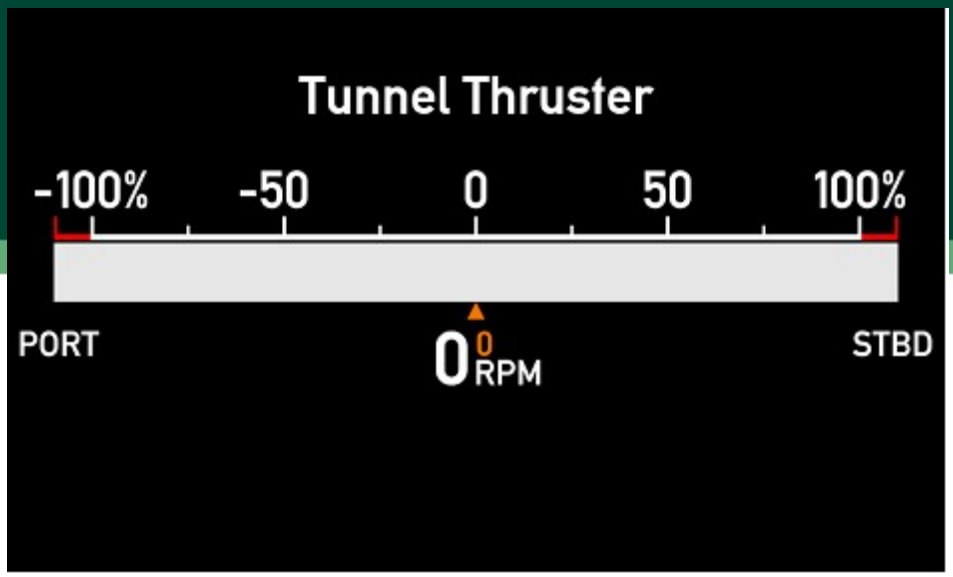
XDi 144/192 Dual

Tunnel Thruster



Library owner: DEIF STANDARD LIB

Library number: 11

Library version: 2010

Table of Contents

Library description :

This XDi Dual library contains a selection of tunnel thruster 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.
IMPORTANT: All 4-20mA inputs in this library has an input error detection function when input current is below 3.5mA (input lost) or above 21mA. If the input type and scaling is changed you must also change the error limits low and high in the input adjust menu.

PLEASE NOTE:
This library is using XDi platform 2 main software (version no. higher than 2000). It is possible to update an existing XDi "Platform1" unit to "Platform 2".
It is important that you always use the latest Upgrade tool, it can be downloaded from DEIF.com - Software.
Please also note that it will take a little longer to upgrade to a new platform than when making an update where the correct platform software is already installed.

Library status symbols :

	Released & Locked
	Approved
	Pending
	Draft
	Not approved

Timestamp 24-10-2025 12:38:26

Library Specification

Library owner no. :	000001
Library owner name :	DEIF STANDARD LIB
Product type :	XDi 144/192
Performance class :	Dual
Library number :	11
Library name :	Tunnel Thruster
Library orientation :	Landscape
Library status :	Released & Locked
Library version :	2010
Last changed :	24-10-2025 12:38:17

Library default settings :

180 display rotation :	False
CAN NodeID :	30

Library notes :

24-10-2025/JOL, Ver. 2010: VI021 Double tunnel thruster indicator RPR/RPM% FWD is added.
Support for up to 4 TT's in the same CAN network.

08-02-2023/MAP, Ver. 2009: 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.

14-07-2022/JOL, Ver.2008: PP01 and PP06 is updated with front button option.
.....
06-01-2022/JOL, Ver.2007: Added VI017, 018 (RPM/kW) and VI019, 020 (RPM/MW)
.....
08-12-2021/JOL, Ver.2006: Library is moved to XDi main software platform 2. AX1 analogue input lost detection is
added to all relevant VS profiles. PP04 DX1 setup issue in Colour shift is corected.
.....
21-01-2019/JOL, Ver. 5: 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.

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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 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.

PP No.	PP Name	Description	Status	Notes
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.
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 backlight life, fixed backlight should be below 90% **Default settings:** XDi-net active Dimmer group: Local 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.

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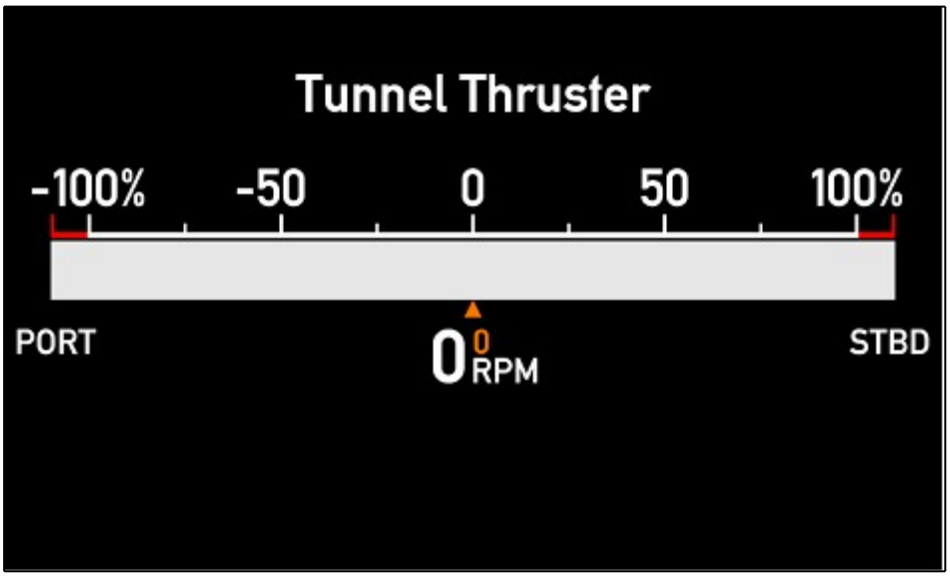
VI No.	Name	VI-setup profiles (VS)	Approvals	Status
001	TT FWD RPM	5		
002	TT AFT RPM	5		
003	TT FWD PITCH	4		
004	TT AFT PITCH	4		
005	TT FWD THRUST	3		
006	TT AFT THRUST	3		
007	Reserved	1		
008	Reserved	1		
009	Reserved	1		
010	Reserved	1		
011	TT FWD RPM	4		
012	TT AFT RPM	4		
013	TT FWD PITCH	4		
014	TT AFT PITCH	4		
015	TT FWD THRUST	3		
016	TT AFT THRUST	3		
017	TT FWD RPM,kW	4		
018	TT AFT RPM,kW	4		
019	TT FWD RPM,MW	4		

VI No.	Name	VI-setup profiles (VS)	Approvals	Status
020	TT AFT RPM,MW	4		
021	2xTT FWD RPM	8		

 Approvals only apply for XDi 192.

