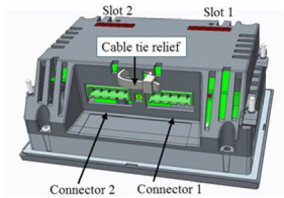## General

**CAN bus termination**

Both ends of the CAN bus must be terminated. This means that only 2 terminations must be switched to ON. You must not connect the CAN cable shield to CAN GND at terminal 1 or 6.

**Cable tie relief**



Use a cable tie to support cables and connectors that are fitted to the XDi. The cable tie is easily inserted in the two small slots above the connectors.

### Wiring of AX1 analogue extension module

**Voltage and current connections**

| Terminal no. | | Signal | Input |
|---|---|---|---|
| + | - | | |
| 11 | 1 | Voltage input +/- 30 V | Input 1 |
| 9 | 10 | Voltage input +/- 2 V | |
| | | Current input +/- 2 mA | |
| 9 | 8 | Current input +/- 20 mA | |
| 7 | 1 | Voltage input +/- 30 V | Input 2 |
| 5 | 6 | Voltage input +/- 2 V | |
| | | Current input +/- 2 mA | |
| 5 | 4 | Current input +/- 20 mA | |
| 2 | 1 | Dimmer input 0 V to 30 V or used as +/- 30 V input | Dimmer input |
| 3 | 1 | REF output +7.5 V. Used as reference input if a +8 V to +30 V external voltage is connected. | Reference in/out |

**NOTE** Terminal 1, (AGND) is common for input DIMM, REF, HV1+ HV2+.
Only one voltage or current input can be used for each port.

# XDi

Flexible display indicator

## Quick guide

**DEIF** Improve Tomorrow
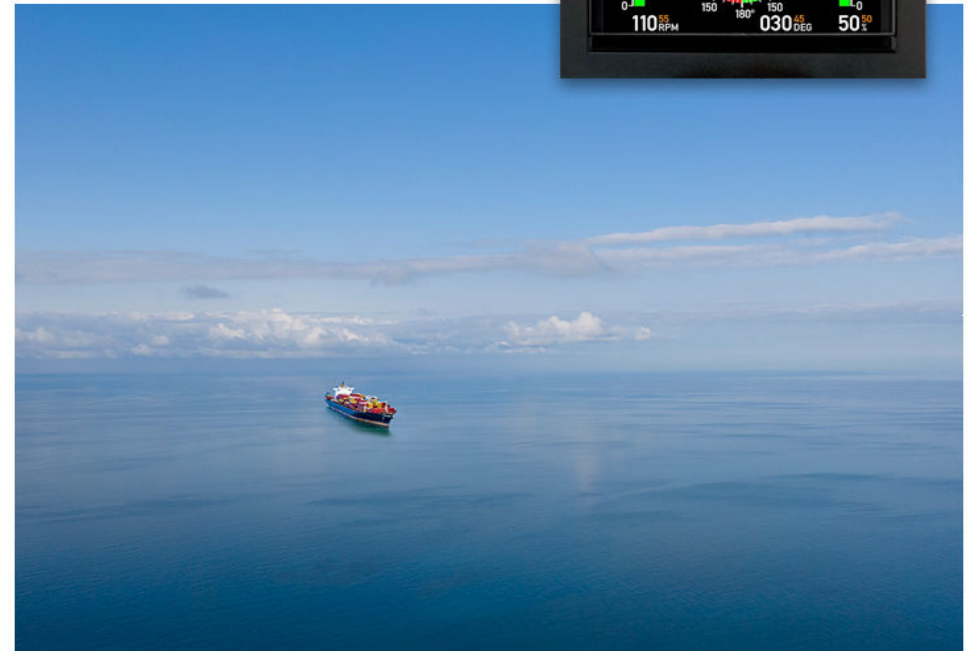
For all extension modules, insert the extension module into Slot 1 or Slot 2 as described in the selected PP and/or VS profile. The module wiring must comply with the correct module wiring table. See tables below.

