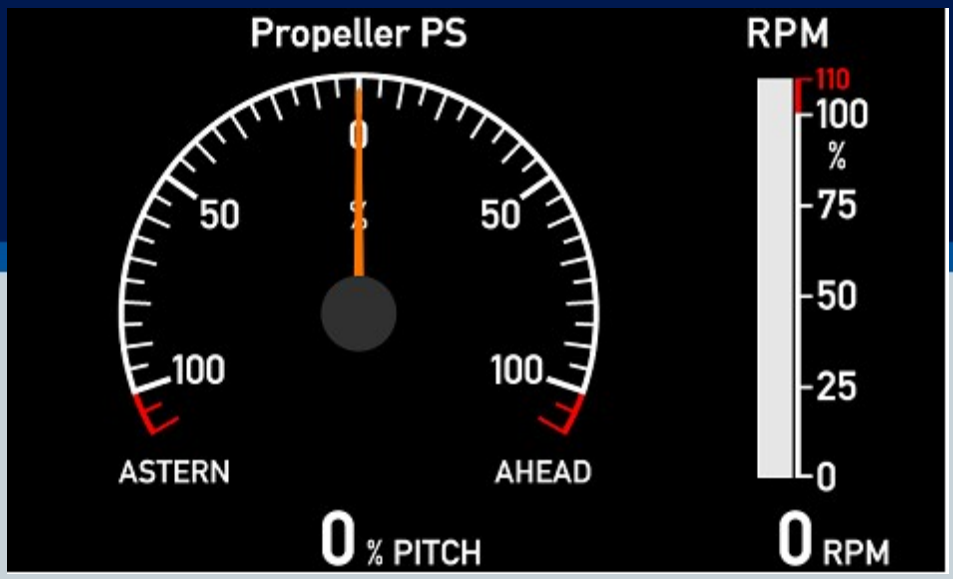
XDi 144/192 Dual

Main propulsion



Library owner: DEIF STANDARD LIB

Library number: 21

Library version: 2007

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.
With the upgrade to software Platform 2 it is possible to use dimmer from front buttons (Front button option is required) and it is also possible to make external pushbutton dimming using the NX1 module.
Analogue input error (input lost/out of range) indication is implemented in all relevant VS profiles.
GENERAL FOR STANDARD DEIF LIBRARIES:
The default CANbus setup and Dimmer configuration are defined in the selected Product Profile (PP).
In all PP's CAN1 and CAN2 are default set active for CANopen and XDi-net communication.

Library status symbols :

	Released & Locked
	Approved
	Pending
	Draft
	Not approved

Timestamp 08-02-2023 16:03:00

Library Specification

Library owner no. :	000001
Library owner name :	DEIF STANDARD LIB
Product type :	XDi 144/192
Performance class :	Dual
Library number :	21
Library name :	Main propulsion
Library orientation :	Landscape
Library status :	Released & Locked
Library version :	2007
Last changed :	08-02-2023 16:02:59

Library default settings :

180 display rotation :	False
CAN NodeID :	30

Library notes :

08-02-2023/MAP, Ver. 2007: 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.

31-05-2022/JOL, Ver.2006: Library is moved to XDi platform 2. Front button dimming is added. AX1 4-20mA input lost function are added in all relevant VS profiles.
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Ver. 0005: Max backlight level is reduced from 250 to 225 in XDi192 (only)
to increase backlight lifetime at high operating temperatures.
It can be increased to 250 again via XDi user menu.

Product profiles (PP)

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

Timestamp 08-02-2023 16:03:00

PP No.	PP Name	Description	Status	Notes
1	PP01 XDi-net/Front	**Dim XDi-net/Front button** Dimmer via XDi-net (CAN) and/or via front buttons, Requires option: Front frame with buttons Default settings: XDi-net is active Dimmer group 1 Dimming via XDi-net Auto Day/Night Shift at 70% Monitoring supply voltage 1	🔒	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 Analogue	**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 on 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 Fixed	**ECR Fixed Dimmer** Dimmer level can be adjusted via front buttons. Option: Front frame with buttons can be used. To extend the backlight life fixed backlight should not be >90% **Default settings:** XDi-net active Dimmer group: Local Dimming via XDi-net Auto Day/Night Shift at 70% 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.

