DATA SHEET

TDU 107

Touch Display Unit

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1. Product description

1.1 Overall description

TDU 107 is a preprogrammed touch screen solution for connection to DEIF's AGC-4 Mk II and AGC-4 controllers via the Ethernet port.

The displays provide user-friendly touch screen control, visualisation and graphical overviews with a quality display that is easily readable even at sharp angles.

The TDU 107 combines an HMI display and 6 AOP (Additional Operator Panel) on one device. Easy-to-use, icon-driven HMI provides fast access and configurable instrument pages.

The colour graphic screen shows status and info messages. The screen also allows access to live data, and alarm management. Advanced event log page allows filtering and merging of log events. With the right authorisation, the operator can also check and/or change the input/output and parameter configuration.

The supervision feature provides an instant overview of the system and current operation.

Both the TDU 107 Core and TDU 107 Extended provide Tier 4 final support.

Tier 4 final support

- Tier 4 icons on dashboard.
- DM-1 and DM-2 pages.
- Extended dialogue texts including number of occurrences.
- Jumps to the exhaust after-treatment dashboard for any status change.

Display choices

TDU 107 is available in two versions, Core and Extended.

TDU 107 Core

- Operating temperature range 0 °C to +50 °C (vertical installation).
- Resistive touch screen.

TDU 107 Extended

- Operating temperature range -20 °C to +60 °C (vertical installation).
- Capacitive touch screen.
- VNC support (Remote access).
- Ethernet switch (Bridged between 2 ports).

1.2 Software versions

The information in this document corresponds to the following software versions.

Software	Details	Version
AGC-4 Mk II	Controller application	6.00.x or later
AGC-4	Controller application	4.72.x or later
• TDU 107 Core • TDU 107 Extended	Display unit application	1.3.5.x or later

1.3 Warnings and safety

1.3.1 Data security

To minimise the risk of data security breaches DEIF recommends:

- As far as possible, avoid exposing controllers and controller networks to public networks and the Internet.
- Use additional security layers like a VPN for remote access, and install firewall mechanisms.
- Restrict access to authorised persons.

2. Technical specifications

2.1 TDU 107 Core

2.1.1 Display

Specification	Description
Type	TFT
Resolution	800 × 480 pixel (WVGA)
Active display area	7" diagonal
Aspect ratio H/V	16:9
Colours	16 bit (64 K)
Viewing angle (H/V)	140/120
Backlight	LED
Brightness	200 Cd/m^2 typ.
UI display theme	Light or dark
Screen saver	Yes

2.1.2 Interfaces

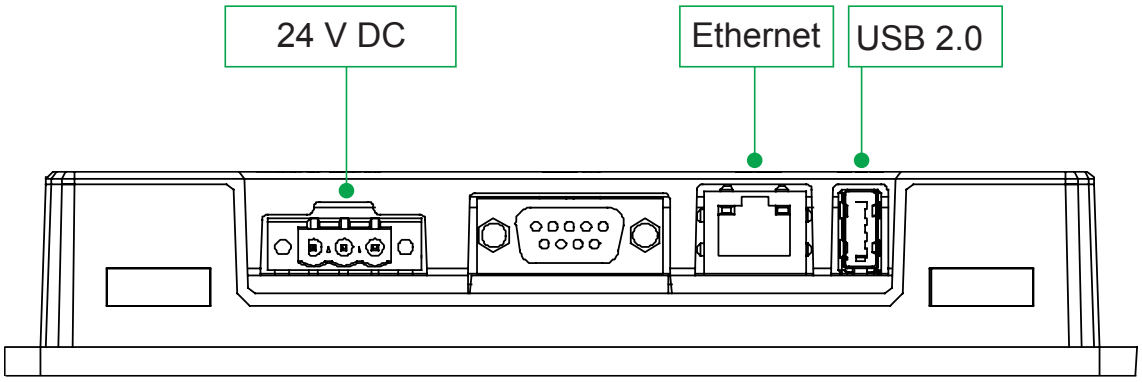
TDU 107 Core Operator interface

Specification	Description
Touch screen	Resistive

TDU 107 Core Interface

Specification	Description
Ethernet	1 pcs. 10/100 Mbit
USB	1 × USB 2.0 (hosts) - max. 500 mA

2.1.3 Connections



2.1.4 Power supply

Specification	Description
Power supply voltage	24 V DC (10 to 32 V DC)
Current consumption	0.3 A at 24 V DC (max.)
Fuse	No
Weight	Approximately 0.6 kg (un-boxed)
Battery	Supercapacitor

