

Data Sheet

DP-34045-2-000

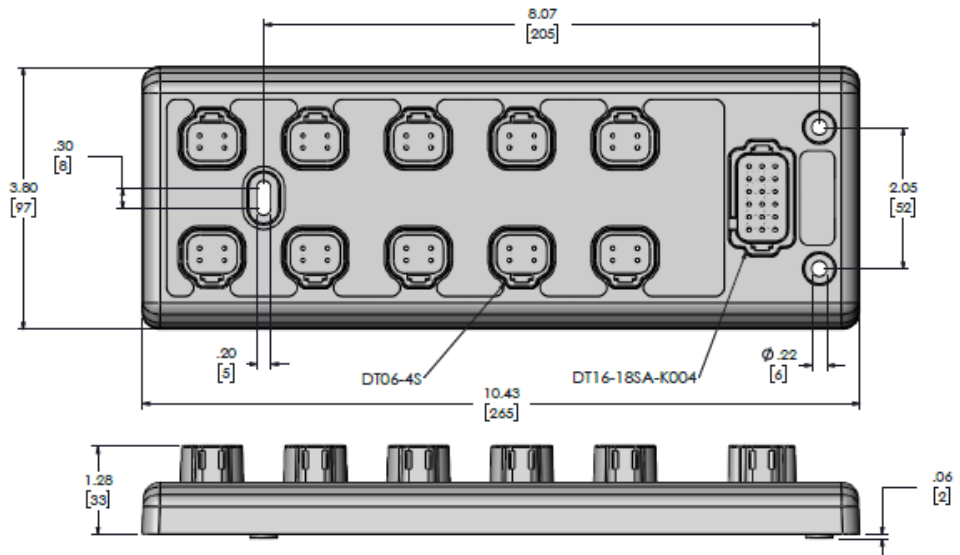
xtremeDB

xDB-2-CAN

CAN Splitter

8-32 Vdc


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



Technical Data

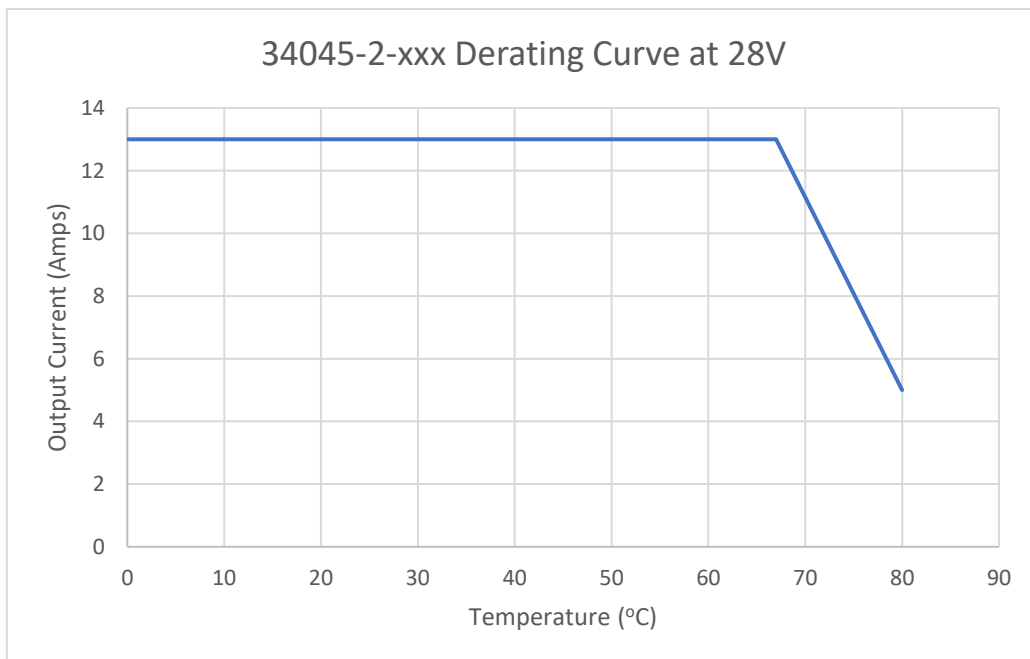
Housing	Molded glass filled nylon
Dimensions (l x w x h)	3.80 x 10.43 x 1.34 in (97 x 265 x 34 mm)
Weight	1.5 lbs (0.68 kg)
Installation (mounting hardware not included)	Screw: 3 x #10 (3 x M5) Torque: 21 in-lbs (2.4 Nm) max.
Mating Connectors and Accessories I/O-Ports	4 Pole Plug 10 x DT06-4S or equivalent DEUTSCH size 16 Socket 0462-201-16141 (16 – 20 AWG) 1062-16-0122 (14 – 18 AWG) 114017 DEUTSCH Seal Plug
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.




i	DCN 6022	08.28.23	AH				Data Sheet xtremeDB CAN Splitter xDB-2-CAN	Art. No.: DP-34045-2-000	Sheet 1 of 4
h	DCN F858	03.04.22	FSa		Date	Name			
g	DCN F645	05.05.21	FSa	Originator	02.10.17	JNa			
f	DCN F558	02.16.21	FSa	Approved	02.10.17	KGU			
e	DCN F412	10.02.20	TMc						
d	DCN F256	05.18.20	FSa	 A Murrelektronik Company			Art. No.: DP-34045-2-000	Sheet 1 of 4	
Rev.	Description	Date	Name						
a	Initial release	02.10.17	JNa	DP-34045-2-000_db_e_h			The trademark DEUTSCH is owned by the TE Connectivity Ltd. family of companies.		

