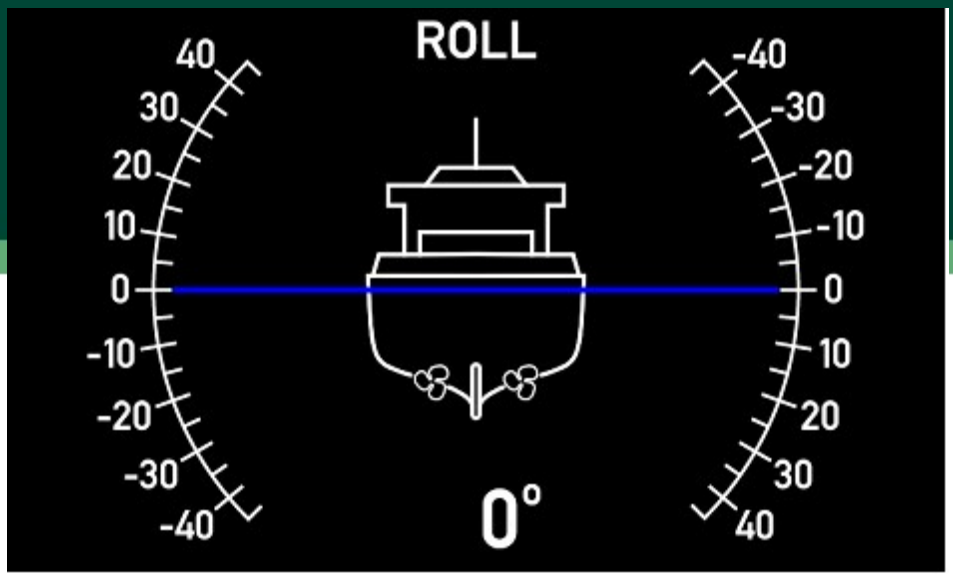
Improve Tomorrow

XDi 144/192 Navi

Ship Motion Indicators



Library owner: DEIF STANDARD NAV

Library number: 30

Library version: 2000

Table of Contents

Library description :

This library contains a collection of indicators presenting one or more ship motion data types.
All indicators will at least have have input profiles for: XDi-net/NMEA, Analogue input or CAN TPDO input.

IMPORTANT regarding NMEA data!
When NMEA input is used and there are several angle data available in one or more XDR sentences, you must run a normal NMEA input scanning and then select the correct XDR input for the given data type.
You can send several angle values in one XDR sentence, XDi will automatically find them as long as it is an angle data type (A) in Degree (D).

Ships symbols in this library: The ships symbols used in this library is DEIF standard. If you need special ship symbols it is possible to get that in a customized XDi library.
Please contact DEIF Marine Instruments for a quotation for a customized library.

Library status symbols :

	Released & Locked
	Approved
	Pending
	Draft
	Not approved

Timestamp 10-02-2026 09:41:59

Library Specification

Library owner no. :	000003
Library owner name :	DEIF STANDARD NAV
Product type :	XDi 144/192
Performance class :	Navi
Library number :	30
Library name :	Ship Motion Indicators
Library orientation :	Landscape
Library status :	Released & Locked
Library version :	2000
Last changed :	10-02-2026 09:41:52

Library default settings :

180 display rotation :	False
CAN NodeID :	30

Library notes :

10-02-2026/JOL, Ver. 2000: This is the first version of this library containing 10 product profiles (PP)
and 4 virtual indicators (VI) with necesarry VS input setup profiles.

Product profiles (PP)

Default settings of product and system related parameters, as dimmer and CANbus settings are stored in a product profile.

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PP No.	PP Name	Description	Status	Notes
1	PP01 Front dimmer	**Front button dimming** **NMEA-in requires NX2 module** Dimmer from front buttons and/or via XDi-net on CAN. RX/TX dimmer value on XDi-net. **Default** Dim gr1. Auto day/night colour shift at 70%. NMEA on COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Shares selected NMEA data on XDi-net CAN 1 and 2.		If NX2 is in Slot2 and RX1 input is used and the XDR sentence use sensor ID: Roll and/or Pitch and any supported Talker ID, then XDi will auto-select the input sourced after input scann. For example like this: $IIXDR,A,-30.7,D,Roll,A,12.3,D,Pitch (or sent in 2 XDR sentences). If not, you must scan for NMEA sources and make a manual selection from the available sources.
2	PP02 Analogue	**Analogue dimmer** **AX1 module required on Slot 1** Dimmer potentiometer from Vref (term.3) to 0V (term.1) and wiper to term. 2. Default: Dim gr1. Auto Day/Night at 70%, Dim value shared on XDi-net **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system, one XDi with analogue dimmer input (AX1) can control the groups dimmer level Other XDi units in the group should use PP01 (Default Gr.1. but can be changed). The AX1 module must be located in slot 1, if an NX2 module is needed for variable data input, it must be connected to Slot 2. If you shift dimmer group for this unit via the user menu, the analogue input will control the new group.

