

# xtremeDB ACTIVE

Version 1.7



# THE WIRING HARNESS

## THE IDEAL INSTALLATION SYSTEM?

Variants?



Functional Extensions?



Dependency on Suppliers?



Maintenance?



# THE TERMINAL BOX

## THE IDEAL INSTALLATION SYSTEM?

Signal Indication?

Space consumption?

Installation effort?



Problems with leakage and condensed water?



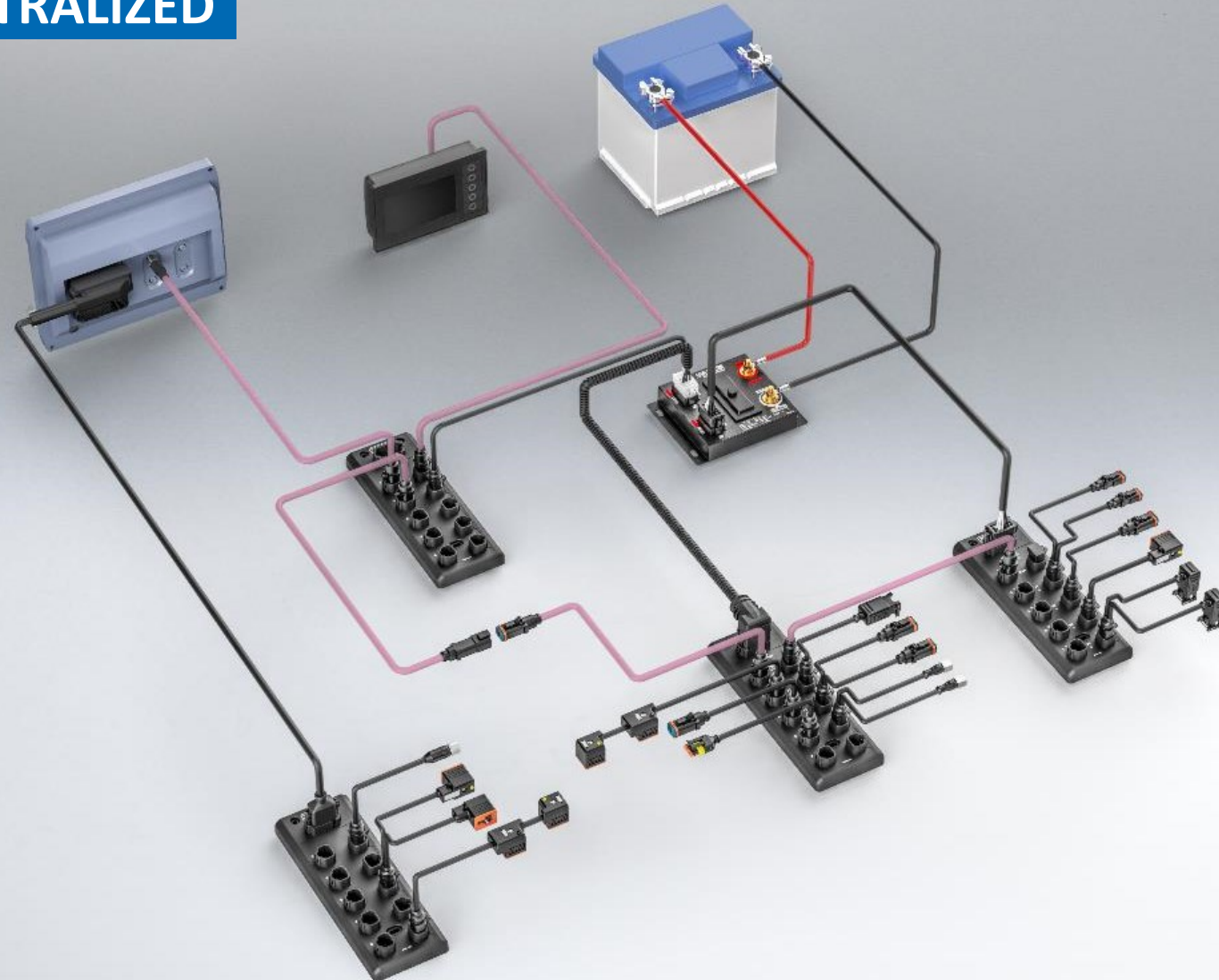
xtremeDB -

THE OPTIMAL INSTALLATION SYSTEM!



