framatome

TELEPERM XS Compact

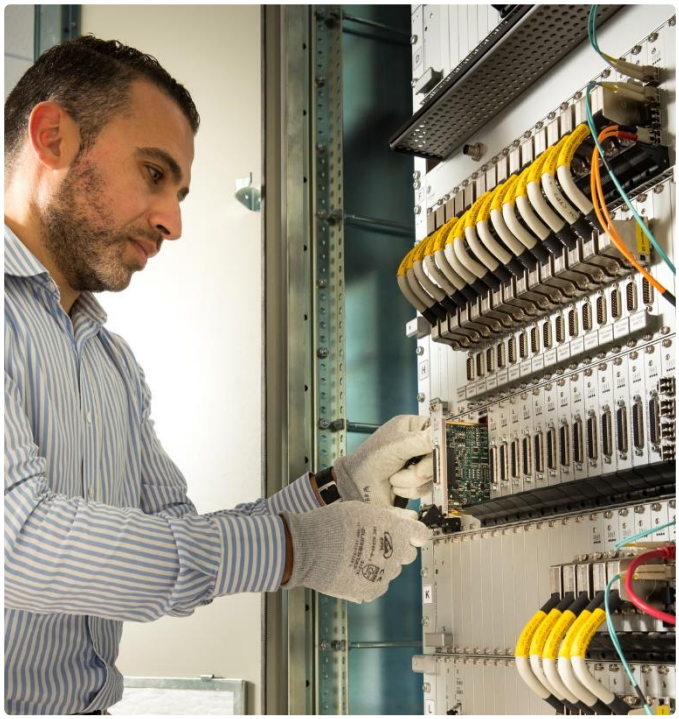
Datasheets of Modules

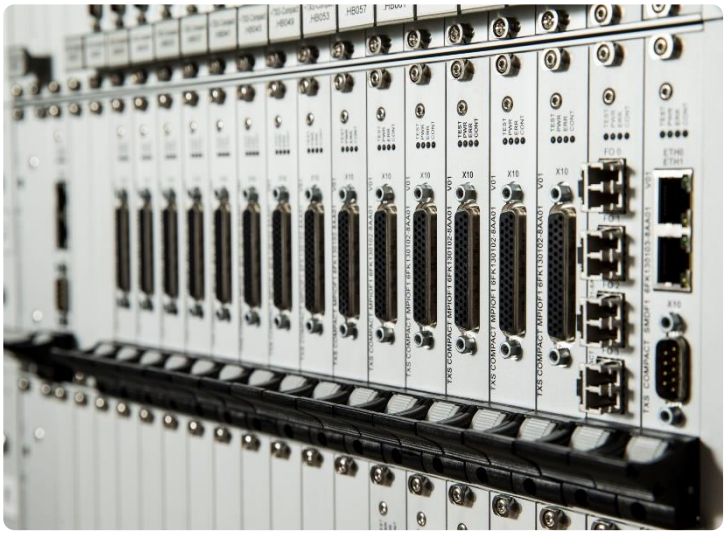
Framatome has developed the TELEPERM XS Compact safety I&C platform based on field programmable gate array (FPGA) technology.

This innovative solution for decentralized Safety Class 1 systems is competitive, robust, compact and scalable.

The simplicity of its design makes qualification easier for both new build projects and modernization projects at existing nuclear plants.

TELEPERM XS Compact provides greater safety and cybersecurity through advanced, intuitive tools featuring standardization, modularity, multiple interfaces and a wide range of function block types, combined with long-term support.





The available Product Datasheets specify the key technical characteristics of TXS Compact standard modules. They aim at supporting potential customers in comparing with their system technical requirements.