Timestamp 24-10-2025 12:38:26

VI 001 **TT FWD RPM**



Description : **THRUSTER FWD RPM**

Tunnel Thruster RPM ±110%
Actual RPM range ±3276 with digital readout

All with set point

Status :

VI Notes : Bargraph is green to Sarboard and red to Portside

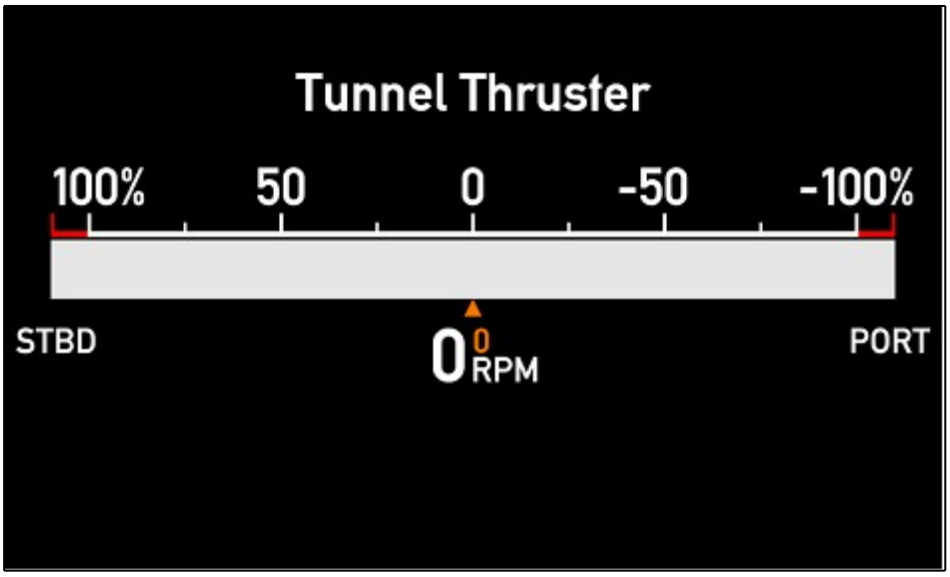
VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** RPM/RPM%: XDi-net RPM/RPM% set-point: 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 output module.
2	VS02 TPDO	**All input via TPDO** or XDi-net RPM/RPM%: TPDO (XDi-net) RPM/RPM% set-point: TPDO (XDi-net)	🔒	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 output module.
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) RPM/RPM% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA	🔒	Analogue input type and scaling can be changes from XDi installation menu. Support for NX1 NMEA output module.

VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
4	VS04 DX-RPM	**DX-RPM Pickup** Required: AX1 in Slot 1 and DX1 in Slot 2 RPM/RPM%: DX1 S2i1: (+term11, -term10) S2i2 (+term9, -term8) RPM/RPM% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		Digital RPM input scaling can be changes from XDi installation menu. Analogue input type and scaling can be changes from XDi installation menu.
5	VS05 Analogue Set	**Use with VS4** Required: AX1 in Slot 1 RPM/RPM%: CAN TPDO (XDi-net) RPM/RPM% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		Support for NX1 NMEA output module.

VI 002 **TT AFT RPM**



Description : **THRUSTER AFT RPM**

Tunnel Thruster RPM ±110%
Actual RPM range ±3276 with digital readout

All with set point

Status :

VI Notes : Bargraph is green to Sarboard and red to Portside

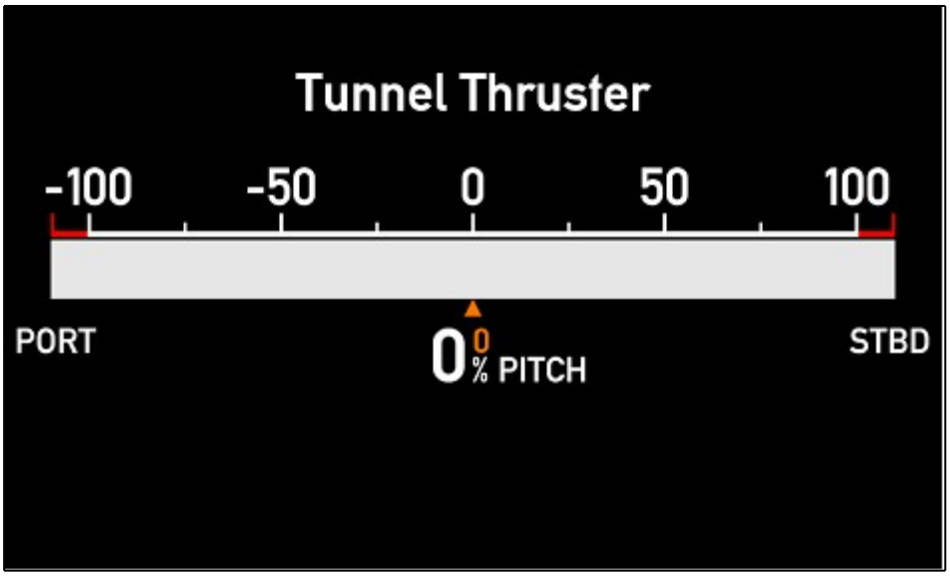
VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** RPM/RPM%: XDi-net RPM/RPM% set-point: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**TPDO** or XDi-net RPM/RPM%: TPDO (XDi-net) RPM/RPM% set-point: TPDO (XDi-net)		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 RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) RPM/RPM% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA	🔒	See similar VS profile for VI001
4	VS04 DX-RPM	**DX-RPM Pickup** Required: AX1 in Slot 1 and DX1 in Slot 2 RPM/RPM%: DX1 S2i1: (+term11, -term10) S2i2 (+term9, -term8) RPM/RPM% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA	🔒	See similar VS profile for VI001
5	VS05 Analogue Set	**use with VS4** Required: AX1 in Slot 1 RPM/RPM%: CAN TPDO (XDi-net) RPM/RPM% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA	🔒	See similar VS profile for VI001

VI 003 **TT FWD PITCH**



Description : **THRUSTER FWD PITCH**

Tunnel Thruster Pitch ±110%
Actual Pitch range ±200% with digital readout

All with set point

Status :

VI Notes : Bargraph is green to Sarboard and red to Portside

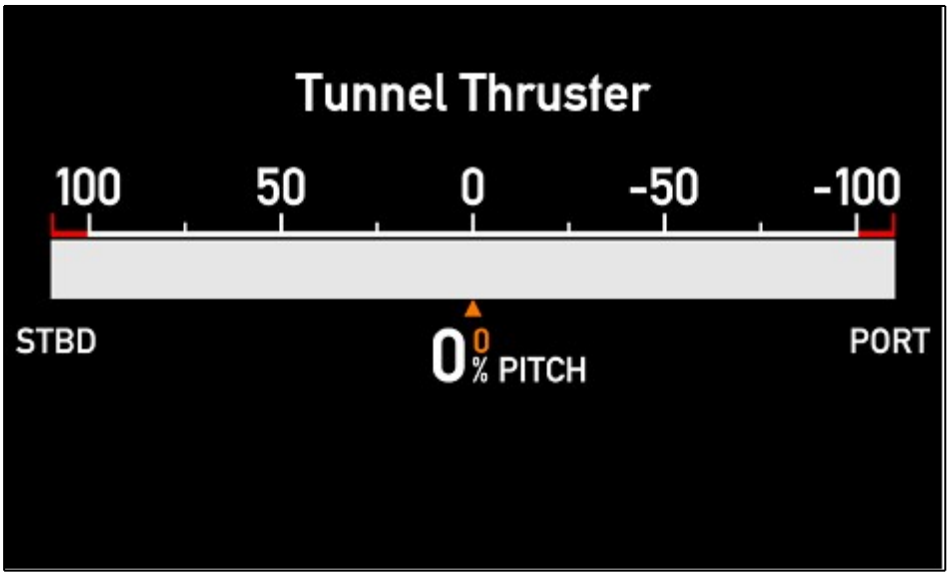
VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** Pitch%: XDi-net Pitch% set-point: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input via TPDO** or XDi-net Pitch%: TPDO (XDi-net) Pitch% set-point: TPDO (XDi-net)		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 S1i1: 4-20mA (+term9, -term8) Pitch% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pitch	**Analogue setpoint** Required: AX1 in Slot 1 Pitch%: TPDO RTC/(XDi-net) Pitch% set-point: AX1 S1i2: 4-20mA (+term9, -term8) Input lost if below 3.5mA		See similar VS profile for VI001

