

Data Sheet

DP-34044-2-200

xtremeDB

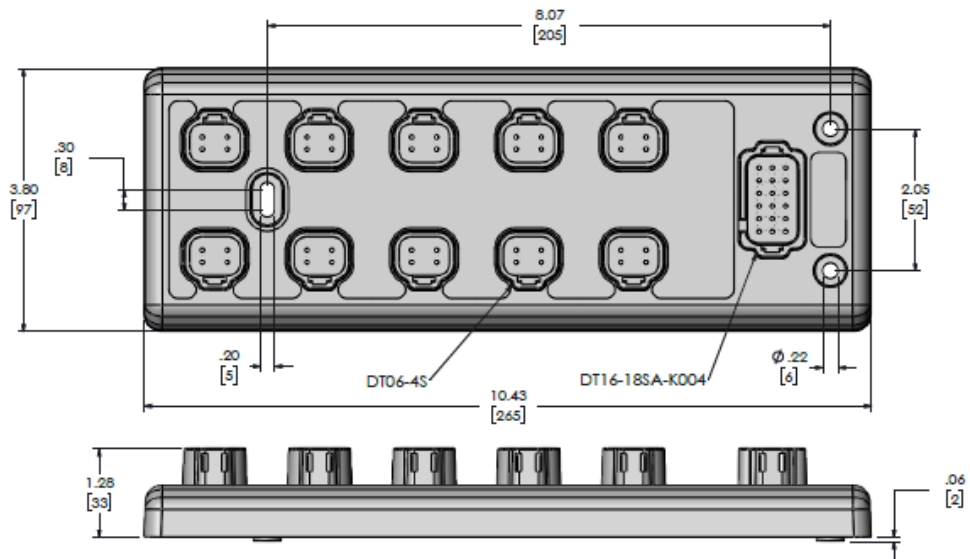
xDB16-ADI

Molded Plastic

Input Module
Digital and Analog


CANopen

8...32 Vdc



Technical Data

Housing	Molded glass filled nylon
Dimensions (l x w x h)	3.80 x 10.43 x 1.34 inch (97 x 265 x 34 mm)
Weight	1.5 lbs (0.68 kg)
Installation (mounting hardware not included)	Screw: 3 x #10 (3 x M5) Torque: 21 in-lbs (2.4 Nm) max.
Mating Connectors and Accessories Operating Voltage, Ground, and Configuration I/O-Ports	18 Pole Plug DT16-18SA or equivalent 4 Pole Plug 10 x DT06-4S or equivalent
DEUTSCH® size 16 Socket	0462-201-16141 (16 – 20 AWG) 1062-16-0122 (14 – 18 AWG) 114017
DEUTSCH® Seal Plug	
Cable Length	98.4 ft (30 m) max.
Operating Voltage	8...32 V DC protected against reverse polarity
Operating Current	13 Amps continuous per pin max. 13 Amps node current max.
Communication Interface and Baud Rate	2 non-isolated CANopen 250kb (default) & 500kb
Node ID	Node ID = 1 Offset 0...15 (J0: CNFGx-A/B)
Total Inputs	16
Inputs Diagnostics	Over voltage and sensor power over current
Output (sensor power)	1 Amp max.
Operating Temperature	-40...80 °C
Storage Temperature	-40...85 °C
Protection Class	IP67: Connector seal plugs required for unused pins. Sealing plugs required for unused ports. IP68/IP69K: Using Murrelektronik MDC xtreme cables.

Rev.	Description	Date	Name	Date	Name	Data Sheet xtremeDB Input Module CANopen xDB16-ADI	Art. No.: DP-34044-2-200	Sheet 1 of 5
e	DCN 6022	08.28.23	AH	Originator	05.13.20			
d	DCN F750	09.09.21	FSa	Approved	05.13.20	FSa		
c	DCN F715	07.14.21	FSa	 A Murrelektronik Company				
b	DCN F363	08.11.20	FSa					
a	DCN F257	05.13.20	FSa	DP-34044-2-200_db_e_d	The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.			

