
Type	Deutsch
Pin	Function
1	No Connect
2	CAN2 H
3	CAN2 L
4	Analog Input Ground
5	Analog Input
6	No Connect

Plug D

Type	Deutsch
Pin	Function
1	Video Ground 1 (* No Connect)
2	Video Ground 2 (* No Connect)
3	RS-485L
4	RS-485H
5	Video Input 2 (*No Connect)
6	Video Input 1 (*No Connect)

Mounting

Configurations - Front, Back and Gimble



北京

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