

Pioneering new technologies
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Sensor-Technik Wiedemann GmbH
Mobile Controllers and Measurement Technologies

ESX[®]-DIOS/DIOM



I/O modules for vehicles and
machines with CAN-Bus/CANopen



I/O modules ESX®-DIOS, ESX®-DIOM

- I/O modules for mobile applications extends the I/O capability of a master controller using the CAN-Bus (CANopen protocol or layer 2 communication)
- ESX®-DIOS: I/O module with max. 8 outputs and 2 inputs or max. 10 inputs
- ESX®-DIOM: I/O module with max. 24 outputs and 2 inputs or max. 26 inputs
- Customer specific default settings for bit rate and module basis address, software configurable
- Automatic detection of 9 different slot positions (module coding) using 2 tristate pins
- All outputs are diagnosable
- All inputs and outputs are protected against overvoltage and against short circuit to ground /supply voltage
- Safety-relay as switch-off alternative
- Direct driving of proportional valves saves additional driver and /or controller boards

Technical Data

		ESX®-DIOS				ESX®-DIOM			
Variations (other variations on request)		A	B	C	D	A	B	C	D
In-/Outputs	Digital-/PWM output (4 A high side) 0 ... 100 % 100 Hz or 200 Hz frequency (12 bit resolution), with current measurement/regulation (10 bit resolution)	–	–	4	4	–	–	12	12
	Digital outputs (4 A high side)	–	8	–	4	–	24	–	12
	Digital inputs with internal pulldown (Detection level approx. 67 % U _B)	8	–	4	–	24	–	12	–
	Tristate inputs for coding modules in slot	2 Pins (open, jumper to GND or U _B), internal voltage divider							
System Data	CAN-Bus interface	CAN 2.0B (11 Bit and 29 Bit identifier), Full CAN, low or high speed to 1 MBit/s							
	Processor system	8 bit controller							
	Supply voltage	9 ... 32 V DC							
	Current requirements	< 0.2 A (without external load), stand-by < 1 mA, max. total current 30 A				< 0.4 A (without external load), stand-by < 1 mA, max. total current 70 A			
Mechanic	Connector	16 pin automotive type (Tyco / AMP)				42 pin automotive type (Tyco / AMP)			
	Dimensions	approx. 97 mm x 125 mm x 45 mm (3.81" x 4.92" x 1.77")				approx. 154 mm x 169 mm x 52 mm (6.06" x 6.65" x 2.05")			
	Weight	approx. 0.5 kg (1.1 lbs)				approx. 1 kg (2.2 lbs)			
	Chassis	IP65, opt. IP67, die-cast aluminium, GORE-TEX® breathing filter for pressure equalization							
General	EMC, environmental requirements	According to automotive, agriculture and construction industry standard, CE-conformity							
	Operating temperature	-40 ... +85° C (-40° F ... +185° F) (chassis) temperature							



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