Characteristics of the Input Ports


Inputs Digital Port1: B, A Port2: B, A Port3: B, A Port4: B, A Port5: B, A Port6: B, A Port7: B, A Port8: B, A	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Positive switching</td> <td style="padding: 2px;">>0.8 V DC</td> </tr> <tr> <td style="padding: 2px;">Ground switching</td> <td style="padding: 2px;"><0.3 V DC</td> </tr> <tr> <td style="padding: 2px;">Input resistance</td> <td style="padding: 2px;">Positive 10 kΩ Ground 470 kΩ</td> </tr> <tr> <td style="padding: 2px;">Input response</td> <td style="padding: 2px;">20 mSec</td> </tr> <tr> <td colspan="2" style="text-align: center;">-----</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Counter/Encoder Input</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Port7 A & Port7 A</td> </tr> <tr> <td style="padding: 2px;">Positive switching</td> <td style="padding: 2px;">>0.8 V DC</td> </tr> <tr> <td style="padding: 2px;">Frequency</td> <td style="padding: 2px;">0-5000 Hz</td> </tr> <tr> <td style="padding: 2px;">Default configuration</td> <td style="padding: 2px;">Positive switching</td> </tr> </table>	Positive switching	>0.8 V DC	Ground switching	<0.3 V DC	Input resistance	Positive 10 kΩ Ground 470 kΩ	Input response	20 mSec	-----		Counter/Encoder Input		Port7 A & Port7 A		Positive switching	>0.8 V DC	Frequency	0-5000 Hz	Default configuration	Positive switching																		
Positive switching	>0.8 V DC																																						
Ground switching	<0.3 V DC																																						
Input resistance	Positive 10 kΩ Ground 470 kΩ																																						
Input response	20 mSec																																						

Counter/Encoder Input																																							
Port7 A & Port7 A																																							
Positive switching	>0.8 V DC																																						
Frequency	0-5000 Hz																																						
Default configuration	Positive switching																																						
Inputs Analog Port1: B Port2: B Port3: B Port4: B Port5: B Port6: B Port7: B Port8: B	<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 2px;">Voltage Input</td> </tr> <tr> <td style="padding: 2px;">Input voltage</td> <td style="padding: 2px;">0...5 V DC 0...10 V DC 0...32 V DC</td> </tr> <tr> <td style="padding: 2px;">Resolution</td> <td style="padding: 2px;">12 bit</td> </tr> <tr> <td style="padding: 2px;">Input resistance</td> <td style="padding: 2px;">5 V DC 166 kΩ 10 V DC 55 kΩ 32 V DC 37.6 kΩ</td> </tr> <tr> <td style="padding: 2px;">Accuracy</td> <td style="padding: 2px;">1% Full Scale</td> </tr> <tr> <td style="padding: 2px;">Input response</td> <td style="padding: 2px;">20 mSec</td> </tr> <tr> <td colspan="2" style="text-align: center;">-----</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Current Input</td> </tr> <tr> <td style="padding: 2px;">Input current</td> <td style="padding: 2px;">0-25 mAmps</td> </tr> <tr> <td style="padding: 2px;">Resolution</td> <td style="padding: 2px;">12 bit</td> </tr> <tr> <td style="padding: 2px;">Input resistance</td> <td style="padding: 2px;">162 Ω</td> </tr> <tr> <td style="padding: 2px;">Accuracy</td> <td style="padding: 2px;">1% Full Scale</td> </tr> <tr> <td style="padding: 2px;">Input response</td> <td style="padding: 2px;">20 mSec</td> </tr> <tr> <td colspan="2" style="text-align: center;">-----</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Ratiometric Input</td> </tr> <tr> <td style="padding: 2px;">Input voltage</td> <td style="padding: 2px;">0...32 V DC</td> </tr> <tr> <td style="padding: 2px;">Resolution</td> <td style="padding: 2px;">0.1% (0 – 100.0%)</td> </tr> <tr> <td style="padding: 2px;">Input resistance</td> <td style="padding: 2px;">32 V DC 37.6 kΩ</td> </tr> <tr> <td style="padding: 2px;">Input response</td> <td style="padding: 2px;">20 mSec</td> </tr> </table>	Voltage Input		Input voltage	0...5 V DC 0...10 V DC 0...32 V DC	Resolution	12 bit	Input resistance	5 V DC 166 kΩ 10 V DC 55 kΩ 32 V DC 37.6 kΩ	Accuracy	1% Full Scale	Input response	20 mSec	-----		Current Input		Input current	0-25 mAmps	Resolution	12 bit	Input resistance	162 Ω	Accuracy	1% Full Scale	Input response	20 mSec	-----		Ratiometric Input		Input voltage	0...32 V DC	Resolution	0.1% (0 – 100.0%)	Input resistance	32 V DC 37.6 kΩ	Input response	20 mSec
Voltage Input																																							
Input voltage	0...5 V DC 0...10 V DC 0...32 V DC																																						
Resolution	12 bit																																						
Input resistance	5 V DC 166 kΩ 10 V DC 55 kΩ 32 V DC 37.6 kΩ																																						
Accuracy	1% Full Scale																																						
Input response	20 mSec																																						

