ENABLING OPERATORS
TO SENSE, SEE AND KNOW MORE
maxAI™ 430 CAN Bus Display

With four different models, the maxAI 430 series is our most advanced engine monitoring system. Ensure a high degree of control and flexibility with multiple options to customize the display:

- **maxAI Configurator Tool: Select the parameters you want to display and your engine monitoring data will autopopulate.**
- **maxAI Design Studio: Personalize your display to fit your needs with our software development kit.**
- **maxAI Specialized System: Partner with our engineering team to develop a custom interface that meets your specific application needs.**

A rugged, all-in-one instrumentation display, the maxAI 430 series is ideal for vehicles put to the test in the most demanding applications, from agriculture and construction equipment to large specialty vehicles. The vibrant 4.30-inch TFT display provides the highest quality visuals to optimize performance and efficiency. Use the integrated Bluetooth® capability to receive wireless updates or trouble shoot the system without removing the device.

430/430v

430i/430iv

maximatecc

maxAI 430 series: Optimal control and customization

maximatecc is continually focused on innovative ways to communicate critical data using the most comprehensive designs. Complimentary to our full CAN Bus and DDBI portfolio, the maxAI 430 series has five informative display screens, and up to 20 discreet, exterior, LED warning icons, all integrated into the outside perimeter of the display. A flat screen, dead front, black-lens format ensures better visibility. We've also integrated a backup camera and gauges right on the display screen.

Four available models:

- **maxAI 430: Base model**
- **maxAI 430i: Enhanced with 20 dead-fronted LED warning Icons**
- **maxAI 430v: Upgraded with video input for back-up camera and Bluetooth compatibility**
- **maxAI 430iv: Includes features of all models**

Display features:

- **Primary engine monitoring using two CAN channels and five analog inputs**
  - **250 or 500 Kbps baud rate detection**
  - **Boots up in less than 3 seconds**
- **Designed for use inside or outside cab**
- **Displays up to five screens, each with five parameters and associated information**
- **Configurable application software for display screen and warning light setup, no programming needed**

maxAI CAN BUS DISPLAY SERIES

The maxAI CAN Bus Displays offer a range of customizable solutions to maximize your gauge and display experience. Built for rugged wear and tear, the maxAI will get you the information you need when you need it.