In case of any question, please contact Framatome for more details

Your performance
is **our** everyday **commitment**

Table of Contents

PM1	Processing Module	3
MPIOF1	Multi-Purpose I/O Module	5
AICF1	Analog Input Current Module	7
AIVF1	Analog Input Voltage Module	9
BIF1	Binary Input Module	11
BOF1	Binary Output Module	13
SMDF1	Service Maintenance and Diagnosis Module	15
GWF1	Gateway Module	17
SRACKC12/13/23	Subracks	19
SCB2	Buffer Module	21
SPS21	Power Supply Module	23

framatome

framatome

TELEPERM XS Compact – PM1

Safety-grade Processing Module for TXS Compact Automation Units

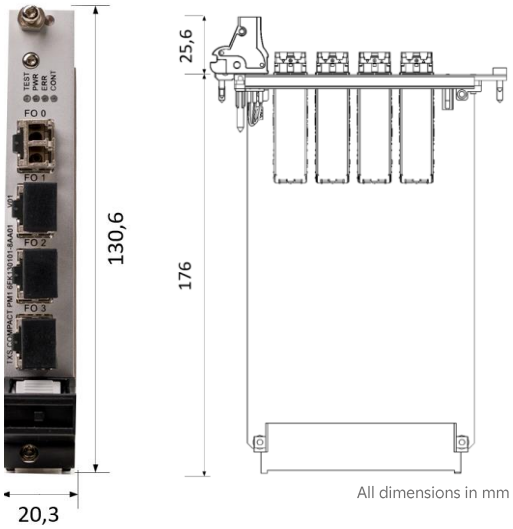
Features

The PM1 is a Safety Class 1 / 1E FPGA-based processing and communication module for TXS Compact automation units

The PM1 module runs generic configware, consisting of a program written in HDL that describes the cabled hardware logic executed within the FPGA. Its main role is to read and execute the I&C application program. The PM1 also extends the AU's communication capabilities.



Physical Dimensions



Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160 mm
Weight	240 g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 111-40264 (64 pins)
Front Plate Connectors	4 optical transceivers
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
PM1 module	6FK130101-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

Type	Location	Functionality
Four SFP cages for IEC 61754-20-compliant duplex LC connectors	Front	Used to connect to other PM1 modules in the same or in another Automation Unit
4 LEDs	Front	Indicate error and operating states of the module by means of flashing or static light
Backplane Connector X01	Back	64-pin male connector of type G in accordance with IEC 60603-2, which serves as interface to the TXS Compact backplane

Roles

The PM1 performs one of three roles depending on the slot it is plugged into:

- Main PM1 (slot 1): controls the whole Automation Unit (AU), runs the I&C functions and handles data exchange within the AU. Its optical interfaces enables point-to-point connection to up to four other TXS Compact AU. The fourth optical port enables connection to expansion PM1(s).
- Communication PM1 (slots 2, 3 and 4): only enables point-to-point connections to up to four additional TXS Compact AU.
- Expansion PM1 (slot 0): communication module for the expansion rack, to connect to the main rack.

Operating modes

The PM1 operates in different modes, primarily Operation and Maintenance:

- Operation mode
- Execution of Function Blocks: the PM1 executes a predefined list of function blocks cyclically
- Synchronization: in multi-rack setups, the PM1 acts as a master or a slave to synchronize signal acquisition/restitution
- Network communication supports fiber-optic networks for inter-rack communication
- Maintenance mode – for configuration, testing and troubleshooting
- Loading applications: new applications or parameter sets can be downloaded to the PM1
- Hot-swapping

Self-monitoring

The PM1 monitors and checks functions such as :

- Position In Subrack
- Power Supply
- FPGA Clock
- Application Software
- Configware
- FPGA Memory
- Non-volatile Memory
- Backplane Communication
- Network Communication

Parameters

Processing cycle time	4 ms to 2002 ms

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – MPIOF1

Safety-grade Multi-Purpose I/O Module for TXS Compact Automation Units

Features

The MPIOF1 is a Safety Class 1 / 1E multi-purpose input/output module intended for acquisition, conditioning and distribution of analog and binary signals.

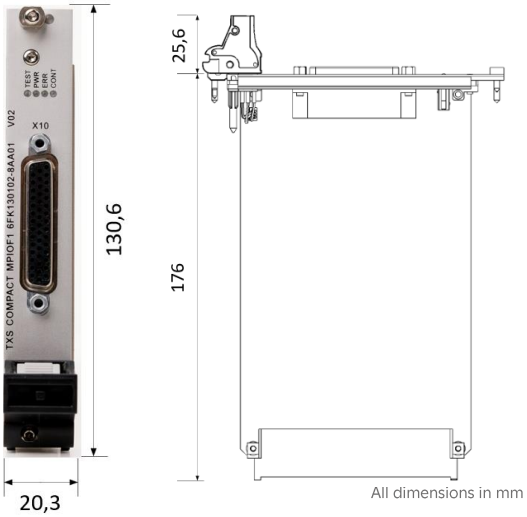
The MPIOF1 provides 4 independent and isolated groups of electrical channels:

- 2 Analog Input Channels : 0/4 mA to 20 mA
- 2 Analog Output Channels : 0/4 mA to 20 mA
- 4 Binary Input Channels : 0/24V
- 4 Binary Output Channels : 0/24V

Furthermore, 1 channel for pulse signals is provided: TLL 5V/10Mhz. This channel is in the galvanic group of the binary inputs.



