Data Sheet

DP-34044-1-000

xtremeDB ENHANCED

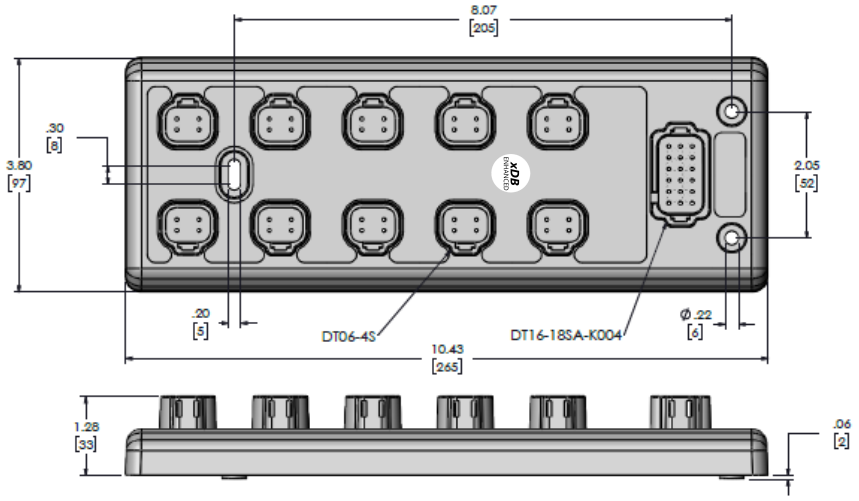
xDB0808-DIO

Molded Plastic

I/O Module Digital and Analog

J1939

8…32 V DC



Technical Data

Housing	*Molded glass-filled nylon*
Dimensions (l x w x h)	*3.80 x 10.43 x 1.34 in (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* *DEUTSCH® size 16 Socket* *DEUTSCH® Seal Plug*	 *18 Pole Plug DT16-18SA or equivalent* *4 Pole Plug 10 x DT06-4S or equivalent* *0462-201-16141 (16 – 20 AWG)* *1062-16-0122 (14 – 18 AWG)* *114017*
Operating Voltage	*8…32 V DC protected against reverse polarity*
Operating Current	*13 Amps continuous per pin max.* *26 Amps max node current*
Communication Interface and Baud Rate	*2 parallel J1939 ports 250kb (default) & 500kb*
Source Address	*Base Address 224d (0xE0h)* *Offset 0…15 (J0: CNFGx-A/B)*
Total Inputs and Outputs	*16 (8 Inputs & 8 x 4 Amp Outputs)*
Inputs Diagnostics	*Over voltage and sensor power overcurrent*
Output (sensor power)	*4 (VBAT @ 1 Amp max)*
Output Port Parallelling Capability	*Supported up to 8 Amps*
Output Port H-Bridge Capability	*Supported up to 4 Amps*
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
j	DCN XXXX	10.04.24	DR			
i	DCN 6022	08.28.23	AH		Date	Name
h	DCN F750	09.09.21	FSa	Originator	10.04.24	DR
g	DCN F715	07.14.21	FSa	Approved	09.21.16	
f	DCN F363	08.11.20	FSa	DATA PANEL A Murrelektronik Company		
e	DCN F257	04.07.20	FSa			
a	Initial release	09.21.16	JNa	DP-34044-1-000_db_e_jj		

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Characteristics of the Input / Output Ports	
Inputs Digital *Port5: B, A* *Port6: B, A* *Port7: B, A* *Port8: B, A*	*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 & Port8 A* *Positive switching* *>0.8 V DC* *Frequency* *0-5000 Hz* *Default configuration* *Positive switching*
Inputs Analog *Port5: B* *Port6: B* *Port7: B* *Port8: B*	*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*
Outputs *Port1: B, A* *Port2: B, A* *Port3: B, A* *Port4: B, A*	*Digital Output* *Output voltage* *8…32 V DC* *Switching current* *4 Amps* --- *PWM & PWM(i) Current Controlled Output* *PWM frequency* *40-1100 Hz* *PWM(i) frequency* *100-700 Hz* *Switching current* *4 Amps* *Default configuration* *Digital 4 Amps*