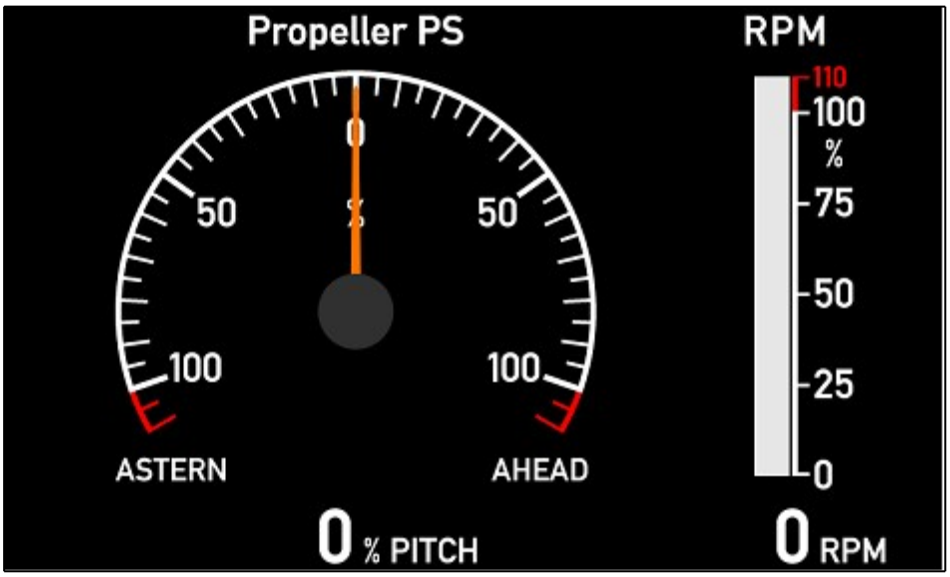
Timestamp **08-02-2023 16:03:00**

VI No.	Name	VI-setup profiles (VS)	Approvals	Status
001	%RPM FWD	4		
002	%RPM AFT	4		
003	100 RPM	4		
004	125 RPM	4		
005	150 RPM	4		
006	200 RPM	4		
007	250 RPM	4		
008	300 RPM	4		
009	350 RPM	4		
010	400 RPM	4		

Approvals only apply for XDi 192.

Timestamp 08-02-2023 16:03:00

VI 001 **%RPM FWD**



Description : **PITCH%/RPM% FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM% 0...110%
Actual RPM range ± 3276 digital readout

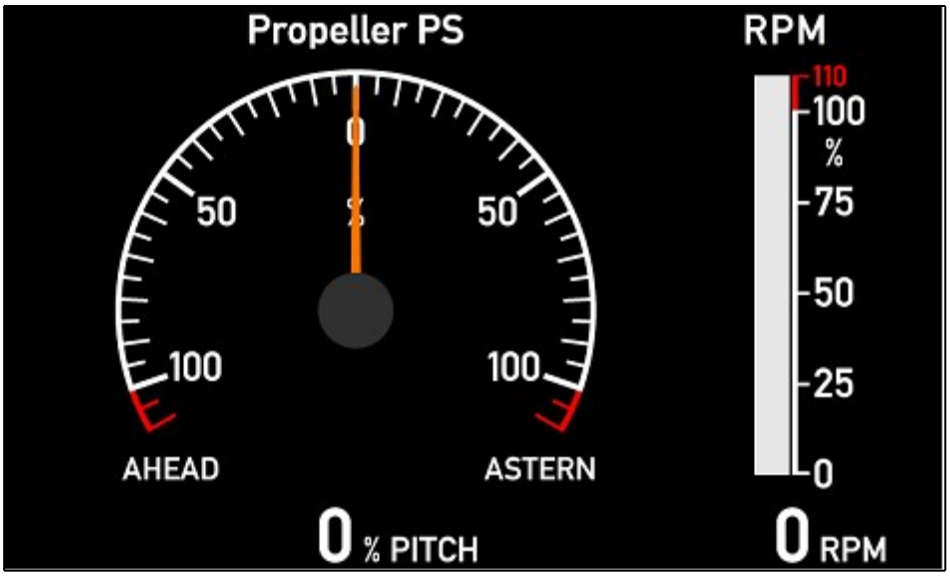
Status :

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	**All input data via 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 2
2	VS02 TPDO	**All input data via 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 2
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM/RPM%: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA	🔒	Analogue input type and scaling can be changes from XDi installation menu.
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM/RPM%: DX1 S2i1:(+term11,-term10)	🔒	Digital RPM input scaling can be changes from XDi installation menu. Analogue input type and scaling can be changes from XDi installation menu.

