maxAI™ 430v

Advanced Instrumentation

Engine Monitoring System

Information is power. That's why maximatecc continually looks for innovative ways to bring critical vehicle data to operators and to display it in the brightest, clearest, smartest designs possible. Introducing our new maxAI 430v engine monitoring system, the latest in this rugged series of all-in-one instrumentation displays for vehicles put to the test every day. The maxAI 430v adds key features, including video input for a backup camera, USB, and Bluetooth connectivity. That puts the data you need at your fingertips and ensures you stay connected to a world of information.

maximatecc.

STAY CONNECTED TO A WORLD OF INFORMATION

Our maxAI 430v engine monitoring system takes the power of information to a whole new level. Along with a vibrant 4.3'' TFT to display engine parameters, warnings, and system messages, it includes the advanced features of video input for a rear backup camera, USB, and Bluetooth connectivity. The maxAI 430v from maximatecc gives you the data you need, in the sleekest, most compact design yet.

- Primary Engine Monitoring using 2x CAN channels and 5x analog inputs
  — 250/500 kbps auto baud rate detection
  — Fast boot time (<3s)
- Designed for use inside or outside the cab
  — 4.3'' TFT display with 480 x 272 resolution
  — Wide viewing angles and 24-bit color for vibrant graphics
  — -20°C to 70°C operating temperature
  — Sealed construction (IP67 / IP65)
- Ambient light sensor
- LED warning light indicator (amber and red)
- Displays up to 5 screens, each with 5 parameters and associated information
- Configurable application software for display screen and warning light setup without the need for programming
- Contact maximatecc for applications requiring full customization

The maximatecc maxAI 430v engine monitoring system will change the way you look at things... for the better. To learn more, contact info@maximatecc.com.

maxAI 430v PRODUCT SPECIFICATIONS

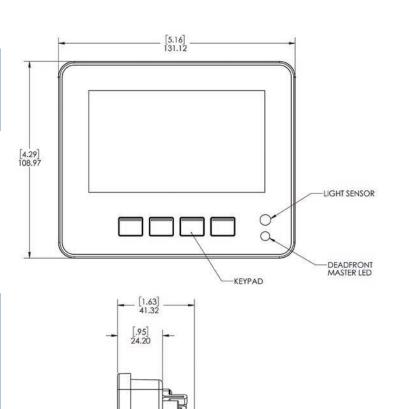| PROCESSING	
Main Processor	Microcontroller based on ARM® Cortex®-M7 32-bit
Storage	Flash memory 16 MB
RAM	SDRAM 16Mbit

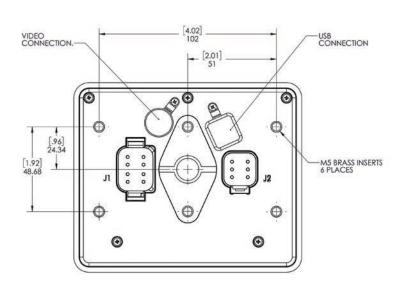| DISPLAY	
Type	Premium TFT, high brightness, transmissive
Size and Resolution	4.3'' diagonal, 480 x 272 pixels, 75x75x75 multi-viewing angle
Color Depth	24-bit RGB
Contrast Ratio	500:1
Brightness	850 Cd/m²
Dimming	0 -100%, dimming can be controlled manually via keypad

INTERFACES	
Keypad	4 buttons keypad, can be used to navigate/select menu items
CAN	2 x CAN, J1939, bitrate configurable 20 kbps - 1 Mbps
USB	USB 2.0 slave (Bootloader and SW configuration support)
Bluetooth	Bluetooth 4.2 (SW configuration support)
Video Input	1 x analog PAL/NTSC (rear backup camera)
Power Supply	12 and 24 volt systems, 9-32 VDC
Connectors	1 x Deutsch DT06-08SA connector 1 x Deutsch DT06-6S connector
Warning Lights	1 warning light indicator (amber and red)
Inputs	5 x configurable input (voltage 0-5V, resistive, frequency, digital) 1 x 4-20mA current measure
Outputs	1x configurable output, low-side mode up to 1A, high-side mode up to .5A, may be used for continuous driver or PWM output

SOFTWARE	
Operating System	RTOS
Application Software	maximatecc proprietary

ENVIRONMENT	
IP Class	IP67 (front) & IP66 (rear with connectors)
EMC Conformity	ISO 13766 (emissions) SAE J1113-21 (immunity)
SAE Standard	Vibration, UV, salt spray and chemical
Temperature Range (°C)	-20 C to 70 C (operational) -30 C to 85 C (storage)

CASING	
Housing Material	Plastic ABS PC
Mechanical Installation	Flush/panel mounting, mounting on stand/ arm with diamond plate, fits with 3: round
W x H x D (in/mm)	5.16(131.12) x 4.29 (108.97) x 1.63 (41.32)
Weight (lb/kg)	TBD

CONNECTOR PINOUT

#Pin	TYPE	STATE	FUNCTION
J1.1	Power	Battery +	Battery
J1.2	Power	Ignition	Ignition
J1.3	CAN	CAN 1 low	Primary CAN
J1.4	CAN	CAN 1 high	Primary CAN
J1.5	CAN	CAN 2 high	Secondary CAN
J1.6	CAN	CAN 2 low	Secondary CAN
J1.7	Digital output	Low/high side driver	TBA
J1.8	Power	Ground	Ground
J2.1	Configurable input	Voltage/digital/resistance/frequency	TBA
J2.2	Configurable input	Voltage/digital/resistance/frequency	TBA
J2.3	Configurable input	Voltage/digital/resistance/frequency	TBA
J2.4	Configurable input	Voltage/digital/resistance/frequency	TBA
J2.5	Configurable input	Voltage/digital/resistance/frequency	TBA
J2.6	Input	4-20mAmp	TBA

WE GET THE PICTURE

Prefer icons over connectivity? The maxAI 430*i* engine monitoring system features 20 LED telltales to display engine parameters, warnings, and system messages. maximatecc offers a full suite of products to add value to any application.

Put the maxAI 430*v* or 430*i* engine monitoring systems to work for you. Contact us today at info@maximatecc.com.

maximatecc specializes in operator-machine interface solutions for critical environments. We support industrial and off-highway equipment and vehicle OEMs and partners globally with a broad portfolio of products and services. Through technology, engineering expertise and operational excellence, we make machines smart, safe and productive. maximatecc.com

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