ThinkIO-C

Din Rail PC with Direct I/O



Maximize Connectivity

Ensure maximum connectivity, direct connection to WAGO-750-I/O-SYSTEM

Think Comfortable

Make your life easy, comfortable configuration and visualization with SoftPLC package according to IEC 61131-3

Stay Compact

Optimize your solution, all necessary PC functions and stay compact with a height of only 70mm

Not a lot of space?

Don't pass on features...

Decentralization and modularization are two of the main tasks nowadays regarding control engineering. Life should be easy as well, i.e. flexible programmability, including visualization and the ability to build a network are mandatory and are becoming more and more important.

Not a lot of space, but still the demand for a full featureset?
Managing a project is about managing demanding, widely different customer requirements and turning them into one stable future-proof solution.

This already seems to be a fairly hard job, even more as project development is usually jeopardized by various necessities: easy building of the application, combining all features of a PC with the maximum connectivity of granular I/O systems, and last but not least, easy access and handling of the PC and I/O features on the software side.

Maximize Connectivity
The combination of a complete, effective PC with the granular WAGO-I/O-SYSTEM provides perfect connectivity. By directly connecting to the WAGO-I/O-SYSTEM, any configuration of digital I/O, analog I/O, thermoelements, even special interfaces like SSI or serial busses are possible.

Offering features like USB, Ethernet, optional field busses and DVI, the ThinkIO-C completes the extraordinary connectivity on the PC side.

Control Comfortable
With the optionally available SoftPLC package, acccording to IEC 61131-3, the customer receives a very easy to install and to configure solution. It includes editors for the development of controller application nodes, integrated compilers for generating native application codes for the controller, and numerous diagnostic and commissioning functions. All I/O nodes are directly configurable through the software side. This means all I/O clamps are plug and play. Once added to the system, the ThinkIO-C detects the new clamp and it is now possible to control and configure it by software.

The ability to connect the ThinkIO-C to a flat panel as well permits a perfect visualization.

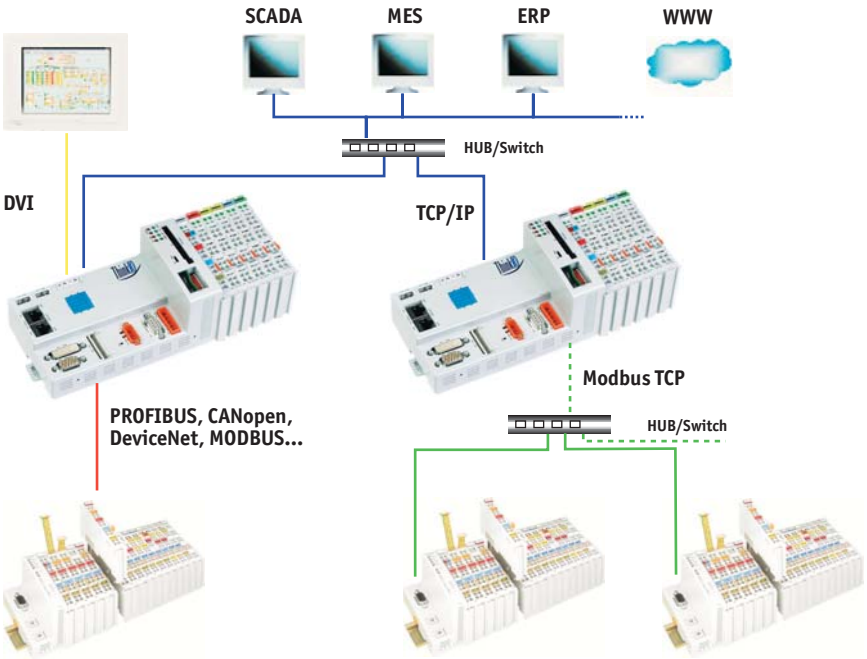
Stay Compact
In many applications, space is a major topic as well. Being limited to a 80 mm equipment cabinet, makes it very difficult to find a PC solution on the market.

For the ThinkIO-C this is understood. With a height of 70 mm it perfectly fits into any equipment cabinet.

Even though the ThinkIO-C is very slim, it still is a rugged solution which simply fits in any project. It operates without any rotating storage device, and does not need active cooling. No matter if it is to work on a ship, train, in a factory, or wherever: with this product a robust solution is assured.

In summary, the ease of use for customers, the maximum connectivity, and the compact size, one arrives at the conclusion that if you: "ThinkIO - Think Kontron".