VI 004 **TT AFT PITCH**



Description : **THRUSTER AFT PITCH**

Tunnel Thruster Pitch ±110%
Actual Pitch range ±200% with digital readout

All with set point

Status :

VI Notes : Bargraph is green to Sarboard and red to Portside

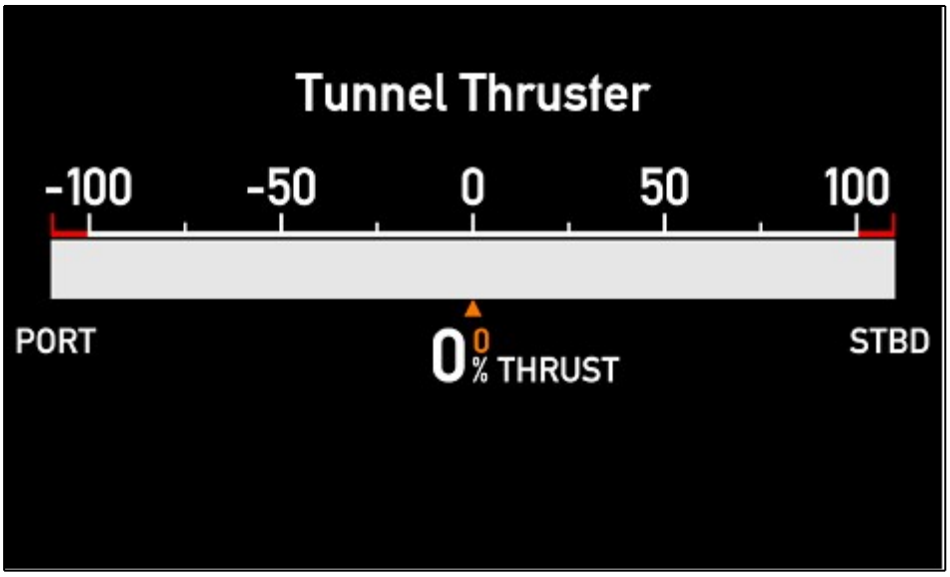
VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** Pitch%: XDi-net Pitch% set-point: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input via TPDO** or XDi-net Pitch%: TPDO (XDi-net) Pitch% set-point: TPDO (XDi-net)		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 S1i1: 4-20mA (+term9, -term8) Pitch% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001
4	VS04 RTC Pitch	**Analogue setpoint** Required: AX1 in Slot 1 Pitch%: TPDO RTC/(XDi-net) Pitch% set-point: AX1 S1i2: 4-20mA (+term9, -term8) Input lost if below 3.5mA		See similar VS profile for VI001

VI 005 **TT FWD THRUST**



Description : **THRUSTER FWD THRUST**

Tunnel Thruster ±110%
Actual Thrust range ±200% with digital readout

All with set point

Status :

VI Notes : Bargraph is green to Sarboard and red to Portside

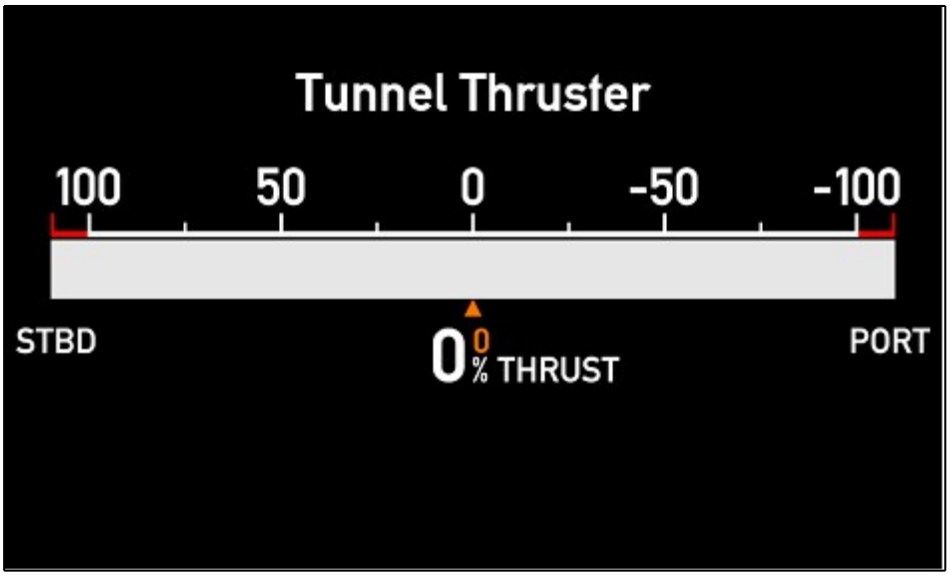
VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** Thrust%: XDi-net Thrust% set-point: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input via TPDO** or XDi-net Pitch%: TPDO (XDi-net) Pitch% set-point: TPDO (XDi-net)		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 Thrust%: AX1 S1i1: 4-20mA (+term9, -term8) Thrust% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001

VI 006 **TT AFT THRUST**



Description : **THRUSTER AFT THRUST**

Tunnel Thruster ±110%
Actual Thrust range ±200% with digital readout

All with set point

Status :

VI Notes : Bargraph is green to Sarboard and red to Portside

VI-setup profiles (VS) for VI006

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** Thrust%: XDi-net Thrust% set-point: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input via TPDO** or XDi-net Pitch%: TPDO (XDi-net) Pitch% set-point: TPDO (XDi-net)		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 Thrust%: AX1 S1i1: 4-20mA (+term9, -term8) Thrust% set-point: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001

VI 007 **Reserved**

Description : **Reserved**

Reserved for future use

Status :

VI Notes :

VI-setup profiles (VS) for VI007

VS No.	Name	Description	Status	Notes
1	Setup	**Setup** Add description Add description.		

VI 008 **Reserved**

Description : **Reserved**

Reserved for future use

Status :

VI Notes :

VI-setup profiles (VS) for VI008

VS No.	Name	Description	Status	Notes
1	Setup	**Setup** Add description Add description.		

VI 009 **Reserved**

Description : **Reserved**

Reserved for future use

Status :

VI Notes :

VI-setup profiles (VS) for VI009

VS No.	Name	Description	Status	Notes
1	Setup	**Setup** Add description Add description.		

VI 010 **Reserved**

Description : **Reserved**

Reserved for future use

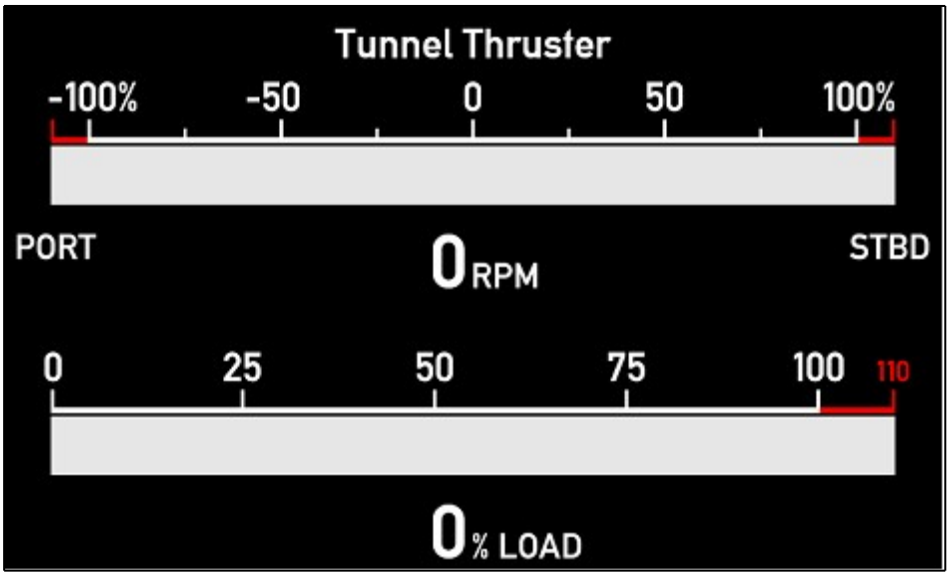
Status :

VI Notes :

VI-setup profiles (VS) for VI010

VS No.	Name	Description	Status	Notes
1	Setup	**Setup** Add description Add description.		