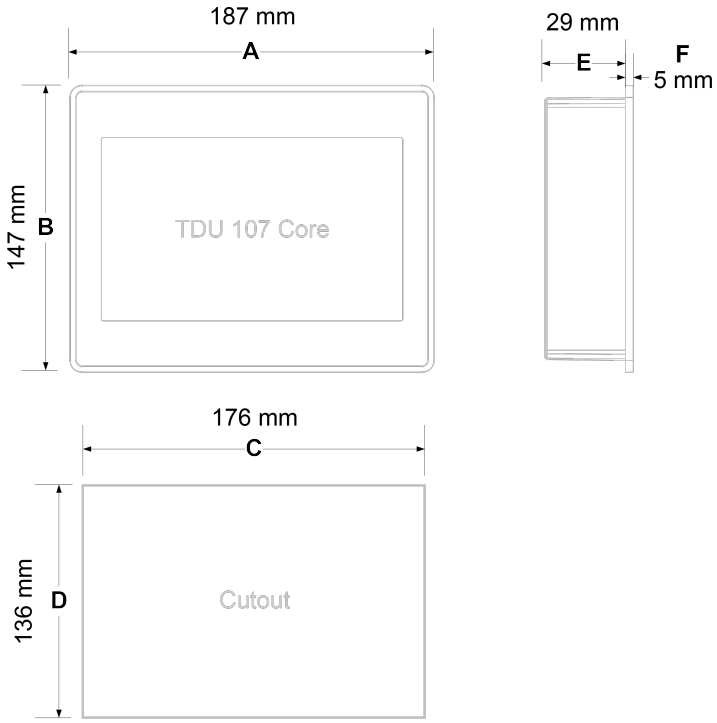
2.1.5 Environmental conditions

Specification	Description
Operating temperature	0 °C to +50 °C (vertical installation)
Storage temperature	-20 °C to +70 °C
Operating and storage humidity	5-85% RH, non condensing
Vibration	• IEC 60068-2-6 and IACS UR E10 • 2 to 13.2 Hz ±1 mm • 13.2 to 100 Hz 0.7 g
Shock	• IEC 60068-2-27, test Ea • 50 g 11 ms
Protection class	• IP66 Type 2 and 4X (front) • IP20 (rear)

2.1.6 Dimensions

Specification	Description
Faceplate A × B	187 × 147 mm (7.36 × 5.79“)
Cutout C × D	176 × 136 mm (6.93 × 5.35“)
Depth E + F	29 + 5 mm (1.14 + 0.19”)

TDU 107 Core dimensions and cutout



2.1.7 Approvals

Specification	Description
CE	• EN 61000-6-4 Emission, installation in industrial environments • EN 61000-6-2 Immunity, installation in industrial environments • EN 61000-6-3 Emission, installation in residential environments • EN 61000-6-1 Immunity, installation in residential environments
UL	• cULus: UL508 • cULus: Class I, Division 2
Cyber security test conducted towards compliance with the draft IEC 62443 series	

2.2 TDU 107 Extended

2.2.1 Display

Specification	Description
Type	TFT
Resolution	800 × 480 pixel
Active display area	7" diagonal
Aspect ratio H/V	16:9
Colours	24 bit (16 million)
Viewing angle (H/V)	170/170
Backlight	LED
Brightness	500 Cd/m^2 typ.
UI display themes	Light or dark
Screen saver	Yes

2.2.2 Interfaces

TDU 107 Extended Operator interface

Specification	Description
Touch screen	Projected capacitive

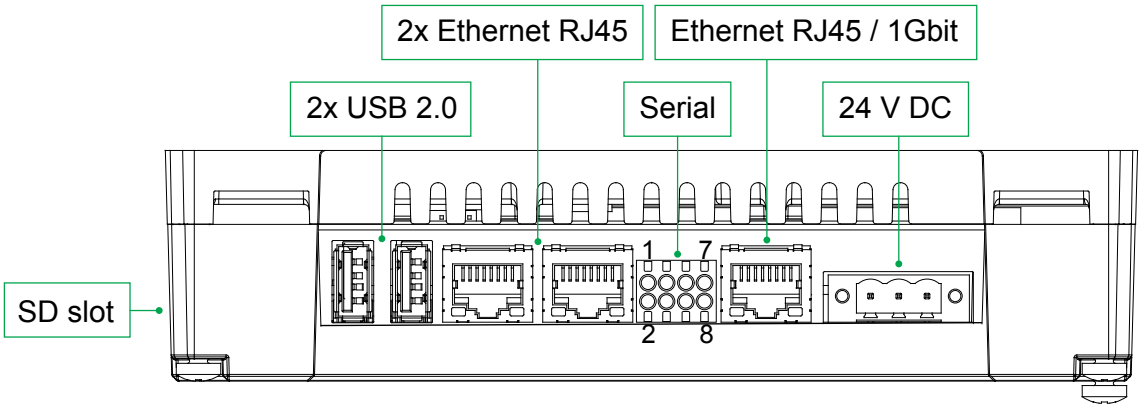
TDU 107 Extended Interface

Specification	Description
Ethernet	2 pcs. 10/100 Mbit, 1 pcs. 10/100/1000 Mbit
USB	2 × USB 2.0 (hosts) - max. 500 mA