VI 002 **%RPM AFT**



Description : **PITCH%/RPM% AFT**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM% 0...110%
Actual RPM range ± 3276 digital readout

Status :

VI Notes : This indicator is intended for installation on the aft bridge.
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.

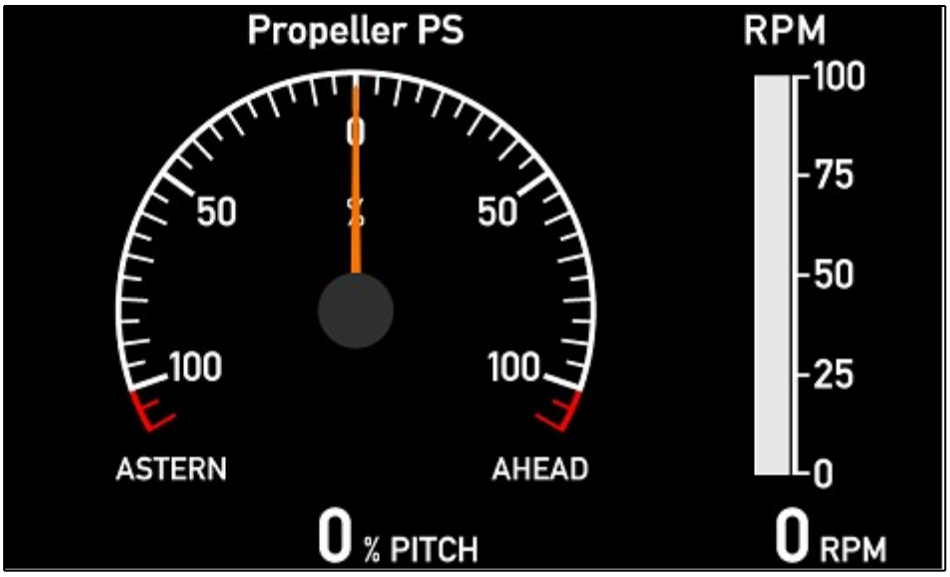
VI-setup profiles (VS) for VI002

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

VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM/RPM%: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		Analogue input type and scaling can be changes from XDi installation menu.
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM/RPM%: DX1 S2i1:(+term11,-term10)		Digital RPM input scaling can be changes from XDi installation menu. Analogue input type and scaling can be changes from XDi installation menu.

VI 003 **100 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...100
Actual RPM range ± 3276 digital readout

Status :

VI Notes : This indicator type has a fixed RPM scale.
The digital readout can exceed the bargraph indication.
The bargraph colour is green.

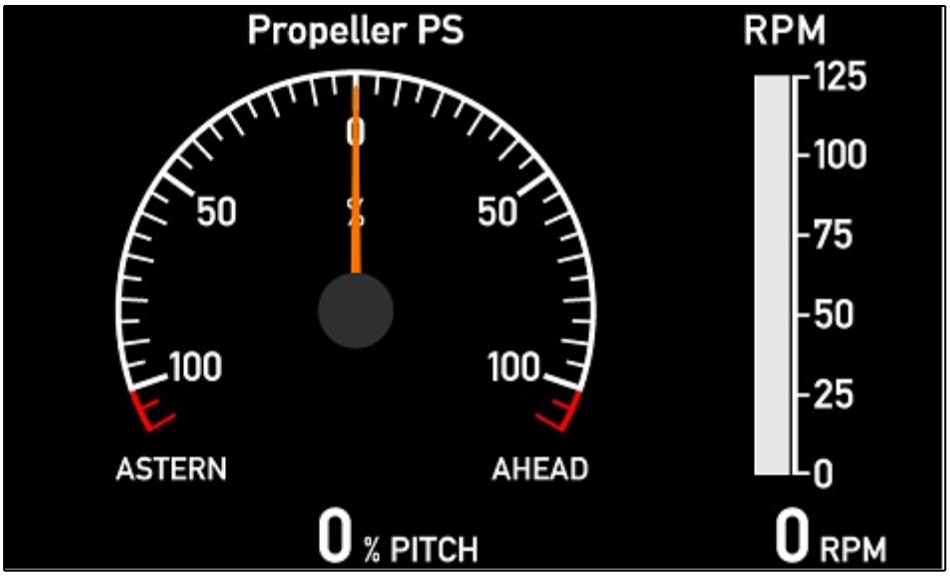
VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1:(+term11,-term10)		See similar VS profile for VI001

