

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48

Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курган (3522)50-90-47
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Ноябрьск(3496)41-32-12

Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саранск (8342)22-96-24
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35

Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Улан-Удэ (3012)59-97-51
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

<https://abbdrives.nt-rt.ru/> || aei@nt-rt.ru

ОПЦИИ ДЛЯ РАСШИРЕНИЯ ФУНКЦИОНАЛА ПРИВодОВ

Техническое описание на модуль PROFIsafe

FSPS



FSPS-21 PROFIsafe safety functions module

User's manual

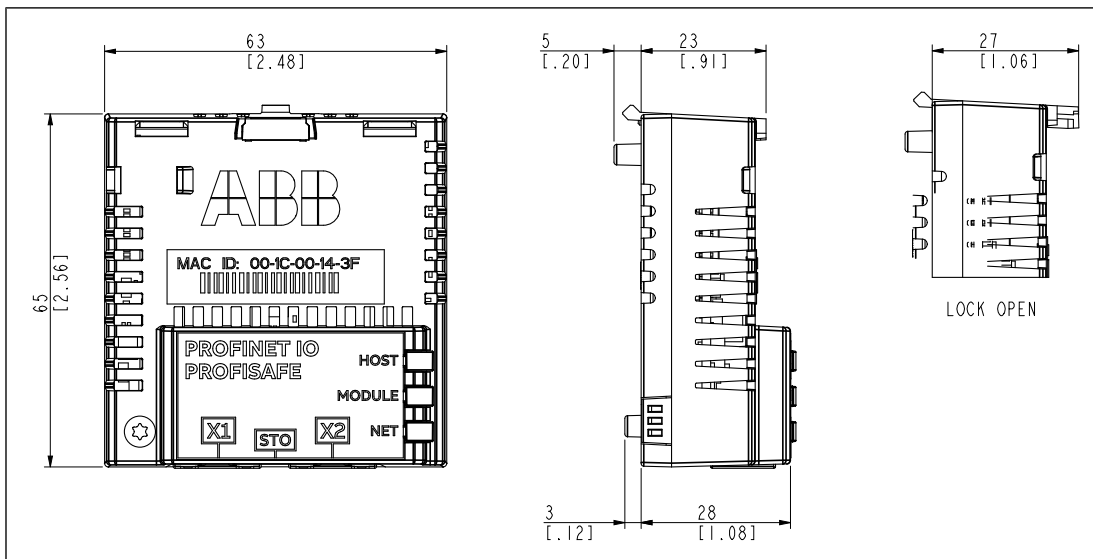


Technical data

Contents of this chapter

This chapter contains the technical specifications of the FSPS-21 module.

Dimension drawing



General data

Installation	Into an option slot on the drive control unit
Degree of protection	IP20

Package	Cardboard. Plastic wrapping: Antistatic air bubble sheet (PE).
Indicators	Three bicolor LEDs (HOST, MODULE, NETWORK/NET)
General	Printed circuit board conformal coated
Weight	72 g
EMC	Complies with EMC standards EN 61800-3:2004 and IEC 61000-6-7:2014 Max. STO cable length: 3m
Disposal	For the end-of-life recycling instructions, see the drive hardware manual.

Connection data

Connectors	A 20-pin connector to the drive RJ-45 connector to Ethernet (X1) RJ-45 connector for chaining another adapter module (X2) STO connector
-------------------	---

Ambient conditions

	Operation installed for stationary use	Storage in the protective package	Transportation in the protective package
Altitude (installation site)	0...1000 m (0...3300 ft) above sea level, no derating required 1000...2000 m (3300...6600 ft) above sea level, air outside the module derated to -15...+49 °C (+5...+120 °F) 2000...4000 m (6600...13200 ft) above sea level, air outside the module derated to -15...+40 °C (+5...+104 °F)	same	same
Air temperature	-15...+70 °C (+5...+158 °F)	-40...+70 °C (-40...+158 °F)	-40...+70 °C (-40...+158 °F)
Relative humidity	5...95% No condensation allowed. If corrosive gases are present, the maximum allowed humidity is 60%.	same	same

