



# XDi 96 Dual

ROT w/NMEA



Library owner: DEIF STANDARD NAV

Library number: 2

Library version: 2000

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## Library description :

This standard library contains a number of Rate of Turn (ROT) indicators. The XDi 96 display is not big enough to implement a scale size that complies with ISO 20672. Therefore none of the virtual indicators in this library is MED / UK MER (Wheel-marked/UK Flag marked) compliant.

IMPORTANT NOTE: This DUAL library is opened for ROT input via NMEA0183 (IEC61162-1 or-2) using the NX2 NMEA i/o extension module (optional). NMEA is not a normal feature in XDi Dual and it supports only up to 2 sentences.


## Library status symbols :

 Released & Locked

 Approved

 Pending

 Draft

 Not approved

**Library Specification**

**Library owner no. :** 000003  
**Library owner name :** DEIF STANDARD NAV  
**Product type :** XDi 96  
**Performance class :** Dual  
**Library number :** 2  
**Library name :** ROT w/NMEA  
**Library orientation :** Landscape  
**Library status :** Released & Locked  
**Library version :** 2000

**Last changed :** 30-05-2023 13:51:20

**Library default settings :**

**180 display rotation :** False  
**CAN NodeID :** 30

**Library notes :**

20-05-2023/JOL, Ver. 2000: This library contains at first release 10 PP's (compatible with the PP's in XDi144/192 standard libraries. 6 analogue ROT indicators and 1 Digital w/bargraph each VI has 3 VS 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 dim	<p><b>Dim from front</b>                      Default: Dim gr1.                      Auto Day/Night at 70%.                      RX/TX dim val. on XDi-net.</p> <p>Supported NMEA sentences:                      Rate of turn: ROT                      Default: COM1 or 3,                      4.8kbps                      Shares selected                      NMEA data on XDi-net</p>		<p>In an XDi-net system any XDi in a group can control the groups dimmer level when it uses this product profile.</p> <p>In the user menu the VI day/night mode can be set to fixed night mode, this can be useful for some VI types, where day night shift is not needed.</p>
2	PP02 Analog	<p><b>Analog dim</b>                      AX1 module req. Slot1                      Dim potm. from Vref (t.3) to 0V (t.1), wiper to t. 2.                      Default: Dim gr1.                      Auto Day/Night at 70%,                      Dim val. shared on XDi-net</p> <p><b>No NMEA input</b>                      No available slot for the NX2 module !</p>		<p>In an XDi-net system one XDi with analogue dimmer input (AX1) can control the groups dimmer level</p> <p>Other XDi units in the group should use PP01 (Default Gr.1. but can be changed from user menu).</p>
3	PP03 NMEA1	<p><b>NMEA dim Gr.1</b>                      NX2 req. for NMEA dim                      No NX2 = Dim via XDi-net.                      DIMMER GR. 1                      Auto Day/Night at 70%,                      Dim shared on XDi-net</p> <p>Supported NMEA sentences:                      Rate of turn: ROT                      Dimmer: DDC                      Default: COM1 or 3,                      4.8 kbps                      Shares NMEA on XDi-net</p>		<p>In an XDi-net system any XDi in group 1 can control the groups dimmer level when it uses this product profile.</p>
4	PP04 NMEA2	<p><b>NMEA dim Gr.2</b>                      NX2 req. for NMEA dim                      No NX2 = Dim via XDi-net.                      DIMMER GR. 2                      Auto Day/Night at 70%,                      Dim shared on XDi-net</p> <p>Supported NMEA sentences:                      Rate of turn: ROT                      Dimmer: DDC                      Default: COM1 or 3,                      4.8 kbps                      Shares NMEA on XDi-net</p>		<p>In an XDi-net system any XDi in group 2 can control the groups dimmer level when it uses this product profile.</p>

