

JXM-IO-EW30

Extension module for mobile machinery

Short description

The JXM-IO-EW30 expansion module is the universal distributed component for mobile machines.

With its balanced I/O configuration, it can handle almost all distributed tasks. Communication with the JXM-IO-EX30 takes place via CANopen®. This allows for integration into conventional CAN networks used in mobile machines.

The rugged housing, use of cable glands and connection via WAGO MCS mini HD allows a flexible wiring and guarantees highest reliability in harsh environment.



Features

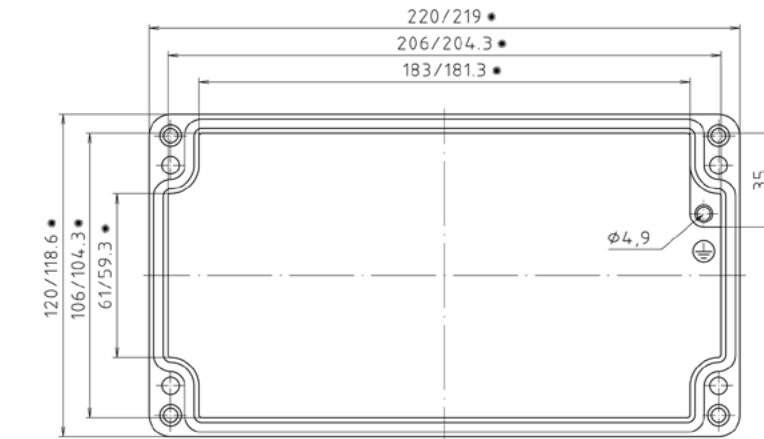
- 12 inputs and 14 diagnostics-capable outputs - including high current paths and PWM with current control
- Thanks to CAN ID addressing via tri-state inputs, up to nine nodes in a network are supported without the need for software configuration. This lets you implement your common parts strategy.
- High single switching currents allow parallel connection of consumers
- Three short-circuit-proof sensor supplies allow „mission critical“ sensor networks
- Rugged metal housing with CageClamp wiring

JXM-IO-EW30

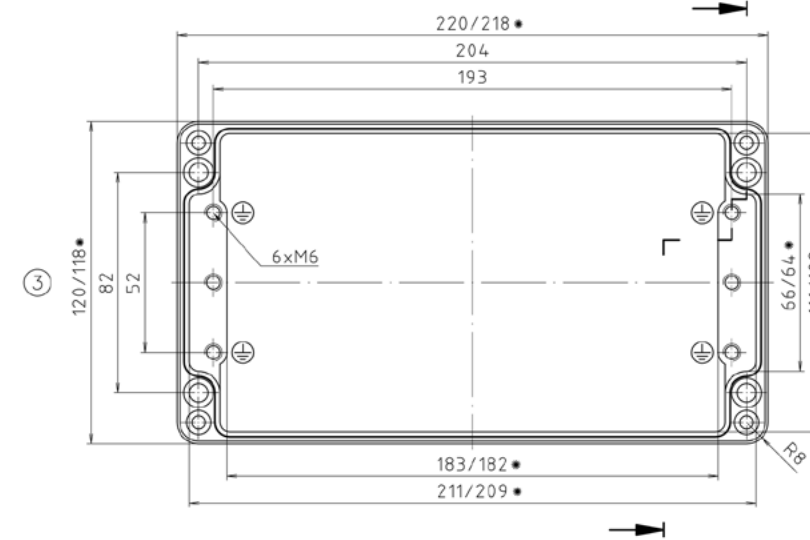
Technical Data

| JXM-IO-EW30 | |
|--|---|
| Operating voltage range | DC 8 ... 32 V, ECU voltage supplied separately |
| Operating/storage temperature range | -25 ... +85 °C / -40 ... +85 °C |
| CAN Interfaces | 1 CANopen® |
| Maximum number of inputs/outputs | 26 |
| Inputs | |
| Analog | 8; 0 ... 5 V (2x 0 ... 10 V adjustable via DIP switch) / 0 ... 20 mA, can be configured individually; resolution: 12 bit, input impedance 35 kΩ, load resistor 120 Ω |
| Digital/frequency | 4 active-high, input impedance; 5.6 kΩ, 0.1 Hz ... 10 kHz |
| Digital/CAN coding | 2 CAN ID coding, tri-state |
| Outputs with diagnostics capability (short-circuit, no-load) | |
| PWM, precision current measurement | 4; 3 A, max. 1.5 kHz, dithering, current controlled, diagnostics-capable, short-circuit proof; alternatively to be used as digital active-low input, input impedance 10 kΩ; digital output 3 A; PNP input |
| PWM | 6; 7 A, max. 1.5 kHz, dithering, diagnostics capable, short-circuit-proof; alternatively to be used as digital active-low input, input impedance 10 kΩ; digital output 7 A; PNP input |
| Digital (50 % ON period) | 4; 3 A high-side, diagnostics capable, short-circuit proof, (with 50 % ON period); alternatively to be used as digital active-low input, input impedance 10 kΩ; PNP input |
| Sensor supply | 3 fused VBAT supplies for sensors |
| Maximum permissible total current | 25 A |
| Degree of protection | IP66 |
| Vibration | ISO 16750-3 |
| Shock | ISO 16750-3 |
| Certifications | ECE R10 E1, CE ISO 14982 |
| Maximum installation height | 2000 m (above sea level) |
| Reverse polarity protection | Yes, external fuse |
| Output diagnostics | Short-circuit, cable break |