Contamination levels IEC 60721-3-x	No contaminants, conduct-ive dust or corrosive dust allowed. Use at least IP54 enclosure in an environment where conductive dust or corrosive dust exists.	same	same
Chemical gases	Class 3C2	Class 1C2	Class 2C2
Solid particles	Class 3S2 No conductive dust allowed.	Class 1S3	Class 2S2
Vibration IEC 60068-2-6, Test Fc (2007-12)	Frequency range 10...150 Hz Amplitude $\pm 0,075$ mm, 10...57,56 Hz Constant peak acceleration 10 m/s^2 ($1 g_n$), 57,76...150 Hz	same	same
Shock IEC 60068-2-27 Test Ea (2008-02)	Peak acceleration 50 m/s^2 ($5 g_n$) Pulse duration 30 ms 3 pulses in each direction with STO and SS1 functions activated	same	same
Atmospheric pressure	70 to 106 kPa 0.7 to 1.05 atmospheres	same	same

Response times

Response times	<ul style="list-style-type: none"> • Wiring: CAT5e/6 S/FTP, CAT5e/6 S/STP, CAT5e/6 SF/FTP • Connector: RJ-45 • Termination: Internal • Maximum segment length: 100 m / 328 ft <p>10 ms (for both safety functions and associated fault reaction function) This is the time from the moment the module has received the STO function request until it has opened the drive STO circuit.</p>
-----------------------	--

Ethernet link

Compatible devices	Ethernet Standard IEEE 802.3 and IEEE 802.3u devices. All network devices used in conjunction with this device shall meet the requirements of IEC 61010-1 or IEC 61131-2.
Medium	10BASE-TX or 100Base-TX with Auto-negotiation and Auto-MDIX (Auto-crossover)

Topology	Bus, star or ring. Max. 50 nodes allowed for FSPS-21 module in a ring topology. In a chain maximum recommended amount of nodes is 50. More can be used but PROFINET cycle time should be adjusted because of the delays in the network. Each FSPS-21 has an integrated switch which adds 19 µs forwarding delay for the minimum Ethernet frame. Length of PROFINET cyclic frame FSPS-21 uses is minimum Ethernet frame so 50 nodes will add 1 ms delay for the PROFINET frame.
Transfer rate	10 Mbps or 100 Mbps
Serial communication type	Half or full duplex
Protocol	PROFINET IO (PROFIsafe)

TCP and UDP service ports

There are multiple in-bound and out-bound network services running on the module. Some ports are protocol-specific and are not used when other protocols are selected.

Port	Service	Purpose
34962 (TCP/UDP)	PROFINET	PROFINET RT Unicast. Note: Used only when PROFINET IO protocol is selected.
34963 (TCP/UDP)	PROFINET	<ul style="list-style-type: none"> • Auto discovery protocol • Used by ControlBuilder plus (IP Configuration tool) and Drive composer pro tools • Discovers ABB-specific Ethernet devices in a local network segment, by listening to and responding to UDP broadcasts.
34964 (TCP/UDP)	PROFINET	PROFINET Context Manager. Note: Used only when PROFINET IO protocol is selected.
80 (TCP)	HTTP	Used for Ethernet tool communication. To disable, go to Service Configuration parameter 51.15.
68 (UDP)	DHCP	DHCP client Note: Used only when IP configuration method is selected as "Dyn IP DHCP".
24576 (UDP)	ABB Netconfig	 To disable, go to Service Configuration parameter 51.15.
161 (UDP)	SNMP	Simple Network Management Protocol (SNMP). Note: Used only when PROFINET IO protocol is selected.

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48

Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курган (3522)50-90-47
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Ноябрьск(3496)41-32-12

Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саранск (8342)22-96-24
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35

Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Улан-Удэ (3012)59-97-51
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

<https://abbdrives.nt-rt.ru/> || aei@nt-rt.ru