

Controller - RFC 470 PN 3TX - 2916600

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Remote Field Controller with 3x10/100 Ethernet, INTERBUS-Master, PROFINET-Controller, PROFINET device, IP20 degree of protection, pluggable parameterization memory

Product Description

Remote Field Controllers for Ethernet networks

When it comes to distributed, modular automation, Remote Field Controllers (RFC) with IEC 61131 control system intelligence and network connection are the ideal solution. Remote Field Controllers are compact, industrial PCs that provide networked, PC-based control performance on site with DIN rail mounting.

Integrated Ethernet connection

The integrated Ethernet network connections in RJ45 format ensure the important Ethernet connectivity.

The "DIN rail PCs" can be reached via Ethernet and TCP/IP by means of remote operation. Programming, operation, and visualization via the network enable innovative and cost-effective automation solutions.

When using the AX OPC server, standardized coupling with various visualization packages is also available via Ethernet.

Java Applet based user interfaces are created with WebVisit. The ready user interfaces are directly saved on the controller and can then be used with a web browser for operating a system or a machine. IEC 61131 controller performance

All Remote Field Controllers are seamlessly configured and programmed according to IEC 61131 using the PC WORX automation software. PC WORX can be operated locally at a serial interface or via the network (Ethernet).

The powerful processor can be programmed in all five IEC 61131 programming languages and ensures quick control task processing.

Ethernet communication

Using the IP communication blocks Send and Receive, information, e.g. necessary coupling variables, can be exchanged via Ethernet. The TCP and UDP protocols are supported. This enables distributed, modular automation solutions to be configured. Even time synchronization is possible via the Ethernet network.

PROFINET communication

The RFC has an integrated PROFINET controller. It can operate up to 100 lower-level PROFINET devices. It can also be operated as a PROFINET device in a higher-level system.

Diagnostic display

The large and clear display can be used to configure settings and diagnose error states in detail.

Your advantages

- ✓ Engineering with PC Worx (IEC 61131-3)
- ✓ Integrated Ethernet interface
- ✓ Numerous protocols supported such as: HTTP, FTP, SNMP, SMTP, SQL, MySQL, etc.
- ✓ Integrated PROFINET controller and PROFINET device
- ✓ Complete fieldbus master (8192 I/O points)
- ✓ Flash file system
- ✓ FTP server
- ✓ Integrated web server for visualization with WebVisit



Key Commercial Data

Controller - RFC 470 PN 3TX - 2916600

Packing unit	1 pc
GTIN	 4 046356 174114
GTIN	4046356174114

Technical data

Dimensions

Width	124 mm
	124 mm
Height	185 mm
	210 mm
Depth	190 mm
	190 mm
Note on dimensions	without fan module
	With fan module

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	0 °C ... 55 °C (from 45°C only with fan module)
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	5 % ... 90 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 90 % (non-condensing)
Air pressure (operation)	80 kPa ... 108 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3000 m above sea level)
Shock	25g, Criterion 1, according to IEC 60068-2-27
Vibration (operation)	1g, Criterion 1, according to IEC 60068-2-6

Control system

Engineering tool	PC WORX
Programming languages supported	Programming in acc. with IEC 61131-3
Diagnostics tool	DIAG+, version 2.00 or higher

IEC 61131 runtime system

Engineering tool	PC WORX
Program memory	typ. 8 Mbyte
Mass storage	16 Mbyte
Retentive mass storage	240 kByte (NVRAM)
Number of control tasks	16
Realtime clock	Integrated (battery backup)

Fieldbus function

Amount of process data	max. 8192 Bit (INTERBUS-Master)
Number of supported devices	max. 512 (of which 254 are remote bus devices/bus segments)
Number of devices with parameter channel	max. 126

Controller - RFC 470 PN 3TX - 2916600

Technical data

Fieldbus function

Program memory	typ. 8 Mbyte
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Data interfaces

Interface	Ethernet
Number	2
Connection method	RJ45 jack
Transmission speed	10/100 Mbps
Interface	Ethernet
Number	1
Connection method	RJ45 jack
Transmission speed	10/100 Mbps
Interface	INTERBUS (Master)
Number	1
Connection method	D-SUB-9 female connector
Transmission speed	500 kBaud / 2 MBaud (can be switched)
Interface	Parameterization/operation/diagnostics
Number	1
Connection method	D-SUB 9 plug

PROFINET

Device function	PROFINET controller, PROFINET device
Specification	Version 1.1
Update rate	min. 1 ms

Direct I/Os

Input name	Digital inputs
Number of inputs	5
Connection method	14-pos. FLK pin strip
Connection technology	FLK cable connector (14-pos.)
Output name	Digital outputs
Number of outputs	3
Connection method	14-pos. FLK pin strip

Power supply

Power supply connection	Screw terminal blocks, plug-in
Typical current consumption	1 A
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including ripple)
Power dissipation	max. 24 W

Mechanical design

Weight	1870 g
Note on weight specifications	without fan module

Controller - RFC 470 PN 3TX - 2916600

Technical data

Mechanical design

Weight	2010 g
Note on weight specifications	with fan module
Diagnostics display	yes
Controller redundancy	No
Safety function	No

General data

Processor	Intel® Celeron® 927 UE 1.5 GHz
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Standards and Regulations

Vibration (storage/transport)	1g, Criterion 1, according to IEC 60068-2-6
Shock	25g, Criterion 1, according to IEC 60068-2-27
Vibration (operation)	1g, Criterion 1, according to IEC 60068-2-6