VI 011 **TT FWD RPM**



Description : **THRUSTER FWD RPM**

Tunnel Thruster RPM ±110%
Actual RPM range ±3276 with digital readout
Tunnel Thruster Load 0...110%
Actual Load ±200% with digital readout

Status :

VI Notes : Upper bargraph is green to Sarboard and red to Portside
Lower bargraph is green

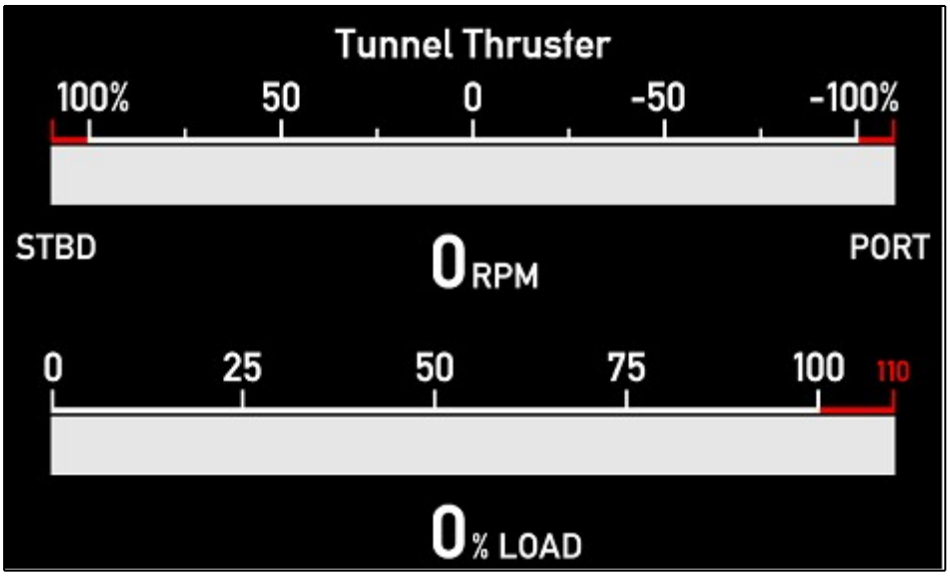
VI-setup profiles (VS) for VI011

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

VI-setup profiles (VS) for VI011

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) Load%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001
4	VS04 DX-RPM	**Analogue Load** Required: AX1 in Slot 1 and DX1 in Slot 2 RPM/RPM%: DX1 S2i1: (+term11, -term10) S2i2: (+term8, -term7) Load%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001

VI 012 **TT AFT RPM**



Description : **THRUSTER AFT RPM**

Tunnel Thruster RPM ±110%
Actual RPM range ±3276 with digital readout
Tunnel Thruster Load 0...110%
Actual Load ±200% with digital readout

Status :

VI Notes : Upper bargraph is green to Sarboard and red to Portside
Lower bargraph is green

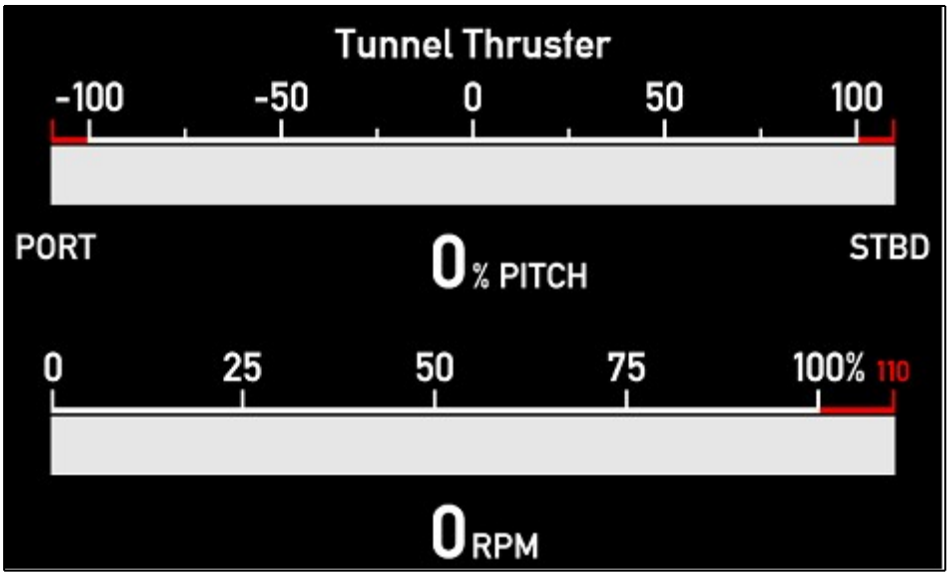
VI-setup profiles (VS) for VI012

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

VI-setup profiles (VS) for VI012

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) Load%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001
4	VS04 DX-RPM	**Analogue Load** Required: AX1 in Slot 1 and DX1 in Slot 2 RPM/RPM%: DX1 S2i1: (+term11, -term10) S2i2: (+term8, -term7) Load%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001

VI 013 **TT FWD PITCH**



Description : **THRUSTER FWD PITCH**

Tunnel Thruster Pitch ±110%
Actual Pitch range ±200% with digital readout
Tunnel Thruster RPM 0...110%
Actual RPM range ±3276 with digital readout

Status :

VI Notes : Upper bargraph is green to Sarboard and red to Portside
Lower bargraph is green

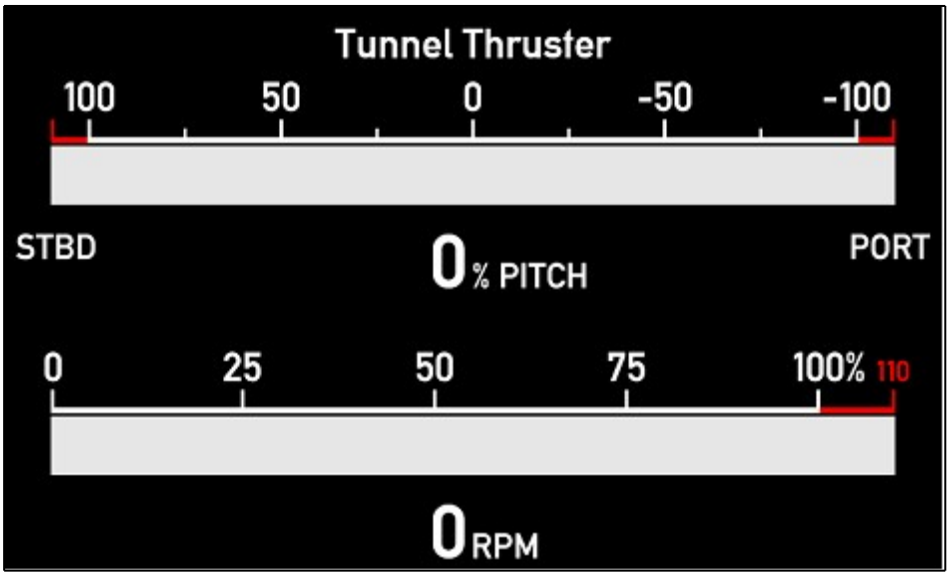
VI-setup profiles (VS) for VI013

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

VI-setup profiles (VS) for VI013

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001
4	VS04 DX-RPM Pickup	**Analogue Pitch** Required: AX1 in Slot 1, DX1 in Slot 2 RPM/RPM%: DX1 S2i1: (+term11, -term10) Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) Input lost if below 3.5mA		See similar VS profile for VI001

