

## R360 ClassicController and R360 ExtendedController (truck, off-highway, railway)

The R360 ClassicController and the R360 ExtendedController have been specially developed for use in vehicles and mobile machines. Many years of experience with the development and construction of mobile controllers have been applied to the new device generation.

The user can select the requested function of the inputs and outputs through parameter setting. Thus the same controller module can be used for different requirements. This reduces storage. In addition to the flexible I/O level each controller module is equipped with two CAN interfaces. A freely programmable CAN gateway can be implemented for coupling different networks. It supports all important bus protocols. This enables an easy exchange of SAE J1939 engine and CANopen data. Different transmission rates and the transparent or pre-processing exchange of data between the networks are supported. The user can easily integrate all functions in the application program via programming to IEC 61131-3.

### R360 ClassicController and R360 ExtendedController, (general data)

- Mechanical resistance to extreme shock
- High protection rating IP67 for outdoor use
- Supply voltage 10 V<sub>DC</sub> to 32 V<sub>DC</sub>
- 16-bit (C167 40 MHz) or 32-bit (TriCore 1796) micro-controller for short cycle times
- Increased functional reliability by means of permanent check sum test of the program and the system
- 8-bit parallel processor to monitor the main processor
- Load-dump resistance
- Up to 80 I/Os in the same housing e. g.:
  - 8/16 PWM channels (current controlled)
  - 16/32 output channels
  - 4/8/16 frequency inputs 0 Hz to 50 kHz
  - I/O monitoring for wire break and short circuit
- Monitoring and measurement of the supply voltage and the device temperature
- CAN interface with layer 2 and CANopen protocol for program download and communication
- CANopen Safety support with 8 RX-SRDO and 8 TX-SRDO (only SafetyController)
- CAN interface can be used for 11/29-bit ID communication (e.g. SAE J1939)
- Serial EIA-232 (RS-232) or USB interface for program download and communication
- Use as safety controller to EN 13849, PI d
- Free programming to IEC 61131-3 with the standardized languages function block diagram (FBD), ladder diagram (LD), instruction list (IL), sequential function chart (SFC), structured text (ST)
- CE, e1 type approval, approval for railway applications (EN 50155)

### R360 ClassicController, CR0020

- 40 inputs/outputs, configurable
- 2 CAN interfaces

### R360 SafetyController, CR7021

- 40 inputs/outputs, configurable
- 2 CAN interfaces
- Safety controller to EN 13849, PI d
- Extended monitoring and test routines for hardware and software
- Safe inputs and outputs for analog, digital, pulse and PWM signals
- CANopen safety

### R360 ClassicController, 32-bit, CR0032

- 32 inputs/outputs, configurable
- 4 CAN interfaces

### R360 SafetyController, CR7032

- 32 inputs/outputs, safe, configurable
- 4 CAN interfaces
- Safety controller to EN 13849, PI d and EN 620161, SIL cl 2 (TÜV certified)
- Extended monitoring and test routines for hardware and software
- Safe inputs and outputs for analog, digital, pulse and PWM signals
- CANopen safety

### R360 ClassicController, CR0033

- 32 inputs/outputs, configurable
- 4 resistor inputs
- 4 CAN interfaces

### R360 ExtendedController, 32 bit, CR0133

- 64 inputs/outputs, configurable
- 6 resistor inputs
- 5 CAN interfaces

### R360 ClassicController, CR0505

- 24 inputs/outputs, configurable
- 2 CAN interfaces

### R360 SafetyController, CR7506

- 40 inputs/outputs, configurable
- 2 CAN interfaces
- Safety controller to EN 13849, PI d
- Extended monitoring and test routines for hardware and software
- Safe inputs and outputs for analog, digital, pulse and PWM signals
- CANopen safety

### R360 ClassicController, CR0200

- 80 inputs/outputs, configurable
- 2/4 CAN interfaces

### R360 SafetyController, CR7201

- 80 inputs/outputs, configurable

- 2 CAN interfaces
- Safety controller to EN 13849, PI d
- Extended monitoring and test routines for hardware and software
- Safe inputs and outputs for analog, digital, pulse and PWM signals
- CANopen safety

#### **R360 ClassicController, 32-bit, CR0232**

- 80 inputs/outputs, configurable
- 4 CAN interfaces

#### **R360 SafetyController, CR7132**

- 80 inputs/outputs (total), configurable
- 32 inputs/outputs, safe, configurable
- 4 CAN interfaces
- SafetyController to EN 13849, PI d and EN 620161, SIL cl 2 (TÜV certified)
- Extended monitoring and test routines for hardware and software
- Safe inputs and outputs for analog, digital, pulse and PWM signals
- CANopen safety

#### **R360 ClassicController, 32-bit, CR0233**

- 80 inputs/outputs, configurable
- 4 resistor inputs
- 4 CAN interfaces

## **Contact**

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**Features**

<b>NMT</b>	NMT slave NMT master
<b>Error control</b>	Node guarding Life guarding Heartbeat producer
<b>Boot-up</b>	Yes
<b>Node ID range</b>	From 0 to 127
<b>Node ID</b>	Software switch Proprietary
<b>CANopen bit-rates</b>	50 kbit/s 125 kbit/s 250 kbit/s 500 kbit/s 800 kbit/s 1 000 kbit/s
<b>Type of bit-rate adjustment</b>	None
<b>RPDOs</b>	512
<b>TPDOs</b>	512
<b>PDO modes</b>	Event-triggered Triggered by event-timer Synchronous (cyclic) Synchronous (acyclic)
<b>PDO linking</b>	Yes
<b>PDO mapping</b>	Dynamic
<b>SDO server</b>	1
<b>SDO client</b>	1
<b>Emergency producer</b>	Yes
<b>Emergency consumer</b>	127 messages
<b>Sync producer</b>	Yes
<b>Sync counter</b>	No
<b>Time stamp</b>	No
<b>Additional functions</b>	CANopen safety protocol Self-starting device Program download PLCopen/IEC 61131 function blocks
<b>CANopen version</b>	CiA 301 V 4.0.2
<b>Frameworks</b>	

	CiA 302 CiA 304
<b>Device profiles</b>	
	CiA 405: CANopen interface and device profile for IEC 61131-3 programmable devices CiA 413: CANopen device profile for truck gateways CiA 422: CANopen application profile for municipal systems CiA 444: CANopen device profiles for container-handling machines CiA 401: CANopen device profile for generic I/O modules CiA 436: CANopen application profile for construction machineries CiA 455: CANopen application profile for drilling machines
<b>Certified</b>	No
<b>Availability</b>	In stock