XDi 96 Dual

Main propulsion CPP

Library owner: DEIF STANDARD LIB

Library number: 21

Library version: 2008

Table of Contents

Library description :
This XDi Dual library contains a selection of main propulsion indicators (VI), respectively for forward and aft bridge applications. Each virtual indicators has a selection of input/output setup profiles (VS) covering the most common used combination of XDi-net, CANopen, AX1 analogue and DX1 digital inputs. Some VS profile also supports the NX NMEA extension module. Default CAN bus setup and dimmer input configurations are available in the selection of product profiles (PP). Select the VS and PP profile that fits your need for CAN, Analogue or Digital inputs and make the necessary adjustments via the XDi installation menu or user menu. Presentation of setpoint data is available in the multi library. Library is moved to XDi main software platform 2. This opens for dimming from front buttons when the front frame with buttons are ordered as option or accessory. Analogue input error (input lost/out of range) indication is implemented in all relevant VS profiles.

Library status symbols :	
🔒	Released & Locked
✔	Approved
➡	Pending
✏	Draft
⦸	Not approved

DEIF

	Timestamp	08-02-2023 14:26:20

Library Specification

Library owner no. :	000001
Library owner name :	DEIF STANDARD LIB
Product type :	XDi 96
Performance class :	Dual
Library number :	21
Library name :	Main propulsion CPP
Library orientation :	Landscape
Library status :	Released & Locked
Library version :	2008
Last changed :	08-02-2023 14:26:18

Library default settings :

180 display rotation :	False
CAN NodeID :	30

Library notes :

08-02-2023/MAP, Ver. 2008: XDi main software update to Qt v.3.06.1 and Capp software is updated to v.3.06.0, this version supports presentation of UK MER flag mark in surveyor menu in addition to the wheel marking, no other changes are made.

19-01-2023/JOL, ver.2007: VS help text for AX1 related profiles is updated to include "AX1 input lost below 3.5mA", it was not added when the function was implemented in ver.2005.

07-05-2020/JOL, ver.2006: Updated to use new XDi main software with colour adjust function.

07-02-2020/JOL, Ver. 2005: This library is moved to XDi main software platform 2.
It is fully backward compatible with previous Platform 1 libraries.
Input lost warning are implemented on all 4-20mA inputs.

Product profiles (PP)

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

PP No.	PP Name	Description	Status	Notes
1	PP01 XDi-net	**Front/XDi-net Dim** Dimmer via XDi-net and/or front buttons. Use front button option to dim from front. **Default settings:** Dimmer group 1 Auto Day/Night Shift at 70% Monitoring supply voltage 1 XDi-net active	🔒	CANbus and Dimmer settings can be changed from XDi menu
2	PP02 Analogue	**Analogue Dimmer** Required: AX1 in Slot 1 Dimmer potmeter(+ term 3 -term 1, wiper term 2) Can be reconfigured to voltage input **Default settings:** Dimmer group 1 Analogue Potmeter 0 to Vref (max. 30V) Auto Day/Night Shift at 70% Shared on XDi-net Monitoring supply voltage 1	🔒	An external ref. voltage >7.5V can be connected to Vref out overwriting the internal Vref. From the user menu, you can alternatively reconfigure the analogue dimmer input to a normal voltage input.
3	PP03 CAN	**CAN Dimmer** CANopen TPDO dimming **Default settings:** Dimmer group 1 Auto Day/Night Shift at 70% Monitoring supply voltage 1	🔒	DEIF default TPDO's are predefined and used in all standard libraries. The default TPDO's for dimmer group control can be changed to any TPDO or RPDO via user menu.
4	PP04 Digital	**Digital Dimmer** Required: DX1 in Slot 1 Digital input 1 up (+term 11,- term 10) Digital input 2 down (+term 8,- term 7) Simultaneous activation of IN1 and IN2 for Day/Night Shift **Default settings:** Dimmer group 1 Shared on XDi-net Monitoring supply voltage 1	🔒	Digital input configuration can be changed from menu.