**DX1 digital extension module: digital input and relay connections**

| Terminal no. | Marking | Function | Notes |
|---|---|---|---|
| 1 | OUT2 COM | Relay 2 contact, common | |
| 2 | OUT2 N.C | Relay 2 contact, normally closed | Relay 1 and Relay 2 |
| 3 | OUT2 N.O | Relay 2 contact, normally open | |
| 4 | OUT1 COM | Relay 1 contact, common | |
| 5 | OUT1 N.C. | Relay 1 contact, normally closed | |
| 6 | OUT1 N.O | Relay 1 contact, normally open | |
| 7 | IN2 LOW | Digital input 2, negative (-) | Opto-insulated input |
| 8 | IN2 HIGH | Digital input 2, positive (+) | |
| 9 | NOT CONN | Terminal is not connected internally | Reserved for future use |
| 10 | IN1 LOW | Digital input 1, negative (-) | Opto-insulated input |
| 11 | IN1 HIGH | Digital input 2, positive (+) | |

**NX1 and NX2 NMEA serial communication extension modules**

| Terminal no. | Signal | NX1 Label | NX2 Label | Notes |
|---|---|---|---|---|
| 1 | COM 3 input NMEA0183 | Do not connect | RX3 - B | Opto-insulated serial input RS-422 (IEC 61162-1) |
| 2 | COM 3 input NMEA0183 | Do not connect | RX3 - A | |
| 3 | COM 1 input NMEA0183 | Do not connect | RX1 - B | Opto-insulated serial input RS-422 (IEC 61162-1) |
| 4 | COM 1 input NMEA0183 | Do not conenct | RX1 - A | |
| 5 | Contact input 1 | C-IN-1 | C-IN-1 | Push-button input 1 with internal +5 V pull-up |
| 6 | Contact input 2 | C-IN-2 | C-IN-2 | Push-button input 1 with internal +5 V pull-up |
| 7 | COM 1 output NMEA0183 | TX1-A | TX1-A | RS-422 differential output (IEC 61162-1) |
| 8 | COM 1 output NMEA0183 | TX1-B | TX1-B | |
| 9 | Common GND | COMMON | COMMON | Common (Reference GND) for RS-485 COM port, COM 1 output and contact input |
| 10 | COM 2 input/output NMEA0183 | Do not connect | RX/TX2 - B | RS-485 configured as input or output. This line is internally terminated with a switchable 120 Ω resistor. |
| 11 | COM 2 input/output NMEA0183 | Do not connect | RX/TX2 - A | |

Common (9) must NOT be connected to the cable shield. The cable shield must be connected to a good ground connection at only one point.

On powering up for the first time, the XDi will take up to 45 seconds before it is operational. If the XDi has not been configured, a start-up wizard will guide you through the selection of unique CAN node ID, product profile (PP), virtual indicator (VI) and its VS profile. Parameters can be adjusted in the user and installation menus. Use the system supplier's documentation or download the *XDi Designer's Handbook* for details (at https://www.deif.com/documentation/xdi/).

## Installation and set-up

Remove the front frame to get access to the fixing screws and set-up buttons. To remove the front frame, insert the tip of your finger behind the lower right-hand corner of the front frame and remove the frame.

Operate the unit using the four push-buttons. To access the different menus, simultaneously push two of the four buttons for 3-5 seconds. See table below.

| Menu/Function | Button 1 | Button 2 | Button 3 | Button 4 | Notes |
|---|---|---|---|---|---|
| Surveyor info | • | • | | | |
| Master reset | • | | • | | |
| User menu | • | | | • | |
| Install menu | | • | • | | Can only be accessed from the user menu. |

## CANopen

When XDi is connected to a CAN bus, make sure to assign a unique node ID for each unit and write it on the white label on the front. Please refer to the system manufacturer's documentation or download the *XDi Designer's handbook* and the *XDi-net/CAN open reference manual*.

## Wiring of XDi main unit

| Connector/switch | Terminal no. | Signal | Marking | Notes |
|---|---|---|---|---|
| Connector 1 | 1 | CAN 1 | CAN 1 GND | Common (do not connect). |
| Connector 1 | 2 | CAN 1 | CAN 1 LOW | |
| Connector 1 | 3 | CAN 1 | CAN 1 HIGH | |
| Connector 1 | 4 | Supply voltage | +24VDC | Standard power input 1 |
| Connector 1 | 5 | Supply voltage | 0 V | |
| DIP switch 1 | – | ON/OFF | CAN 1 term. | 120 Ω termination. CAN bus termination switch set to OFF by default. |
| DIP switch 2 | – | ON/OFF | CAN 2 term. | 120 Ω termination. CAN bus termination switch set to OFF by default. |
| Connector 2 | 6 | CAN 2 | CAN 2 GND | Common (do not connect). |
| Connector 2 | 7 | CAN 2 | CAN 2 LOW | |
| Connector 2 | 8 | CAN 2 | CAN 2 HIGH | |
| Connector 2 | 9 | Supply voltage | +24VDC | Standard power input 2 |
| Connector 2 | 10 | Supply voltage | 0 V | |