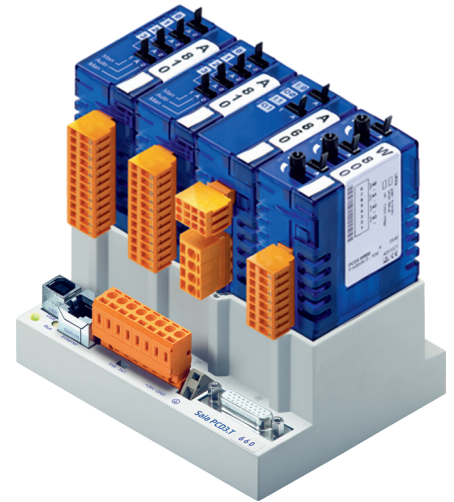# Ethernet RIOs
Saia PCD3.T660

The PCD3 Ethernet RIO extends the PCD3 system family and enables efficient decentralisation of automation tasks

The configuration and management of RIO nodes are handled centrally by the master station. This enables simple commissioning and support of the RIO stations. Communication is handled by the Ether-S-Bus protocol. This data sheet describes the properties of the first version of the new Ethernet RIOs. Other protocols such as Modbus and SNMP are in preparation. Further powerful functions such as programmable RIOs, the use of fast interrupt inputs and support for cross-communication will also follow in the next version.

System overview of PCD3 Ethernet RIO PCD3.T660
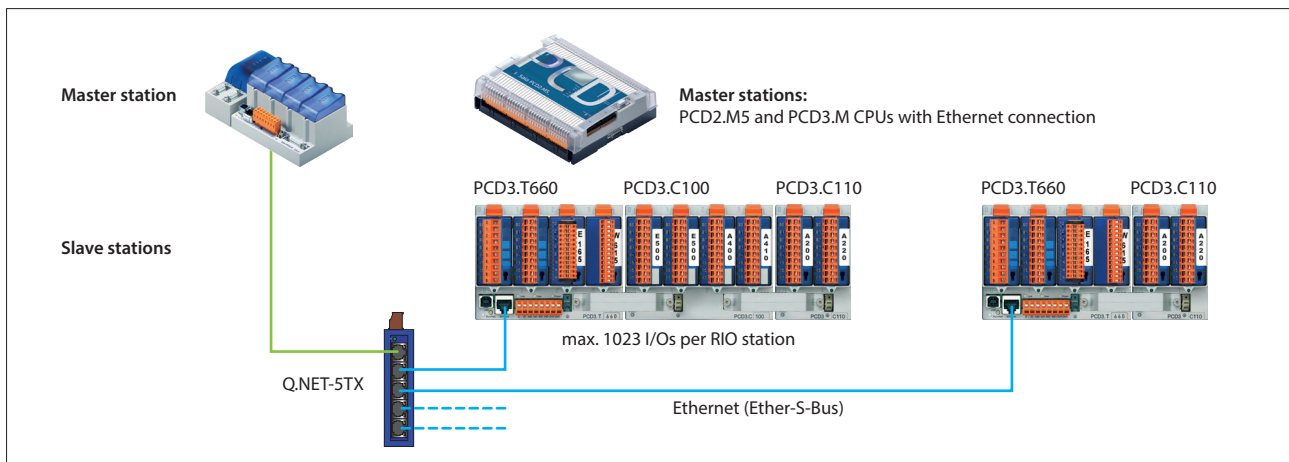
The PCD3.T660 head station serves as a decentralised peripheral node. It is snapped onto a 35 mm DIN rail and can be fitted wit up to 4 PCD3 I/O modules. A head station can be extended with PCD3.Cxxx I/O module holders for up to 1023 I/Os. The PCD3.T660 head stations are connected to the PCD2 or PCD3 master station via Ethernet. Multiple logical RIO networks can be run within one Ethernet network. The PCD3.T660 RIOs can be operated in Ethernet networks with standard network components (switches, routers, etc.).