130

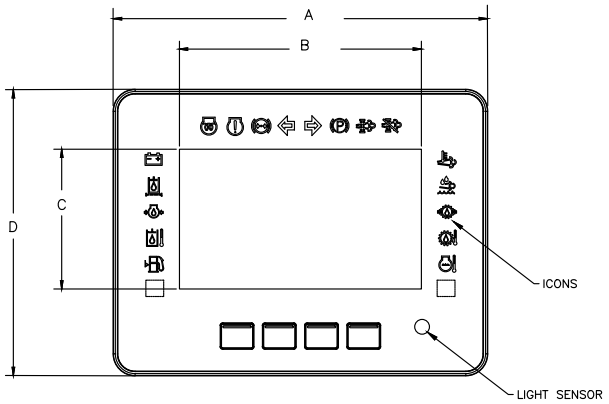
130b

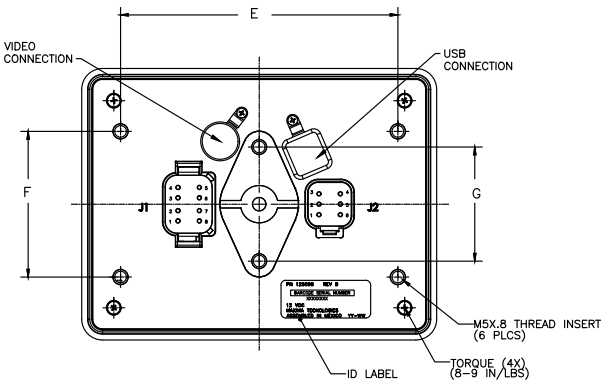
maxAI 200

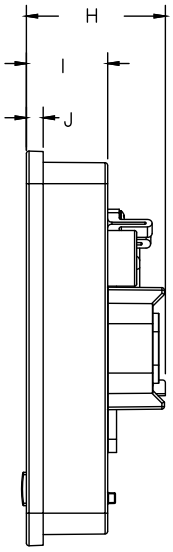
maxAI 280

maxAI 430 PRODUCT SPECIFICATIONS

Processing	
Main Processor	Micro-controller based on ARM® Cortex®-M7 32-bit
Internal Memory	1MB RAM, 2MB Flash
External Memory	2MB SDRAM, 16MB Flash, 64KB EEPROM
Display	
Type	Premium TFT
Size & Resolution	4.3" diagonal, 480x272 px, 75x75x75 multi-viewing angle
Color Depth	24-bit RGB
Contrast Ratio	800:1
Brightness	1000 NITS
Dimming	10-100%, manually controlled via keypad
Interfaces	
Keypad	4 button keypad: navigate/select menu items
CAN	2 CAN, J1939, standard 250 kbps or 500 kbps
USB	USB 2.0 slave (Boot loader and SW configuration support)
Bluetooth	430v, 430iv only: Bluetooth 4.2 (SW config. support)
Video Input	1 analog PAL/NTSC (rear backup camera)
Power Supply	12 and 24 volt systems, 9-32 VDC
Connectors	1 Deutsch DT06-08SA connector 1 Deutsch DT06-6S connector
Warning Lights	1 warning light indicator (amber and red)
Warning Icons	430 & 430v: 21 on-screen icons. 430i & 430iv: 20 LED warning lights, black dead front
Inputs	5 configurable inputs: voltage, resistance frequency and digital, one 4-20mA current input
Outputs	1 config. output, low-side mode up to 1A, high-side mode up to .5A
Software	
Operating System	Optimized FreeRTOS based on MIT's open source std.
Application Software	Freely programmable toolchains, primarily programmed via GNU C/C++ and supports application modules and library additions, JTAG/serial wire debugging
Environment	
IP Class	IP67 (front) & IP66 (rear with connectors)
EMS Conformity	ISO 13766 (emissions) SAE J1113-21 (immunity)
SAE Standard	Vibration, UV, salt spray and chemical compatibility
Temp. Range	-20 to 70°C (operational) -30°C to 85°C (storage)
Casing	
Housing Material	Black PC/ABS plastic, UV resistant
Cover Lens	Polycarbonate with anti-scratch and anti-fog treatment
Mech. Install.	Flush/Panel mounting
W x H x D (in/mm)	430, 430v: 5.162 (131.11) x 4.29 (108.97) x 1.63 (41.33) 430i, 430iv: 5.940 (150.88) x 4.54 (115.32) x 1.63 (41.33)
Weight (oz/g)	430, 430v: 9.8oz/277g; 430i, 430iv: 10.5oz/293g





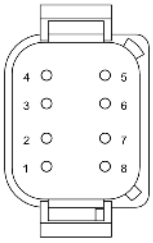


	430i/430iv		430/430v	
	inch	mm	inch	mm
A	5.940	150.88	5.162	131.11
B	3.775	95.89	3.775	95.89
C	2.151	54.64	2.151	54.64
D	4.540	115.32	4.290	108.97
E	4.650	118.11	4.016	102.01
F	2.440	61.98	1.917	48.69
G	1.910	48.51	1.910	48.51
H	1.627	41.33	1.627	41.33
I	0.953	24.21	0.953	24.21
J	0.200	5.08	0.200	5.08

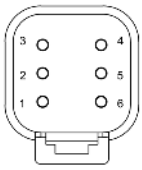
THE DIFFERENCE IS IN THE DETAILS

Put the maxAI430 series engine or battery monitoring display to work for you. Contact us today at info@maximatecc.com.

Warning Icons (430i and 430iv only)	
Location (Color)	**Icon**
LD1 (Amber)	Open
LD2 (Amber)	Low fuel
LD3 (Amber)	Hydraulic oil temp.
LD4 (Red)	Eng. oil pressure
LD5 (Amber)	Hydraulic oil filter
LD6 (Red)	Battery charging status
LD7 (Amber)	Eng. start aid
LD8 (Amber)	Eng. malfunctioning
LD9 (Red)	Brake system pressure
LD10 (Green)	Left turn
LD11 (Green)	Right turn
LD12 (Red)	Parking brakes
LD13 (Amber)	Eng. emissions filter
LD14 (Amber)	Eng. emissions filter disabled
LD15 (Red)	Eng. emissions temp.
LD16 (Amber)	Diesel exhaust fluid
LD17 (Red)	Transmission oil pressure
LD18 (Amber)	Transmission oil temp.
LD19 (Amber)	Eng. coolant temp.
LD20 (Amber)	Open



J1



J2

Connector Pinout		
#Pin	**Type**	**State**
J1.1	Power	Battery +
J1.2	Power	Ignition
J1.3	CAN	CAN 1 low
J1.4	CAN	CAN 1 high
J1.5	CAN	CAN 2 high
J1.6	CAN	CAN 2 low
J1.7	Digital Output	Low/high side driver
J1.8	Power	Ground
J2.1	Config. input	Voltage/digital/resistance/freq.
J2.2	Config. input	Voltage/digital/resistance/freq.
J2.3	Config. input	Voltage/digital/resistance/freq.
J2.4	Config. input	Voltage/digital/resistance/freq.
J2.5	Config. input	Voltage/digital/resistance/freq.
J2.6	Input	4-20mAmp

maximatecc specializes in operator-machine interface solutions for critical environments. We support industrial machinery 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.

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Enabling operators to sense, see and know more