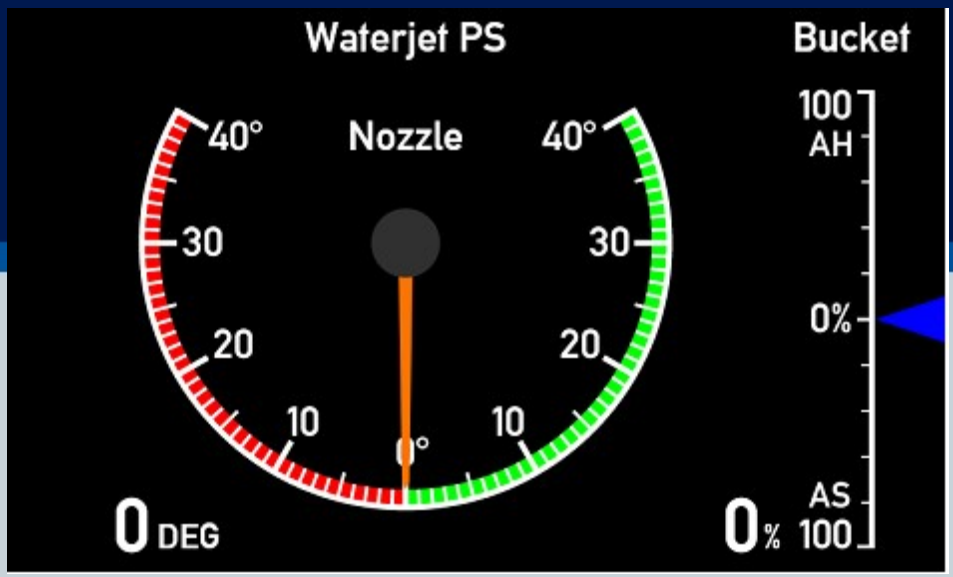
XDi 144/192 Dual

Waterjet



Library owner: DEIF STANDARD LIB

Library number: 32

Library version: 2001

Table of Contents

Library description :
This XDi Dual library contains a selection of waterjet indicators (VI) for forward (FWD) and aft (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. There is no supports for NX1 NMEA output extension module. A selection of 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. XDi-net is default ON in all product profiles.

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

Timestamp 08-02-2023 16:06:43

Library Specification

Library owner no. :	000001
Library owner name :	DEIF STANDARD LIB
Product type :	XDi 144/192
Performance class :	Dual
Library number :	32
Library name :	Waterjet
Library orientation :	Landscape
Library status :	Released & Locked
Library version :	2001
Last changed :	08-02-2023 16:06:42

Library default settings :

180 display rotation :	False
CAN NodeID :	30

Library notes :

08-02-2023/MAP, Ver. 2001: 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.

21-12-2021/JHU: first version of the library.

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 16:06:43

PP No.	PP Name	Description	Status	Notes
1	PP01 XDi-net	**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 With the 4-button front kit mounted (accessory) dimmer up/down can be controlled from front button 2 and 3.
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 Level 80% Auto Day/Night Shift at 20% Monitoring supply voltage 1		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 16:06:43**

VI No.	Name	VI-setup profiles (VS)	Approvals	Status
001	40 deg FWD	4		
002	40 deg AFT	4		
003	35 deg FWD	4		
004	35 deg AFT	4		
005	30 deg FWD	4		
006	30 deg AFT	4		
007	25 deg FWD	4		
008	25 deg AFT	4		

Approvals only apply for XDi 192.

Timestamp 08-02-2023 16:06:43

VI 001 **40 deg FWD**

Description : **Waterjet +/-40 deg FWD**

Nozzel Angle +/-40 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable angle digital readout and make the unit invisible.

VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		

VI-setup profiles (VS) for VI001

VS No.	Name	Description	Status	Notes
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +40deg = 7282 (0x1C72) -40deg = -7282 (0xE38E) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +40deg = 400 (0x190) -40deg = -400 (0xFE70) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)	🔒	

VI 002 **40 deg AFT**

Description : **Waterjet +/-40 deg AFT**

Nozzel Angle +/-40 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable angle digital readout and make the unit invisible.

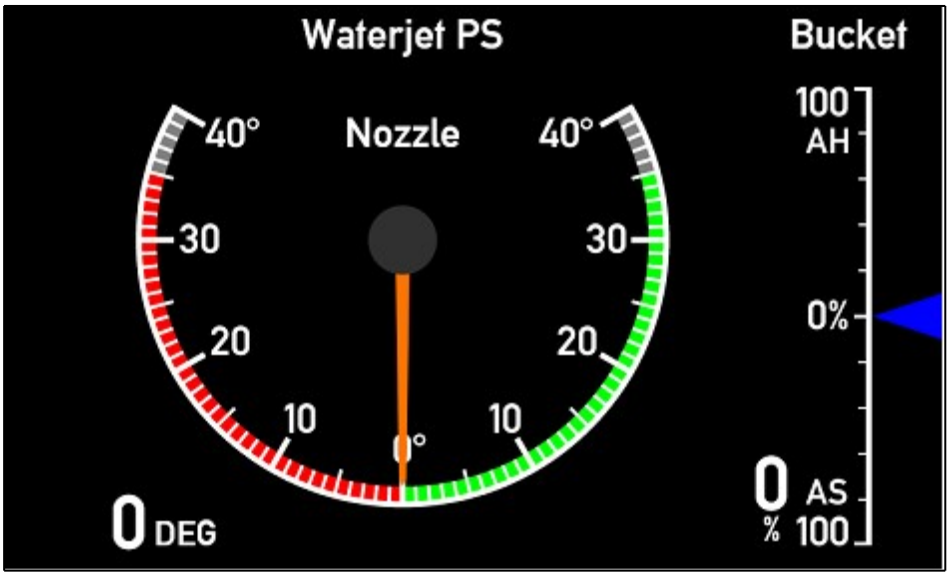
VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +40deg = 7282 (0x1C72) -40deg = -7282 (0xE38E) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.		If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.