**BIG PICTURE**

**MODULAR AND DECENTRALIZED**



**This is modular wiring!**



## ELECTRICAL DATA

- CANopen or SAE J1939 are supported
- 250 or 500 kbit/s baudrate
- Base address adjustable from 0 to 64
- Address 1 is preset, Offset 1 to 15 configurable via Jumper
- Addressing, baud rate selection and actuator supply via 18-pin connection



- Up to 13 A block supply and sensor power supply by 4-pin CAN ports
- Up to 10 A per output (DO), up to 52 A possible total current
- Configurable multi signal input and output ports: Digital, Analog, PWMi, Frequency / Counter / Encoder
- Integrated overcurrent and short-circuit protection with diagnostic function via LED and broadcasted by CAN
- Reverse polarity protection for all supply voltage inputs





## MECHANICAL DATA

- 1x 18-pin DT port (for DT or AT16-18SA-K004 connector)
- 10x 4-pin DT ports (for DT or AT06-4S connectors)
- 3-point mounting with M5 screws



- Reinforced polyamide housing for highest demands
- Fully potted for perfect tightness
- Abrasion-resistant, permanent marking below the label
- Customer specific branding and labeling possible from small quantities



ENVIRONMENTAL

DATA



- Temperature range – 40 ... + 80° C
- Up to IP68 / 69K (when using potted Murrelektronik MDC cordsets)
- Oil, cleaning agent, UV-, salt spray, shock and vibration resistant
- No external metal parts for good corrosion resistance





NEW

## PVE VALVE CONTROL

### CONTROLS DANFOSS® PVE VALVES ALSO WITH OTHER CONTROLLERS



- xtremeDB SAE J1939 fieldbus module
- flexibly parameterizable for connecting ratiometric PVE and digital PVEO hydraulic valves
- Mode A: 8 ratiometric outputs with diagnostic monitoring for control of proportional valves (PVEA, PVEH, PVES) with closed control loop
  - Config 1: Proportional output (ratiometric) 20% - 80% (Error 0%)
  - Config 2: Proportional output (ratiometric) 20% - 80% (Error 50%)
  - Error diagnostics via diagnostic inputs per port is supported
- Mode B: 6 PVEO +2 Digital outputs (DO)
  - Up to 3 A per output
  - Total current up to 39 A (Power supply with P1 – P3)
- Mode C: 8 analog Outputs (AO)
  - High precision analog outputs (0 ... 10 V DC)
  - Resolution 12 bit (0.01 V per bit), accuracy 1% full scale
- Informations and signal overview for [Users](#) and [Experts](#) in the Block [download](#) area



# VARIANT OVERVIEW

NEW

Feature	DP-34044- 1-xxx DI8/DO8	DP-34044- 2-xxx DI16	DP-34044- 3-xxx DO16 PWMi	DP-34044- 5-xxx DO16	DP-34044-7-000 PVE8
<b>Inputs Total</b>	<b>8</b>	<b>16</b>			<b>8</b>
Digital inputs (DI, NPN or PNP)	2	6			8
Analogue inputs (configurable as DI)	4	8			
Digital or Frequency / Counter inputs (ENC Gray-Code)	2 (1)	2 (1)			
<b>Outputs Total</b>	<b>8</b>		<b>16</b>	<b>16</b>	<b>8 (6) valves</b>
Simultaneously switchable	8		16	16	8 PVE / 8 AO   6 PVEO
Digital outputs (DO), 3 A each					6 PVEO
Digital outputs (DO), 4 A each	8		14	14	
Digital outputs (DO), 10 A each			2	2	
PWM / PWMi outputs (current controlled) 4 A	8		14		
Proportional outputs (ratiometric) PVEA, PVEH, PVES					8 PVE
Analog outputs (AO) 0 ... 10V DC, 100 mA each					8 AO