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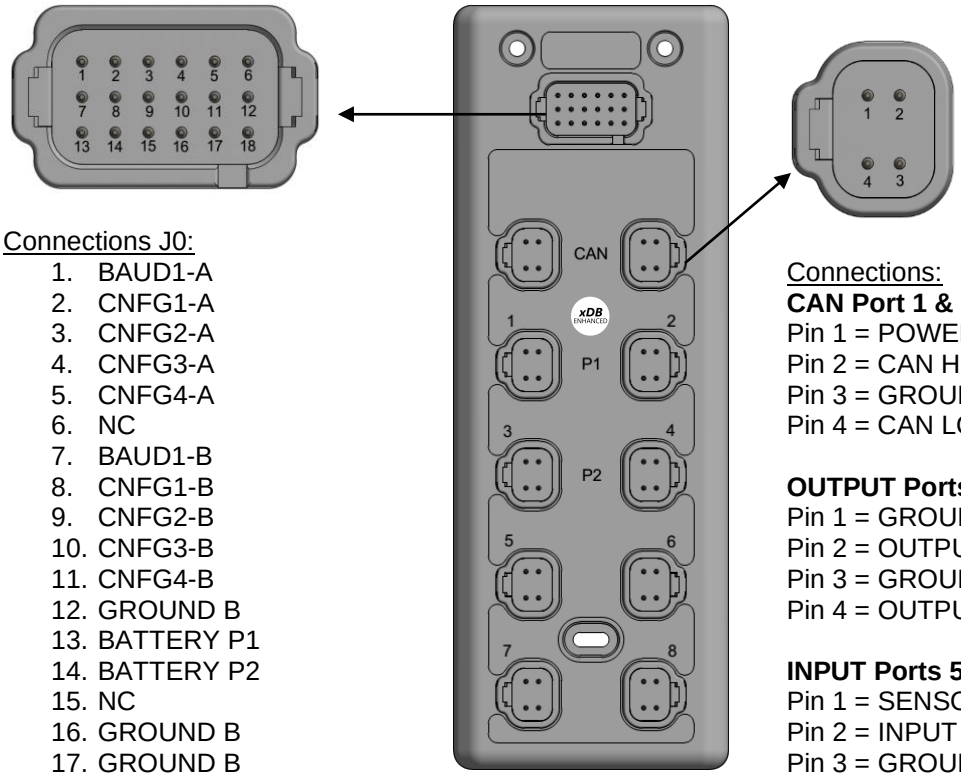
Operating States (LEDs)	*Color*	*Status*
PWR	*Blue*	*Module and Ports power are connected*
COM & STAT	*Green*	*Module and Communication status*
FLT	*Red*	*Fault Status*
P1 – P2	*Blue*	*Bus Power (Port Output Power)*
IN	*Yellow*	*Left LED – Input A* *Right LED – Input B*
OUT	*Yellow*	*Left LED – Output A* *Right LED – Output B*

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. GROUND B
13. BATTERY P1
14. BATTERY P2
15. NC
16. GROUND B
17. GROUND B
18. GROUND B

Connections:

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

OUTPUT Ports 1 to 4
Pin 1 = GROUND B
Pin 2 = OUTPUT B
Pin 3 = GROUND B
Pin 4 = OUTPUT A

INPUT Ports 5 to 8
Pin 1 = SENSOR POWER
Pin 2 = INPUT B
Pin 3 = GROUND A
Pin 4 = INPUT A

Proper installation and operation of the xtremeDB blocks requires the use of all ground connections. This includes Ground (A) for module power and Ground (B) for port power on the 18 pin configuration and power plug.