ThinkIO



CoDeSys Automation Alliance

Product Overview

...find the matching product

System Processor

Geode SC1200 (266 MHz) and integrated Chipset from AMD
Cache: 16kByte 1st level
Passive Cooling

System Memory

- Bootable Flash Disk: 32MB /128MB
- SDRAM: 32MB/128MB
- SRAM: 128kB, battery - buffered
- Onboard CompactFlash type I/II

System I/O

- Two channels Digital In and two channels Digital Out
- Two USB 1.1 ports
- One RS232 Serial port
- External Watchdog
- Two 10Base-T/100BASE-TX Fast Ethernet ports
- One DVI panel-link, TFT, VGA (with adapter)

Fieldbus Extension

Embedded Communication Controller EC1
- PROFIBUS-DP
- CANopen
- DeviceNet

WAGO-I/O Extension

- SAF-C165 Microcontroller, 16bit
- Adaption for K-Bus
- SRAM: 128k x 8bit
- Flash: 512k x 8bit
- DPRAM: 1k x 8bit

Status LEDs

- 1 red and 1 green coloured LED general purpose
- 1 red coloured for IDE
- 1 green coloured for power
- 2 green and 2 red coloured LEDs for K-bus
- 2 green coloured LEDs for the K-Bus (on K-bus module)
- 2 LEDs for each Fast Ethernet Connector (ACT, LNK)

Battery Box

- 3.3V/170mAh Lithium Battery

Onboard Connectors

- Two USB 1.1
- Two Fast Ethernet, RJ-45 with LEDs
- One Serial Interface, 9pole DSUB
- One DVI
- One IO / WDOG (12 Pins)
- One Reset button
- PROFIBUS-DP/CANopen/DeviceNet
- External Power supply connector: 24V DC
- CompactFlash socket
- WAGO-I/O interface

Power Supply

24V (-25% to +30%)

Power Consumption System

10,5 Watt @ 24V DC

Power Consumption WAGO-I/O Extension

3 Watt @ 24V DC

Power Consumption WAGO-I/O Clamps

Max. 5 Watt (for I/O clampsmax. 1A system supply)

General

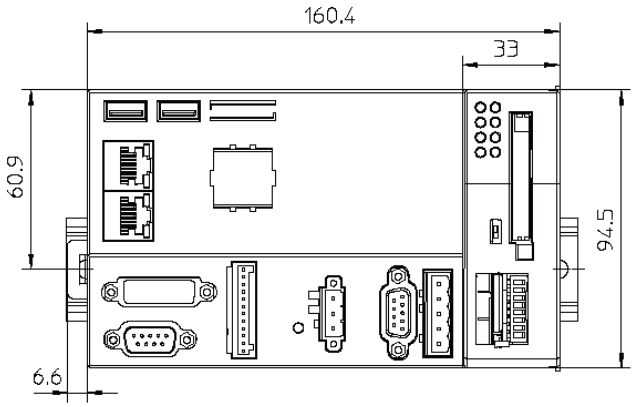
Dimensions: 160 x 70 x 95 mm
Weight:: 530g

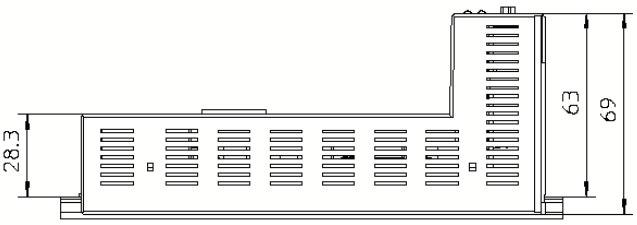
Software Support

Board support packages (BSPs) for Windows CE 5.0, Linux 2.4/RTAI SoftPLC CoDeSys for embedded realtime Linux available:
CoDeSys programming tool for industrial controllers and PLC components based on the international standard IEC 61131-3. CoDeSys consists of three parts: editors to develop controller application code, integrated compilers to generate native application code for the controller, and numerous diagnostic and commissioning functions.
CoDeSys supports all five languages of IEC 61131-3. In addition, it offers a sixth editor which is a variation of the Function Block Diagram called Continuous Function Chart: Instruction List (IL), Function Block Diagram (FBD), Ladder Diagram (LD), Structured Text (ST), Sequential Functon Chart (SFC), Continuous Function Chart (CFC).
The ThinkIO CoDeSys package includes the CoDeSys Target Visualization, too.