PP No.	PP Name	Description	Status	Notes
3	PP03 NMEA Gr.1	**NMEA dimmer Gr.1** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 1 Auto Day/Night at 70%, **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer: DDC (Only Brightness 0-99 is used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 1 can control the groups dimmer level when it uses this product profile. The NX2 module can be in either Slot 1 or Slot 2. Variable data not received via NMEA on the NX2 module on this unit, may be received via XDi-net (CAN). Note1: if you change Dim group, NMEA dimmer will no longer work - it must be group 1. Note2: If NMEA dimmer is sent periodically only one unit should control a dimmer group on CAN. If dim data is only sent on the push of a button more units can control the dimmer level in the group.
4	PP04 NMEA Gr.2	**NMEA dimmer Gr.2** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 2 Auto Day/Night at 70%, **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer: DDC (Only Brightness 0-99 is used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 2 can control the groups dimmer level when it uses this product profile.
5	PP05 NMEA Gr.3	**NMEA dimmer Gr.3** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 3 Auto Day/Night at 70%, **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer: DDC (Only Brightness 0-99 is used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 3 can control the groups dimmer level when it uses this product profile.

PP No.	PP Name	Description	Status	Notes
6	PP06 NMEA Gr.4	**NMEA dimmer Gr.4** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 4 (to 6) Auto Day/Night at 70%, **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer: DDC (Only Brightness 0-99 is used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 4 can control the groups dimmer level when it uses this product profile. You can change to use NMEA control of Dimmer gr. 5 and 6 via the NMEA input setup menu, but you must select the NMEA source manually - auto select will only select source for group 4. In the user menu you can also change the dimmer group controlling this XDi unit. Note1: Dim gr. must be group 4, 5 or 6, if you change to another group NMEA dimmer will no longer work. Note2: If NMEA dimmer is sent periodically only one unit should control a dimmer group on CAN. If dim data is only sent on the push of a button more units can control the dimmer level in the group.
7	PP07 NMEA Gr.1DC	**NMEA dimmer / colour Gr.1** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 1 NMEA dimmer and Day/Night control **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer and Colour shift: DDC Only Brightness 0-99 and Colour pallette: D or N are used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 1 can control the groups dimmer level and Day/Night when it uses this product profile.

PP No.	PP Name	Description	Status	Notes
8	PP08 NMEA Gr.2DC	**NMEA dimmer / colour Gr.2** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 2 NMEA dimmer and Day/Night control **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer and Colour shift: DDC Only Brightness 0-99 and Colour pallette: D or N are used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 2 can control the groups dimmer level and Day/Night, when it uses this product profile.
9	PP09 NMEA Gr.3DC	**NMEA dimmer / colour Gr.3** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 3 NMEA dimmer and Day/Night control **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer and Colour shift: DDC Only Brightness 0-99 and Colour pallette: D or N are used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 3 can control the groups dimmer level and Day/Night when it uses this product profile.
10	PP10 NMEA Gr.4DC	**NMEA dimmer / colour Gr.4** **NX2 module is required for NMEA** Without NX2 dimming is via XDi-net. DIMMER GR. 4 (to 6) NMEA dimmer and Day/Night control **NMEA-in requires NX2 module in Slot2.** Default: COM1 or 3 at 4.8 kbps **Supported NMEA sentences:** Ships Roll XDR,A,x.x,D,Any-ID Ships Pitch XDR,A,x.x,D,Any-ID Dimmer and Colour shift: DDC Only Brightness 0-99 and Colour pallette: D or N are used) Shares selected NMEA data on XDi-net CAN 1 and 2.		In an XDi-net system any XDi in group 4 can control the groups dimmer level and Day/Night colour when it uses this product profile. You can change to use NMEA control of Dimmer gr. 5 and 6 via the NMEA input setup menu, but you must select the NMEA source manually - auto select will only select source for group 4. In the user menu you can also change the dimmer group controlling this XDi unit.