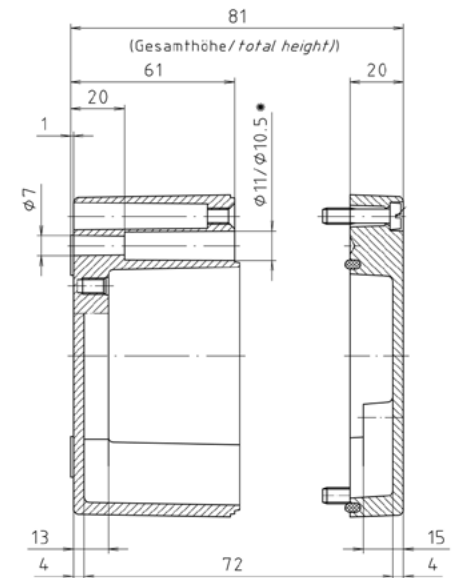
Dimensional drawing



Deckel / lid



Unterteil / base



JXM-IO-EW30

Connector pinout

| JXM-IO-EW30 Connector 1 | |
|----------------------------|----|
| AI_8 | 1 |
| GND_SEN | 2 |
| AI_7 | 3 |
| GND_SEN | 4 |
| AI_6 | 5 |
| GND_SEN | 6 |
| AI_5 | 7 |
| VEXT_SEN_2 | 8 |
| AI_4 | 9 |
| GND_SEN | 10 |
| AI_3 | 11 |
| GND_SEN | 12 |
| AI_2 | 13 |
| GND_SEN | 14 |
| AI_1 | 15 |
| VEXT_SEN_1 | 16 |

| JXM-IO-EW30 Connector 3 | |
|----------------------------|----|
| DO_H3_4 | 1 |
| GND_PWR | 2 |
| DO_H3_3 | 3 |
| GND_PWR | 4 |
| DO_H3_2 | 5 |
| GND_PWR | 6 |
| DO_H3_1 | 7 |
| GND_PWR | 8 |
| PWMI_H3_4 | 9 |
| GND_PWR | 10 |
| PWMI_H3_3 | 11 |
| GND_PWR | 12 |
| PWMI_H3_2 | 13 |
| GND_PWR | 14 |
| PWMI_H3_1 | 15 |
| GND_PWR | 16 |

Connector pinout

| JXM-IO-EW30 Connector 5 | |
|----------------------------|----|
| VBAT_PWR | 1 |
| GND_PWR | 2 |
| VBAT_PWR | 3 |
| GND_PWR | 4 |
| VBAT_PWR | 5 |
| GND_PWR | 6 |
| VBAT_PWR | 7 |
| GND_PWR | 8 |
| VBAT_ECU | 9 |
| GND_PWR | 10 |
| CFG1 | 11 |
| CFG2 | 12 |
| CAN_TERM | 13 |
| CAN_TERM | 14 |
| CAN_L | 15 |
| CAN_H | 16 |

| JXM-IO-EW30 DIP-Switch | |
|---------------------------|---|
| ON: AI_7 Hi-range | 1 |
| ON: AI_8 Hi-range | 2 |
| n.c. | 3 |
| ON: BOOTSEL | 4 |

| JXM-IO-EW30 Connector 2 | |
|----------------------------|---|
| DI_4 | 1 |
| GND_SEN | 2 |
| DI_3 | 3 |
| GND_SEN | 4 |
| DI_2 | 5 |
| GND_SEN | 6 |
| DI_1 | 7 |
| VEXT_SEN_3 | 8 |

| JXM-IO-EW30 Connector 4 | |
|----------------------------|----|
| PWM_H7_6 | 1 |
| GND_PWR | 2 |
| PWM_H7_5 | 3 |
| GND_PWR | 4 |
| PWM_H7_4 | 5 |
| GND_PWR | 6 |
| PWM_H7_3 | 7 |
| GND_PWR | 8 |
| PWM_H7_2 | 9 |
| GND_PWR | 10 |
| PWM_H7_1 | 11 |
| GND_PWR | 12 |

| JXM-IO-EW30 Connector 6 | |
|----------------------------|---|
| CAN_L | 1 |
| GND_PWR | 2 |
| CAN_H | 3 |
| VBAT_ECU | 4 |

| JXM-IO-EW30 M12 5-pol male A-coded connector on box | |
|--|---|
| CAN_SHLD | 1 |
| VBAT_ECU | 2 |
| GND_ECU | 3 |
| CAN_H | 4 |
| CAN_L | 5 |

