



-power in control



DATA SHEET



Engine Control Unit, ECU 100

- Engine control
- Engine monitoring and protection
- Easy-to-read graphical display
- Integrated emulation software solution



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1. Engine Control Unit, ECU 100

1.1 Variants and options

1.1.1 Variant overview

Main Features	ECU 110
Engine start/stop	X
Engine monitoring and protection	X
CAN bus engine communication, J1939	X
Modbus communication, RS-485	X
Programmable logic, M-Logic	X
Remote annunciator support, AOP-2	X
Easy-to-read graphical display	X
Multiple language support	X
User-configurable texts	X
Event and alarm log	X
Integrated emulation software solution	X

1.1.2 Available variants

Variant	Description	Item no	Note
ECU 110	Engine Control Unit	2912560020-01	

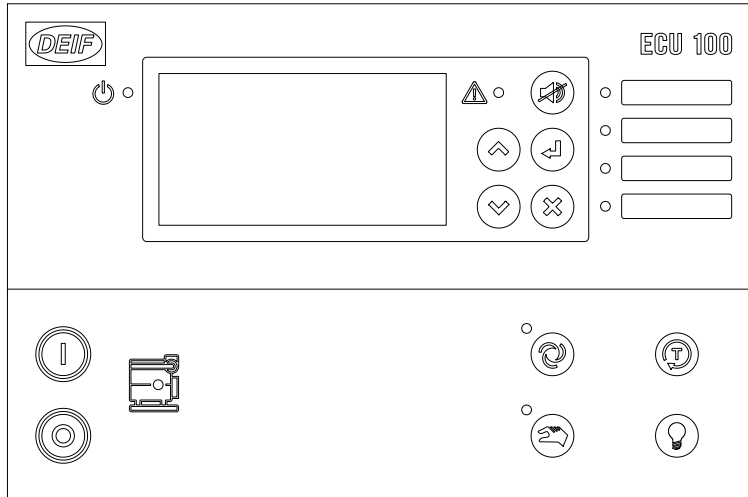
1.2 Accessories

1.2.1 Available accessories

Accessory	Description	Item no.	Note
Operator panels			
Additional Operator Panel, AOP-2 (X4)	16 configurable LEDs, eight configurable buttons and one status relay. CAN bus comm.	2912890050	
Display gasket (L)		1129150061	Included in standard delivery
Cables			
USB to TTL PC interface cable (J9)	For PC utility software	1034000011	
Documentation			
CD-ROM with complete documentation (K2)		2304230002	

1.3 Variant display layouts

1.3.1 ECU 110 display layout



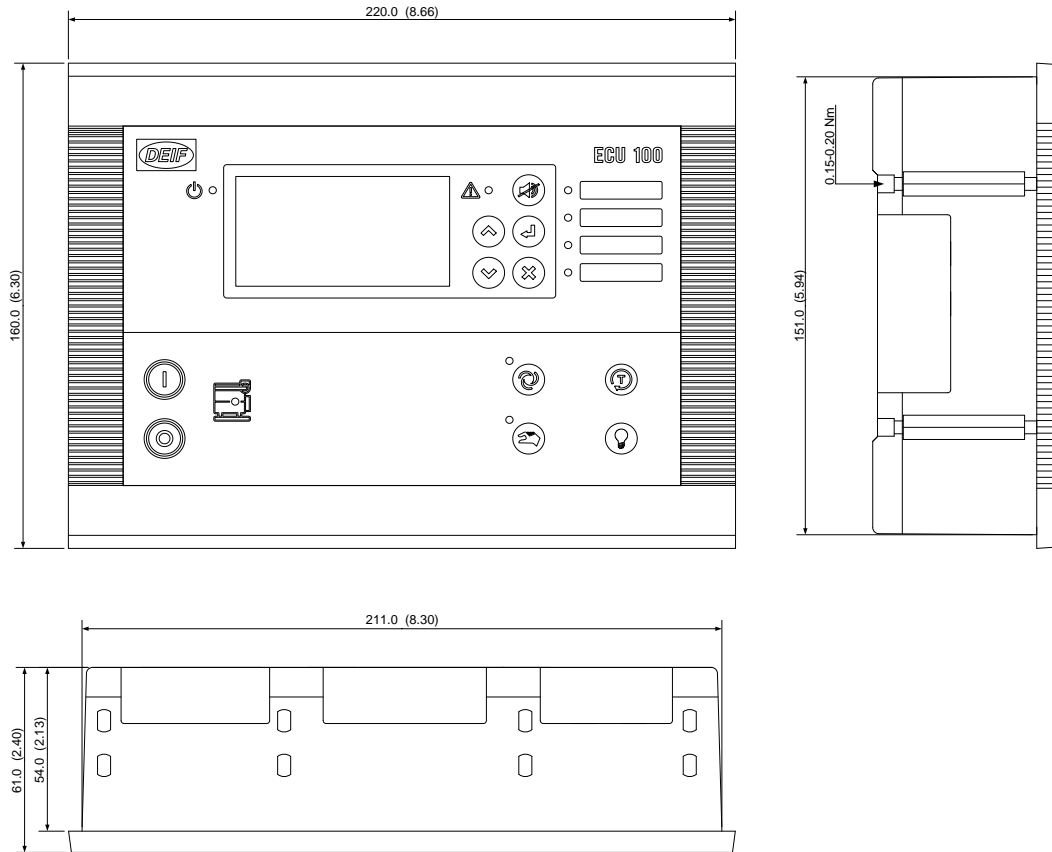
1.4 Technical specifications and dimensions

