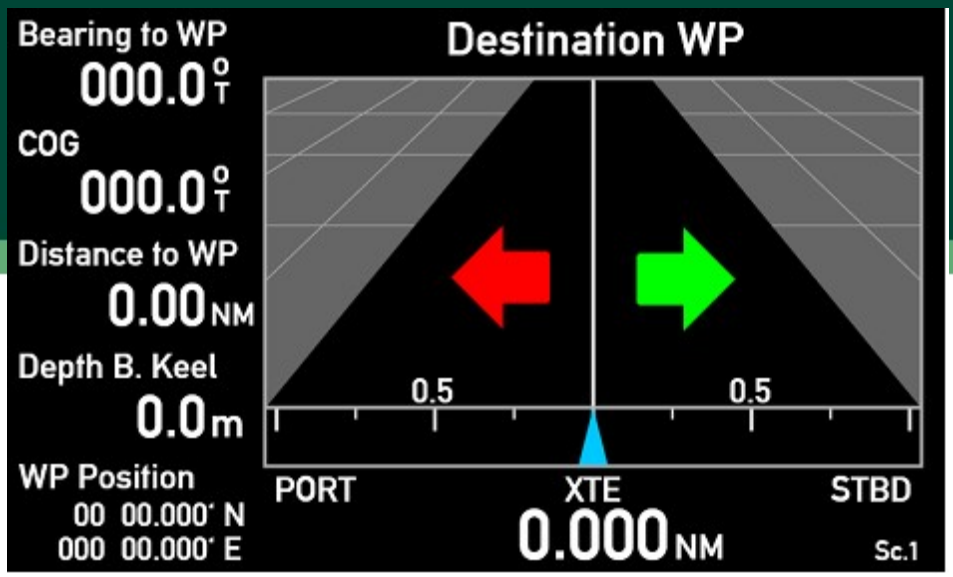
XDi 144/192 Navi

WP-Navigation



Library owner: DEIF STANDARD NAV

Library number: 23

Library version: 2002

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Library description :
This library contain virtual indicators for presentation of waypoint and route navigation data.

Library status symbols :	
	Released & Locked
	Approved
	Pending
	Draft
	Not approved

Timestamp 26-02-2026 09:25:29

Library Specification

Library owner no. :	000003
Library owner name :	DEIF STANDARD NAV
Product type :	XDi 144/192
Performance class :	Navi
Library number :	23
Library name :	WP-Navigation
Library orientation :	Landscape
Library status :	Released & Locked
Library version :	2002
Last changed :	26-02-2026 09:25:23

Library default settings :

180 display rotation :	False
CAN NodeID :	40

Library notes :

24-02-2026/JOL, ver. 2002: Added VI002 as a copy of VI001 but with presentation of Dist. to WP with 0.001 NM resolution.

06-05-2025/JOL, ver. 2001: The crostrack error sign convention was reversed, this bug is now fixed.
The arrow hysteresis (arrow not shown band) is adjusted on screen 2 to +/-0.005NM (it is still +/-0.01NM on Sc.1)

08-04-2025/JOL, ver. 2000: First released version with 10 Product profiles and 1 VI with 2 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 dimmer	**Front dimmer** Dimmer from front buttons and/or via XDi-net. Default: Dim gr1. Auto day/night colour shift at 70%. RX/TX dimmer value on XDi-net. **NMEA-in requires NX2 module** Default: COM1 or 3 at 4.8 kbps Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Shares selected NMEA data on XDi-net		Important: IEC 61162-1: NMEA sentence length is limited to 82 charters, this may limit the length of WP ID (names) in the RMB sentence. (XDi will not accept longer sentences then specified in the IEC standard) In an XDi-net system any XDi in a group can control the groups dimmer level when it uses this product profile. In the user menu the VI day/night mode settings can be changed or fixed day or night mode can be selected. COM2 RS485 (not opto-isolated) can also be used as NMEA input, but sentence must be manually selected after an input scan. Note: If dimmer is sent periodically on XDi-net only one unit should control the dimmer group on CAN. If dim data is only sent on the push of a button (e.g. XDi front buttons) more units can control the dimmer level in the group.

PP No.	PP Name	Description	Status	Notes
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: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Shares selected NMEA data on XDi-net		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.
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%, Dim value shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer: DDC Shares selected NMEA data on XDi-net		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%, Dim value shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer: DDC Shares selected NMEA data on XDi-net		In an XDi-net system any XDi in group 2 can control the groups dimmer level when it uses this product profile.

