

# mini RIO

## DATA SHEET



### Key features

Remote digital I/O module for the Si-TEC *Xtend* control (via CAN bus interface), and allows for expansion of existing Si-TEC *Xtend* control digital I/Os from standard 16 logic inputs/  
8 relay outputs to 32 logic inputs/16 relay outputs.

DIN rail enclosure that reduces the need for special mounting.  
W x 198 mm  
H x 100 mm  
D x 26 mm

## Overview

- Expanded remote digital I/O module for Si-TEC *Xtend* control
- Fast and reliable communication with Si-TEC *Xtend* control via "CAN bus" interface
- Interfaces with Si-TEC *Xtend* CGC/TGC Recip, CGC Turbine (non extraction), GSM and ADG
- User configurable logic inputs and relay outputs for a wide range of functions

## Specifications

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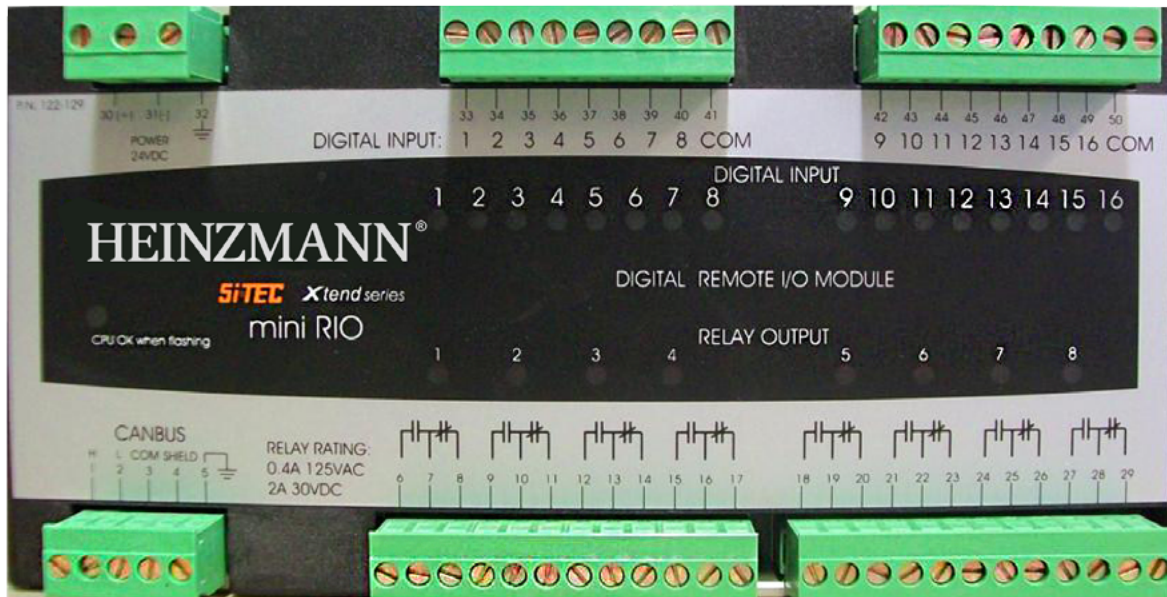
- Mounting: DIN Spec 35 mm (rail mount)
- Dimensions: W x 198 mm, H x 100 mm , D x 26 mm (allow additional 15.3 mm depth for wiring connector plug + 19.2 mm for DIN connector)
- Weight: 580 grams
- Power supply: 24 VDC nominal (18 – 36 VDC)
- CAN bus port: Up to 125 m total loop length (including Si-TEC *Xtend* control, Opal Annunciator, etc.) @ 250 kbps
- Logic inputs powered from external 24 VDC supply, with supply negative (24 VDC) linked to logic input common (terminal 41 for logic inputs 1 to 8 and terminal 50 for logic inputs 9 to 16)
- Relay outputs are “Change Over” contacts (N.O. and N.C.) with isolated common for each relay. Relay contact ratings are 0.4 A @ 125 VAC (limited to 50 VA) or 2 A @ 30 VDC (limited to 60 W).
- Indication LEDs for all logic inputs and relay outputs, for viewing and verification of logic status
- CPU OK indication (flashing when OK) for verification of mini RIO functionality
- Configuration of specific logic inputs and relay outputs is done via the respective Si-TEC *Xtend* control (i.e. mini RIO inputs 1 to 16 are configured as CAN logic inputs 1 to 16, while mini RIO relay outputs 1 to 8 are configured as CAN relay outputs RL1 to RL8 respectively)

## Applications

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- Used in a wide range of applications where additional digital I/O (i.e. logic inputs and relay outputs) are required for the Si-TEC *Xtend* controls. The Si-TEC *Xtend* controls include CGC Recip (Co-Generation Control for Recip Engine grid parallel applications), TGC Recip (Total Generator Control for Recip Engine Island applications), CGC Turbine (Co-Generation Control for non-extraction steam turbines), GSM (Generator System Master) and ADG (Advanced Digital Governor).
- May be used in applications where remote access to specific digital I/Os may be required (e.g. digital I/O located in close proximity to engine/turbine) for easy interface
- In addition to Si-TEC *Xtend* I/O control function, the mini RIO may also be configured as PLC I/O using Modbus interface (e.g. cooling fans, pumps, engine alarms, etc.)

## Terminal wiring interface



## Physical dimensions (rear & side view)

