

Quick Start Guide EN

xtremeDB - Danfoss PLUS+1®Integration





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1. Introduction

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2. Quick Start

2.1 Purpose of the document

This document uses a demo project to describe how to integrate the block for an xtremeDB IO module (DP-34044-

1-000) into a Danfoss Guide project.

2.2 Preparatory steps

1. Download the demo project from the Data Panel EU website:



https://www.data-panel.eu/media/archive/DP-xtremeDB-1-J1939-on-Danfoss-Plus1.zip

- 2. Unzip the zip file to a known location
- 3. Open the demo project in your PLUS+1[®] GUIDE software
- 4. Copy the required elements (function block, parameterization) from the demo project into your own project.
- 5. Connect the bus 'CANPort' of the module with the corresponding bus from the hardware file. According to the coding of the module the 'ModulID' is to be assigned (default 224).



Figure 1: Integrated module





Figure 2: Building block view

2.3 Configuration

The module is configured via the parameters on the 'ConfigPara' bus. With the parameter 'SetConfig' is defined whether the parameters for the configuration of the module are to be transferred. The configuration of the module settings and the individual inputs and outputs is divided on different pages. Supporting the description on the 'Pages' in the program the data sheet is to be consulted, in order to define the possible configurations of the individual parameters and/or functionalities of the input and output channels.



10 US DigInTxCycleTime	Message [DIGIN] Transmit Cycle Time	¥
0 U8 AD2TxCycleTime	Message [AD2] Reserved. Set to 0x00h.	
0 AD3TxCycleTime	Message [AD3] Reserved. Set to 0x00h.	
10 U8 AD4TxCycleTime	Message [AD4] Transmit Cycle Time	
10 U8 AD5TxCycleTime	Message [AD5] Transmit Cycle Time	
	Resolution 10mSec/Bit Offset 0 Data Range 10mSec-2500mSec [1-250] Example 180 = 1800mSec or 1.8 seconds	
		Cmd91Config
F ControlModeOutputRe:	Set Enables Controller Mode Output Reset	
EnableStatus1Msg EnableStatus1Msg	ables the constant transmission of status message 1	
□ EnableStatus2Msg EnableStatus2Msg	oles the constant transmission of status message 2	
EnableAmpMsg Enabl	es the constant transmission of amperage messages	
Enables the feeding 24V also used fo	low and over voltage fault limits for 24V DC system, otherwise DC to 12V DC system would cause system over voltage error. Ths is r the output overcurrent and short circuit detection.	
SaveConfig Saves the co	nfiguration to the module (otherwise changes only valid until a occurs), set to 1 to write configuration to module.	
F AnalogRawValue Sets a	ll analog to be read in raw value as d to scaled (.005668/bit)	
200 U16 Freq1 Sets the global conf: Example: 0xC8h = 2000	iguration of the frequency for all channels. Value in decimal (40 - 1100 Hz). d = 200 Hz. Outputs will assume the default value if no other value is provided.	
0 U8 Mode1Config (Analog 3-2	lobal configuration of the inputs. ot Used, 0x1=Digital Positive, 0x2=Digital Ground 7 cannot be used in global configuration mode)	
0 U8 Mode2Config Mode 0x0 = 1 0x4= Curren	obal configuration of ALL the outputs, overides 0x53h and 0x54h. Not Used, 0x1 = Digital, 0x2 = Data 0-4,000, 0x3 = Percent 0-100.0% (0-1,000), t (0-4,000 mA): cannot be used in this mode	
U8 ConfigID User defined byt will be transimi	e for configuration ID, this tted in the STAT message	
-		Cmd82Config
		Config

Figure 3: Configuration of the module settings ('ConfigPara_Module')

Besides the configuration of the mode of the input channels, the parameters ('Cmd87Config') for the fast inputs (IN 7A and 8A) are also to be set during runtime. In the demo project the corresponding parameters are linked to the ServiceTool application (Figure 4).



InMode5/6A: @ud= Disabled @ud= Digital Positive @ud= Digital Fositive @ud= Digital Positive @ud= Digital Positive @ud= Digital Fositive @ud= Digital Fositive	0 U8 InMode5A 0 U8 InMode5B 0 U8 InMode6A	
B ·3 - 4-20mA (4,000-20,000), B ×4 - 0-5V DC (0-5,000) B ×5 - 0-10V DC (0-10,000) B ×6 - 0-32V DC (0-32,000) B ×6 - 0-32V DC (0-3,000) B ×6 -	0 UB InMode6B 8 UB InMode7A 3 UB InMode7B	
992 - Digital Foranzi 997 - Freque 905 - Counter 905 - Counter 905 - Encoder (Only In7)	8 U8 InMode8A 3 U8 InMode8B	onfig
En Bes	bleCnt7A DL EnableCounter7A Enable Counter 7A, 00 = Off, 01 = On (used in encoder mode) etCnt7A ResetCounter7A Reset Counter 7A, 00 = Off, 01 = On (used in encoder mode)	
Ent Boo Boo Sed En Sed	bileCntOflw7A Camble Counter 7A Overflow, count continues after setpoint is achieved, 00 - Off, 01 - On (net used in encoder mode) bileOut3ACnt7A EnableOutput3ACounter	
En En	5 SetPointCounter7A Total count to trigger the disabiling of the output (3A) and stop counting unless overflow is enabled. If overflow is enabled, the counters will keep incrementing. bbleCnt8A EnableCounter8A Enable Counter 8A, 00 = Off, 01 = On (used in encoder mode)	
	ietCnt8A ResetCounter8A Reset Counter 8A, 00 = 0ff, 01 = 0n (used in encoder mode) bleCnt0flw8A EnableCounter0verflow8A @ off, 01 = 0n (used in encoder mode) bleOut4ACnt8A EnableOutput4Accounter8A overflow, count continues after setpoint is achieved, @ off, 01 = 0n (wet used in encoder mode) bleOut4ACnt8A EnableOutput4Accounter8A	
Set V-Uit	PointCnt8A Solution Sol	Config
		Config









2.4 Configuration of input and output channels

The signals for the input and output channels are defined via the 'Commands' bus. In the demo project these are linked with the ServiceTool. To use the signals, these links can/must be released and linked with the variables from the application. These can be fed in on the 'Control_Cmd' page via the 'Inputs' bus.



Figure 6: Linking the 'Commands

2.5 Retrieving the input and output variables

The values of the input signals can be called up via the bus 'InValues', output signals via the bus 'OutValues' and information about the status of the module via the bus 'Status'. The contents on the respective bus are structured according to the PGNs.









Figure 8: Output values on the 'OutValues' bus

2.6 ServiceTool

A ServiceTool application is attached to the demo project. In this application all parameters on the bus 'Status', 'InValues' and 'OutValues' are visualized, if the parameter 'ChkPt' is set.

Note: The block must be tested in interaction with the application software on the respective hardware of the application developer.



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