PP No.	PP Name	Description	Status	Notes
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%, Dim value shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer: DDC Shares selected NMEA data 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 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%, Dim value shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer: DDC Shares selected NMEA data 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 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 anothe r 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.

PP No.	PP Name	Description	Status	Notes
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 Dim and Day/Night shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer and Day/Night colour: DDC Shares selected NMEA data 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 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 Dim and Day/Night shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer and Day/Night colour: DDC Shares selected NMEA data 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.
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 Dim and Day/Night shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer and Day/Night colour: DDC Shares selected NMEA data 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.

PP No.	PP Name	Description	Status	Notes
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 Dim and Day/Night shared on XDi-net **Default: COM1 or 3 at 4.8 kbps** Supported NMEA sentences: WP ID: RMB,APB,BWR(BWC) Ber. to WP True: RMB,APB,BWR(BWC) COG True: RMC,VTG,VTGcc. Dist. to WP: RMB,BWR(BWC) Depth BT: DBT, DPT and BK: DPT SOG: VTG, VBW, RMC WP LAT/LON: RMB,BWR(BWC) Dimmer and Day/Night colour: DDC Shares selected NMEA data on XDi-net		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.

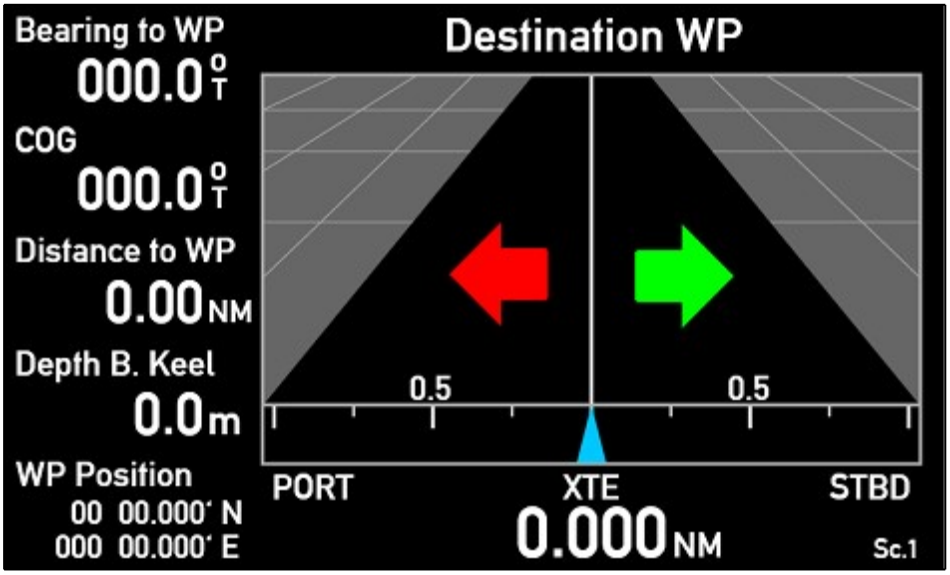
Timestamp **26-02-2026 09:25:29**

VI No.	Name	VI-setup profiles (VS)	Approvals	Status
001	WP Highway	2		
002	WP Highway	2		

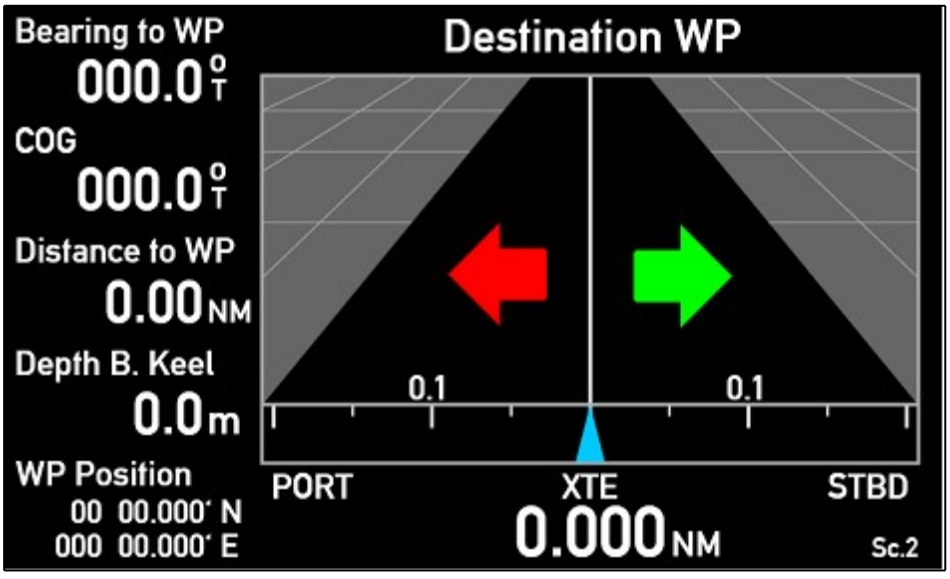
Approvals only apply for XDi 192.