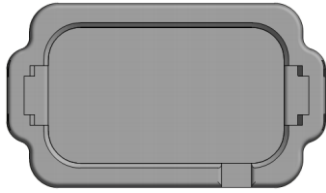
Operating States (LEDs)	Color	Status
PWR	Blue	Module and Ports power are connected
Test Standards and Regulation		
Climatic Tests	Cold Temperature to IEC 60068-2-1:2007, test Ad Dry Heat to IEC 60068-2-2:2007, test Bb Temperature Durability to IEC 60068-2-14:2000-08, test Nb Temperature Shock to IEC 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	
Electrical Tests	Electrical Tests to ISO 16750-2:2012 Conducted Transients to ISO 13766-1:2018, ISO 13766-2:2018, ISO7637-2:2011, Annex A	
CE	RoHS: Directive 2011/65/EU	

Derating Curve

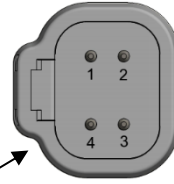
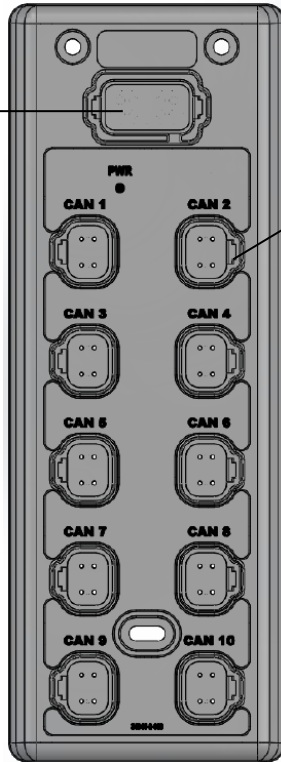
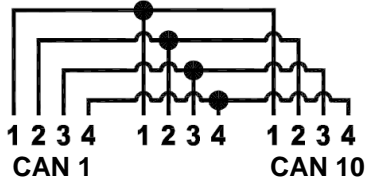


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Connector Interface




Connections:
No Connection



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

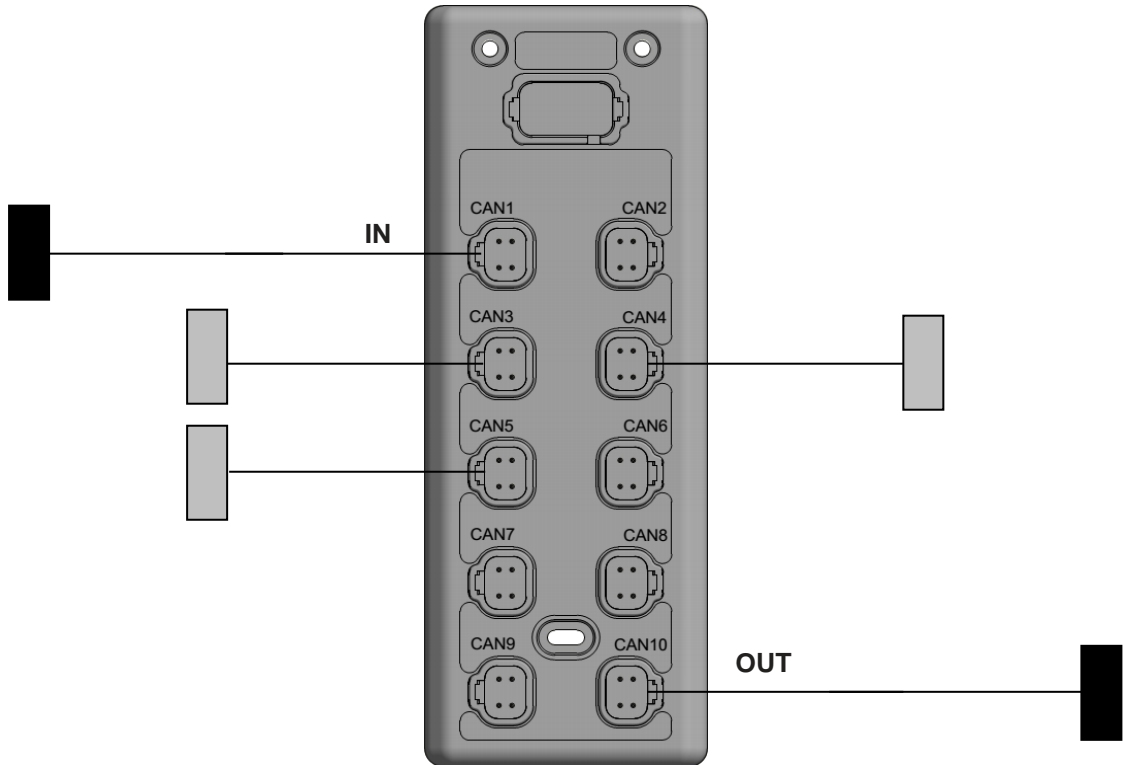
Ports are connected internally in series with each other to conform to trunk/drop system.

Power LED Pin 1 to Pin 3

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BUS LINE / BACKBONE

DROP LINE / CABLE TAIL



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!

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