Data Sheet

DP-34045-2-000

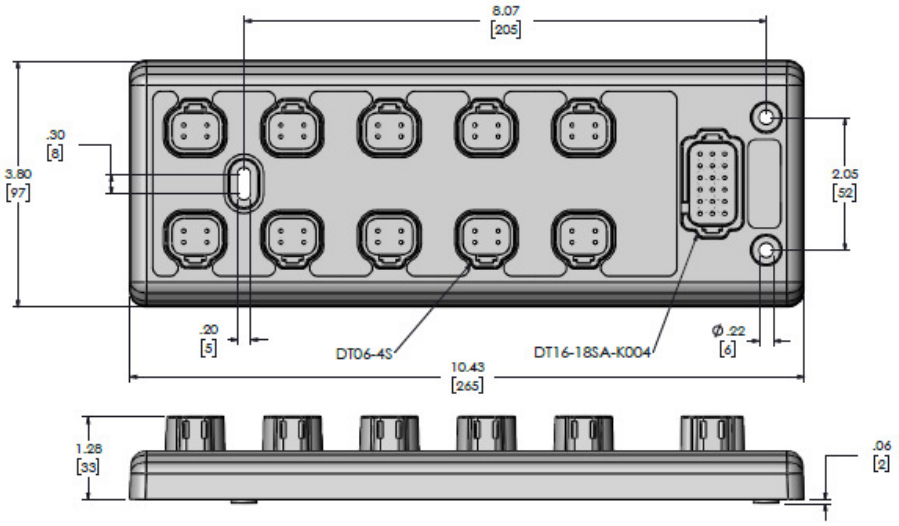
xtremeDB

xDB-2-CAN

CAN Splitter

8-32 Vdc

United States Patent: US 10,069,226 Sep. 4, 2018



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 *I/O-Ports* *DEUTSCH size 20 Socket* *DEUTSCH size 16 Socket* *DEUTSCH Seal Plug*	 *4 Pole Plug 10 x DT06-4S or equivalent* *0462-201-20141* *0462-201-16141* *114017-ZX*
Total CAN Splitters	*10*
Operating Voltage (POWER)	*8…32 V DC*
Current (POWER, GROUND A)	*13 A per pin max.*
Current (CAN HIGH, CAN LOW)	*10 A per pin max.*
Total Node Current	*46 A 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 MDC xtreme cables.*

Rev.	Description	Date	Name
g	DCN F645	05.05.21	FSa
f	DCN F558	02.16.21	FSa
e	DCN F412	10.02.20	TMc
d	DCN F256	05.18.20	FSa
c	DCN F112	12.02.19	FSa
b	Initial release	02.10.17	JNa

	Date	Name
Originator	02.10.17	JNa
Approved	02.10.17	KGu

DATA PANEL
A Murrelektronik Company

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Data Sheet

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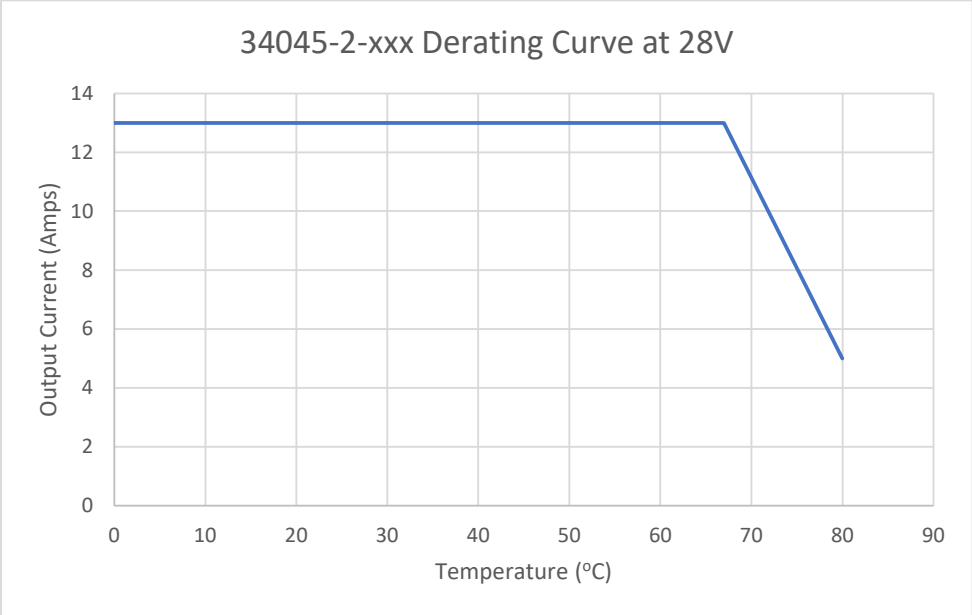
Art. No.: DP-34045-2-000

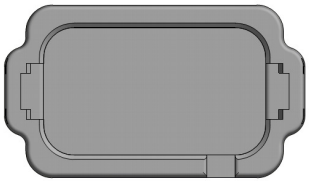
Operating States (LEDs)	Color	Status
PWR	Blue	Module and Ports power are connected

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
CE	RoHS: Directive 2011/65/EU