Virtual Indicators (VI)

The VI contains the graphical layout of and indicator and defines all data types that are presented on the indicator.

Each VI has at least one VI-setup profile (VS) that defines the input types and default parameter settings.

Timestamp **10-02-2026 09:42:00**

VI No.	Name	VI-setup profiles (VS)	Approvals	Status
001	Ships Roll	3		
002	Ships Pitch	3		
003	Ships Roll/Pitch	3		
004	Ships Roll/Pitch	3		

Approvals only apply for XDi 192.

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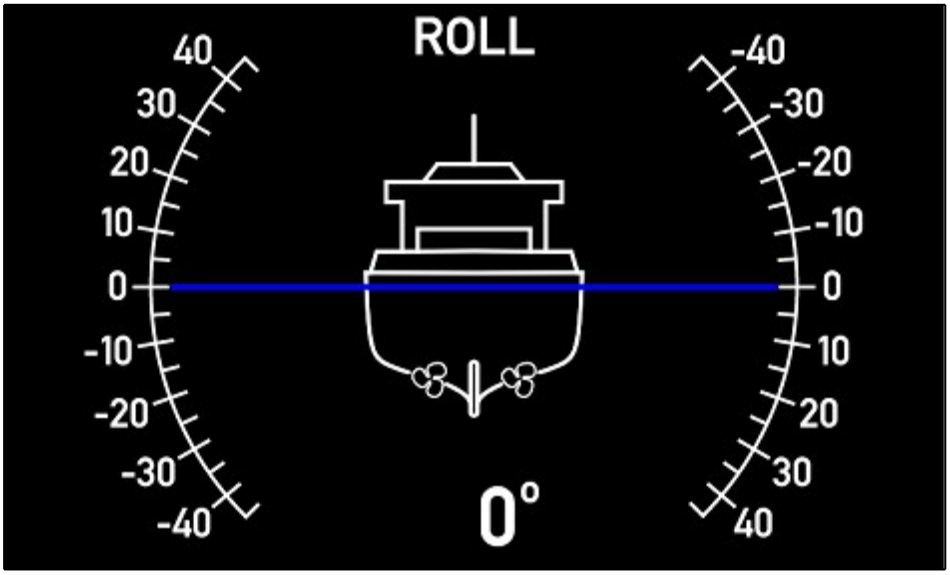
VI 001	**Ships Roll**
Screen 1	**Screen 1**



Description : **Ships Roll**

Indicator presenting the roll angle of the ship

With selectable headline

Status :

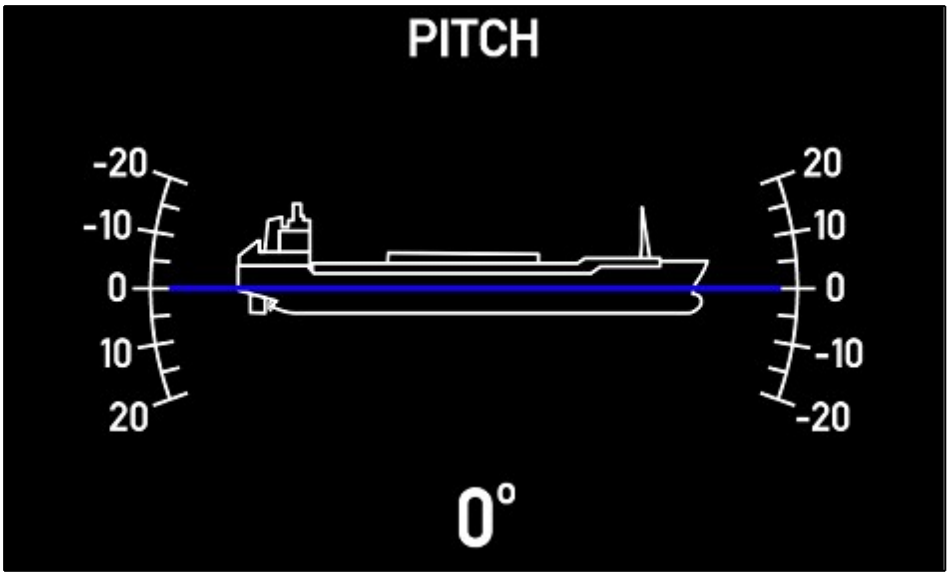
VI Notes :

VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
1	VS01 NMEA/XDi-net	**NMEA / XDi-net setup** Data via NMEA or XDi-net **Roll value:** positive when STBD is down negative when STBD is up **NMEA** Requires NX2 extension module See NMEA input details in the selected PP description. XDi-net (no NX2 mounted) Data in index 0x3B21:02 +/-90.0deg (+/-900)		
2	VS02 Analogue in	**Analogue input** AX1 module required in Slot 1 **Roll** AX1 S1in1 (+ term. 9, - term.8) 4-20mA 4mA = -45.0 deg (STBD up) 12mA = 0 deg 20mA = +45.0deg (STBD down) Input lost if input is less than 3.5 mA Internal data Roll 450 is equal to 45.0 deg current input 1000 = 1mA		
3	VS03 TPDO in	**CAN TPDO input** No extension module required **Roll** CAN TPDO1 0x18E Bytes 0,1 Roll: +/- 900 equal to +/-90.0deg Received on CAN1 and/or 2		

VI 002	Ships Pitch

Screen 1 **Screen 1**



Description : **Ships Pitch**

Indicator presenting the pitch angle of the ship

With selectable headline

Status :

VI Notes :

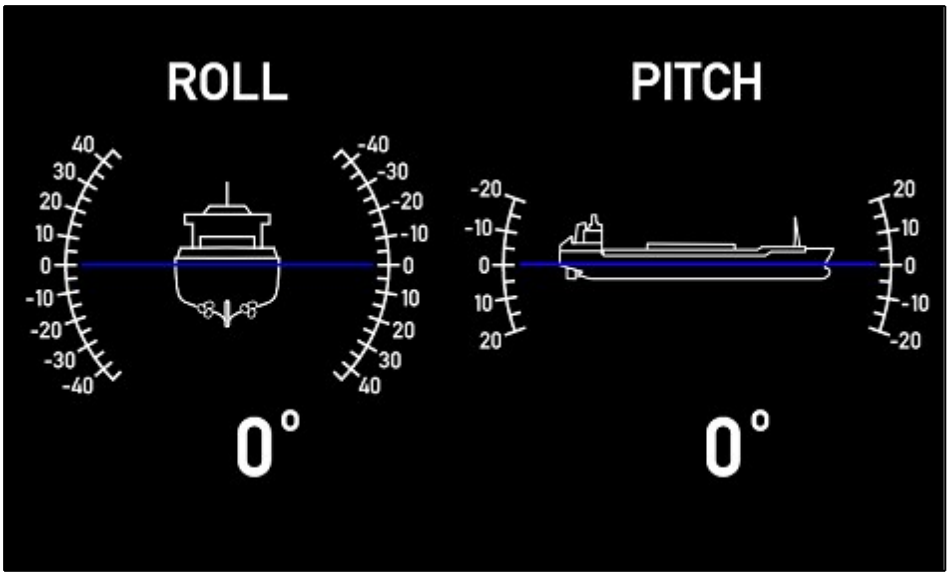
VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
1	VS01 NMEA/XDi-net	**NMEA / XDi-net input** Data via NMEA or XDi-net **Pitch angle value:** positive when STBD is up negative when STBD is down **NMEA** Requires NX2 extension module See NMEA input details in the selected PP description. XDi-net (no NX2 mounted) Data in index 0x3B29:02 +/-90.0deg (+/-900)		

VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
2	VS02 Analogue	**Analogue input** AX1 module required in Slot 1 Pirch AX1 S1in1 (+ term. 9, - term.8) 4-20mA 4mA = -30.0 deg (STBD up) 12mA = 0 deg 20mA = +30.0deg (STBD down) Input lost if input is less than 3.5 mA Internal data Pitch 200 is equal to 20.0 deg current input 1000 = 1mA		
3	VS03 CAN TPDO	**CAN TPDO input** No extension module required Ships Pitch angle CAN TPDO2 0x28E Bytes 0,1 Roll: +/- 900 equal to +/-90.0deg Received on CAN1 and/or 2		

VI 003	Ships Roll/Pitch
Screen 1	Screen 1



Description : **Ships Roll/Pitch**

Indicator presenting the roll and pitch angles of the ship

With selectable headline

Status :