TDU 107 Extended Remote access interface

Specification	Description
VNC server	Remote access using VNC

2.2.3 Connections



2.2.4 Power supply

Specification	Description
Power supply voltage	24 V DC (10 to 32 V DC)
Current consumption	0.7 A at 24 V DC (max.)
Fuse	Automatic, self-resettable
Weight	Approximately 1.3 kg (un-boxed)
Battery	Rechargeable Lithium battery, not user-replaceable

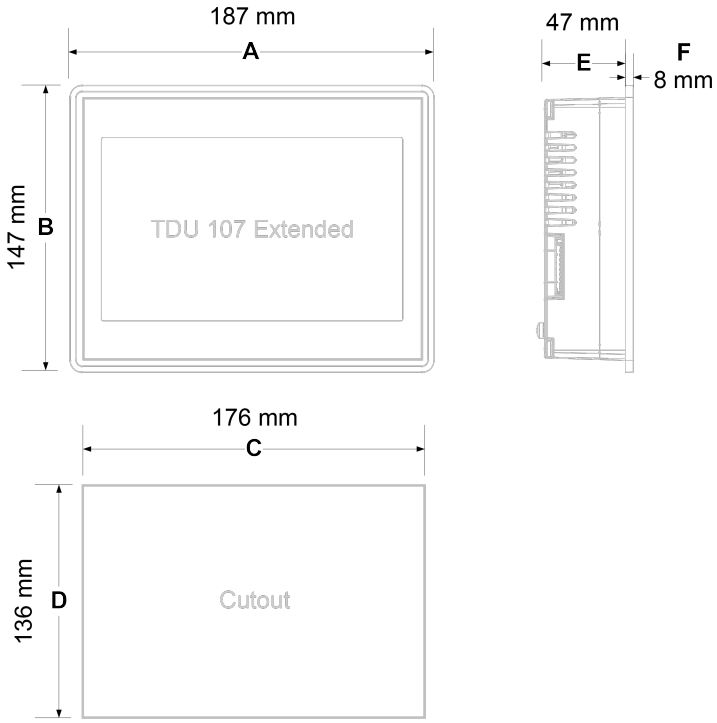
2.2.5 Environmental conditions

Specification	Description
Operating temperature	-20 °C to +60 °C (vertical installation)
Storage temperature	-30 °C to +70 °C
Operating and storage humidity	95 % RH Condensation IEC 60068-2-30 Db (Cyclic)
Vibration	• IEC 60068-2-6 and IACS UR E10 • 2 to 13.2 Hz ±1 mm • 13.2 to 100 Hz 0.7 g
Shock	• IEC 60068-2-27, test Ea • 50 g 11 ms
Protection class	• IP66 (front) • IP20 (rear) • According to IEC/EN 60529

2.2.6 Dimensions

Specification	Description
Faceplate A × B	187 × 147 mm (7.36 × 5.79“)
Cutout C × D	176 × 136 mm (6.93 × 5.35“)
Depth E + F	47 + 8 mm (1.85 + 0.31”)

TDU 107 Extended dimensions and cutout



2.2.7 Approvals

Specification	Description
CE	• EN 61000-6-4 Emission, installation in industrial environments • EN 61000-6-2 Immunity, installation in industrial environments • EN 60945-2002 Maritime navigation and radio communication equipment and systems
DNV GL	• IEC 60092-504 Electrical Installations in Ships - Part 504: Special features - Control and Instrumentation (IACS UR E10 Bridge and deck zone) • IEC 60533 Electrical and electronic installations in ships – electromagnetic compatibility (IACS UR E10 Bridge and deck zone) • DNV GL Type Approval Certificate
UL	• UL508 Listed (Pending) • Haz. Loc. Class I, Division 2, Groups A, B, C and D (Pending)
Lloyds Register	LR Type Approval Certificate
EU RO Mutual Recognition	Pending
Cyber security test conducted towards compliance with the draft IEC 62443 series	

3. Ordering information

3.1 Product information

Product	Item no.
TDU 107 Core touch display	2912470010.01
TDU 107 Extended touch display	2912470010.02

3.2 Disclaimer

DEIF A/S reserves the right to change any of the contents of this document without prior notice.

The English version of this document always contains the most recent and up-to-date information about the product. DEIF does not take responsibility for the accuracy of translations, and translations might not be updated at the same time as the English document. If there is a discrepancy, the English version prevails.

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