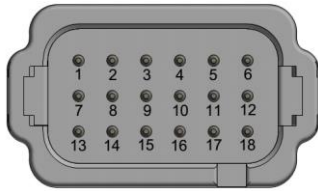
Current Input																																							
Input current	0-25 mAmps																																						
Resolution	12 bit																																						
Input resistance	162 Ω																																						
Accuracy	1% Full Scale																																						
Input response	20 mSec																																						

Ratiometric Input																																							
Input voltage	0...32 V DC																																						
Resolution	0.1% (0 – 100.0%)																																						
Input resistance	32 V DC 37.6 kΩ																																						
Input response	20 mSec																																						

Operating States (LEDs)	Color	Status
PWR	Blue	Module and Ports power are connected
COM & STAT	Green	Module and Communication status
FLT	Red	Fault Status
IN	Yellow	Left LED – Input A Right LED – Input B

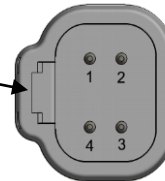
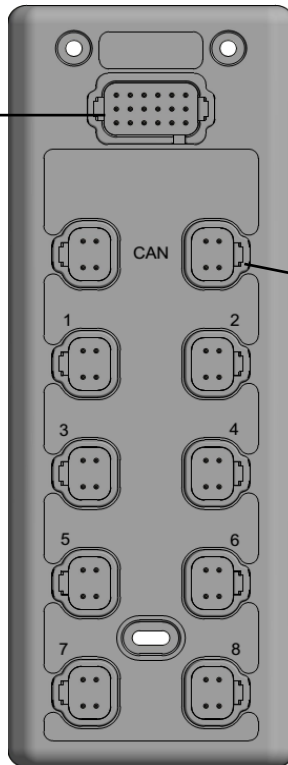
					Date	Name	Data Sheet	
e	DCN 6022	08.28.23	AH	Originator	05.13.20	TMc	xtremeDB Input Module CANopen xDB16-ADI	
d	DCN F750	09.09.21	FSa	Approved	05.13.20	FSa		
c	DCN F715	07.14.21	FSa	 A Murrelektronik Company				
b	DCN F363	08.11.20	FSa				Art. No.: DP-34044-2-200	Sheet
Rev.	Description	Date	Name				2 of 5	
a	DCN F257	05.13.20	FSa	DP-34044-2-200_db_e_d			The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.	