-xxx is the placeholder for the protocol variant: SAE J1939= 000; CANopen = 200



**PRESSURE WASHER PROTECTION  
TESTING**

**IP65 + IP66K + IP67 + IP68 + IP69K APPROVED!**







## CLEANING

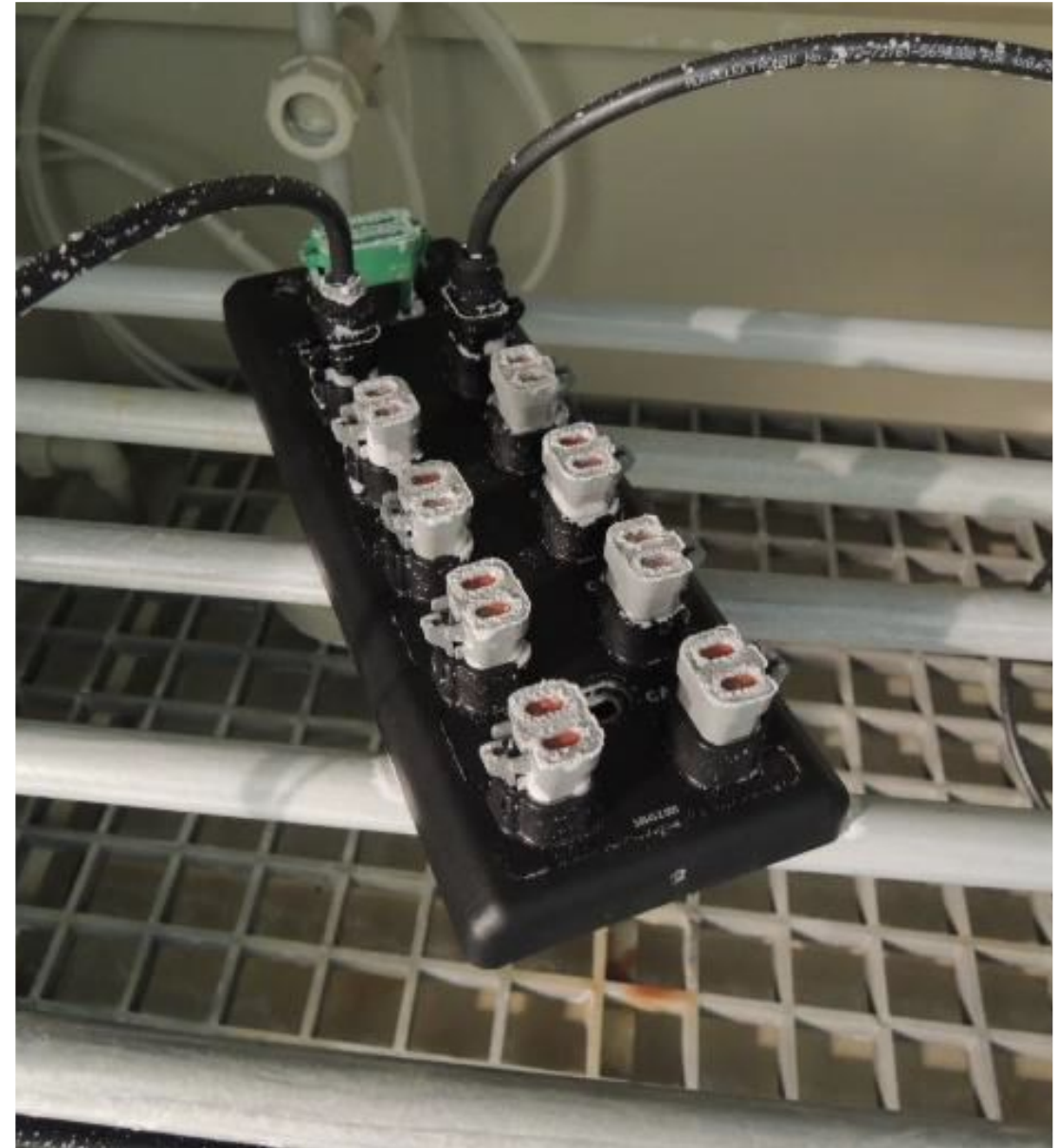
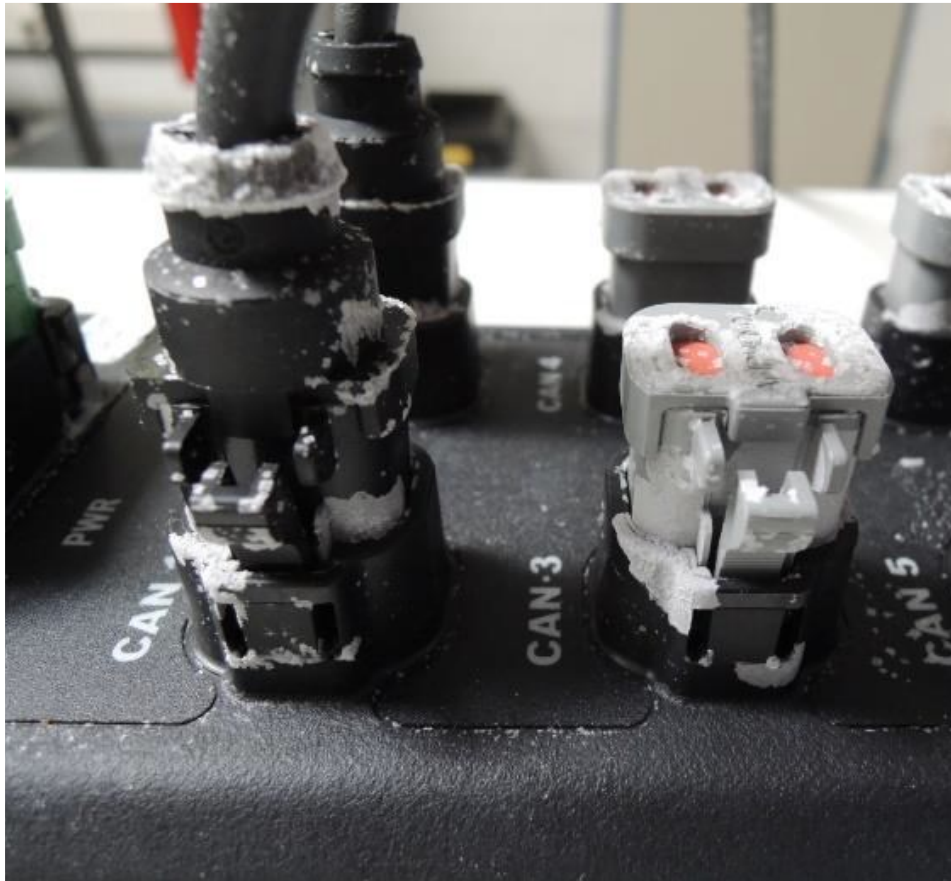
## AGENT TESTS