Configuration

The RIO stations are configured with the PG5 programming tool in the device configurator and assigned to the relevant master station.
The configurations of the RIO stations are loaded into the master station by the user program. A specific FBox is used to copy the configuration over to the RIO stations.

Programming data transfer

Data transfer is programmed using the standard S-Bus communication FBoxes. The cycle time and the priorities of the RIO stations and the individual telegrams can be defined by the programmer and programmed according to the application requirements.

Commissioning and diagnostics

As delivered, the RIO stations have a default IP configuration. This configuration can be easily adapted to the local network infrastructure with a PC and a web browser (e.g. Internet Explorer) via USB or Ethernet interface.

For diagnostic purposes, the current status of the RIOs is displayed by multi-coloured LEDs and on the configuration web page.

Technical data

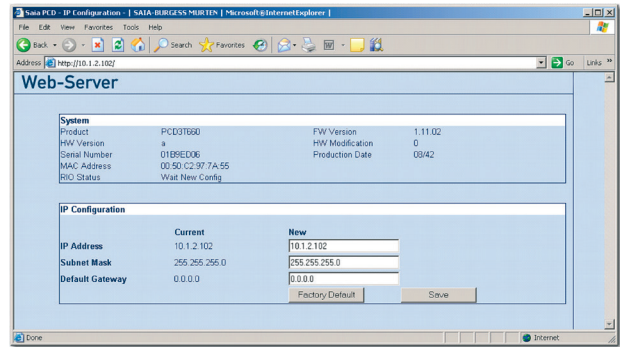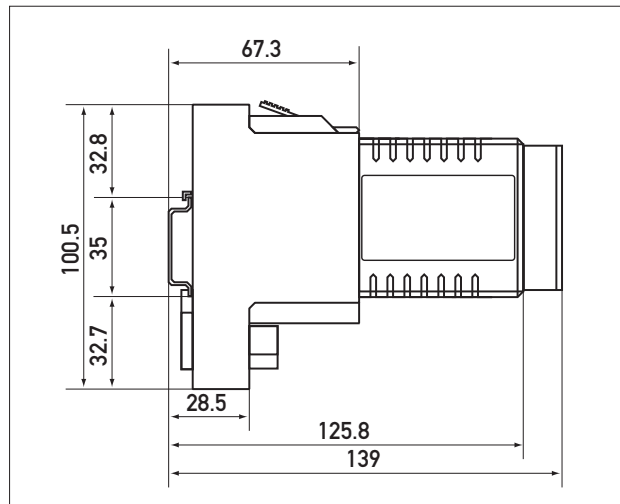|	
Number of I/Os or	1023 [1]
I/O module sockets	64 [1]
I/O expansion connection	yes
PCD3 I/O modules supported	PCD3.Exxx, .Axxx, .Bxxx, .Wxxx
Ethernet connection	10/100 MBit/s
Default IP configuration	IP address 192.168.10.100 Subnet mask 255.255.255.0 Default gateway 0.0.0.0
Number of RIO stations per master	Limited by available user program memory in the master station
Integrated web server	for configuration and diagnostics
Configuration and programming	PG5 from version 2.0.58
Firmware update	via USB
Master stations	PCD2.M5540, PCD3.M3330/M5340/M5540/M6340/M6540, from CPU firmware version 1.09.44

[1] with PCD3.Cxxx I/O expansion modules

Dimensions

67.3
32.8
100.5
35
32.7
28.5
125.8
139

130 × 100 × 137 (W × H × D in mm)
(with I/O modules and terminal block)

General data

Supply voltage	24 VDC ±20% smoothed or 19 VAC ±15% full-wave rectified
Capacity of 5 V-Bus/24 V-Bus	max. 650 mA/100 mA
Ambient temperature	0…+55 °C or 0…+40 °C (depending on position)
Storage temperature	−25…+70 °C
Relative humidity	30…95% with no condensation
Mechanical strength	according to EN/IEC 61 131-2

Order details

Type	Description	Weight
PCD3.T660	PCD3 Ethernet RIO head station with 4 I/O module sockets	400 g