Connector Interface



Connections J0:

1. BAUD1-A
2. CNFG1-A
3. CNFG2-A
4. CNFG3-A
5. CNFG4-A
6. NC
7. BAUD1-B
8. CNFG1-B
9. CNFG2-B
10. CNFG3-B
11. CNFG4-B
12. NC
13. NC
14. NC
15. NC
16. NC
17. NC
18. NC




Connections:

CAN Port 1 and 2

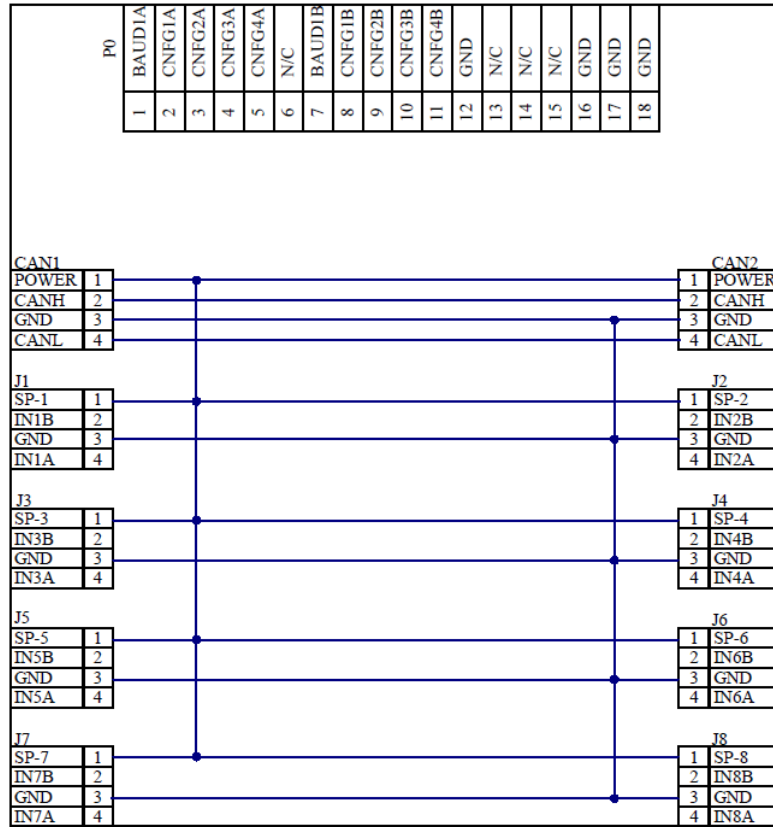
- Pin 1 = POWER
- Pin 2 = CAN HIGH
- Pin 3 = GROUND A
- Pin 4 = CAN LOW

INPUT Ports 1 to 8

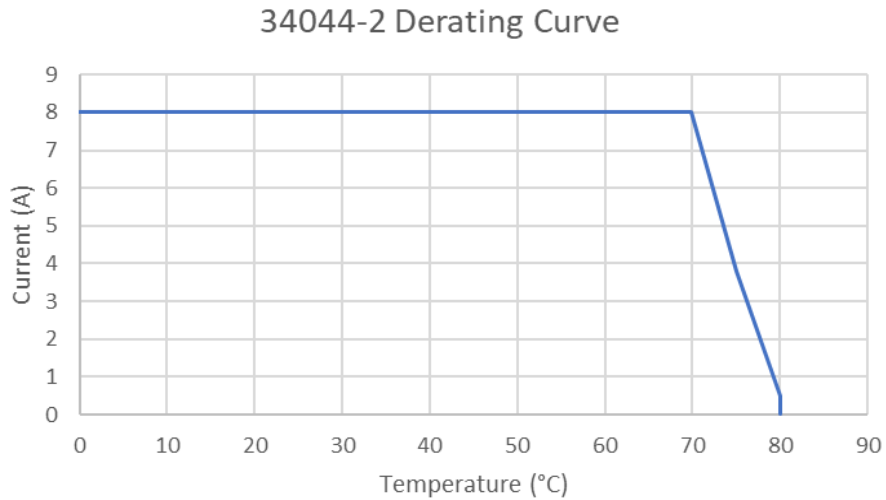
- Pin 1 = SENSOR POWER
- Pin 2 = INPUT B
- Pin 3 = GROUND A
- Pin 4 = INPUT A