Physical Dimensions



Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160mm
Weight	340g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 11-40264 (64 pins)
Front Plate Connectors	Metallic high density SUB-D 44 pins
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
MPIOF1 module	6FK130102-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Analog Input

Number Of Channels	2
Type	Current 0 / 20 mA or 4 / 20 mA
Input Resistance	< 100 Ω
Input Capacity	< 10 nF
Input Range, Nominal	0 mA to 20 mA
Over Range	0 mA to 21 mA
Overdrive Range, Current	0 mA to 30 mA
Overdrive Range, Voltage	-30V < U_{IN} < +30V
Accuracy	0.35% FSR
Self Tests & Monitoring	High & low value injection, Live zero monitoring
Failure Detection Threshold (For 4-20ma)	3.4 mA to 3.8 mA
Minimum Sampling Period	4 ms
Admissible Common Mode Signal	10 V

Analog Output

Number Of Channels	2
Type	Current 0/20 mA or 4-20 mA
Load Resistance	500 Ω
Load Capacity	200 nF
Output Range, Nominal	0 mA to 20 mA
Over Range	0 mA to 21 mA
Overdrive Range, Voltage	-40 V < U_{IN} < +40 V
Accuracy	0,35% FSR
Self Tests & Monitoring	Read-back, Live zero monitoring

Binary Input

Number Of Channels	4
Type	0-24V
Input Range High	13V to 33 V / 5 mA
Input Range Low	-3 V to +5 V
Reverse Protection	40V
Self Tests & Monitoring	• Wire break monitoring • Self test at low value "0"
Input Resistance	4,8 kΩ
Input Capacity	< 10 nF
Overdrive Range, Voltage	-40 < U_{IN} < +40 V

Binary Output

Number Of Channels	4
Type	0-24V/100mA
Output Range High	16 V to 30 V
Output Range Low	0 V to 2 V
Reverse Protection	40V
Self Tests & Monitoring	Read-back
Output Current Limitation	> 110 mA

For all I/O groups

Group-to-group Isolation	500 VDC
Group-to-backplane Isolation	1500 VDC

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – AICF1

Safety-grade Analog Input Current Module for TXS Compact Automation Units

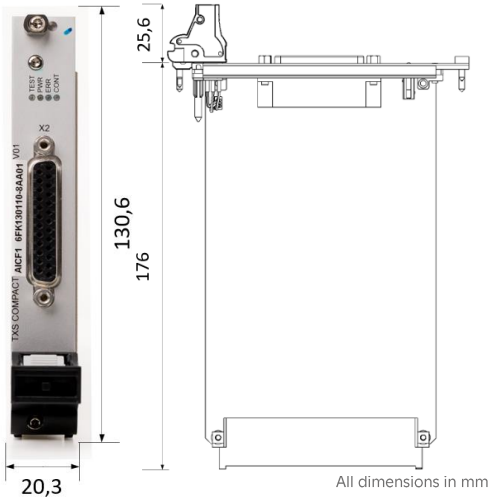
Features

The AICF1 is a Safety Class 1 / 1E Analog Input Current module designed to provide eight analog current inputs within the TXS Compact system.

This module features two isolated groups of four independent analog current inputs. The module is managed by an FPGA, and is equipped with advanced communication, calibration, and monitoring capabilities. The AICF1 ensures precise and reliable acquisition of analog current signals, integrating seamlessly with other TXS Compact modules to fulfill the demanding requirements of safety-critical applications in the nuclear industry.