PP No.	PP Name	Description	Status	Notes
5	PP05 Lo Analog	**Analogue Dimmer Local** Required: AX1 in Slot 1 Dimmer potmeter(+ term 3 - term 1, wiper term 2) Can be reconfigured to voltage input **Default settings:** Dimmer group: Local Analogue Potmeter 0 to Vref (max. 30V) Auto Day/Night Shift at 70% (Local - Not shared XDi-net) Monitoring supply voltage 1	🔒	The dimmer group is "Local" and the dimmer input will only affect this unit, dimmer level will not be shared on XDi-net.
6	PP06 ECR Fixed	**ECR Fixed Dimmer** Dimming setting via buttons Or use front button option to dim from front. **Default settings:** Dimmer group Local Dimmer level 80% to extend backlight life (Local - Not shared XDi-net) Auto Day/Night Shift at 20% Monitoring supply voltage 1	🔒	Default fixed dimmer level is reduced to 75% to extend backlight life. Dimmer level and Day/Night colour can be changed from user menu.

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.
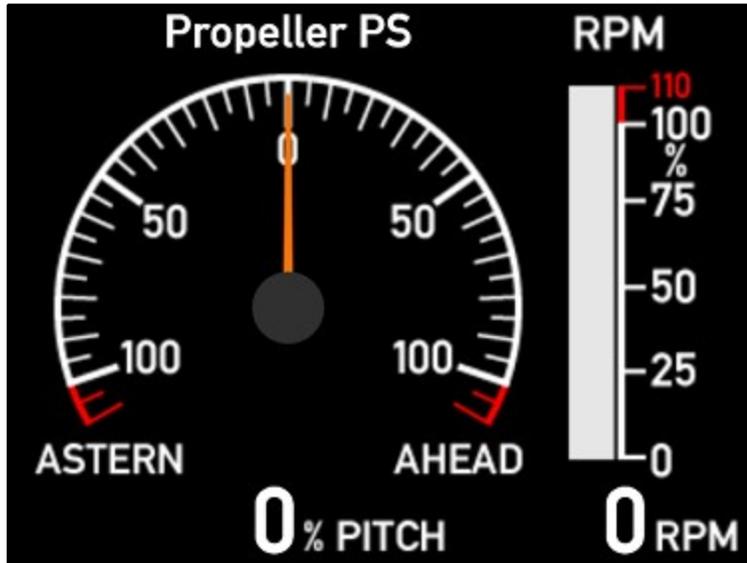
VI No.	Name	VI-setup profiles (VS)	Approvals	Status
001	%RPM FWD	5		
002	%RPM AFT	5		
003	100 RPM	5		
004	125 RPM	5		
005	150 RPM	5		
006	200 RPM	5		
007	250 RPM	5		
008	300 RPM	5		
009	350 RPM	5		
010	400 RPM	5		

Approvals only apply for XDi 192.

VI 001	%RPM FWD

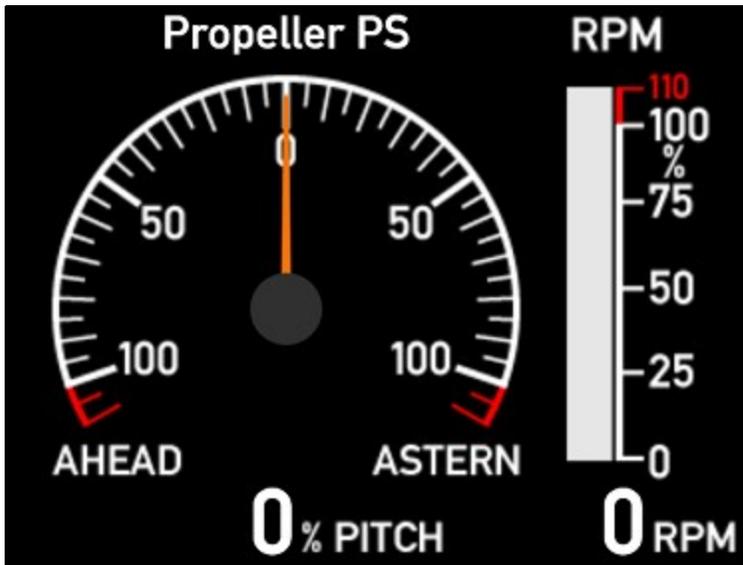|	
Description :	**PITCH%/RPM%**
	FWD
	Main prop. Pitch ± 110% Digital Pitch ±200% RPM% 0...110% Digital RPM ±3276
Status :	🔒
VI Notes :	RPM% scale can be configured from the XDi menu to match different input values. This makes this indicator quit universal. The bargraph colour is green.

VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM/RPM%: XDi-net	🔒	The XDi-net profile is used when the indicator is a repeater, receiving data from other XDi units or from a CAN controller providing data in XDi-net format. Please note that TPDO's or RPDO's are not retransmitted in XDi-net format, but are used directly by all indicators (e.g. Angle transmitted CAN data), zero or scaling adjustments can be synchronized via XDi-net. Use VS02 if a combination of XDi-net and TPDO inputs (e.g. CAN encoder) are used. Support for NX1 NMEA out: Slot 1
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM/RPM%: TPDO	🔒	TPDO COBID can be changed to any valid TPDO or RPDO COBID via the XDi installation menu. TPDO input can be scaled from menu. This profile can also be used for XDi-net input, if a combination of TPDO and XDi-net is used. TPDO input can be disabled to run pure XDi-net. Support for NX1 NMEA out: Slot 1
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM/RPM%: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	Analogue input type and scaling can be changes from XDi installation menu. Analogue input is default 4-20mA with input lost indication at <3.5mA and overload at >21mA Input error min/max must be changed via menu if analogue input type or range is changed.
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM/RPM%: DX1 S1i1:(+term11,-term10)	🔒	TPDO COBID and input data scaling can be changed from the XDi installation menu. The TPDO input can be disabled to use XDi-net instead. Digital RPM input scaling can be changes from XDi installation menu.

VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM/RPM%: TPDO/XDi	🔒	TPDO COBID and input data scaling can be changed from the XDi installation menu. The TPDO input can be disabled to use XDi-net instead. Analogue input type and scaling can be changes from XDi installation menu. Analogue input is default 4-20mA with input lost indication at <3.5mA and overload at >21mA Input error min/max must be changed via menu if analogue input type or range is changed.

VI 002	%RPM AFT

Description :   **PITCH%/RPM%**

AFT

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...110%
Digital RPM ±3276

Status :   🔒

VI Notes :   RPM% scale can be configured from the XDi menu to match different input values.
This makes this indicator quit universal.
The bargraph colour is green.

VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM/RPM%: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM/RPM%: TPDO	🔒	See similar VS profile for VI001

VS No.	Name	Description	Status	Notes
VI-setup profiles (VS) for VI002				
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM/RPM%: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM/RPM%: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM/RPM%: TPDO/XDi	🔒	See similar VS profile for VI001

VI 003	100 RPM
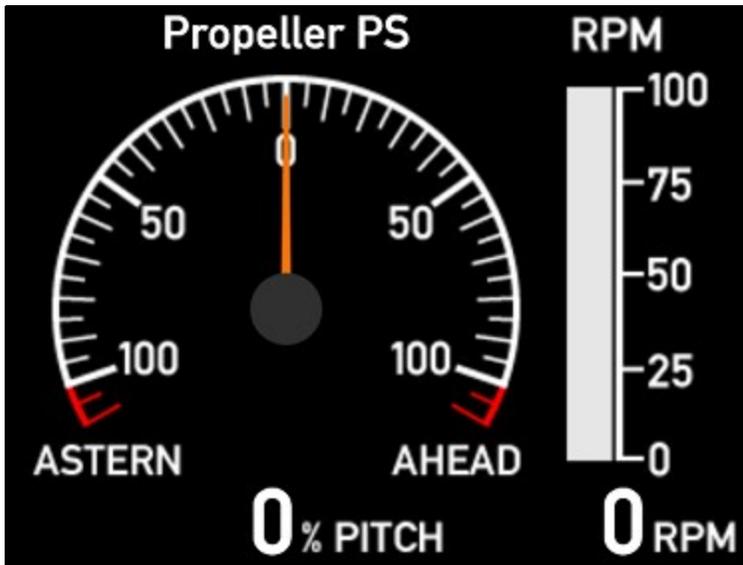
Description :	**PITCH%/RPM**
	FWD
	Main prop. Pitch ± 110% Digital Pitch ±200% RPM% 0...100 Digital RPM ±3276
Status :	🔒
VI Notes :	The RPM scale is fixed

VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI003				
VS No.	**Name**	**Description**	**Status**	**Notes**
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001