VI 004 **125 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...125
Actual RPM range ± 3276 digital readout

Status :

VI Notes : See note on VI003

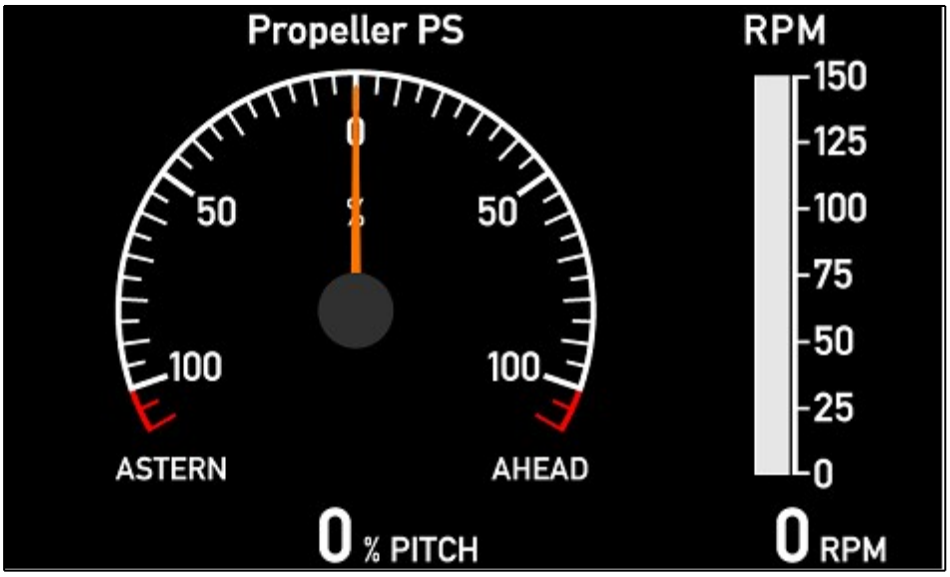
VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1: (+term11,-term10)		See similar VS profile for VI001

VI 005 **150 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...150
Actual RPM range ± 3276 digital readout

Status :

VI Notes : See note on VI003

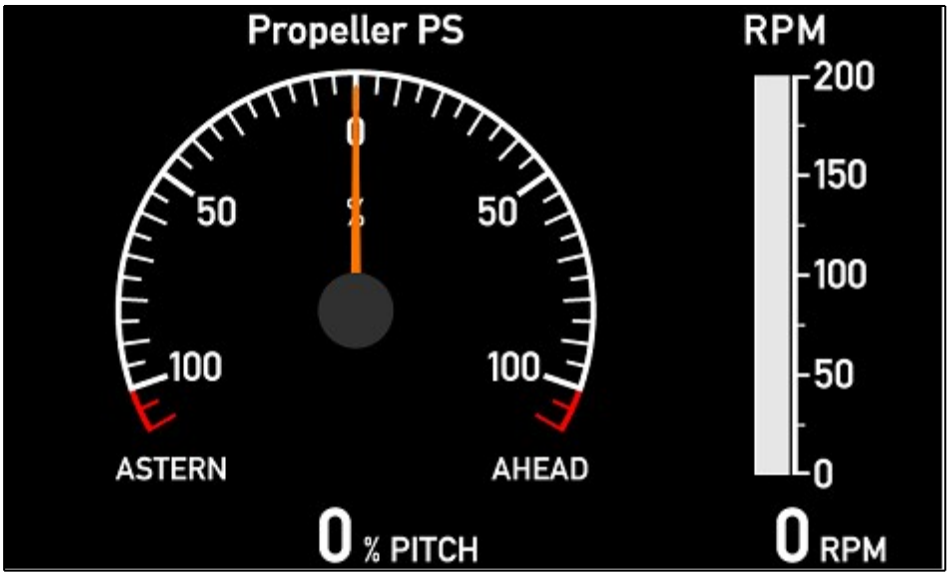
VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1: (+term11,-term10)		See similar VS profile for VI001

VI 006 **200 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...200
Actual RPM range ± 3276 digital readout

Status :