VI 014 **TT AFT PITCH**



Description : **THRUSTER AFT PITCH**

Tunnel Thruster Pitch ±110%
Actual Pitch range ±200% with digital readout
Tunnel Thruster RPM 0...110%
Actual RPM range ±3276 with digital readout

Status :

VI Notes : Upper bargraph is green to Sarboard and red to Portside
Lower bargraph is green

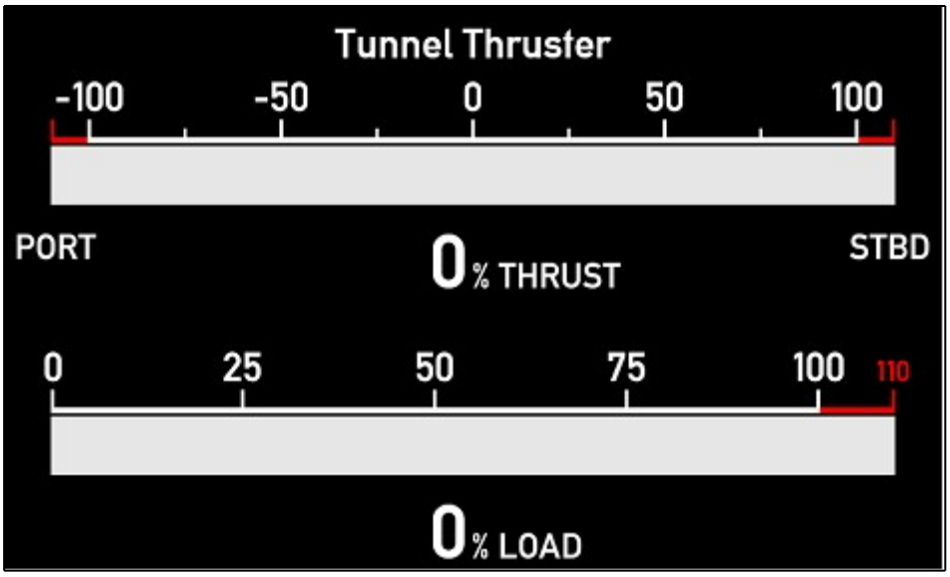
VI-setup profiles (VS) for VI014

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

VI-setup profiles (VS) for VI014

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) Pitch%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001
4	VS04 DX-RPM Pickup	**Analogue Pitch** Required: AX1 in Slot 1 and DX1 in Slot 2 RPM/RPM%: DX1 S2i1: (+term11, -term10) Pitch%: AX1 S1i1: 4-20mA (+term9, -term8) Input lost if below 3.5mA		See similar VS profile for VI001

VI 015 **TT FWD THRUST**



Description : **THRUSTER FWD THRUST**

Tunnel Thruster ±110%
Actual Thrust range ±200% with digital readout
Tunnel Thruster Load 0...110%
Actual Load ±200% with digital readout

Status :

VI Notes : Upper bargraph is green to Sarboard and red to Portside
Lower bargraph is green

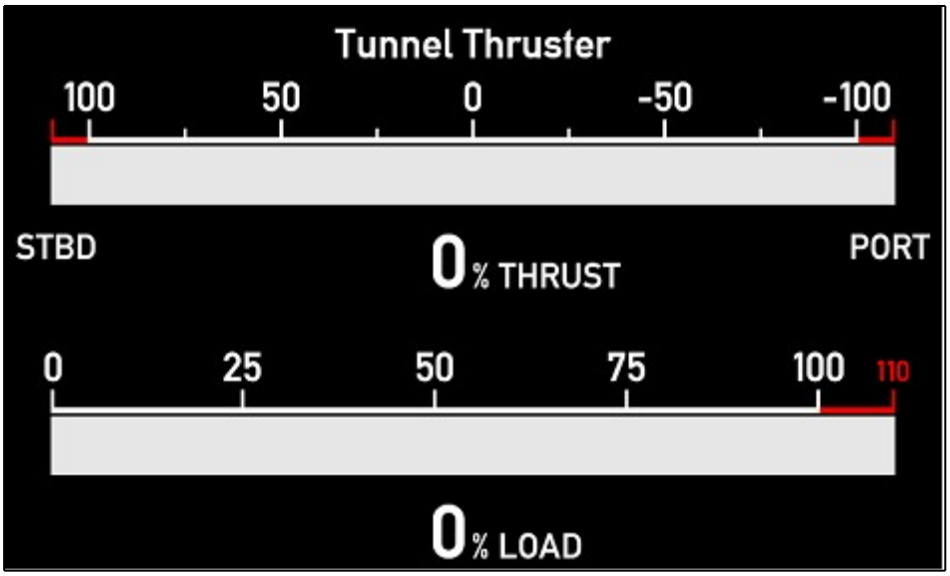
VI-setup profiles (VS) for VI015

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** Thrust%: XDi-net Load%: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input via TPDO** or XDi-net Thrust%: TPDO (XDi-net) Load%: TPDO (XDi-net)		See similar VS profile for VI001

VI-setup profiles (VS) for VI015

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 Thrust%: AX1 S1i1: 4-20mA (+term9, -term8) Load%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001

VI 016 **TT AFT THRUST**



Description : **THRUSTER AFT THRUST**

Tunnel Thruster ±110%
Actual Thrust range ±200% with digital readout
Tunnel Thruster Load 0...110%
Actual Load ±200% with digital readout

Status :

VI Notes : Upper bargraph is green to Sarboard and red to Portside
Lower bargraph is green

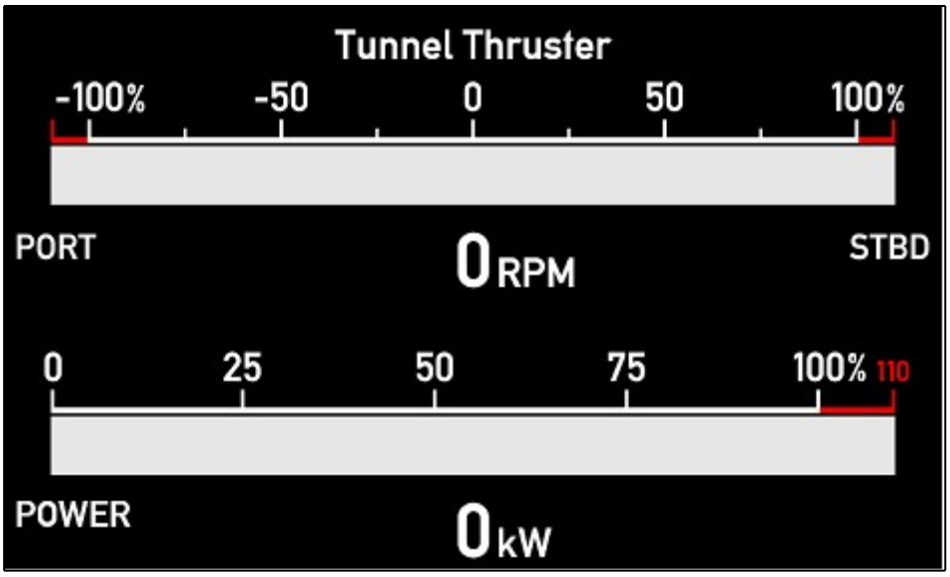
VI-setup profiles (VS) for VI016

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** Thrust%: XDi-net Load%: XDi-net		See similar VS profile for VI001
2	VS02 TPDO	**All input via TPDO** or XDi-net Thrust%: TPDO (XDi-net) Load%: TPDO (XDi-net)		See similar VS profile for VI001