Physical Dimensions



Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160mm
Weight	222g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 11-40264 (64 pins)
Front Plate Connectors	25 pins SUB-D connector
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
AICF1 module	6FK130110-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

Type	Location	Functionality
25-pins D-SUB	Front	8 analog inputs (2 groups of 4)
4 LEDs	Front	Indication of test, power, error, and control status
Backplane connector	Back	Power supply, communication

Roles

The AICF1 module functions as an analog current input interface for the TXS Compact system, acquiring up to eight standard analog current signals from external sensors or devices.
Arranged in two isolated groups of four channels, it ensures robust galvanic isolation between groups and between analog and digital domains, supporting high reliability and safety.

The module provides 24 VDC sensor power outputs, communicates with the PM1 processing module via M-LVDS for precise synchronization and data transfer, and uses an onboard FPGA for analog-to-digital conversion, diagnostics, and self-tests.
Status is clearly indicated by four front-panel LEDs, and configuration is managed via backplane interfaces, making the AICF1 essential for safe and accurate analog signal integration in the TXS Compact platform.
Its design also enables direct powering of 2-wire sensors, further simplifying field integration.

Maximum I/O signal

Number of channels	8
Type	Current 0-20 mA or 4-20 mA
Input resistance	160 Ω
Input range, nominal	0 mA to 20 mA
Overrange	-1 mA to 21 mA
Overdrive range, current	-30 mA to 30 mA
Overdrive range, voltage	$-30\ V < U_{IN} < +30\ V$
Accuracy	0,35% FSR
Sampling period	4 ms to 2002 ms
Self tests & monitoring	High & low value injection, Live zero monitoring
Failure detection threshold (for 4-20mA)	3.4 mA to 3.8 mA
Admissible common mode signal	10V

Self-monitoring

In addition to signal monitoring, the AICF1 monitors and checks functions such as:
- Power Supply and internal voltages
- Input Stage, via test signal injection
- FPGA Activity, via a hardware watchdog
- Integrity of FPGA Configuration
- Memory
- Backplane Communication and Slot Position
- FPGA Clock

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – AIVF1

Safety-grade Analog Input Voltage Module for TXS Compact Automation Units

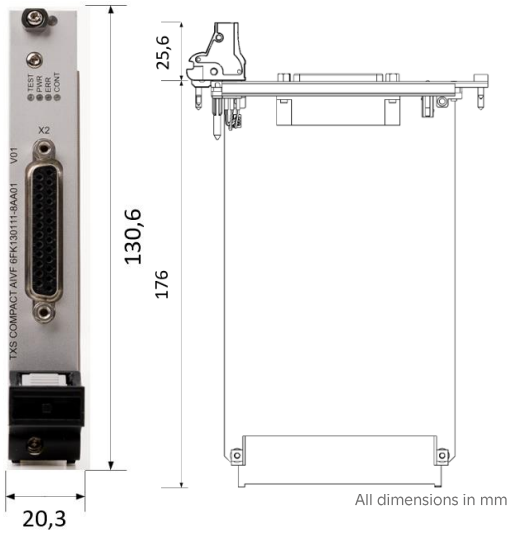
Features

The AIVF1 is a Safety Class 1 / 1E Analog Input Voltage module designed to provide eight analog voltage inputs within the TXS Compact system.

This module features two isolated groups of four independent inputs each. The module is managed by an FPGA, and incorporates advanced communication, calibration, and monitoring capabilities. The AIVF1 ensures precise and reliable acquisition of analog voltage signals, offering configurable input ranges and robust isolation, thereby integrating seamlessly with other TXS Compact modules to fulfill the demanding requirements of safety-critical applications in the nuclear industry.



Physical Dimensions



Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160 mm
Weight	222 g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 11-40264 (64 pins)
Front Plate Connectors	25 pins SUB-D connector
Manufacturing Certification And Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
AIVF1 module	6FK130111-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

Type	Location	Functionality
25-pins D-SUB	Front	8 analog inputs (2 groups of 4)
4 LEDs	Front	Indicate test, power, error and control status
Backplane connector	Back	Power supply, communication

Roles

The AIVF1 module enables a TXS Compact Automation Unit (AU) to acquire analog voltage signals from external devices or systems. Each input group supports configurable standard voltage ranges. The module interfaces with the PM1 processing module via M-LVDS, providing synchronized data transfer and comprehensive monitoring for all input channels.