PP No.	PP Name	Description	Status	Notes
5	PP05 NMEA3	<b>NMEA dim Gr.3</b> NX2 req. for NMEA dim No NX2 = Dim via XDi-net. DIMMER GR. 3 Auto Day/Night at 70%, Dim shared on XDi-net Supported NMEA sentences: Rate of turn: ROT Dimmer: DDC Default: COM1 or 3, 4.8 kbps Shares NMEA on XDi-net		In an XDi-net system any XDi in group 3 can control the groups dimmer level when it uses this product profile.
6	PP06 NMEA4	<b>NMEA dim 4-6</b> NX2 req. for NMEA dim No NX2 = Dim via XDi-net. DIMMER GR. 4 to 6 Auto Day/Night at 70%, Dim shared on XDi-net Supported NMEA sentences: Rate of turn: ROT Dimmer: DDC Default: COM1 or 3, 4.8 kbps Shares NMEA on XDi-net		In an XDi-net system any XDi in group 4 can control the groups dimmer level when it uses this product profile. You can setup NMEA control of Dimmer gr. 4, 5 and 6 in the NMEA input menu. In the user menu you can also change the dimmer group controlling this XDi unit.
7	PP07 NMEA1C	<b>NMEA dim/col.1</b> NX2 req. for NMEA dim No NX2 = Dim via XDi-net. DIMMER GR. 1 Separate Day/Night shift Default: Day colour Dim shared on XDi-net Supported NMEA sentences: Rate of turn: ROT Dimmer: DDC Default: COM1 or 3, 4.8 kbps Shares NMEA on XDi-net		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.
8	PP08 NMEA2C	<b>NMEA dim/col.2</b> NX2 req. for NMEA dim No NX2 = Dim via XDi-net. DIMMER GR. 2 Separate Day/Night shift Default: Day colour Dim shared on XDi-net Supported NMEA sentences: Rate of turn: ROT Dimmer: DDC Default: COM1 or 3, 4.8 kbps Shares NMEA on XDi-net		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.

PP No.	PP Name	Description	Status	Notes
9	PP09 NMEA3C	<b>NMEA dim/col.3</b> NX2 req. for NMEA dim No NX2 = Dim via XDi-net. DIMMER GR. 3 Separate Day/Night shift Default: Day colour Dim shared on XDi-net Supported NMEA sentences: Rate of turn: ROT Dimmer: DDC Default: COM1 or 3, 4.8 kbps Shares NMEA on XDi-net		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 NMEA4C	<b>NMEA dim/col.4</b> NX2 req. for NMEA dim No NX2 = Dim via XDi-net. DIMMER GR. 4 to 6 Separate Day/Night shift Default: Day colour Dim shared on XDi-net Supported NMEA sentences: Rate of turn: ROT Dimmer: DDC Default: COM1 or 3, 4.8 kbps Shares NMEA on XDi-net		In an XDi-net system any XDi in group 4 can control the groups dimmer level and Day/Night when it uses this product profile. You can setup NMEA control of Dimmer gr. 4, 5 and 6 in the NMEA input menu. 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.

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VI No.	Name	VI-setup profiles (VS)	Approvals	Status
001	± 30 FWD	3	 	
002	± 120 FWD	3	 	
003	± 300 FWD	3	 	
004	± 30 FWD2	3	 	
005	± 120 FWD2	3	 	
006	± 300 FWD2	3	 	
007	± 30 Digital	3	 	

 Approvals only apply for XDi 192.


VI 001 ± 30 FWD



**Description :** ROT +/-30 Deg/min


Not MED/MER Compliant

Rate of turn ± 30 Deg/min  
 Digital max. ±300 Deg/min  
 (Depend on input type)

**Status :** 



**VI Notes :** All VS profiles contains: A headline list of 3 tests: ROT (Default), Rate Of Turn and RATE OF TURN  
 The label list contains different source tests, default is GYRO.  
 You can change or disable the source text from the installation menu / Label menu.

**VI-setup profiles (VS) for VI001**

VS No.	Name	Description	Status	Notes
1	VS01 NMEA	<p><b>NMEAorXDi-net</b>                      ROT via NMEA                      (Requires NX2 on Slot 2)                      or XDi-net via                      CAN1 or CAN2                      without NX2.</p> <p>Supported                      NMEA sentence: ROT</p> <p>Selectable                      Source name label                      and Headline</p>		



## VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
2	VS02 CAN	<b>TPDO</b> ROT via CAN TPDO  Default: TPDO1: 0x18D 16 bit signed max. +/-1000 = 100.0 DEG/min received via CAN1 or 2  Selectable Source name label and Headline		
3	VS03 Analogue	<b>Analogue</b> Requires AX1 on Slot1 <b>Default settings:</b> 4-20mA on input HI1 + term. 9, - term. 8 Scaled: 4 mA= -30 DEG/min (PS) 12 mA= 0 DEG/min 20 mA= 30 DEG/min (SB) Input lost below 3.5mA Data is shared on XDi-net <b>Selectable</b> Source name label and Headline		

VI 002

± 120 FWD



**Description :** ROT +/-120Deg/min


Not MED/MER Compliant

Rate of turn ± 120 Deg/min  
Digital max. ±300 Deg/min  
(Depend on input type)



**Status :** 

**VI Notes :** All VS profiles contains: A headline list of 3 tests: ROT (Default), Rate Of Turn and RATE OF TURN  
The label list contains different source tests, default is GYRO.  
You can change or disable the source text from the installation menu / Label menu.

### VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
1	VS01 NMEA	<b>NMEAorXDi-net</b> ROT via NMEA (Requires NX2 on Slot 2) or XDi-net via CAN1 or CAN2 without NX2.  Supported NMEA sentence: ROT  Selectable Source name label and Headline		

## VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
2	VS02 CAN	<b>TPDO</b> ROT via CAN TPDO  Default: TPDO1: 0x18D 16 bit signed max. +/-3000 = 300.0 DEG/min received via CAN1 or 2  Selectable Source name label and Headline		
3	VS03 Analogue	<b>Analogue</b> Requires AX1 on Slot1 <b>Default settings:</b> 4-20mA on input HI1 + term. 9, - term. 8 Scaled: 4 mA= -120 DEG/min (PS) 12 mA= 0 DEG/min 20 mA= 120 DEG/min (SB) Input lost below 3.5mA Data is shared on XDi-net <b>Selectable</b> Source name label and Headline		

VI 003

± 300 FWD



**Description :** ROT +/-300Deg/min


Not MED/MER Compliant

Rate of turn ± 300 Deg/min  
Digital max. ±600 Deg/min  
(Depend on input type)



**Status :** 

**VI Notes :** All VS profiles contains: A headline list of 3 tests: ROT (Default), Rate Of Turn and RATE OF TURN  
The label list contains different source tests, default is GYRO.  
You can change or disable the source text from the installation menu / Label menu.

### VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
1	VS01 NMEA	<b>NMEAorXDi-net</b> ROT via NMEA (Requires NX2 on Slot 2) or XDi-net via CAN1 or CAN2 without NX2.  Supported NMEA sentence: ROT  Selectable Source name label and Headline		

## VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
2	VS02 CAN	<b>TPDO</b> ROT via CAN TPDO  Default: TPDO1: 0x18D 16 bit signed max. +/-6000 = 600.0 DEG/min received via CAN1 or 2  Selectable Source name label and Headline		
3	VS03 Analogue	<b>Analogue</b> Requires AX1 on Slot1 <b>Default settings:</b> 4-20mA on input HI1 + term. 9, - term. 8 Scaled: 4 mA= -300 DEG/min (PS) 12 mA= 0 DEG/min 20 mA= 300 DEG/min (SB) Input lost below 3.5mA Data is shared on XDi-net <b>Selectable</b> Source name label and Headline		

VI 004

± 30 FWD2



**Description :** ROT2 +/-30 Deg/min


Not MED/MER Compliant

Rate of turn ± 30 Deg/min  
Digital max. ±300 Deg/min  
(Depend on input type)



**Status :** 

**VI Notes :** All VS profiles contains: A headline list of 3 tests: ROT (Default), Rate Of Turn and RATE OF TURN  
The label list contains different source tests, default is GYRO.  
You can change or disable the source text from the installation menu / Label menu.

### VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
1	VS01 NMEA	<b>NMEAorXDi-net</b> ROT via NMEA (Requires NX2 on Slot 2) or XDi-net via CAN1 or CAN2 without NX2.  Supported NMEA sentence: ROT  Selectable Source name label and Headline		

## VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
2	VS02 CAN	<b>TPDO</b> ROT via CAN TPDO  Default: TPDO1: 0x18D 16 bit signed max. +/-1000 = 100.0 DEG/min received via CAN1 or 2  Selectable Source name label and Headline		
3	VS03 Analogue	<b>Analogue</b> Requires AX1 on Slot1 <b>Default settings:</b> 4-20mA on input HI1 + term. 9, - term. 8 Scaled: 4 mA= -30 DEG/min (PS) 12 mA= 0 DEG/min 20 mA= 30 DEG/min (SB) Input lost below 3.5mA Data is shared on XDi-net <b>Selectable</b> Source name label and Headline		

VI 005

± 120 FWD2



**Description :** ROT2 +/-120Deg/min


Not MED/MER Compliant

Rate of turn ± 120 Deg/min  
Digital max. ±300 Deg/min  
(Depend on input type)

**Status :** 



**VI Notes :** All VS profiles contains: A headline list of 3 tests: ROT (Default), Rate Of Turn and RATE OF TURN  
The label list contains different source tests, default is GYRO.  
You can change or disable the source text from the installation menu / Label menu.

### VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
1	VS01 NMEA	<b>NMEAorXDi-net</b> ROT via NMEA (Requires NX2 on Slot 2) or XDi-net via CAN1 or CAN2 without NX2.  Supported NMEA sentence: ROT  Selectable Source name label and Headline		



## VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
2	VS02 CAN	<b>TPDO</b> ROT via CAN TPDO  Default: TPDO1: 0x18D 16 bit signed max. +/-3000 = 300.0 DEG/min received via CAN1 or 2  Selectable Source name label and Headline		
3	VS03 Analogue	<b>Analogue</b> Requires AX1 on Slot1 <b>Default settings:</b> 4-20mA on input HI1 + term. 9, - term. 8 Scaled: 4 mA= -120 DEG/min (PS) 12 mA= 0 DEG/min 20 mA= 120 DEG/min (SB) Input lost below 3.5mA Data is shared on XDi-net <b>Selectable</b> Source name label and Headline		

VI 006

± 300 FWD2



**Description :** ROT2 +/-300Deg/min


Not MED/MER Compliant

Rate of turn ± 300 Deg/min  
Digital max. ±600 Deg/min  
(Depend on input type)



**Status :** 

**VI Notes :** All VS profiles contains: A headline list of 3 tests: ROT (Default), Rate Of Turn and RATE OF TURN  
The label list contains different source tests, default is GYRO.  
You can change or disable the source text from the installation menu / Label menu.