VI-setup profiles (VS) for VI016

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 Thrust%: AX1 S1i1: 4-20mA (+term9, -term8) Load%: AX1 S1i2: 4-20mA (+term5, -term4) Input lost if below 3.5mA		See similar VS profile for VI001

VI 017 **TT FWD RPM,kW**



Description : **TT FWD RPM/PWR/kW**

Tunnel Thruster RPM ±110%
Digital RPM readout max. range ±3276RPM
Tunnel Thruster Power 0...110%
Digital Power readout max. range 0-32500kW
Selectable headline and Power% label

Status :

VI Notes : The label Power can be changed to Load

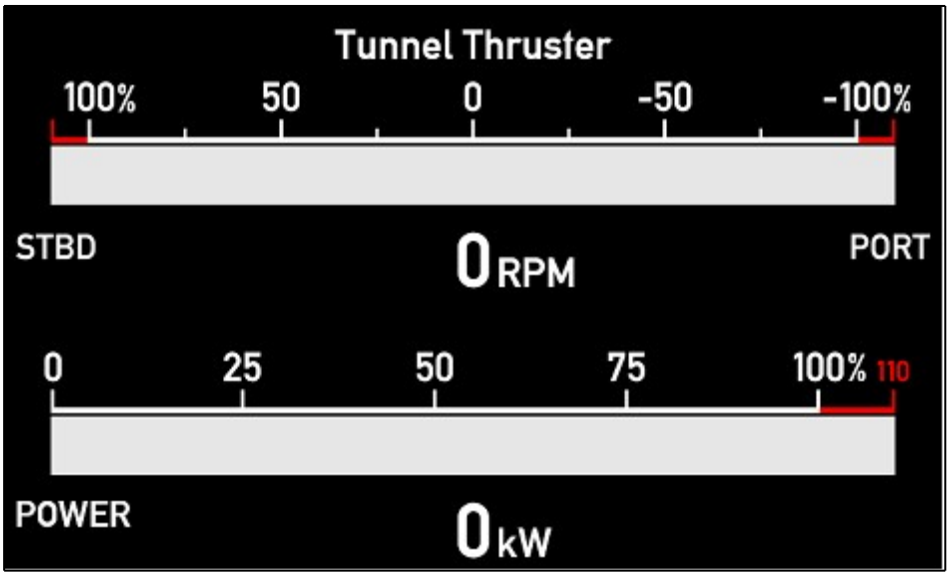
VI-setup profiles (VS) for VI017

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** XDi-net data 16bit signed RPM: 0x3081:02 RPM%: 0x3091:02 (1000=100.0RPM, resolution 0.1) POWER%: 0x30B1:02 (1000=100.0%, resolution 0.1) POWER kW: 0x30E1:02 (1000=1000kW, resolution 1)		

VI-setup profiles (VS) for VI017

VS No.	Name	Description	Status	Notes
2	VS02 TPDO	**All input via TPDO** or XDi-net 16bit signed TPDO1 / XDi-net RPM: COBID 0x183 / 0x3081:02 RPM%: Calculated from 0x183 / 0x3091:02 Default +/-100.0% = +/-2000.0RPM (1000=100.0, resolution 0.1) POWER%: COBID 0x185 / 0x30B1:02 (1000=100.0%, resolution 0.1) POWER kW: COBID 0x18C / 0x30E1:02 (1000=1000kW, resolution 1)		
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 **RPM/RPM%:** AX1 S1i1: 4-20mA (+term9, -term8) Default: 4mA = -1980.0RPM, 12mA = 0RPM 20mA = 1980.0 RPM and +/-100% = +/-1800.0RPM **Power%/kW:** AX1 S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0kW, 20mA = 2200 kW and +100% = 2000 kW Input lost if below 3.5mA		The analogue input can be adjusted from XDi menu. The input type can be changed from mA to voltage. If you change input type or input range, remember to change the analogue input min/max error range values. Default they are set to 3500µA and 21000µA. (in voltage mode input and error values are in mV)
4	VS04 DX-RPM	**Digital/Analogue** Required: AX1 in Slot 1 and DX1 in Slot 2 **RPM/RPM%:** DX1, S2i1: (+term11, -term10) S2i2: (+term8, -term7) Default 1000 pulses per 100 revolutions +/-100% = +/-2000.0 RPM **Power%/kW:** AX1, S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0kW, 20mA = 2200 kW and +100% = 2000 kW Input lost if below 3.5mA		Default RPM and RPM% input scaling can be changes from XDi installation menu. The analogue input can be adjusted from XDi menu. The input type can be changed from mA to voltage. If you change input type or input range, remember to change the analogue input min/max error range values. Default they are set to 3500µA and 21000µA. (in voltage mode input and error values are in mV)

VI 018 **TT AFT RPM,kW**



Description : **TT AFT RPM/PWR/kW**

Tunnel Thruster RPM ±110%
Digital RPM readout max. range ±3276RPM
Tunnel Thruster Power 0...110%
Digital Power readout max. range 0-32500kW
Selectable headline and Power% label

Status :

VI Notes : The label Power can be changed to Load

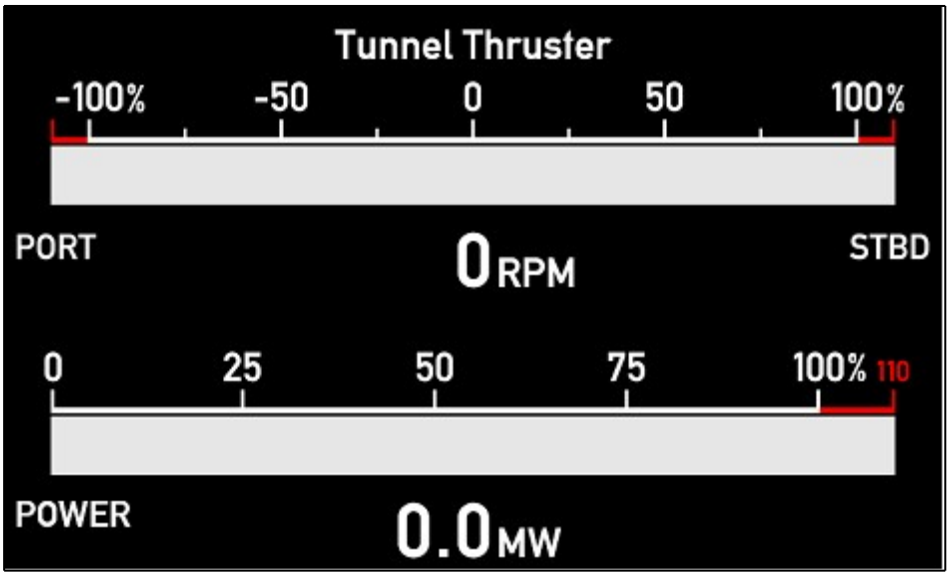
VI-setup profiles (VS) for VI018

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** XDi-net data 16bit signed RPM: 0x3081:02 RPM%: 0x3091:02 (1000=100.0RPM, resolution 0.1) POWER%: 0x30B1:02 (1000=100.0%, resolution 0.1) POWER kW: 0x30E1:02 (1000=1000kW, resolution 1)		