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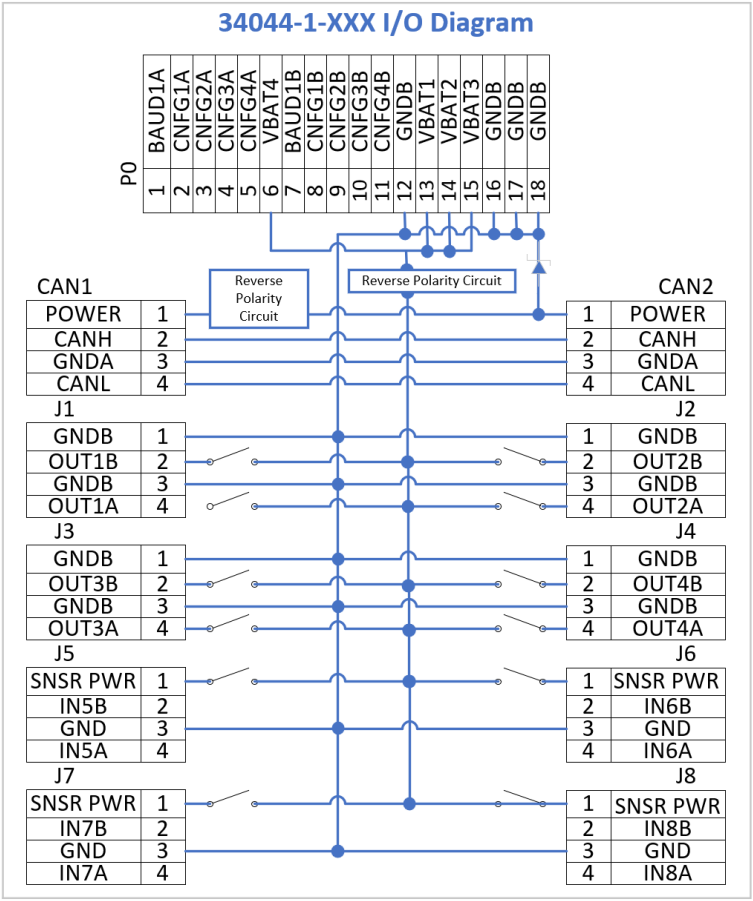
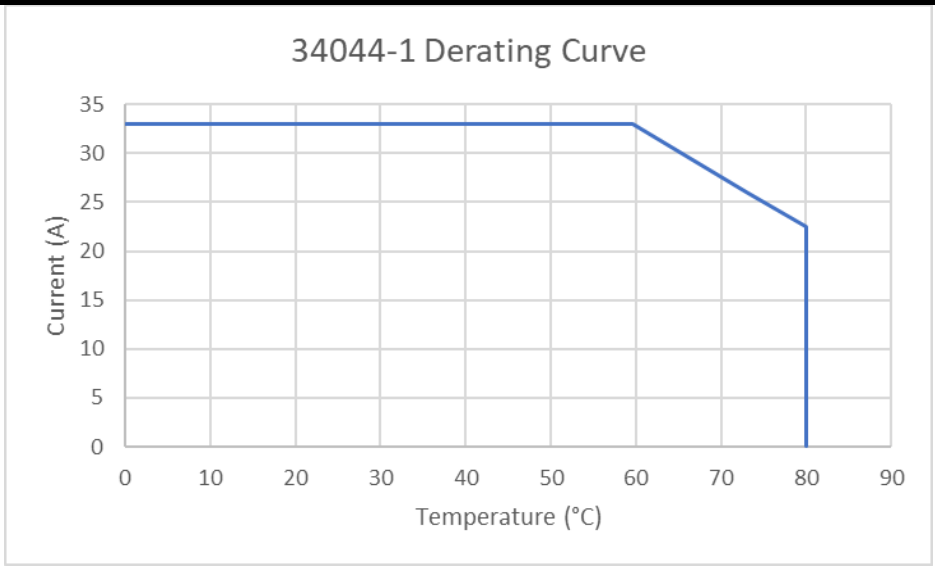
34044-1-XXX I/O Diagram



Derating Curve Max Total Current



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Test Standards and Regulation	
Climatic Tests	*Cold Temperature to IEC 60068-2-1:2007, test Ad* *Dry Heat to IEC 60068-2-2:2007, test Bb* *Temperature Durability to IEC 60068-2-14:2000-08, test Nb* *Temperature Shock to IEC 60068-2-14:2000-08, test Na* *Humidity Soak to IEC 60068-2-78:2001, test Cab* *Humidity Cycle to IEC 60068-2-30:2005, test Db*
Mechanical Tests	*Swept Sine Vibration to IEC 60068-2-6:2007, test Fc* *Random Vibration to IEC 60068-2-64:2008, test Fh* *Resonance Vibration to IEC 60068-2-6:2007, Section 8.1* *Mechanical Shock to EN 60068-2-27:2008, test Ea* *Mechanical Bump to EN 60068-2-27:2008, test Ec* *IP protection to EN 60529:2000-09, test IP67, IP68, IP69K* *Chemical Loads to ISO 16750-5:2010 Part 5: AA, BA, BC, BD, BE, CC, DB, DD*
Electrical Tests	*Electrical Tests to ISO 16750-2:2012* *EMC Immunity to ISO 13766-1:2018, ISO 13766-2:2018, ISO 13309:2010* *EMC Emissions to ISO 13766-1:2018, ISO 13766-2:2018, ISO 13309:2010* *Conducted Transients to ISO 13766-1:2018, ISO 13766-2:2018, ISO7637-2:2011, Annex A*
CE	*RoHS: Directive 2011/65/EU* *EMI/EMC: Directive 2014/30/EU*

Article Numbers	
DP-34044-1-000	J1939 Slave Module
DP-34044-1-100	DPLogic™ enabled Master, user programmable
DP-34044-1-200	CANopen Slave module

DPLogic™ User function / logic generating and programming tool for creating vehicle personality. Similar to Ladder Logic with user enhanced features for troubleshooting and diagnostics.

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