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
	1,2-dimethoxyethane, ethylene glycol dimethyl ether (EGDME) 110-71-4
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 10.0.1	27242207
eCl@ss 11.0	27242207
eCl@ss 4.0	27240600
eCl@ss 4.1	27240600
eCl@ss 5.0	27242700
eCl@ss 5.1	27242700
eCl@ss 6.0	27242200
eCl@ss 7.0	27242207
eCl@ss 8.0	27242207
eCl@ss 9.0	27242207

ETIM

ETIM 2.0	EC000236
ETIM 3.0	EC000236
ETIM 4.0	EC000236
ETIM 5.0	EC000236
ETIM 6.0	EC000236
ETIM 7.0	EC000236

Controller - RFC 470 PN 3TX - 2916600

Classifications

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	39122114
UNSPSC 18.0	39122114
UNSPSC 19.0	39122114
UNSPSC 20.0	39122114
UNSPSC 21.0	39122114

Accessories

Accessories

Adapter

Adapter - PSM-AD-D9-NULLMODEM - 2708753



V.24 (RS-232) zero modem connector

Drivers and interfaces

Software - AX OPC SERVER - 2985945



AX OPC SERVER, communication interface for OPC-capable visualization with PC WORX-based controls.

Fan

Fan - RFC DUAL-FAN - 2730239



Fan module for Remote Field Controllers RFC 430 ETH-IB / RFC 450 ETH-IB

Interface module

Controller - RFC 470 PN 3TX - 2916600

Accessories

Passive module - FLKMS 14/ 8IM/LA/PLC - 2284536



VARIOFACE sensor module, for connecting 8 p-n-p sensors, with LED

Parameterization memory

Memory - CF FLASH 256MB - 2988780



Program and configuration memory, plug-in, 256 MB

Memory - CF FLASH 256MB - 2988780



Program and configuration memory, plug-in, 256 MB

Memory - CF FLASH 256MB APPLIC A - 2988793



Program and configuration memory, plug-in, 256 MB with license key for function block libraries, e.g., for SNMP, SQL, wireless, motion functions, etc.

Memory - CF FLASH 256MB PDPI BASIC - 2700549



Program and configuration memory, plug-in, 256 MB with license key for licensing the PDPI - BASIC function block for precise multi-channel controllers with self-optimization, additional functions: e.g., for heating and cooling functions or hydraulic movements.

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Accessories

Memory - CF FLASH 256MB PDPI PRO - 2700550



Program and configuration memory, plug-in, 256 MB with license key for licensing the PDPI - PRO function block for precise multi-channel controllers with self-optimization, additional functions: e.g., for setpoint processing, for heating and cooling functions.

Memory - CF FLASH 2GB - 2701185



Program and configuration memory, plug-in, 2 Gbytes.

Memory - CF FLASH 2GB APPLIC A - 2701189



Program and configuration memory, plug-in, 2 Gbytes with license key for function block libraries, e.g., for: SNMP, SQL, wireless, motion functions, etc.

Programming

Software - PC WORX DEMO - 2985725



Software package for PC-based automation solutions. PC WORX DEMO contains all 5 IEC languages with MSFC compiler. Max. 16 bytes of input and output data can be used with the demo version. It is available free of charge and does not require a license key. It is part of the AUTOMATIONWORX Software Suite, which you can download under "Downloads".

Software - PC WORX BASIC LIC - 2985275



Software package for PC-based automation solutions, PC WORX BASIC license, contains all 5 IEC languages, without MSFC compiler, max. 2048 byte input and output data, version-specific license key

Controller - RFC 470 PN 3TX - 2916600

Accessories

Software - PC WORX PRO LIC - 2985385



Software package for PC-based automation solutions, PC WORX PRO license, contains all 5 IEC languages, with MSFC compiler, max 128 kB input and output data, version-specific license key

Software - AX DTM LIB - 2988065



DTM library

Programming cable

Connecting cable - IBS PRG CAB - 2806862



Connection cable, to connect the controller boards to the PC (RS-232-C), length 3 m

Software library

Software add-on - PC WORX TARGET FOR SIMULINK - 2400041



Software add-on for integration and execution of MATLAB/Simulink models on Remote Field and Axioline controllers

Storage medium

USB memory stick - USB FLASH DRIVE - 2402809



USB memory stick, 8 GB

System cable

Controller - RFC 470 PN 3TX - 2916600

Accessories

Cable - FLK 14/EZ-DR/ 200/KONFEK - 2288930



Round cable set; connection 1: IDC/FLK socket strip (1x 14-position); connection 2: IDC/FLK socket strip (1x 14-position); cable length: 2 m

Necessary add-on products

Memory - CF FLASH 256MB - 2988780



Program and configuration memory, plug-in, 256 MB

Memory - CF FLASH 256MB APPLIC A - 2988793



Program and configuration memory, plug-in, 256 MB with license key for function block libraries, e.g., for SNMP, SQL, wireless, motion functions, etc.

Memory - CF FLASH 2GB - 2701185



Program and configuration memory, plug-in, 2 Gbytes.

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Program and configuration memory, plug-in, 2 Gbytes with license key for function block libraries, e.g., for: SNMP, SQL, wireless, motion functions, etc.

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Memory - CF FLASH 256MB PDPI PRO - 2700550



Program and configuration memory, plug-in, 256 MB with license key for licensing the PDPI - PRO function block for precise multi-channel controllers with self-optimization, additional functions: e.g., for setpoint processing, for heating and cooling functions.

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