An onboard FPGA performs analog-to-digital conversion, input-range configuration, self-test routines, and continuous supervision of sensor power supplies, thereby enhancing diagnostic coverage and operational reliability. During system initialization, the AIVF1 receives configuration data from the PM1 that defines acquisition parameters and ensures that only engineered input channels are monitored according to the application's safety requirements.

Galvanic isolation between input groups, together with clear status indication through front-panel LEDs, enables seamless integration with other TXS Compact modules.

Maximum I/O signal

Number Of Channels	8
Type	-12.5 V to 12.5 V
Input Resistance	> 1 MΩ
Input Range, Nominal	-12.5 V to 12.5 V
Overrange	-15 V to 15 V
Accuracy	0,35% FSR
Sampling Period	4 ms to 2002 ms
Self Tests & Monitoring	High & low value injection, Live zero monitoring
Failure Detection Threshold (For 1-5 V)	0.8 V to 0.9V
Failure Detection Threshold (For 1-5 V)	1.6 V to 1.8V

Self-monitoring

In addition to signal monitoring, the AIVF1 monitors and checks functions such as:

- Power Supply and Internal Voltages
- Input Stage, via Test Signal Injection
- FPGA Activity, via a Hardware Watchdog
- Integrity of FPGA Configuration
- Memory
- Backplane Communication and Slot Position
- FPGA Clock

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – BIF1

Safety-grade Binary Input Module for TXS Compact Automation Units

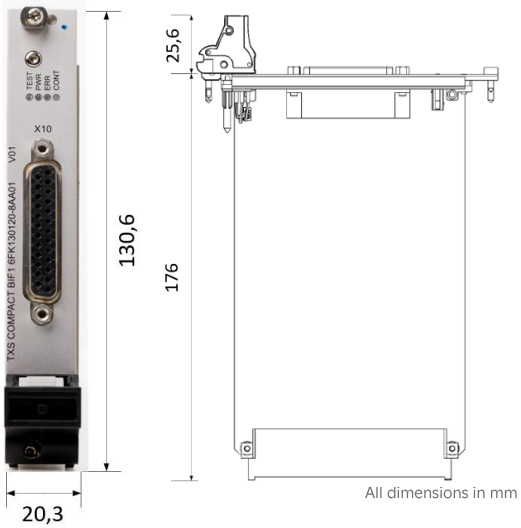
Features

The BIF1 is a Safety Class 1 / 1E Binary Input module intended for providing 24 VDC binary inputs within the TXS Compact system.

This module delivers three isolated groups of three independent inputs each. The module is managed by an FPGA, and is equipped with robust communication and monitoring features. The BIF1 ensures reliable and safe actuation of binary signals, integrating seamlessly with other TXS Compact modules to meet the stringent requirements of safety-critical applications in the nuclear industry.



Physical Dimensions



Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160 mm
Weight	181 g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 11-40264 (64 pins)
Front Plate Connectors	25 pins SUB-D connector
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
BIF1 module	6FK130120-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

Type	Location	Functionality
25-pins D-SUB	Front	9 binary inputs (3 groups of 3)
4 LEDs	Front	Indicate test, power, error and control status
Backplane Connector	Back	Power Supply, communication

Roles

The BIF1 module enables a TXS Compact AU to acquire 24 VDC binary input signals from external devices or systems, supporting both dry contact and powered input types. The BIF1 interfaces with the PM1 module via M-LVDS communication, facilitating precise synchronization, data transfer, and monitoring of each input channel. The FPGA is responsible for essential functions such as wire break detection, sensor power supply monitoring, and built-in self-test routines, thereby enhancing diagnostic coverage and operational robustness. Upon system initialization, the BIF1 receives configuration data from the PM1, which defines the acquisition parameters and ensures that only the engineered input channels are monitored according to the application's safety requirements. This architecture, combined with galvanic isolation between input groups and status indication via front-panel LEDs, allows the BIF1 to seamlessly integrate with other TXS Compact modules.

