BUCHER automation

JXM-IO-EX30

I/O module



- 12 inputs, and 14 outputs with diagnostic capabilities – including high current paths and PWM with current control
- Thanks to CAN ID addressing via tri-state inputs, up to nine nodes in a network are supported without the need for software configuration. This lets you implement your common parts strategy.
- High switching capacity thanks to parallel output connection and high total continuous current
- Three short-circuit-proof sensor supplies provide stability for mission-critical sensor networks
- Sturdy potted housing with plug&play wiring scheme

Description

The JXM-IO-EX30 expansion module is the universal building block for remote I/Os on mobile machines and features a pioneering wiring scheme. Thanks to its fine-tuned I/O configuration, it can handle almost any remote task.

Communication with the JXM-IO-EX30 takes place via SAE J1939. This allows for integration into conventional CAN networks used in mobile machinery.

Featuring a sturdy potted housing, the expansion module is designed to perform reliably even in the harshest operating environments.

The wiring scheme centers around a 4-pin DT connector and the use of standard cables to facilitate swift plug&play connectivity in the field.

Technical specifications

Operating voltage range	DC 8 V ... 32 V, with separate ECU power supply
Operating/storage temperature	-40 ... +85 °C
CAN ports	1 SAE J1939
Max. amount of inputs/outputs	26
Inputs	
Analog	
Digital/frequency	8; 0 ... 10 V/0 ... 20 mA, can be configured individually; resolution: 12 bits, input impedance: 35 kΩ, load resistor: 120 Ω
Digital/CAN coding	4; active-high; input impedance 5.6 kΩ, 0.1 Hz ... 10 kHz
Outputs with diagnostic capabilities (short-circuit, cable break)	2; coding of the CAN ID, tri-state
PWM, precision current measuring	4; 3 A, 1.5 kHz max., dithering, current-controlled, diagnostic capabilities, short-circuit-proof; alternative usage: active-low digital input, input impedance 10 kΩ, digital output 3 A; PNP input
PWM	6; 7 A, 1.5 kHz max., dithering, diagnostic capabilities, short-circuit-proof; alternative usage: active-low digital input, input impedance 10 kΩ; digital output 7 A; PNP input
Digital (50 % ON period)	4; 3 A high-side, diagnostic capabilities, short-circuit-proof (with 50 % ON period); alternative usage: active-low digital input, input impedance 10 kΩ; PNP input
Sensor power supply	3 x protected VBAT sensor supply
Max. permitted total current	26 A
Degree of protection	IP65/IP6k9k using Bucher Automation plug-in connectors
Vibration	ISO 16750-3
Shock	ISO 16750-3
Certifications	ECE R10 E1, CE according to ISO 14982, ISO 13766-2
Protection against polarity reversal	Yes, external fuse
Output diagnostics	Short circuit, no-load