- Car Shampoo Sonax (1:1)
- Commercial vehicle cleaner IX 3000 (1:1)
- Car wash cleaner WAS 600250 (1:25)
- Windshield cleaner „Summer“ (1:1)



## SALT RESISTANCY TEST

- IP68 test in 3% NaCl solution (saltwater)
- Salt spray test EN 60068-2-52: 1996  
Test Kb, severity level 3





## OILS, OPERATING FLUIDS AND LUBRICANT TESTS

- Diesel
- 15W-40 Universal Engine Oil
- Fuchs Renolin Unisyn XT 220
- Fuchs Titan Sintopoid 75W90
- Divinol HVI ISO46
- TOP 2000 Super-Longtime-Lube
- Glysantin G40



## CAN & LED DIAGNOSIS

### Signal diagnostics

Overload and short-circuit detection of each individual input and output

### Current measuring

Cyclic read-back of each actual output current value



### LED diagnostics

Signals or errors are displayed recognisable for module and fieldbus

### Monitoring

of battery voltage, block temperature and actuator supply (P1-P4)

## AI CONFIGURATOR

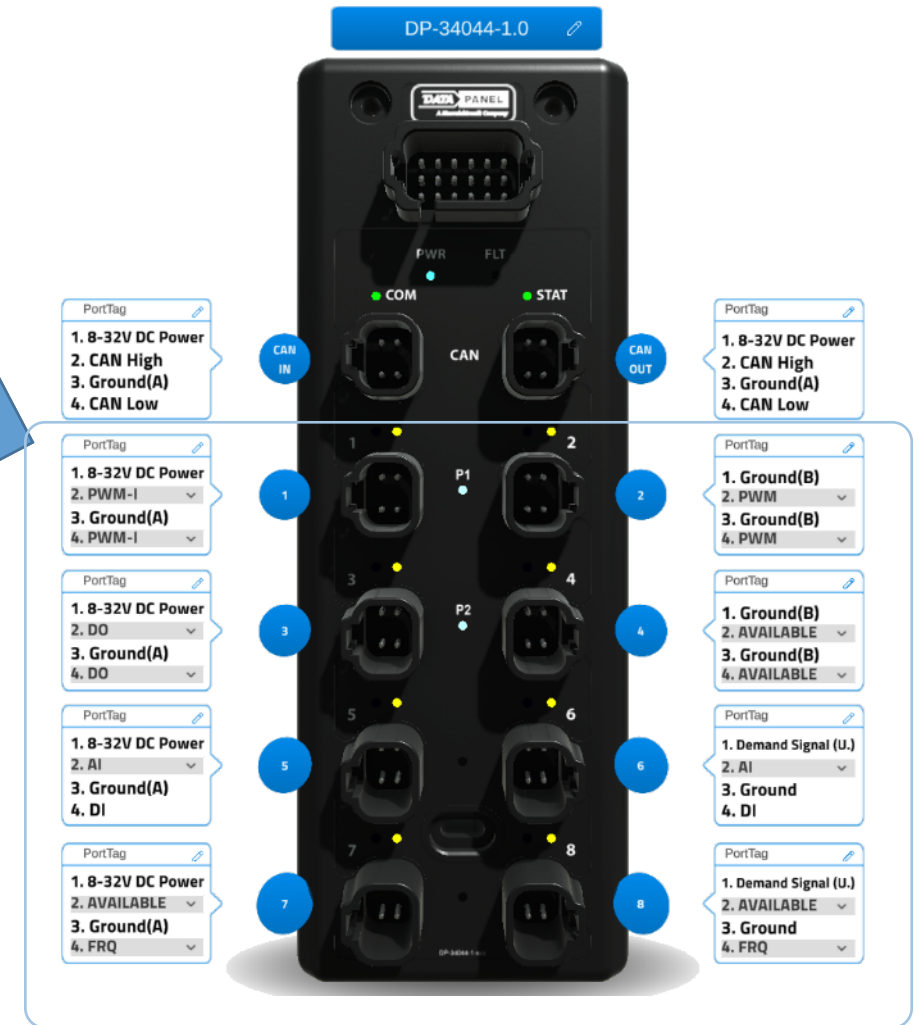
### Specification of the signals

- e.g. 2x DI, AI, FRQ, DO, PWM, PWMi each

### Listing of block variants and number

- Specification "most cost-effective solution" or maximum number of identical parts
- Free lettering of all number plates
- Sections can be defined
- Saving and loading of configurations
- Ideal tool for customer presentation
- **FREE OF CHARGE!**

*Results in this configuration*



<https://www.data-panel.eu/en/configurator>



# CORDSETS AND CONNECTION CABLES

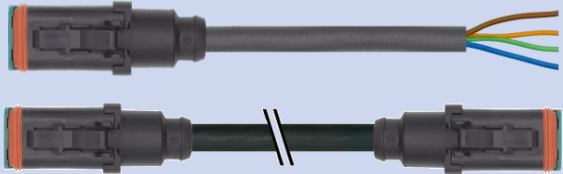

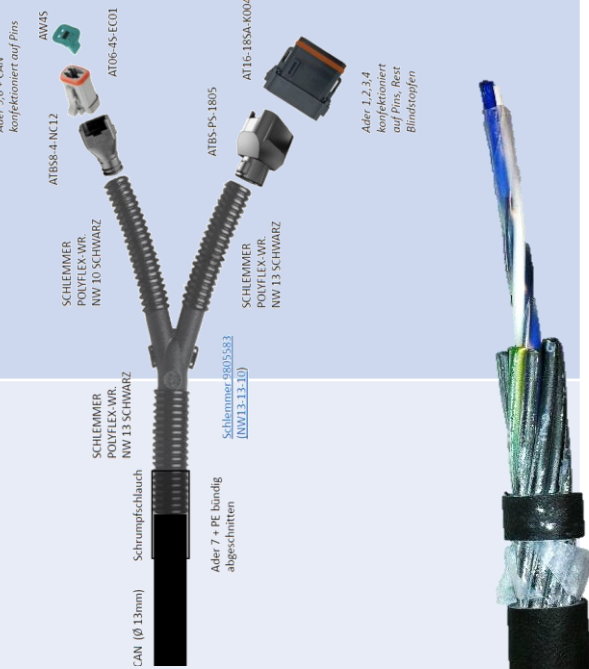




All from a single source!