Maximum I/O signal

Input Nominal Voltage	24V
Input Voltage, Low State	-3 V to +5 V
Input Voltage, High State	+13 V to +33 V
Overdrive Range	-40 V ≤ U_{IN} ≤ +40 V
Input Nominal Current At 24 V	5 mA
Monitoring	• Wire break detection • Sensor power supply undervoltage detection • Sensor power supply
Built-in Self-test	• High value • Low value • Wire break
Sampling Period	4 ms to 2002 ms

Self-monitoring

In addition to signal monitoring, the BIF1 monitors and checks functions such as:

- Power Supply and Internal Voltages
- Input Stage, via Test Signal Injection
- FPGA Activity, via a Hardware Watchdog
- Integrity of FPGA Configuration
- Memory
- Backplane Communication and Slot Position
- FPGA Clock

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – BOF1

Safety-grade Binary Output Module for TXS Compact Automation Units

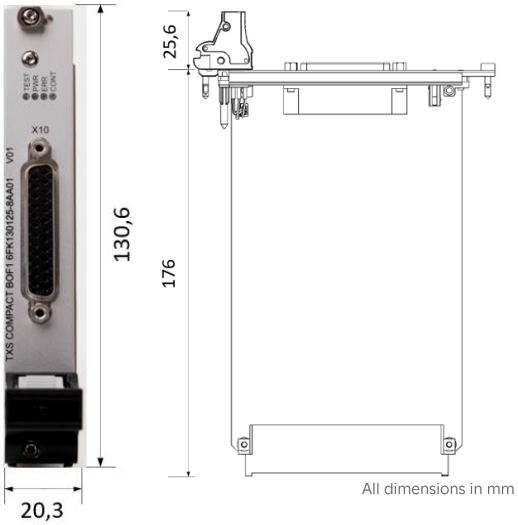
Features

The BOF1 is a Safety Class 1 / 1E Binary Output module intended for providing 24 VDC binary outputs within the TXS Compact system.

This module features three groups of three independent binary outputs each. The module is managed by an FPGA, and incorporates advanced communication and monitoring interfaces. The BOF1 ensures reliable and safe acquisition of binary signals, providing galvanic isolation between output groups and robust diagnostic capabilities. Seamlessly integrating with other TXS Compact modules, the BOF1 meets the demanding requirements of safety-critical applications in the nuclear industry.



Physical Dimensions



Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160 mm
Weight	195 g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 11-40264 (64 pins)
Front Plate Connectors	25 pins SUB-D connector
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
BOF1 module	6FK130125-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

Type	Location	Functionality
25-pins D-SUB	Front	9 binary inputs (3 groups of 3)
4 LEDs	Front	Indicate test, power, error and control status
Backplane connector	Back	Power supply, communication

Roles

The BOF1 module enables a TXS Compact Automation Unit (AU) to provide 24 VDC binary output signals to external devices or systems. Through its three groups of three independent outputs managed by an FPGA, the BOF1 ensures reliable and safe actuation of binary signals required for safety-critical operations. The module interfaces with the PM1 via M-LVDS communication, allowing precise control and monitoring of each output channel. The BOF1's FPGA manages essential functions such as current limitation, wire break detection, output voltage read-back, and overcurrent protection, ensuring robust operation and diagnostic capabilities. Upon system initialization, the BOF1 receives configuration and control data from the PM1, which defines the operational parameters and ensures that only the engineered outputs are activated according to the application's safety requirements. This architecture allows the BOF1 to seamlessly integrate with other TXS Compact modules.

Maximum I/O signal

Number Of Channels	9 (3 groups of 3 channels)
Output Nominal Voltage	24V
Output Voltage, Low State	0 V to +2 V (R_{oad} < = 50 kΩ) 0 V to +4 V (R_{load} > 50 kΩ)
Output Voltage, High State	16 V to 30 V
Max Output Current	100 mA (per output) 180 mA (per group)
Overcurrent Protection (Per Output)	≤ 150 mA
Output Absolute Maximum Rating : • Minimum Tolerated Voltage • Maximum Tolerated Voltage	 0 V 40 V
Monitoring	• Wire break detection • Read back • Sensor power supply undervoltage detection
Sampling Period	4 ms to 2002 ms
Settling Time (10 % To 90 %)	≤ 1 ms

Self-monitoring

In addition to signal monitoring, the BOF1 monitors and checks functions such as:

- Power Supply and Internal Voltages
- FPGA Activity, via a Hardware Watchdog
- Integrity of FPGA Configuration
- Memory
- Backplane Communication and Slot Position
- FPGA Clock