VI 004	125 RPM

Description : **PITCH%/RPM**

FWD

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...125
Digital RPM ±3276

Status : 🔒

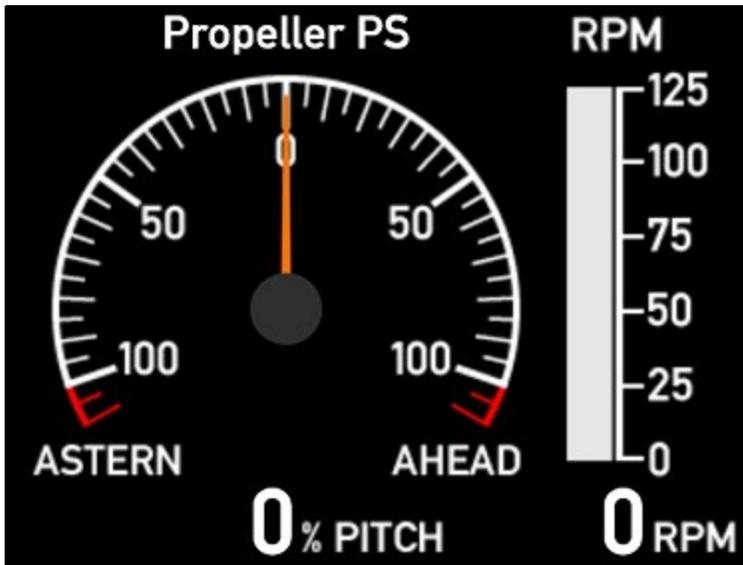**VI Notes :** The RPM scale is fixed

VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001

VI 005	150 RPM

Description : **PITCH%/RPM**

FWD

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...150
Digital RPM ±3276

Status : 🔒

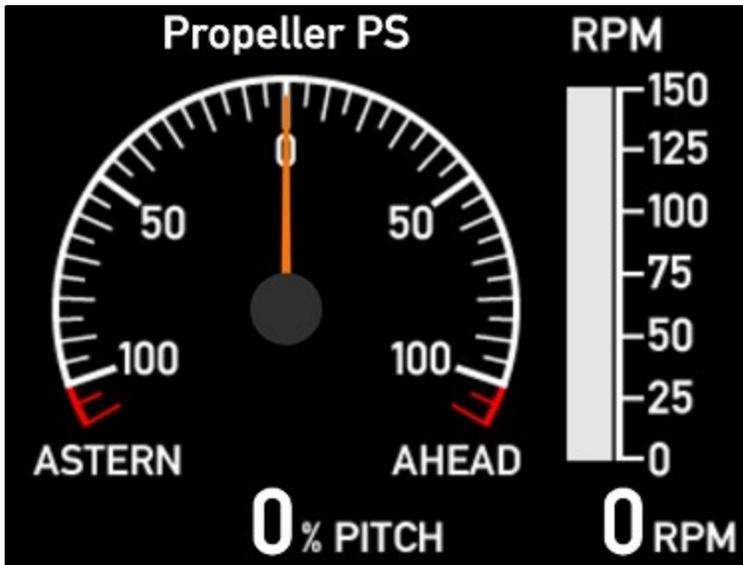**VI Notes :** The RPM scale is fixed

VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001

VI 006	200 RPM

Description : **PITCH%/RPM**

FWD

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...200
Digital RPM ±3276

Status : 🔒

VI Notes : The RPM scale is fixed
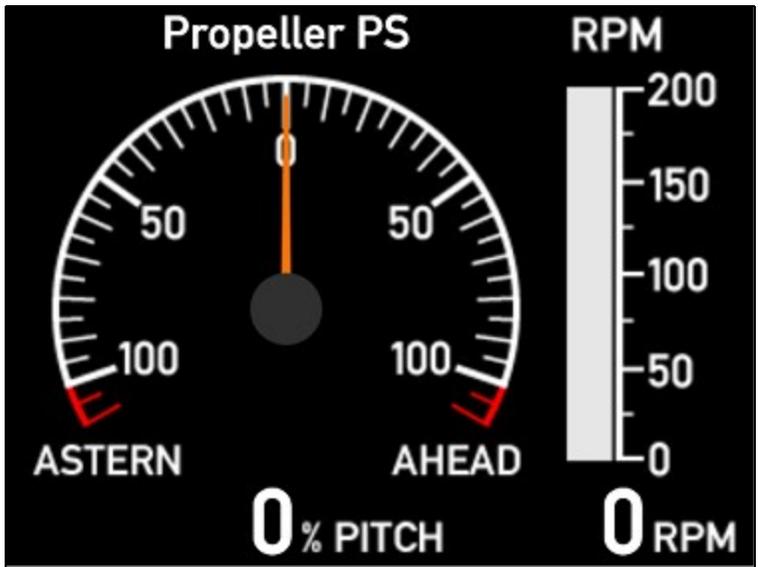
VI-setup profiles (VS) for VI006