VI-setup profiles (VS) for VI002

VS No.	Name	Description	Status	Notes
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +40deg = 400 (0x190) -40deg = -400 (0xFE70) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)	🔒	

VI 003 **35 deg FWD**



Description : **Waterjet +/-35 deg FWD**

Nozzel Angle +/-35 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable angle digital readout and make the unit invisible.

VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +35deg = 6370 (0x18E8) -35deg = -6370 (0xE71E) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.		If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.

VI-setup profiles (VS) for VI003

VS No.	Name	Description	Status	Notes
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +35deg = 350 (0x015E) -35deg = -350 (0xFEA2) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.		If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)		

VI 004 **35 deg AFT**

Description : **Waterjet +/-35 deg AFT**

Nozzel Angle +/-35 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : The gray scale sections are due to MED / ISO20673 rudder indicator minimum +/-40deg.
It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable digital angle readout and make the units invisible.

VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		

VI-setup profiles (VS) for VI004

VS No.	Name	Description	Status	Notes
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +35deg = 6370 (0x18E8) -35deg = -6370 (0xE71E) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +35deg = 350 (0x015E) -35deg = -350 (0xFEA2) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)	🔒	

VI 005 **30 deg FWD**

Description : **Waterjet +/-30 deg FWD**

Nozzel Angle +/-30 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : The gray scale sections are due to MED / ISO20673 rudder indicator minimum +/-40deg.
It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable digital angle readout and make the units invisible.

VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		

VI-setup profiles (VS) for VI005

VS No.	Name	Description	Status	Notes
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +30deg = 5460 (0x1554) -30deg = -5460 (0xEAAC) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +30deg = 300 (0x012C) -30deg = -300 (0xFED4) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)	🔒	

VI 006 **30 deg AFT**

Description : **Waterjet +/-30 deg AFT**

Nozzel Angle +/-30 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : The gray scale sections are due to MED / ISO20673 rudder indicator minimum +/-40deg.
It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable digital angle readout and make the units invisible.

VI-setup profiles (VS) for VI006

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		

VI-setup profiles (VS) for VI006

VS No.	Name	Description	Status	Notes
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +30deg = 5460 (0x1554) -30deg = -5460 (0xEAAC) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +30deg = 300 (0x012C) -30deg = -300 (0xFED4) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)	🔒	

VI 007 **25 deg FWD**

Description : **Waterjet +/-25 deg FWD**

Nozzel Angle +/-25 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : The gray scale sections are due to MED / ISO20673 rudder indicator minimum +/-40deg.
It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable digital angle readout and make the units invisible.

VI-setup profiles (VS) for VI007

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		

VI-setup profiles (VS) for VI007

VS No.	Name	Description	Status	Notes
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +25deg = 4550 (0x11C6) -25deg = -4550 (0xEE3A) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +25deg = 250 (0x00FA) -25deg = -250 (0xFF06) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)	🔒	

VI 008 **25 deg AFT**

Description : **Waterjet +/-25 deg AFT**

Nozzel Angle +/-25 deg
Bucket position +/-100%

Selectable headline
Digital angle readout can be disabled

Status :

VI Notes : The gray scale sections are due to MED / ISO20673 rudder indicator minimum +/-40deg.
It is possible to change the headline (Waterjet) and the label (Bucket)
It is also possible to disable digital angle readout and make the units invisible.

VI-setup profiles (VS) for VI008

VS No.	Name	Description	Status	Notes
1	VS01 XDi-net	**XDi-net** Waterjet angle: XDi-net Bucket position: XDi-net Universal param. 0x3701 (Gr.0, inst.1) is used for bucket value input		

VI-setup profiles (VS) for VI008

VS No.	Name	Description	Status	Notes
2	VS02 CAN rel.	**TPDO / XDi-net** Waterjet angle: TPDO 0x181, 16 bit relative: +25deg = 4550 (0x11C6) -25deg = -4550 (0xEE3A) (f.ex. DEIF RTC sensor) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
3	VS03 CAN abs.	**TPDO / XDi-net** Waterjet angle: TPDO 0x18A 16 bit absolute: +25deg = 250 (0x00FA) -25deg = -250 (0xFF06) Bucket position: TPDO 0x189 value +/-1000 equal to max / min scale.	🔒	If CAN cable or output device is damaged XDi will show a Data lost popup and lost data will flash.
4	VS04 Analogue	**Analogue** Waterjet angle: AX1 S1i1 4-20mA (+term.9, -term.8) 4mA = PS max. angle. 20mA = SB max. angle. Bucket position: AX1 S1,i2 4-20mA (+term.5, -term.4) 4mA = Max astern 20mA = Max ahead Input current error detection (valid range: 3.5 to 21mA)	🔒	