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – SMDF1

Service Maintenance and Diagnosis Module for TXS Compact Automation Units

Features

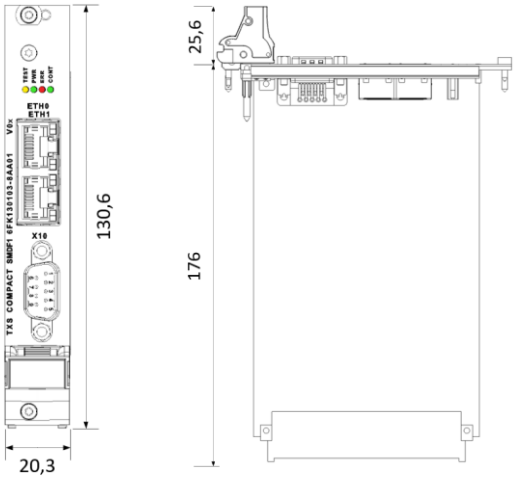
The SMDF1 is a service maintenance and diagnosis module intended for servicing the automation unit (AU) such as updating the application or providing live access to statuses and signals of the AU.
Although the SMDF1 is a Non-Classified module, it is intended to be used in safety-grade subracks and cannot interfere with safety functions.

Each AU must contain exactly one SMDF1 board. This module provides features to communicate with the service units to:

- Configure the AU by loading a new I&C application or a new parameter set
- Monitor the AU by forwarding to the service units the live statuses of the modules and the value of the signals flowing in the AU.



Physical Dimensions



All dimensions in mm

Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160mm
Weight	324g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 111-40264 (64 pins)
Front Plate Connectors	9 pins SUB-D connector / dual eth. connector
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
SMDF1 module	6FK130103-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

The SMDF1 has three connectors:
- A dual RJ45 on the front
- An unused D-sub connector on the front
- A 64-pin male backplane connector which serves as interface to the TXS Compact backplane.

The PM1 features four LEDs on the front plate. These LEDs indicate error and operating states of the module by means of flashing or static light.

Roles

This module runs a non-safety firmware physically isolated from the safety part of the system when the latter is in operation. It also embeds state-of-art security features such as ciphered data tunnels used to secure the communication with the service units. Therefore, the network used to carry service commands and monitoring streams is fully separated from the network links used to convey plant & process signals.

The SMDF1 has no safety classification (Class NC). Its installation in safety-classified cabinets is nevertheless permitted on a permanent basis.

Operating modes

SMDF1 generic configware is mainly used to:
- Load the I&C application on the PM1;
- Load the parameters on the PM1 during maintenance;
- Transfer the processing data and monitoring data to the main maintenance unit (Service Unit SU);
- Run periodic tests.

Self-monitoring

The SMDF1 monitors and checks functions such as:
- Power supply
- Hardware watchdog
- Integrity of FPGA configuration
- Memory
- Backplane communication

Communication with service unit

The network communication between the service unit and the SMDF1 is authenticated and cyphered using strong cryptographic protocols. A strong cryptographic key is required to initiate connection to SMDF1 (two factor authentication is supported).

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – GWF1

Safety-grade Gateway Module for TXS Compact Automation Units

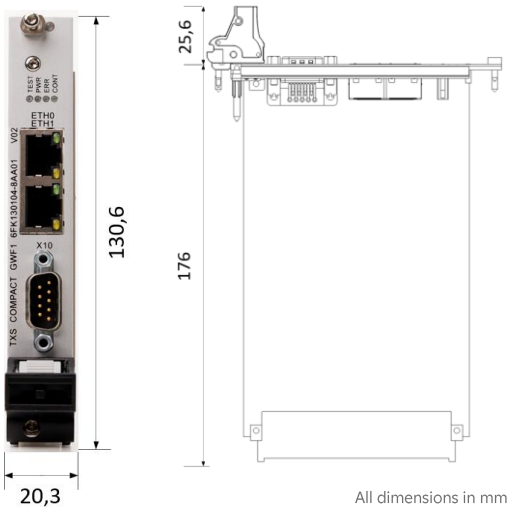
Features

The GWF1 is a Safety Class 1 / 1E Ethernet communication module intended for extending the system capabilities using TXS Ethernet protocol.