# SYSTEM CABLES FOR xtremeDB -1

	TYPE A FIXED INSTALLATION ADR APPROVED PVC or PUR/PVC	TYPE B FLEXIBLE INSTALLATION (GUIDED MOTION) PUR	TYPE C ONE CABLE TECHNOLOGY (UNGUIDED MOTION)
HYBRID SYSTEM CABLE	 <p>HeluTruck 2x1,5 + 1x(2x0,5) PUR-PVC [ME 260]</p>	 <p>1x(4x0,5) PUR-PP [ME 804]</p>	 <p>Labels: Ader 5,6 + CAN konfektioniert auf Pins, AW45, ATBS8-4-NC12, SCHLEMMER POLYFLEX-WR. NW 10 SCHWARZ, AT06-4S-EC01, Ader 1,2,3,4 konfektioniert auf Pins, Rest Blindstopfen, ATBS-PS-1805, AT16-18SA-K004, SCHLEMMER 9805-583 (NW13.13.10), Schlemmer-Blanch, Ader 7 + PE bündig abgeschritten, CAN (Ø 13mm), SCHLEMMER POLYFLEX-WR. NW 13 SCHWARZ</p> <p>CAN ROBOT 1x2x0,5+8x1,5 PUR-TPE-S</p>
ACTUATOR POWER CABLE	 <p>Lapp Ölflex Truck - 4x1,5 PVC-PVC [DP 2] HeluTruck – 8x1,5 PUR-PVC [DP 3]</p>	 <p>4x1,5 PUR-PP [ME P07]</p>	





**xtremeDB**

**IO CABLES AND ACCESSORIES**



## CUSTOMER BENEFITS

### Modular and decentralized design

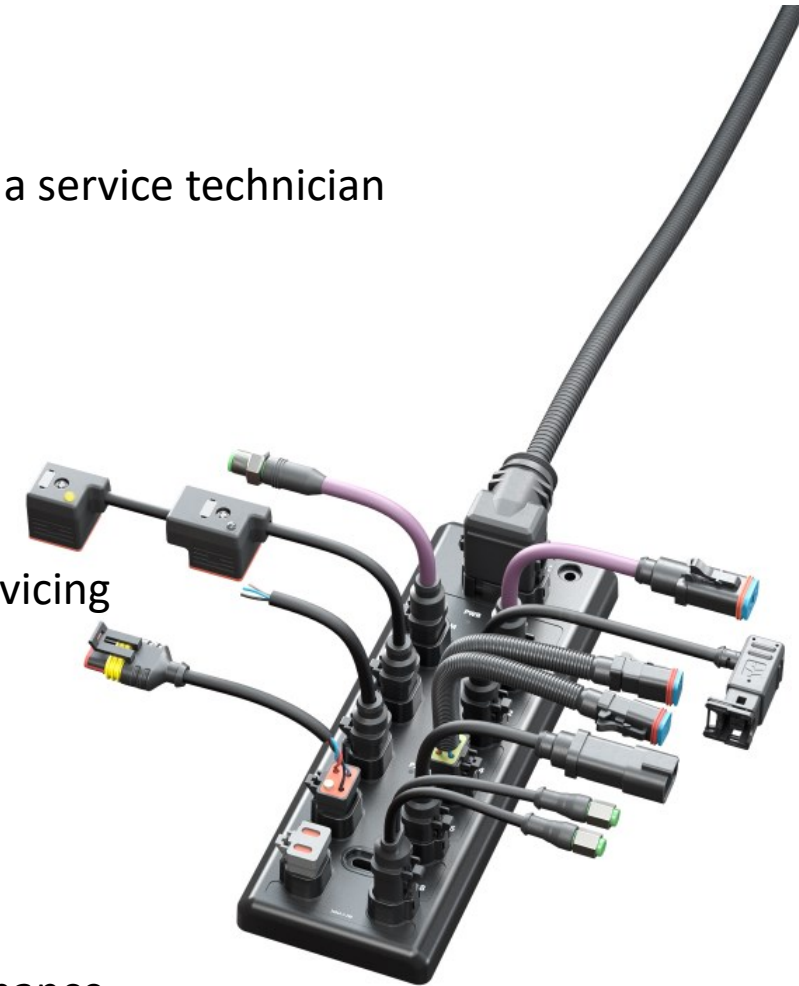
- Enables standardization of the basic electronics and the wiring harness
- Fast response to customer requests, modifications and extensions
- Subsequent upgrading / expansion possible without problems, even without a service technician
- Equivalent repair option instead of improvisation on the wiring harness
- Saves valuable space: streamlines cable harnesses, replaces terminal boxes