Timestamp 26-02-2026 09:25:29

VI 001	**WP Highway**
Screen 1	**S1 Highway**



Screen 2	**S2 Highway**



Description : **WP Navigation 1 (2 sc.)**

Highway indicator
Sc.1: +/-1.0NM Sc.2: +/-0.2NM
Active WP-ID text can be Shown/Hidden
Arrows = direction to steer back on track.
Dist To WP: max 999NM, Dept: max 3000m
XTE max +/- 30NM (+ error is to SB)

Status : 

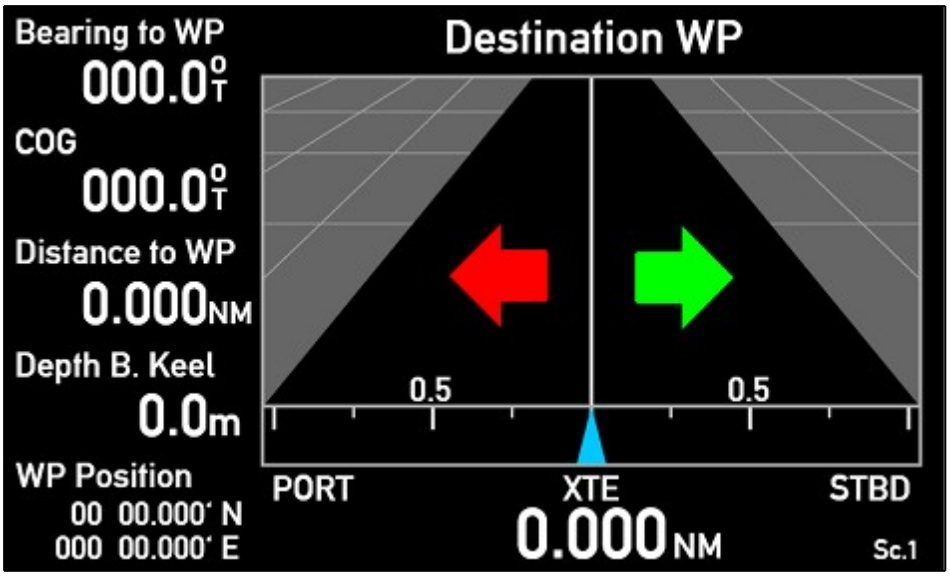
VI Notes : Arrow hysteresis (range where no arrow is visible)
Screen 1: +/-0.01NM (+/-18.5m)
Screen 2: +/-0.005NM (+/-9.3m)
To present XTE with full resolution (0.001), the used NMEA sentence should contain XTE data with 0.001 NM resolution.
NMEA XTE data with 0.1 or 0.01 resolution will work but with reduced readout resolution.