VI Notes : See note on VI003

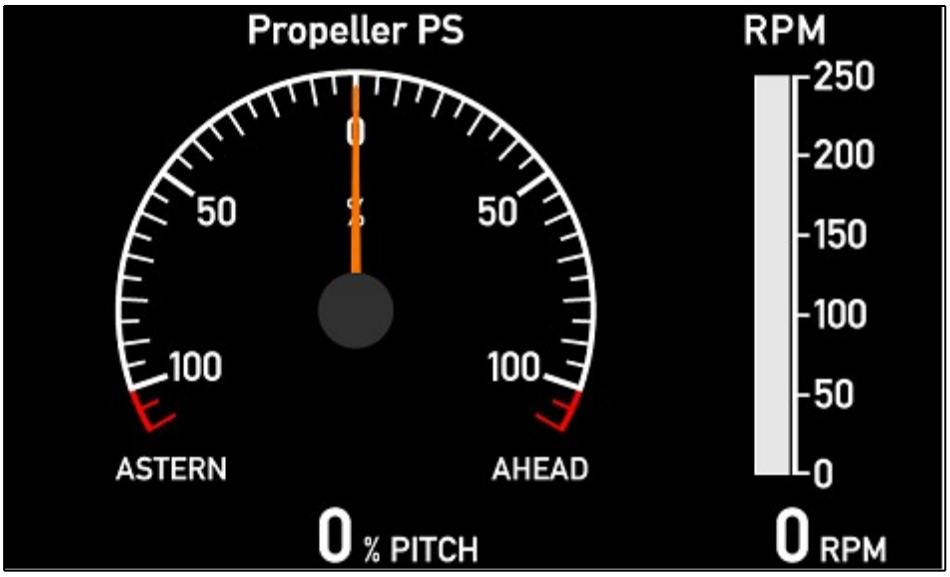
VI-setup profiles (VS) for VI006

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1:(+term11,-term10)		See similar VS profile for VI001

VI 007 **250 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...250
Actual RPM range ± 3276 digital readout

Status :

VI Notes : See note on VI003

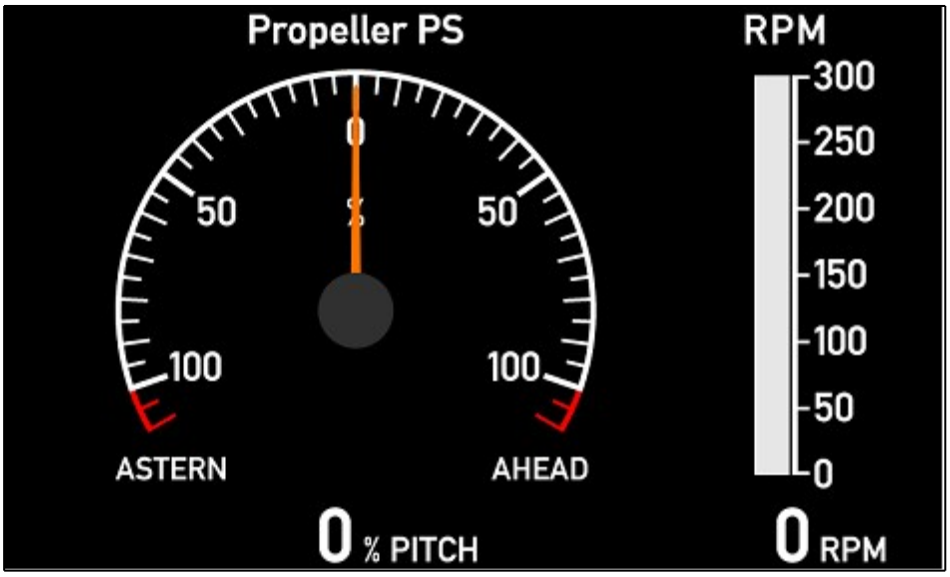
VI-setup profiles (VS) for VI007

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1:(+term11,-term10)		See similar VS profile for VI001

VI 008 **300 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...300
Actual RPM range ± 3276 digital readout

Status :