### Robust, pluggable installation level

- Designed for use in the toughest environments
- Option management implemented flexibly, simply and inexpensively
- Plug and play interchangeability of all system components in the event of servicing
- Suitable for single-core and sheathed cable wiring alike
- Subsequent changes lose their horror

### Find errors instead of searching for them

- Full diagnostic capability incl. supply voltage monitoring
- Message in case of short circuit / overload / out of range etc.
- Live current values for each individual output available for predictive maintenance





# DP-SK01 (xDB -1 CANopen)  
# DP-SK02 (xDB -1 SAE J1939)  
# DP-SK-2-200 (xDB -2 CANopen)  
other block variants on request

## PACKAGE CONTENTS

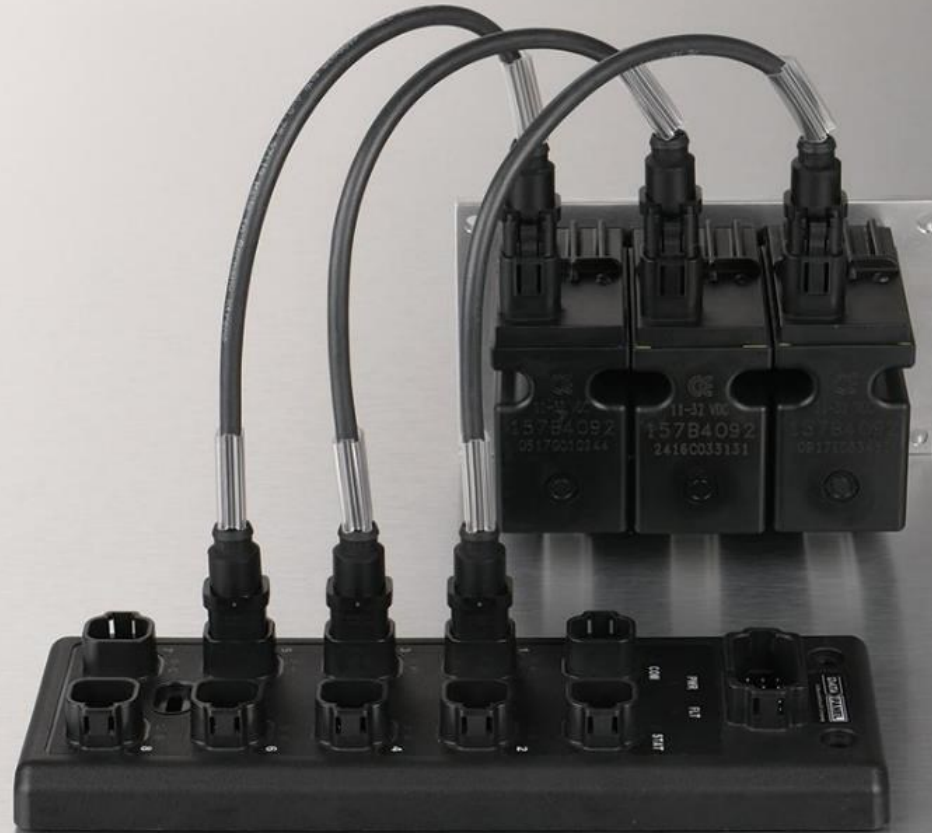
- Configurable IO block xtremeDB
- 5 m CAN hybrid cable
- Power cable or 18-pin DT with blind plugs (per block version)
- 8x dummy plug
- 5x addressing bridges (wire jumpers)
- 1x CAN termination resistor, potted

**--> Everything you need to test xtremeDB live on your machine!**

<https://www.data-panel.eu/en/starterkits/>



**MODULAR AND DECENTRALISED**



Future-oriented, modularly  
built installation concepts with  
**xtremeDB**





AGRICULTURAL MACHINES



CONSTRUCTION MACHINES



MUNICIPAL MACHINERY



SPECIAL TRANSPORTATION

Application solutions & products for a simple, decentralized and high-quality machine installation

**Mobile automation, plugged in – done!**