VI-setup profiles (VS) for VI018

VS No.	Name	Description	Status	Notes
2	VS02 TPDO	**All input via TPDO** or XDi-net 16bit signed TPDO1 / XDi-net RPM: COBID 0x183 / 0x3081:02 RPM%: Calculated from 0x183 / 0x3091:02 Default +/-100.0% = +/-2000.0RPM (1000=100.0, resolution 0.1) POWER%: COBID 0x185 / 0x30B1:02 (1000=100.0%, resolution 0.1) POWER kW: COBID 0x18C / 0x30E1:02 (1000=1000kW, resolution 1)		
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 **RPM/RPM%:** AX1 S1i1: 4-20mA (+term9, -term8) Default: 4mA = -1980.0RPM, 12mA = 0RPM 20mA = 1980.0 RPM and +/-100% = +/-1800.0RPM **Power%/kW:** AX1 S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0kW, 20mA = 2200 kW and +100% = 2000 kW Input lost if below 3.5mA		
4	VS04 DX-RPM	**Digital/Analogue** Required: AX1 in Slot 1 and DX1 in Slot 2 **RPM/RPM%:** DX1, S2i1: (+term11, -term10) S2i2: (+term8, -term7) Default 1000 pulses per 100 revolutions +/-100% = +/-2000.0 RPM **Power%/kW:** AX1, S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0kW, 20mA = 2200 kW and +100% = 2000 kW Input lost if below 3.5mA		

VI 019 **TT FWD RPM,MW**



Description : **TT FWD RPM/PWR/MW**

Tunnel Thruster RPM ±110%
Digital RPM readout max. range ±3276RPM
Tunnel Thruster Power 0...110%
Digital Power readout max. range 0-999.9MW
Selectable headline and Power% label

Status :

VI Notes :

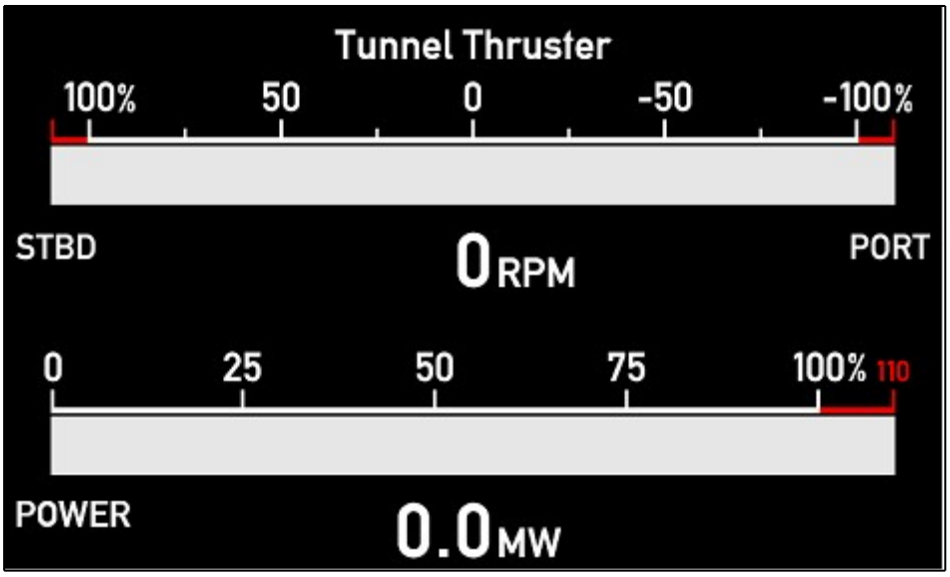
VI-setup profiles (VS) for VI019

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** XDi-net data 16bit signed RPM: 0x3081:02 RPM%: 0x3091:02 (1000=100.0RPM, resolution 0.1) POWER%: 0x30B1:02 (1000=100.0%, resolution 0.1) POWER MW: 0x30D1:02 (1000=100.0MW, resolution 0.1)		

VI-setup profiles (VS) for VI019

VS No.	Name	Description	Status	Notes
2	VS02 TPDO	**All input via TPDO** or XDi-net 16bit signed TPDO1 / XDi-net RPM: COBID 0x183 / 0x3081:02 RPM%: Calculated from 0x183 / 0x3091:02 Default +/-100.0% = +/-2000.0RPM (1000=100.0, resolution 0.1) POWER%: COBID 0x185 / 0x30B1:02 (1000=100.0%, resolution 0.1) POWER MW: COBID 0x18C / 0x30D1:02 (1000=100.0MW, resolution 1)		
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 **RPM/RPM%:** AX1 S1i1: 4-20mA (+term9, -term8) Default: 4mA = -1980.0RPM, 12mA = 0RPM 20mA = 1980.0 RPM and +/-100% = +/-1800.0RPM **Power%/MW:** AX1 S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0MW, 20mA = 22.0 MW and +100% = 20.0 MW Input lost if below 3.5mA		
4	VS04 DX-RPM	**Digital/Analogue** Required: AX1 in Slot 1 and DX1 in Slot 2 **RPM/RPM%:** DX1, S2i1: (+term11, -term10) S2i2: (+term8, -term7) Default 1000 pulses per 100 revolutions +/-100% = +/-2000.0 RPM **Power%/MW:** AX1, S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0MW, 20mA = 22.0 MW and +100% = 20.0 MW Input lost if below 3.5mA		

VI 020 **TT AFT RPM,MW**



Description : **TT AFT RPM/PWR/MW**

Tunnel Thruster RPM ±110%
Digital RPM readout max. range ±3276RPM
Tunnel Thruster Power 0...110%
Digital Power readout max. range 0-999.9MW
Selectable headline and Power% label

Status :

VI Notes :

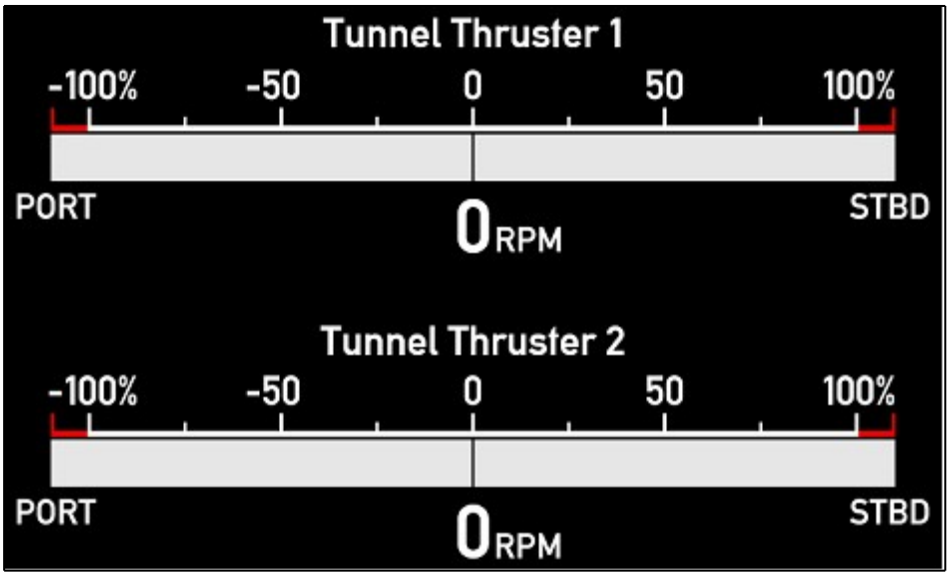
VI-setup profiles (VS) for VI020

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** XDi-net data 16bit signed RPM: 0x3081:02 RPM%: 0x3091:02 (1000=100.0RPM, resolution 0.1) POWER%: 0x30B1:02 (1000=100.0%, resolution 0.1) POWER MW: 0x30D1:02 (1000=100.0MW, resolution 0.1)		