### VI-setup profiles (VS) for VI006

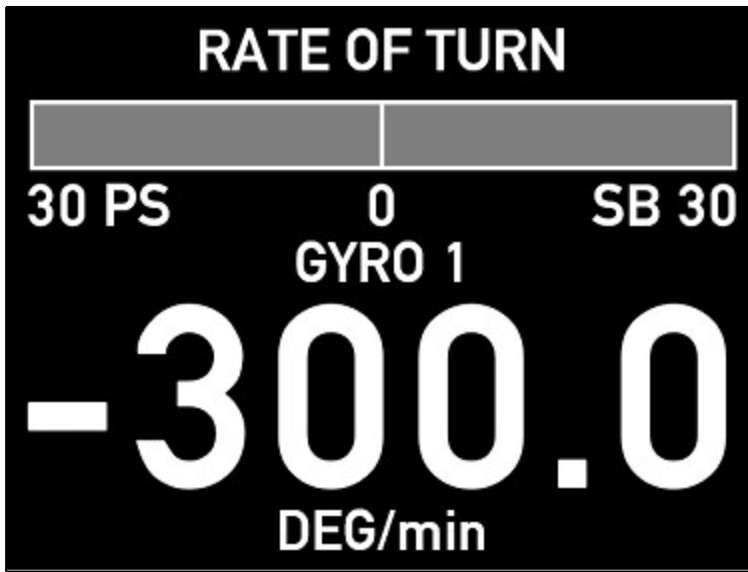
VS No.	Name	Description	Status	Notes
1	VS01 NMEA	<b>NMEAorXDi-net</b> ROT via NMEA (Requires NX2 on Slot 2) or XDi-net via CAN1 or CAN2 without NX2.  Supported NMEA sentence: ROT  Selectable Source name label and Headline		

## VI-setup profiles (VS) for VI006

VS No.	Name	Description	Status	Notes
2	VS02 CAN	<b>TPDO</b> ROT via CAN TPDO  Default: TPDO1: 0x18D 16 bit signed max. +/-6000 = 600.0 DEG/min received via CAN1 or 2  Selectable Source name label and Headline		
3	VS03 Analogue	<b>Analogue</b> Requires AX1 on Slot1 <b>Default settings:</b> 4-20mA on input HI1 + term. 9, - term. 8 Scaled: 4 mA= -300 DEG/min (PS) 12 mA= 0 DEG/min 20 mA= 300 DEG/min (SB) Input lost below 3.5mA Data is shared on XDi-net <b>Selectable</b> Source name label and Headline		

VI 007

± 30 Digital



**Description :** Digital ROT


ROT bar  $\pm 30$  deg/min  
ROT digital max.  $\pm 300$

With selectable headline  
and source label


**Status :** 

**VI Notes :** All VS profiles contains: A headline list of 3 tests: ROT, Rate Of Turn and RATE OF TURN (Default)  
The label list contains different source tests, default is MAIN GYRO.  
You can change or disable the source text from the installation menu / Label menu.

### VI-setup profiles (VS) for VI007

VS No.	Name	Description	Status	Notes
1	VS01 NMEA	<b>NMEAorXDi-net</b> ROT via NMEA (Requires NX2 on Slot 2) or XDi-net via CAN1 or CAN2 without NX2.  Supported NMEA sentence: ROT  Selectable Source name label and Headline		

## VI-setup profiles (VS) for VI007

VS No.	Name	Description	Status	Notes
2	VS02 CAN	<b>TPDO</b> ROT via CAN TPDO  Default: TPDO1: 0x18D 16 bit signed max. +/-1000 = 100.0 DEG/min received via CAN1 or 2  Selectable Source name label and Headline		
3	VS03 Analogue	<b>Analogue</b> Requires AX1 on Slot1 <b>Default settings:</b> 4-20mA on input HI1 + term. 9, - term. 8 Scaled: 4 mA= -30 DEG/min (PS) 12 mA= 0 DEG/min 20 mA= 30 DEG/min (SB) Input lost below 3.5mA Data is shared on XDi-net <b>Selectable</b> Source name label and Headline	