

# Controller - RFC 430 ETH-IB - 2730190

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Remote Field Controller with 1x10/100 Ethernet, INTERBUS-Master, IP20 degree of protection, pluggable parameterization memory (MC FLASH)

## 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 connection (via twisted pair) ensures Ethernet connectivity, an increasingly important factor.

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 INTERBUS OPC server, standardized coupling with various visualization packages is also available via Ethernet.

### IEC 61131 controller performance

Remote Field Controllers are based on the international PC/104 standard for embedded PC systems. All Remote Field Controllers are seamlessly configured and programmed according to IEC 61131 using the PC WORX automation software. PC WORX can be used locally on the 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

The integrated communication functions of the RFC ... ETH-IB modules enable direct and time-effective data exchange via Ethernet. The Ethernet TCP/IP protocol is used for universal possibilities to communicate with Remote Field Controllers. The standardized transport protocol TCP/IP is known worldwide and is available for all computer architectures and operating systems.

In the Ethernet network data is available in a standardized format using the INTERBUS OPC server.


Using the TCP/IP Send and Receive communication blocks according to the IEC-61131-5 standard, information between two Remote Field Controllers, e.g. necessary coupling variables, can be exchanged via Ethernet. This enables distributed, modular automation solutions to be configured. Even time synchronization is possible via the Ethernet network.

## Why buy this product

- Engineering with PC Worx (IEC 61131-3)
- Integrated Ethernet interface
- Complete fieldbus master (8192 I/O points)
- Flash file system



## Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 189235
GTIN	4017918189235

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## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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### Dimensions

Width	124 mm
Height	185 mm
Depth	190 mm

### 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+ from version 1.14

### IEC 61131 runtime system

Engineering tool	PC WORX
Program memory	typ. 2 Mbyte (170 K instructions (IL))
Mass storage	4 Mbyte
Retentive mass storage	96 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. 62

### Data interfaces

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

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### Data interfaces

Connection method	D-SUB 9 plug
Interface	Ethernet
Number	1
Connection method	RJ45 socket
Transmission speed	10/100 Mbps
Interface	Serial (RS-232)
Number	1
Connection method	D-SUB 9 plug
Transmission speed	10/100 Mbps

### Direct I/Os

Input name	Digital inputs
Number of inputs	5
Connection method	Inline potential distributor
Connection technology	2, 3, 4-wire
Output name	Digital outputs
Number of outputs	3
Connection method	Spring-cage connection
Connection technology	2, 3, 4-wire
Maximum output current per channel	500 mA

### Power supply

Power supply connection	Screw terminal blocks, plug-in
Typical current consumption	1.5 A
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including ripple)
Residual ripple	±5 %
Power dissipation	max. 20 W

### Mechanical design

Format	124 x 185 x 190 mm (W x H x D without fan and without key)
	124 x 210 x 190 mm (W x H x D with fan and without key)
Weight	1550 g
Note on weight specifications	without fan module
Weight	1700 g
Note on weight specifications	with fan module
Diagnostics display	yes
Controller redundancy	No

### Standards and Regulations

Vibration (storage/transport)	1g, Criterion 1, according to IEC 60068-2-6
Connection in acc. with standard	CUL
Shock	25g, Criterion 1, according to IEC 60068-2-27

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### Standards and Regulations

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### Environmental Product Compliance

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

## Approvals

### Approvals

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#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

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#### Ex Approvals

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### Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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EAC			RU *- DE.A*30.B.00238
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	
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