VI-setup profiles (VS) for VI020

VS No.	Name	Description	Status	Notes
2	VS02 TPDO	**All input via TPDO** or XDi-net 16bit signed TPDO1 / XDi-net RPM: COBID 0x183 / 0x3081:02 RPM%: Calculated from 0x183 / 0x3091:02 Default +/-100.0% = +/-2000.0RPM (1000=100.0, resolution 0.1) POWER%: COBID 0x185 / 0x30B1:02 (1000=100.0%, resolution 0.1) POWER MW: COBID 0x18C / 0x30D1:02 (1000=100.0MW, resolution 1)		
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 **RPM/RPM%:** AX1 S1i1: 4-20mA (+term9, -term8) Default: 4mA = -1980.0RPM, 12mA = 0RPM 20mA = 1980.0 RPM and +/-100% = +/-1800.0RPM **Power%/MW:** AX1 S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0MW, 20mA = 22.0 MW and +100% = 20.0 MW Input lost if below 3.5mA		
4	VS04 DX-RPM	**Digital RPM/Analogue MW** Required: AX1 in Slot 1 and DX1 in Slot 2 **RPM/RPM%:** DX1, S2i1: (+term11, -term10) S2i2: (+term8, -term7) Default 1000 pulses per 100 revolutions +/-100% = +/-2000.0 RPM **Power%/MW:** AX1, S1i2: 4-20mA (+term5, -term4) Default: 4mA = 0MW, 20mA = 22.0 MW and +100% = 20.0 MW Input lost if below 3.5mA		

VI 021 **2xTT FWD RPM**



Description : **2 x Tunnel thr. RPM FWD**

Tunnel Thruster 1 and 2: RPM ±110%
Digital readout of RPM range ±3275
2 selectable headlines.

Status :

VI Notes :

VI-setup profiles (VS) for VI021

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**All input via XDi-net** All data via XDi-net (CAN) Data resolution all: 0.1 (100.0 = 1000 internal) **Upper TT1** RPM1: 0x3081:02 max. +/-32750 RPM%1: 0x3091:02 max. +/-1100 **Lower TT2** RPM2: 0x3082:02 max. +/-32750 RPM%2: 0x3092:02 max. +/-1100		This profile is used if this XDi receives data via XDi-net (CAN) from another XDi with AX1 or DX1 input and sharing data on XDi-net. Data instance 1 and 2 List of selectable headline for TT1 and TT2: Tunnel Thruster Bow Thruster Stern Thruster Bow Thruster 1 (Default TT1) Bow Thruster 2 (Default TT2) Bow Thruster 3 Bow Thruster 4 Stern Thruster 1 Stern Thruster 2 Stern Thruster 3 Stern Thruster 4 Tunnel Thruster 1 Tunnel Thruster 2 Tunnel Thruster 3 Tunnel Thruster 4 Tunnel Thruster 5 Tunnel Thruster 6 Tunnel Thruster 7 Tunnel Thruster 8
2	VS02 TPDO	**All input via TPDO** All data via TPDO or XDi-net (CAN) All data: 16bit signed, 0.1 res. (1000 = 100.0 RPM) Data is mapped in TPDO **Upper TT1** TPRO COBID: 0x183 Byte 0 and1 RPM1: Default +/-500.0 RPM equal to +/-100.0% **Lower TT2** TPRO COBID: 0x183 Byte 2 and 3 RPM2: Default +/-500.0 RPM equal to +/-100.0%		Tunnel Thruster RPM instance 1 and 2 is mapped in one TPDO 0x183. The TPDO COBID and the mapping setup can be changed via the XDi menu. Data instance 1 and 2 Selectable headlines see VS01

VI-setup profiles (VS) for VI021

VS No.	Name	Description	Status	Notes
3	VS03 Analogue	**Analogue system** Required: AX1 in Slot 1 **Upper TT1** RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) 4mA=-550.0RPM, 12mA=0 20mA=550.0RPM and 500.0RPM =100%RPM **Lower TT2** RPM/RPM%: AX1 S1i2: 4-20mA (+term9, -term8) 4mA=-550.0RPM, 12mA=0 20mA=550.0RPM and 500.0RPM =100%RPM Input lost if below 3.5mA		By default +/-500.0RPM is scaled in XDi to +/-100% in XDi, You may have to change the 4-20mA input scaling and also the RPM values equal to respectively -100% and +100%. Remember that data resolution is 0.1 internally in XDi so inserting 1000 is equal to 100.0 RPM. Data instance 1 and 2 Selectable headlines see VS01
4	VS04 DX-RPM	**2 x Dual RPM Pickup** Required: DX1 in Slot 1 and Slot 2 **Upper TT1** RPM/RPM%: DX1 S1i1: (+term11, -term10) S1i2: (+term8, -term7) Default: 1000 pulses per 100 revolution 500.0RPM = 100.0% **Lower TT2** RPM/RPM%: DX1 S2i1: (+term11, -term10) S2i2: (+term8, -term7) Default: 1000 pulses per 100 revolution 500.0RPM = 100.0%		It is not possible to use analogue dimmer there are no spare slot for AX1. You can change the number of pulses per 100 revolutions in the XDi menu. You can also change the RPM% scaling in the XDi menu, change the RPM value equal to + and - 100%. Remember: internal value 1000 = 100.0RPM. Data instance 1 and 2 Selectable headlines see VS01
5	VS05 XDi-net	**All input via XDi-net** All data via XDi-net (CAN) Data resolution all: 0.1 (100.0 = 1000 internal) **Upper TT3** RPM1: 0x3083:02 max. +/-32750 RPM%1: 0x3093:02 max. +/-1100 **Lower TT4** RPM2: 0x3084:02 max. +/-32750 RPM%2: 0x3094:02 max. +/-1100		Data instance 3 and 4 See note for VS01 Same selectable headline lists as for VS01, but default is: Bow Thruster 3 (Default TT3) Bow Thruster 4 (Default TT4)

VI-setup profiles (VS) for VI021

VS No.	Name	Description	Status	Notes
6	VS06 TPDO	**All input via TPDO** All data via TPDO or XDi-net (CAN) All data: 16bit signed, 0.1 res. (1000 = 100.0 RPM) Data is mapped in TPDO **Upper TT3** TPRO COBID: 0x183 Byte 4 and 5 RPM1: Default +/-500.0 RPM equal to +/-100.0% **Lower TT4** TPRO COBID: 0x183 Byte 6 and 7 RPM2: Default +/-500.0 RPM equal to +/-100.0%		Data instance 3 and 4 See note for VS02 Selectable headlines see VS05
7	VS07 Analogue	**Analogue system** Required: AX1 in Slot 1 **Upper TT3** RPM/RPM%: AX1 S1i1: 4-20mA (+term9, -term8) 4mA=-550.0RPM, 12mA=0 20mA=550.0RPM and 500.0RPM =100%RPM **Lower TT4** RPM/RPM%: AX1 S1i2: 4-20mA (+term9, -term8) 4mA=-550.0RPM, 12mA=0 20mA=550.0RPM and 500.0RPM =100%RPM Input lost if below 3.5mA		Data instance 3 and 4 See note for VS03 Selectable headlines see VS05
8	VS08 DX-RPM	**2 x Dual RPM Pickup** Required: DX1 in Slot 1 and Slot 2 **Upper TT3** RPM/RPM%: DX1 S1i1: (+term11, -term10) S1i2: (+term8, -term7) Default: 1000 pulses per 100 revolution 500.0RPM = 100.0% **Lower TT4** RPM/RPM%: DX1 S2i1: (+term11, -term10) S2i2: (+term8, -term7) Default: 1000 pulses per 100 revolution 500.0RPM = 100.0%		Data instance 3 and 4 See note for VS04 Selectable headlines see VS05