1.4.1 Technical specifications

Operating temperature	-20 to 70 °C (-4 to 158 °F) (UL/cUL Listed: max. 50 °C ambient)
Storage temperature	-40 to 70 °C (-40 to 158 °F)
Tacho RPM input	2 to 70 V peak Frequency: 10 to 10000 Hz
Aux. supply	6 to 36 V DC continuously Max. 8 W consumption (UL/cUL Listed: 7.5 to 32.7 V DC)
Dropout cranking	Able to survive 0 V for 50 ms at 12 V DC aux. supply before dropout
Passive digital input voltage	Bi-directional optocoupler 6 to 36 V DC Impedance: 4.7 kΩ OFF: <2 V DC
Multi-functional inputs	RMI - Resistance Measurement Input. 0 to 2500 Ohm with wire fail detection. 4 to 20 mA from active transducer, input impedance 50 Ohm. With wire fail detection. Binary - multi-inputs can be configured as "binary" switch function inputs, dry contacts, with wire fail detection. Internal 3 V supply.
Relay outputs	Impedance: 240 Ω ~ 16 mA Relays 21-23: 30 V AC/DC 2 A (UL/cUL Listed: 30 V DC 1 A Resistive) Relays 45, 47: 250 V AC/30 V DC 2 A (UL/cUL Listed: 30 V DC 2 A Resistive) Relays 24, 26: 30 V AC/DC 8 A (UL/cUL Listed: 30 V DC 6 A Resistive) Status relay/config.: 24 V DC 1 A Resistive
Mounting	Panel-mounted (UL/cUL Listed: for use on a flat surface of a type 1 enclosure. Main disconnect must be provided by installer)
Size	160 × 220 mm (6.30" × 8.66")
Climate	97 % RH to IEC 60068-2-30, test Db -20 °C (-40 °) to IEC 60068-2-1 +70 °C to IEC 60068-2-2
Display	128 × 64 pixel backlight STN 3 line views can max. show a value of 9999
Safety	To EN 61010-1, UL508 and CSA22.2 no. 14-05 Installation category (over-voltage category) III, 300 V, pollution degree 2
Protection	Front: IP52/IP65 with gasket. Terminals: IP20/NEMA type 1 To IEC/EN 60529
EMC/CE	To EN 61000-6-1/2/3/4 IEC 60255-26
Material	Plastic housing is self-extinguishing according to UL94 (V1)

Plug connections	AC voltage/current inputs: 3.5 mm ² (13 AWG) multi-stranded Other: 1.5 mm ² (16 AWG) multi-stranded (UL/cUL Listed: wire size: AWG 30-12 Use 60/75 °C copper conductors only)
Tightening torque	0.5 Nm (4.4 lb-in)
PC connection	USB to TTL PC interface cable
Weight	0.9 kg (1.9 lbs)
Installation	(UL/cUL Listed: to be installed in accordance with the NEC (US) or the CEC (Canada))
Approval	CE UL/cUL Listed to UL508 and CSA 22.2 No. 14-05. UL/cUL Recognized to UL2200. Marine approvals pending
Additional operator panel AOP-2	
Operating temperature	-20 to 70 °C (-4 to 158 °F) (UL/cUL Listed: max. 60 °C ambient)
Storage temperature	-40 to 70 °C (-40 to 158 °F)
Aux. supply	18 to 36 V DC by external DC/DC converter 12DCR24/5 supplied from controlled Class 2 source
Terminals	DC-DC converter: 0.5 Nm (4.4 lb-in) Panel door mounting: 0.7 Nm (6.2 lb-in) Sub-D screw: 0.2 Nm (1.8 lb-in)
Tightening torque	For further information, refer to the "Installation Instructions"
Wiring	Size AWG 30-12 Use 60/75 °C copper conductors only
Mounting	Panel-mounted (UL/cUL Listed: for use on a flat surface of type 1 enclosure. Main disconnect must be provided by installer)
IP degree	IP54
Installation	(UL/cUL Listed: to be installed in accordance with the NEC (US) or the CEC (Canada))

1.4.2 Unit dimensions in mm (inches)



1.5 Order specifications and disclaimer

1.5.1 Order specifications

Variants

Mandatory information			
Item no.	Variant	Accessory	Accessory

Example:

Mandatory information			
Item no.	Variant	Accessory	Accessory
2912560020-01	ECU 110	USB to TTL PC interface cable	

Accessories

Mandatory information		
Item no.	Type	Accessory

Example:

Mandatory information		
Item no.	Type	Accessory
1022040065	ECU 100	USB to TTL PC interface cable

1.5.2 Disclaimer

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