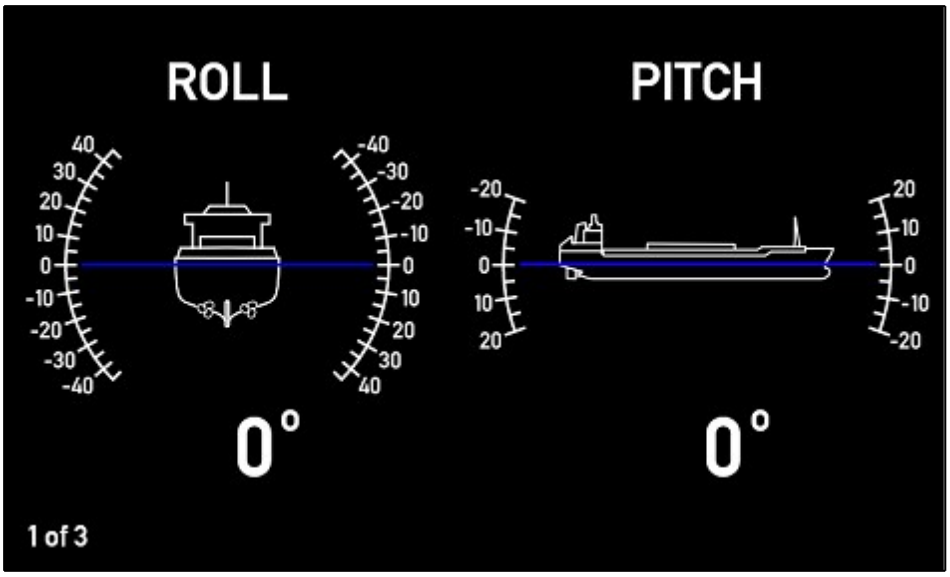
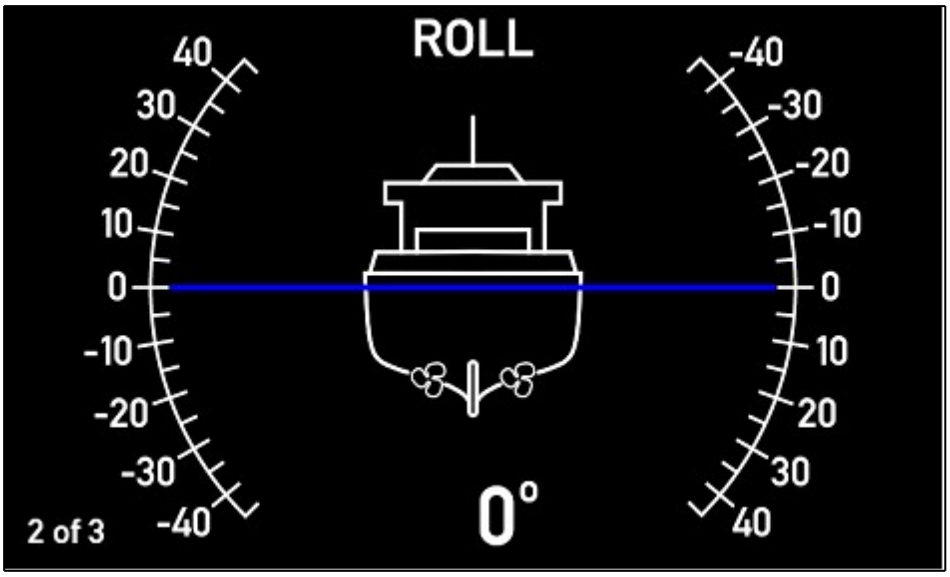
VI Notes :