VI-setup profiles (VS) for VI001

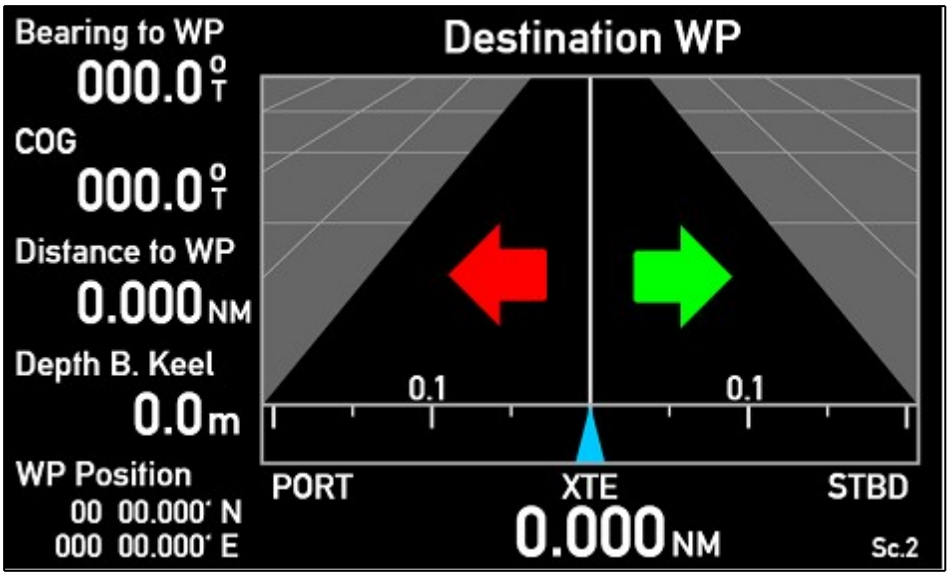
VS No.	Name	Description	Status	Notes
1	VS01 NMEA/XDi-net	**NMEA or XDi-net data** **Actual Dest.WP-ID is shown !** NX2 required on slot 1 or 2 for reception of NMEA data. Run the NMEA setup process during installation, make sure that all sentences are available during setup. Use this VS without NX2 to receive data from XDi-net. Depth is default below keel, else depth below transducer wil be shown.		When WP or Route navigation is active NMEA WP data must be repeated at leased every 4 sec. and COG and Depth at least every 1 sec. The Destination WP ID in the NMEA sentence will be shown above the highway. If the WP-ID from NMEA is not acceptable for presentation, use VS02 instead.
2	VS02 NMEA/XDi-net	**NMEA or XDi-net data** **Actual Dest.WP-ID is hidden!** NX2 required on slot 1 or 2 for reception of NMEA data. Run the NMEA setup process during installation, make sure that all sentences are available during setup. Use this VS without NX2 to receive data from XDi-net. Depth is default below keel, else depth below transducer wil be shown.		When WP or Route navigation is active NMEA WP data must be repeated at leased every 4 sec. and COG and Depth at least every 1 sec. Use this profile if Dest. WP-ID in the NMEA sentence is empty or not usable for presentation.

VI 002	WP Highway

Screen 1 **S1 Highway**



Screen 2 **S2 Highway**



Description : **WP Navigation 2 (2 sc.)**

Highway indicator
High resolution Dist. to WP (0.001NM)
XTE: Sc.1: +/-1.0NM Sc.2: +/-0.2NM
Active WP-ID text can be Shown/Hidden
Arrow = direction to steer back on track.
Dist To WP: max 999NM, Dept: max 3000m
XTE max +/- 30NM (+ error is to SB)

Status : 

VI Notes : If NMEA data is used as input the NMEA sentence that is selected during installation must contain Dist. to WP data with 0.001 NM resolution.
The same goes for XTE data that is also presented with 0.001 NM resolution.
Arrow hysteresis (range where no arrow is visible)
Screen 1: +/-0.01NM (+/-18.5m)
Screen 2: +/-0.005NM (+/-9.3m)
To present XTE with full resolution (0.001), the used NMEA sentence should contain XTE data with 0.001 NM resolution.
NMEA XTE data with 0.1 or 0.01 resolution will work but with reduced readout resolution.

VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
1	VS01 NMEA/XDi-net	**NMEA or XDi-net data** **Actual Dest.WP-ID is shown !** NX2 required on slot 1 or 2 for reception of NMEA data. Run the NMEA setup process during installation, make sure that all sentences are available during setup. Use this VS without NX2 to receive data from XDi-net. Depth is default below keel, else depth below transducer wil be shown.		When WP or Route navigation is active NMEA WP data must be repeated at leased every 4 sec. and COG and Depth at least every 1 sec. The Destination WP ID in the NMEA sentence will be shown above the highway. If the WP-ID from NMEA is not acceptable for presentation, use VS02 instead.
2	VS02 NMEA/XDi-net	**NMEA or XDi-net data** **Actual Dest.WP-ID is hidden!** NX2 required on slot 1 or 2 for reception of NMEA data. Run the NMEA setup process during installation, make sure that all sentences are available during setup. Use this VS without NX2 to receive data from XDi-net. Depth is default below keel, else depth below transducer wil be shown.		When WP or Route navigation is active NMEA WP data must be repeated at leased every 4 sec. and COG and Depth at least every 1 sec. Use this profile if Dest. WP-ID in the NMEA sentence is empty or not usable for presentation.