

RFC 470S PN 3TX - Safety controller



2916794

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Remote field controller with 3 x 10/100 Ethernet, INTERBUS master, PROFINET controller with integrated PROFIsafe safety controller, PROFINET device, IP20 protection, plug-in parameterization memory

Your advantages

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

Commercial data

Item number	2916794
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR10
Product key	DRAABC
Catalog page	Page 30 (C-6-2019)
GTIN	4046356436045
Weight per piece (including packing)	2,307 g
Weight per piece (excluding packing)	2,000 g
Customs tariff number	85371091
Country of origin	DE

Technical data

Product properties

Product type	Controller
Product family	Remote Field Controller
Type	Stand-Alone

Insulation characteristics

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Display

Diagnostics display	yes
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System properties

Processor	Intel®Celeron® 927 UE 1.5 GHz
Retentive data storage	240 kByte (NVRAM)

IEC 61131 runtime system

Program memory	typ. 8 Mbyte
Data storage system	16 Mbyte
Number of control tasks	16

INTERBUS-Master

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

PROFINET

Device function	PROFINET-Controller
Specification	Version 1.1
Update rate	min. 1 ms
Conformance Class	B

Function

Diagnostics display	yes
Controller redundancy	no
Safety function	yes

Functionality

Programming languages supported	Instruction list (IL)
	Symbolic flowchart (SFC)
	Ladder diagram (LD)
	Function block diagram (FBD)
	Structured text (ST)

System requirements

Engineering tool	PC Worx
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Diagnostics tool	DIAG+, version 2.00 or higher
Application interface	Device driver interface via TCP/IP sockets

Electrical properties

Power consumption	24 W (typical, without direct I/Os and without fan module)
Maximum power dissipation for nominal condition	typ. 24 W (Without fan module)
Transmission medium	Copper
Maximum power dissipation for nominal condition	typ. 24 W (Without fan module)

Supply

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

Real-time clock

Realtime clock	Integrated (battery backup)
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Input data

Digital:

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

Output data

Digital:

Output name	Digital outputs
Connection method	14-pos. FLK pin strip
Connection technology	FLK cable connector (14-pos.)
Number of outputs	3
Output voltage	24 V

Connection data

Connection method	FLK14 pin strip
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Interfaces

Web server	no
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INTERBUS (Master)

Bus system	RS-422
Number of interfaces	1
Connection method	D-SUB-9 female connector
Transmission speed	500 kBaud / 2 MBaud (can be switched)

Parameterization/operation/diagnostics

Bus system	RS-232
Number of interfaces	1
Connection method	D-SUB 9 plug
Transmission physics	Copper

Ethernet

Bus system	RJ45
Number of interfaces	3
Connection method	RJ45 jack
Transmission speed	10/100 Mbps

Dimensions

External dimensions

Width / Height / Depth	124 mm / 185 mm / 190 mm (without fan module)
	124 mm / 210 mm / 190 mm (With fan module)

Material specifications

Color	anthracite grey (RAL 7016)
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Characteristics

Safety data: EN ISO 13849

Category	max. 4
Performance level (PL)	max. e

Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	max. 3
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Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	max. 3
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Safety data: EN IEC 62061

Safety Integrity Level Claim Limit (SIL CL)	max. 3
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Environmental and real-life conditions

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)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Shock (operation)	25g (in accordance with EN 60068-2-27/IEC 60068-2-27)
Shock (storage/transport)	25g (in accordance with EN 60068-2-27/IEC 60068-2-27)
Vibration (operation)	1g (in accordance with EN 60068-2-6/IEC 60068-2-6)

Vibration (storage/transport)	1g (in accordance with EN 60068-2-6/IEC 60068-2-6)
Air pressure (operation)	80 kPa ... 108 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)
Resistance to gases that may endanger the functions, in acc. with DIN 40046-36, DIN 40046-37	Use of the device in these ambient conditions is prohibited.

Mounting

Mounting type	DIN rail mounting
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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2916794>



EAC
Approval ID: RU*DE*08.B.00529/19



UL Listed
Approval ID: FILE E 140324



cUL Listed
Approval ID: FILE E 140324

Functional Safety
Approval ID: 968/EZ 425.02/22

cULus Listed



Classifications

ECLASS

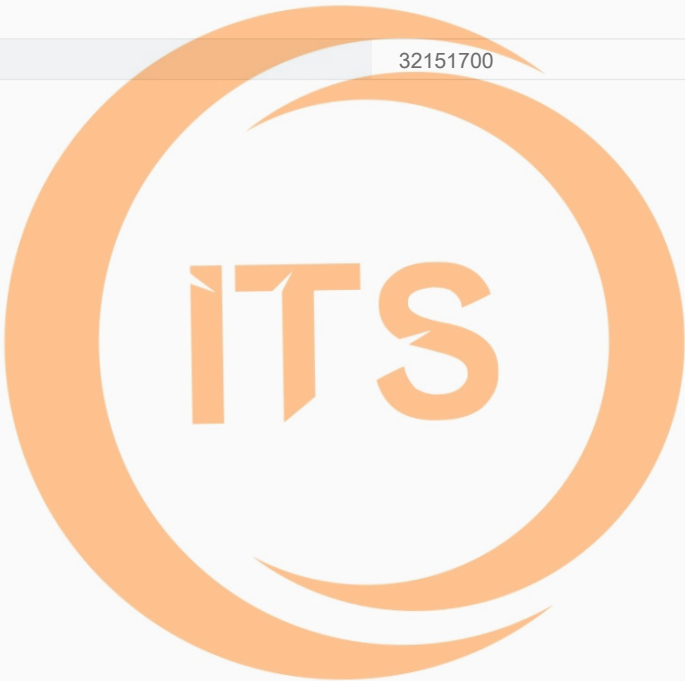
ECLASS-11.0	27242207
ECLASS-12.0	27242207
ECLASS-13.0	27242207

ETIM

ETIM 8.0	EC000236
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UNSPSC

UNSPSC 21.0	32151700
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a), 6(a)-I, 6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	dfb4553e-6ec8-4073-b740-31d3629dd0a2

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