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI006

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001

VI 007	**250 RPM**

Description : **PITCH%/RPM**

FWD

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...200
Digital RPM ±3276

Status : 🔒

VI Notes : The RPM scale is fixed
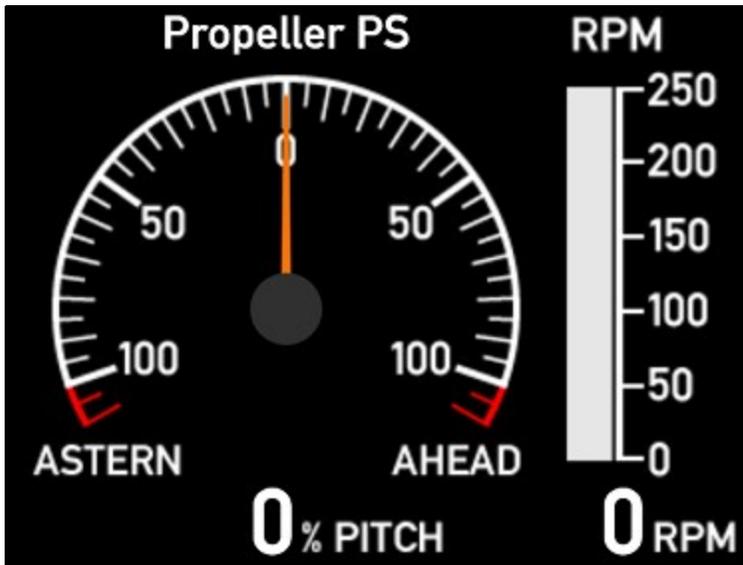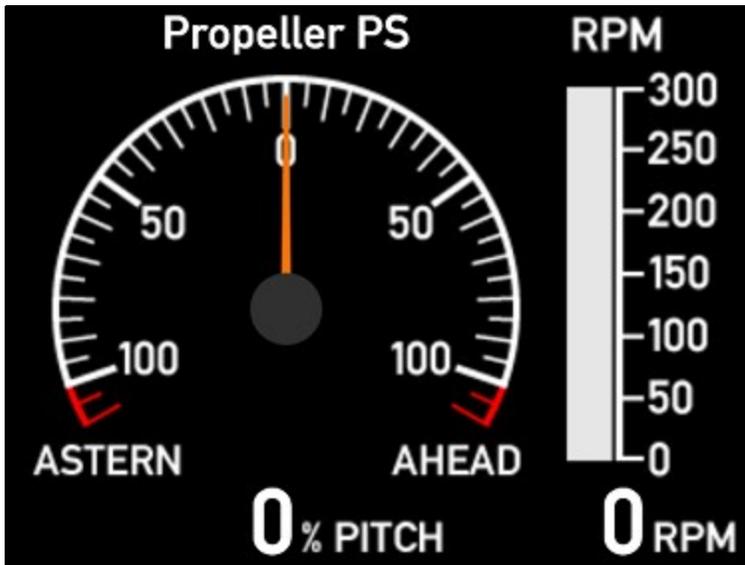
VI-setup profiles (VS) for VI007

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI007				
VS No.	**Name**	**Description**	**Status**	**Notes**
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001