							Data Sheet	
e	DCN 6022	08.28.23	AH	Originator	05.13.20	TMc	xtremeDB Input Module CANopen xDB16-ADI	
d	DCN F750	09.09.21	FSa	Approved	05.13.20	FSa		
c	DCN F715	07.14.21	FSa	 A Murrelektronik Company				
b	DCN F363	08.11.20	FSa				Art. No.: DP-34044-2-200	<i>Sheet</i>
Rev.	Description	Date	Name					3 of 5
a	DCN F257	05.13.20	FSa	DP-34044-2-200_db_e_d			The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.	

DP-34044-2-XXX I/O Diagram



Derating Curve Max Total Current



Rev.	Description	Date	Name	Date	Name	Data Sheet xtremeDB Input Module CANopen xDB16-ADI	Sheet 4 of 5
e	DCN 6022	08.28.23	AH	Originator	05.13.20		
d	DCN F750	09.09.21	FSa	Approved	05.13.20	FSa	
c	DCN F715	07.14.21	FSa	 A Murrelektronik Company			Art. No.: DP-34044-2-200
b	DCN F363	08.11.20	FSa				
a	DCN F257	05.13.20	FSa	DP-34044-2-200_db_e_d	The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.		

Test Standards and Regulation

<i>Climatic test</i>	<p><i>Cold Temperature to IEC 60068-2-1:2007, test Ad</i> <i>Dry Heat to IEC 60068-2-2:2007, test Bb</i> <i>Temperature Durability to IEC 60068-2-14:2000-08, test Nb</i> <i>Temperature Shock to IEC 60068-2-14:2000-08, test Na</i> <i>Humidity Soak to IEC 60068-2-78:2001, test Cab</i> <i>Humidity Cycle to IEC 60068-2-30:2005, test Db</i></p>
<i>Mechanical test</i>	<p><i>Swept Sine Vibration to IEC 60068-2-6:2007, test Fc</i> <i>Random Vibration to IEC 60068-2-64:2008, test Fh</i> <i>Resonance Vibration to IEC 60068-2-6:2007, Section 8.1</i> <i>Mechanical Shock to EN 60068-2-27:2008, test Ea</i> <i>Mechanical Bump to EN 60068-2-27:2008, test Ec</i> <i>IP protection to EN 60529:2000-09, test IP67, IP68, IP69K</i> <i>Chemical Loads to ISO 16750-5:2010 Part 5: AA, BA, BC, BD, BE, CC, DB, DD</i></p>
<i>Electrical test</i>	<p><i>Electrical Tests to ISO 16750-2:2012</i> <i>EMC Immunity to ISO 13766-1:2018, ISO 13766-2:2018, ISO 13309:2010</i> <i>EMC Emissions to ISO 13766-1:2018, ISO 13766-2:2018, ISO 13309:2010</i> <i>Conducted Transients to ISO 13766-1:2018, ISO 13766-2:2018, ISO7637-2:2011, Annex A</i></p>

Article Numbers

DP-34044-2-000	J1939 Slave Module
DP-34044-2-200	CANopen Slave module



Rev.	Description	Date	Name				<p align="center">Data Sheet</p> <p align="center">xtremeDB Input Module CANopen xDB16-ADI</p>	<p align="right"><i>Sheet</i> 5 of 5</p>
e	DCN 6022	08.28.23	AH	Originator	05.13.20	TMc		
d	DCN F750	09.09.21	FSa	Approved	05.13.20	FSa		
c	DCN F715	07.14.21	FSa					
b	DCN F363	08.11.20	FSa					
a	DCN F257	05.13.20	FSa					
				DP-34044-2-200_db_e_d	The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.			