VI Notes : See note on VI003

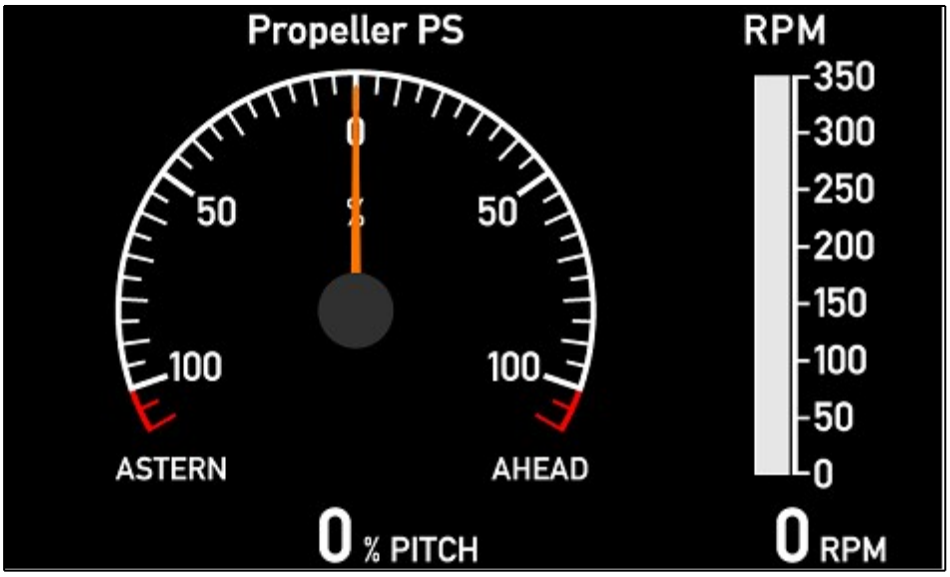
VI-setup profiles (VS) for VI008

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1:(+term11,-term10)		See similar VS profile for VI001

VI 009 **350 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...350
Actual RPM range ± 3276 digital readout

Status :

VI Notes : See note on VI003

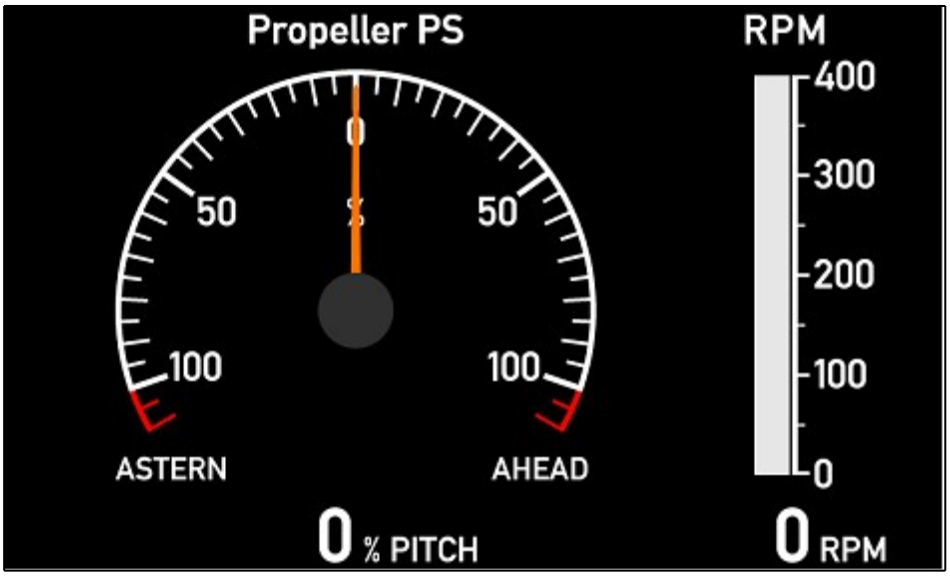
VI-setup profiles (VS) for VI009

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1:(+term11,-term10)		See similar VS profile for VI001

VI 010 **400 RPM**



Description : **PITCH%/RPM FWD**

Main prop. Pitch ± 110%
Actual Pitch ± 200% digital readout
RPM 0...400
Actual RPM range ± 3276 digital readout

Status :

VI Notes : See note on VI003

VI-setup profiles (VS) for VI010

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input data via XDi-net** Pitch%: XDi-net RPM: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input data via 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 system** Required: AX1 in Slot 1 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) RPM: AX1, S1i1: 4-20mA (+term9, -term8) Input lost below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pickup	**RTC Pickup** Required: AX1 in slot 1 and DX1 in Slot 2 Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost below 3.5mA RPM: DX1 S2i1:(+term11,-term10)		See similar VS profile for VI001