VI 008	300 RPM

Description : **PITCH%/RPM**

FWD

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...300
Digital RPM ±3276

Status : 🔒

VI Notes : The RPM scale is fixed
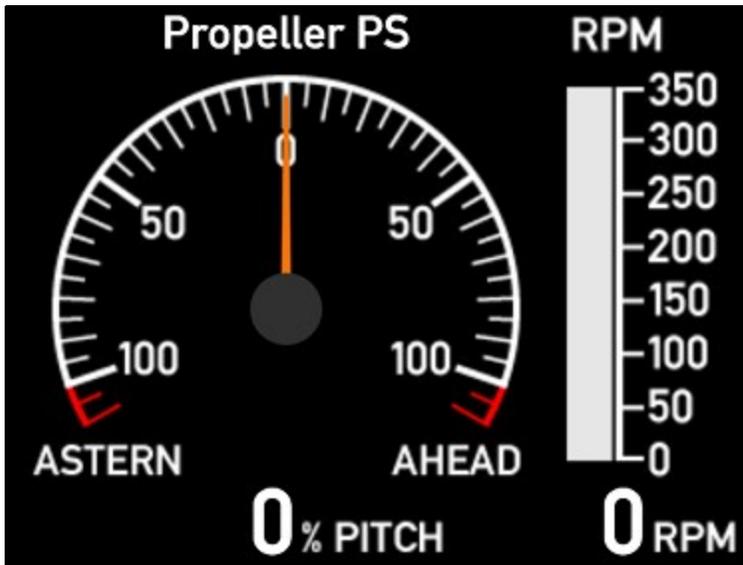

VI-setup profiles (VS) for VI008

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI008				
VS No.	**Name**	**Description**	**Status**	**Notes**
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001

VI 009	350 RPM

Description :   **PITCH%/RPM**

FWD

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...350
Digital RPM ±3276

Status :   🔒

VI Notes :   The RPM scale is fixed
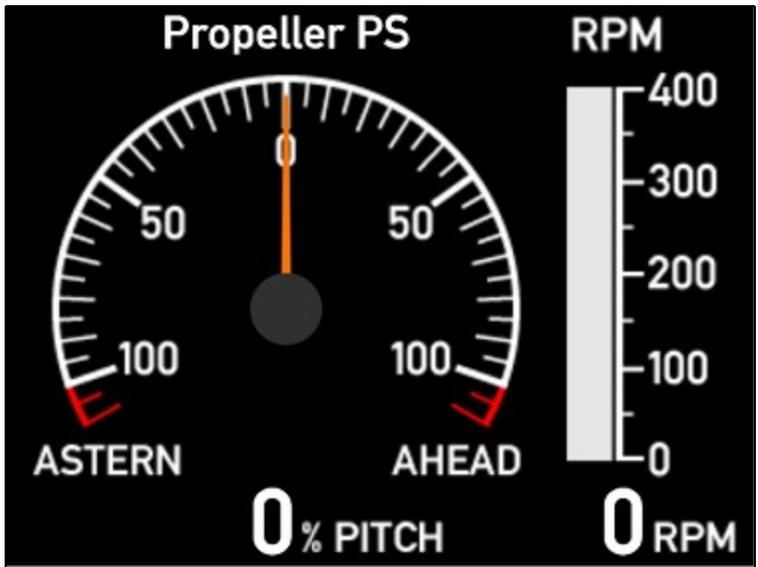
VI-setup profiles (VS) for VI009

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI009				
VS No.	**Name**	**Description**	**Status**	**Notes**
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001

VI 010	400 RPM

Description : **PITCH%/RPM**

FWD

Main prop. Pitch ± 110%
Digital Pitch ±200%
RPM% 0...400
Digital RPM ±3276

Status : 🔒

VI Notes : The RPM scale is fixed

VI-setup profiles (VS) for VI010

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**Input XDi-net** Pitch%: XDi-net RPM: XDi-net	🔒	See similar VS profile for VI001
2	VS02 TPDO	**Input TPDO** or XDi-net Pitch%: TPDO RPM: TPDO	🔒	See similar VS profile for VI001

VI-setup profiles (VS) for VI010				
VS No.	**Name**	**Description**	**Status**	**Notes**
3	VS03 Analogue	**Analogue** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 RTC	**RTC Pickup** Required: DX1 in Slot 1 Pitch%: TPDO/XDi RPM: DX1 S1i1:(+term11,-term10)	🔒	See similar VS profile for VI001
5	VS05 Ana. Pitch	**Analogue Pitch** Required: AX1 in Slot 1 Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) AX1 input lost below 3.5mA RPM: TPDO/XDi	🔒	See similar VS profile for VI001