VI-setup profiles (VS) for VI003

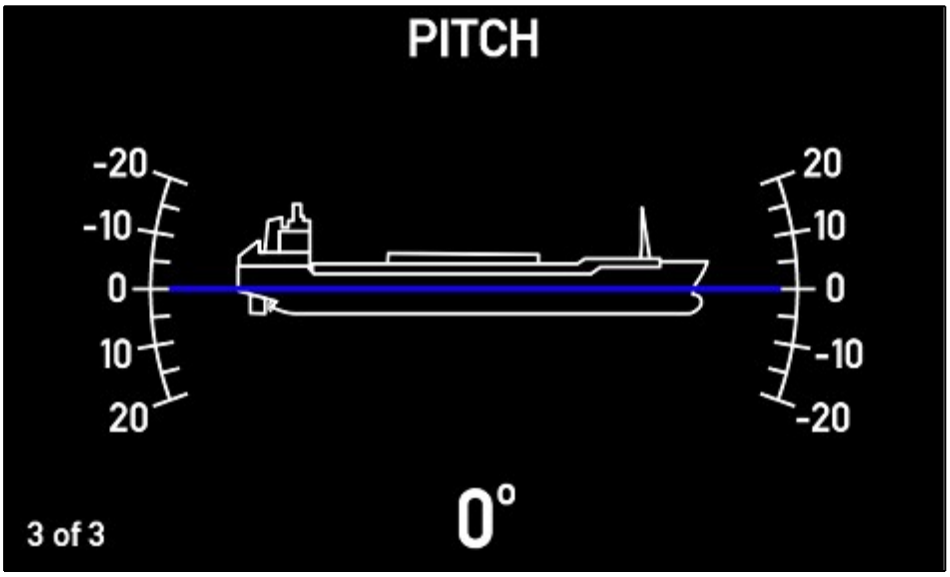
VS No.	Name	Description	Status	Notes
1	VS01 NMEA/XDi-net	**NMEA/XDi-net Setup** Data via NMEA or XDi-net **Roll and Pitch values:** Positive when STBD is down Positive when Bow is up **NMEA** Requires NX2 extension module See NMEA input details in the selected PP description. XDi-net (if no NX2 mounted) Roll in index 0x3B21:02 Pitch in index 0x3B29:02 max. +/-90.0deg (+/-900)		

VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
2	VS02 Analogue in	**Analogue input** AX1 module required in Slot 1 **Roll** AX1 S1in1 (+ term. 9, - term. 8) 4mA = -45.0 deg (STBD up) 12mA = 0 deg 20mA = +45.0deg (STBD down) **Pitch** AX1 S1in2 (+ term. 5, - term. 4) 4mA = -30.0 deg (Bow down) 12mA = 0 deg 20mA = +30.0deg (Bow up) Input lost below 3.5 mA Internal data resolution 0.1deg and 1000 = 1mA		
3	VS03 TPDO in	**CAN TPDO input** No extension module required **Roll** CAN TPDO1 0x18E Bytes 0,1 Roll: +/- 900 equal to +/-90.0deg **Pitch** CAN TPDO2 0x28E Bytes 0,1 Roll: +/- 900 equal to +/-90.0deg Received on CAN1 and/or CAN2		

VI 004	Ships Roll/Pitch
Screen 1	**Screen 1** 
Screen 2	**Screen 2** 

Screen 3 **Screen 3**



Description : **Ships Roll/Pitch (3 screens)**

Indicator presenting the ships
Roll and Pitch angles

Screen 1: Roll
Screen 2: Pitch
Screen 3: Roll and Pitch
All with selectable headline

Status :

VI Notes :

VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
1	VS01 NMEA/XDi-net	**NMEA/XDi-net Setup** Data via NMEA or XDi-net **Roll and Pitch values:** Positive when STBD is down Positive when Bow is up **NMEA** Requires NX2 extension module See NMEA input details in the selected PP description. XDi-net (if no NX2 mounted) Roll in index 0x3B21:02 Pitch in index 0x3B29:02 max. +/-90.0deg (+/-900)		

VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
2	VS02 Analogue in	**Analogue input** AX1 module required in Slot 1 **Roll** AX1 S1in1 (+ term. 9, - term. 8) 4mA = -45.0 deg (STBD up) 12mA = 0 deg 20mA = +45.0deg (STBD down) **Pitch** AX1 S1in2 (+ term. 5, - term. 4) 4mA = -30.0 deg (Bow down) 12mA = 0 deg 20mA = +30.0deg (Bow up) Input lost below 3.5 mA Internal data resolution 0.1deg and 1000 = 1mA		
3	VS03 TPDO in	**CAN TPDO input** No extension module required **Roll** CAN TPDO1 0x18E Bytes 0,1 Roll: +/- 900 equal to +/-90.0deg **Pitch** CAN TPDO2 0x28E Bytes 0,1 Roll: +/- 900 equal to +/-90.0deg Received on CAN1 and/or CAN2