Pinout

X1 – VBAT_OUT

n.c.	1
VBAT_PWR	2
GND_PWR	3
GND_PWR	4

Pinout

X2 – VBAT_IN

VBAT_PWR	1
VBAT_PWR	2
GND_PWR	3
GND_PWR	4

Pinout

X4 – CAN_IN

VBAT_ECU	1
CAN_L	2
VBAT_ECU in BOOT state / n.c. in OPERATIONAL state	3
CAN_H	4

Pinout

X5 – CAN_OUT

VBAT_ECU	1
CAN_L	2
GND_PWR	3
CAN_H	4

Pinout

X6 – AI_1 ... AI_2

VEXT_SEN_1	1
AI_1	2
GND_SEN	3
AI_2	4

Pinout

X7 – AI_3 ... AI_4

VEXT_SEN_1	1
AI_3	2
GND_SEN	3
AI_4	4

Pinout

X8 – AI_5 ... AI_6

VEXT_SEN_2	1
AI_5	2
GND_SEN	3
AI_6	4

Pinout

X9 – AI_7 ... AI_8

VEXT_SEN_2	1
AI_7	2
GND_SEN	3
AI_8	4

Pinout

X10 – DI_P_1 ... DI_P_2

VEXT_SEN_3	1
DI_P_1	2
GND_SEN	3
DI_P_2	4

Pinout

X10 – DI_P_1 ... DI_P_2

VEXT_SEN_3	1
DI_P_3	2
GND_SEN	3
DI_P_4	4

Pinout

X12 – CFG

VBAT_ECU	1
CFG_1	2
GND_PWR	3
CFG_2	4

Pinout

X13 - PWM_H7_5

VBAT_ECU	1
PWM_H7_5	2
GND_PWR	3
PWM_H7_5	4

Pinout

X14 – PWMi_H3_1 ... PW-Mi_H3_2

VEXT_SEN_1	1
PWMi_H3_1	2
GND_PWR	3
PWMi_H3_2	4

Pinout

X15 – DO_H3_1 ... DO_H3_2

VEXT_SEN_2	1
DO_H3_1	2
GND_PWR	3
DO_H3_2	4

Pinout

X16 – PWM_H7_3

VEXT_SEN_3	1
PWM_H7_3	2
GND_PWR	3
PWM_H7_3	4

Pinout

X17 – PWM_H7_6

VBAT_ECU	1
PWM_H7_6	2
GND_PWR	3
PWM_H7_6	4

Pinout

X18 – PWMi_H3_3 ... PW-Mi_H3_4

VEXT_SEN_1	1
PWMi_H3_3	2
GND_PWR	3
PWMi_H3_4	4

Pinout

X19 – DO_H3_3 ... DO_H3_4

VEXT_SEN_2	1
DO_H3_3	2
GND_PWR	3
DO_H3_4	4

Pinout

X20 - PWM_H7_4

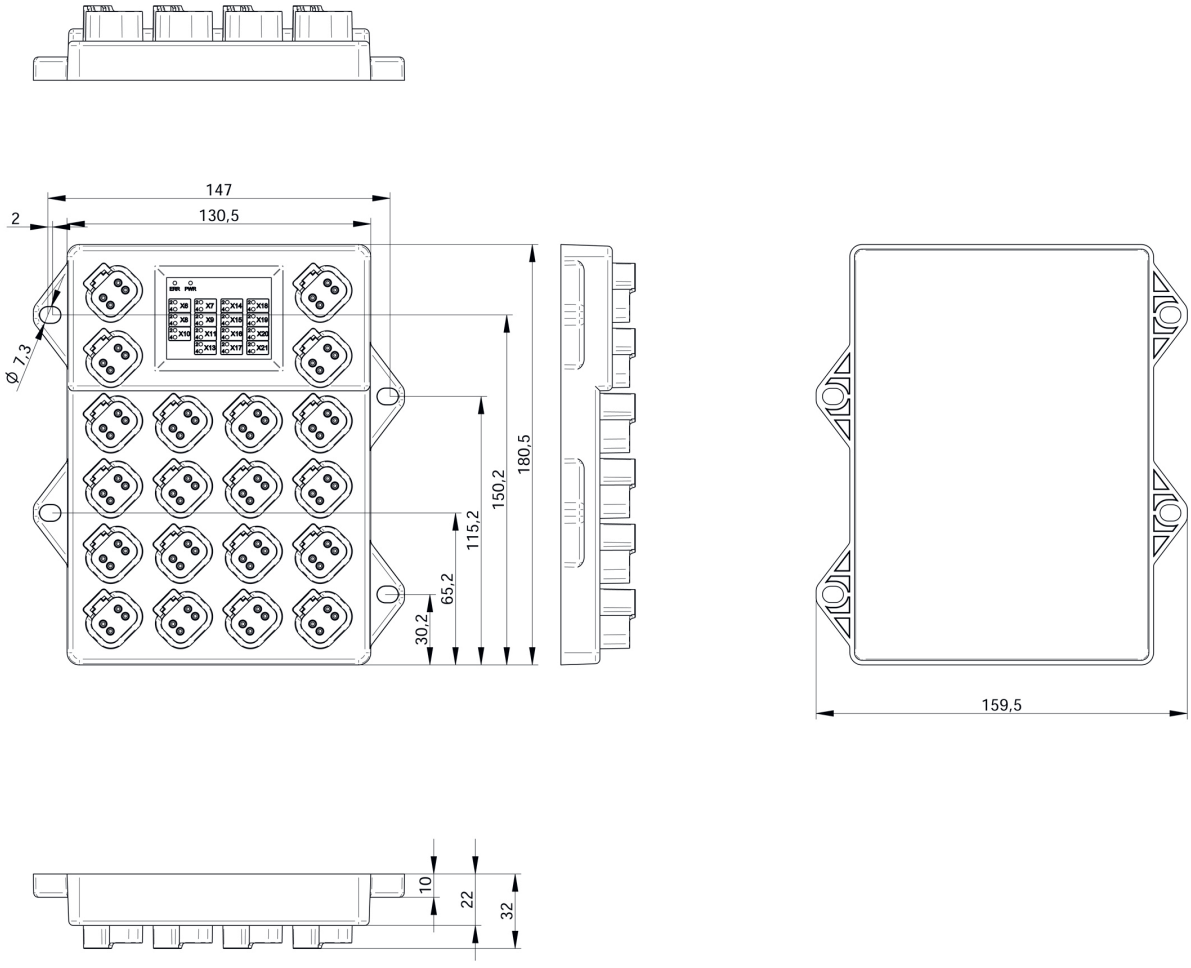
VEXT_SEN_3	1
PWM_H7_4	2
GND_PWR	3
PWM_H7_4	4

Pinout

X21 – PWM_H7_1 ... PWM_H7_2

VBAT_ECU	1
PWM_H7_1	2
GND_PWR	3
PWM_H7_2	4

Dimensional drawing



Bucher Automation AG
Thomas-Alva-Edison-Ring 10
71672 Marbach am Neckar, Germany
T +49 7141 2550 0
info@bucherautomation.com

Further details and order information are available on request. Specifications are subject to change without notice. Errors and omissions excepted.

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