Environmental

Operating temp.:	0°C to +55°C standard
Storage temp.:	-10°C to +85°C
Climatic Humidity:	non-condensing 93% at 40°C acc. to IEC 60068-2-78





kontron

Ordering Information

Product	Description	Order No.
THINKIO-C-266	DIN Rail PC, 32MB DRAM, 32MB Flash, No Fieldbus Extension	26103
THINKIO-C-266	DIN Rail PC, 128MB DRAM, 128MB Flash, No Fieldbus Extension	26104
THINKIO-C-266-FB	DIN Rail PC, 32MB DRAM, 32MB Flash, With Fieldbus Extension (Please order Fieldbus separately)	27058
THINKIO-C-266-FB	DIN Rail PC, 128MB DRAM, 128MB Flash, With Fieldbus Extension (Please order Fieldbus separately)	27059
THINKIO-C-FB-PRO-MS	ThinkIO-C Fieldbus Extension, PROFIBUS-DP Master	27060
THINKIO-C-FB-PRO-SL	ThinkIO-C Fieldbus Extension, PROFIBUS-DP Slave	27394
THINKIO-C-FB-CAN-MS	ThinkIO-C Fieldbus Extension, CANopen Master	26768
THINKIO-C-FB-CAN-SL	ThinkIO-C Fieldbus Extension, CANopen Slave	27395
THINKIO-C-FB-DEV-MS	ThinkIO-C Fieldbus Extension, DeviceNet Master (BSP only)	26106
THINKIO-C-FB-DEV-SL	ThinkIO-C Fieldbus Extension, DeviceNet Slave (BSP only)	27396
THINKIO-SYCON	ThinkIO fieldbus configurator SYCON for PROFIBUS-DP, CANopen, DeviceNet	28234
THINKIO-C-KBUS	WAGO-I/O Extention Module (end clamp 27969 included)	26105
THINKIO-W-DIG-I	750-430, Digital In Clamp, 8 Channels, High Side Switching	26843
THINKIO-W-DIG-I	750-408, Digital In Clamp, 4 Channels, Low Side Switching	26844
THINKIO-W-DIG-I	750-402, Digital In Clamp, 4 Channels, High Side Switching	27971
THINKIO-W-DIG-O	750-530, Digital Out Clamp, 8 Channels, High Side Switching	26845
THINKIO-W-DIG-O	750-502, Digital Out Clamp, 2 Channels, High Side Switching	26846
THINKIO-W-DIG-O	750-504, Digital Out Clamp, 4 Channels, High Side Switching	29881
THINKIO-W-DIG-O	750-517, Digital Out Clamp, 2 Channels, 230 V AC Relais, changeover contacts	27970
THINKIO-W-DIG-O	750-513, Digital Out Clamp, 2 Channels, 230 V AC / 30 V DC Relais, normally open	26517
THINKIO-W-ANA-I	750-455, Analog In Clamp, 4 Channels, 4-20 mA, Single Ended	26847
THINKIO-W-ANA-I	750-547, Analog In Clamp, 4 Channels, +/- 10V, Single Ended	26848
THINKIO-W-ANA-I	750-459, Analog In Clamp, 4 Channels, 0-10V, Single Ended	26849
THINKIO-W-ANA-I	750-492, Analog In Clamp, 2 Channels, 4-20 mA, Differential	29882
THINKIO-W-ANA-O	750-554, Analog Out Clamp, 2 Channels, 4-20mA, Resolution 12 Bit	26850
THINKIO-W-ANA-O	750-557, Analog Out Clamp, 4 Channels, +/- 10V, Resolution 12 Bit	26851
THINKIO-W-ANA-O	750-559, Analog Out Clamp, 4 Channels, 0-10V, Resolution 12 Bit	26852
THINKIO-W-SERIAL	750-650, Serial Interface Clamp, RS232 C, Full Duplex	26853
THINKIO-W-SUPPLY	750-610, Supply Module Clamp, 24 V DC IO supply, Fuse, Diagnostics	26854
THINKIO-W-SUPPLY	750-601, Supply Module Clamp, 24 V DC IO supply, Fuse	26855
THINKIO-W-SUPPLY	750-613, Supply Module Clamp, 24 V DC IO and 2A system supply	26855
Note:	Other Clamps On Request	
THINKIO-C-RT-LIN-PLC	ThinkIO-C Runtime Licence CodeSys and Target Visualization, Development Environment, Documentation *	27061
LIN-BSP-THINKIO-C	Linux BSP 2.4/RTAI for ThinkIO-C with 128MB DRAM/Flash, distribution independent, Documentation *	31007
WINCE-BSP-THINKIO-C	WindowsCE 5.0 BSP for ThinkIO-C with 128MB DRAM/Flash, Documentation *	30466

*Downloadable from www.kontron.com. Information on Wago clamps can be obtained from www.wago.com

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