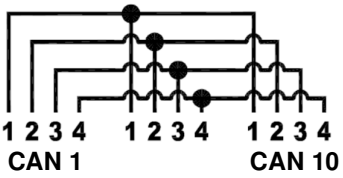
Derating Curve

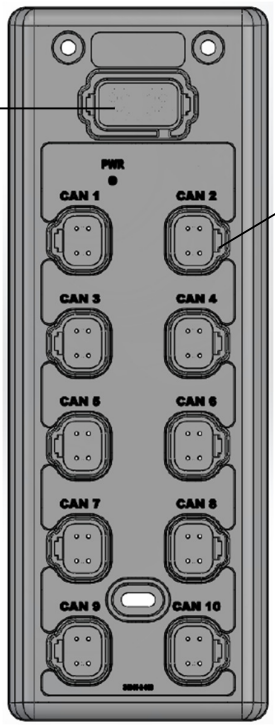


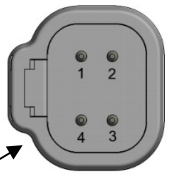
Connector Interface



Connections:
No Connection







Connections:
CAN Ports 1 to 10
Pin 1 = POWER
Pin 2 = CAN HIGH
Pin 3 = GROUND A
Pin 4 = CAN LOW

Ports are connected internally in series with each other to conform to trunk/drop system.

Power LED Pin 1 to Pin 3

g	DCN F645	05.05.21	FSa		Date	Name	**Data Sheet** **xtremeDB CAN Splitter** **xDB-2-CAN**
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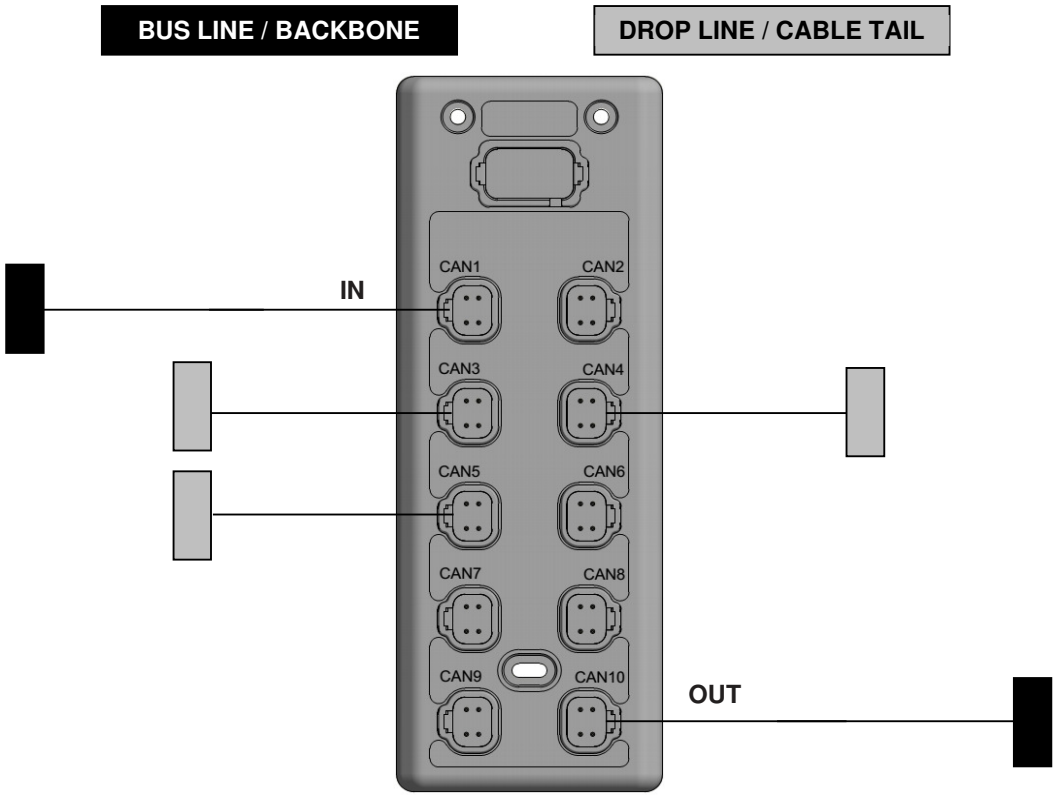
e	DCN F412	10.02.20	TMc	Approved	02.10.17	KGu	
d	DCN F256	05.18.20	FSa	DATA PANEL A Murrelektronik Company			
c	DCN F112	12.02.19	FSa				**Art. No.: DP-34045-2-000**
Rev.	Description	Date	Name				*Sheet* 3 of 4
b	Initial release	02.10.17	JNa	DP-34045-2-000_db_e_g.docx			The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.



Sample Topology of Drop Lines:
The following table shows the maximum drop line lengths and the maximum length of the CAN bus line. The table specifies the maximum drop line lengths and the maximum length of the CAN bus line (drop lines not included) using a splitter.

Baud Rate	*Drop Line Length*	*Total Length*
1 Mbit/s	< 0.3 m	< 25 m
500 kbit/s	< 1.2 m	< 66 m
250 Kbit/s	< 2.4 m	< 120 m
125 Kbit/s	< 4.8 m	< 310 m

SIGNAL REFLECTIONS CAUSED BY DROP LINES!
Drop lines can give rise to signal reflections in CAN networks.
When using splitters in CAN networks, the possible drop line lengths are reduced further.

- *Drop lines should vary in length to reduce the rise of signal reflections.*
- *Terminate the bus line at both ends with a 120 Ω resistor.*
- *Do not terminate drop lines with a resistor under any circumstances!*