This optional module can be used to enable the AU to communicate over an Ethernet network with other TELEPERM XS digital I&C modules such as a TXS Gateway (SPCG1 or SPCG2), a SCP3 (communication module in TXS 3.X), a SEI1 (network module in TXS 4.X) or a Qualified Display System unit (safety grade video display unit).



Physical Dimensions



All dimensions in mm

Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160mm
Weight	200 g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	EPT 111-40264 (64 pins)
Front Plate Connectors	RJ45 Ethernet / D-Sub connector
Manufacturing Certification And Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
GWF1 module	6FK130104-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

The GWF1 has three connectors:
- A dual RJ45 on the front
- An unused D-sub connector on the front
- A 64-pin male backplane connector which serves as interface to the TXS Compact backplane.

The GWF1 features four LEDs on the front plate. These LEDs indicate error and operating states of the module by means of flashing or static light.

Signal mapping limits*

Binary, Ext. to PM1: 1500
Analog, Ext. to PM1: 1000
Binary, PM1 to Ext. : 6000
Analog, PM1 to Ext. : 2000

*Analog value <=> 4 bytes

Roles

The GWF1 module provides the interface between a TXS Compact Automation Unit (AU) and the TXS Ethernet network. Through this interface, analog and binary signals can be exchanged between the TXS Compact AU and a TXS Core Automation Computer, a TXS Gateway Unit, or a QDS Unit.

The module operates as a gateway between the MLVDS interface to the PM1 module and the Ethernet physical layer transceiver, thereby enabling dependable communication within the TXS Ethernet network.
Its gateway functionality is implemented by means of dedicated configuration firmware, which is preloaded at the factory. At start-up, the GWF1 receives module-specific parameterization data from the PM1 module, including a signal mapping aligned with the TXS Compact and TXS Core specifications.
As a result, the GWF1 exchanges only those signals required to support the intended engineered functionality of the TXS Compact AU.

Self-monitoring

The GWF1 monitors and checks functions such as:
- Power Supply and Internal Voltages
- Hardware Watchdog
- Computing Time
- Integrity of FPGA Configuration
- Memory
- Backplane Communication and Slot Position
- FPGA Clock and Memory
- Txs-ethernet Link
- Integrity of Txs-ethernet Frames
- Communication with PM1

Parameter(s)

Network cycle time	10 ms to 200 ms

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact SRACKC12/13/23

Safety-grade Subracks for TXS Compact Automation Units

Features

The SRACKCx series comprises Safety Class 1 / 1E mechanical subracks designed to house TXS Compact modules within safety-critical automation systems.

Available in three versions—SRACKC12 with a full-width backplane, SRACKC13 with a half-width backplane, and SRACKC23 with two half-width backplanes—these subracks provide robust mechanical support and reliable electrical connectivity for I&C modules.

Each SRACKCx subrack ensures secure mounting, optimal power distribution, and electromagnetic compatibility, supporting flexible and scalable system configurations. Integrating seamlessly with other TXS Compact components, the SRACKCx series meets the stringent requirements of nuclear industry applications, serving as a dependable foundation for high-integrity automation solutions.

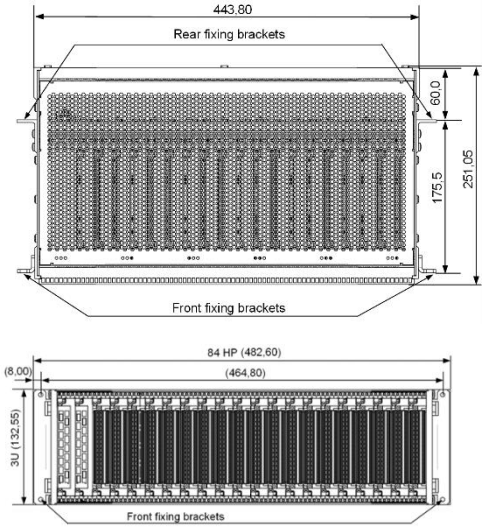


SRACKC12

SRACKC13

SRACKC23

Physical Dimensions



All dimensions in mm

Main Characteristics

Dimensions	3U / 84HP
Weight	3500 g

Ordering information

Reference	Orderable part number
SRACKC12 Rack with 1 full-width backplane (21 slots)	6FK100337-8AA01
SRACKC13 Rack with 1 half-width backplane (10 slots)	6FK100338-8AA01
SRACKC23 Rack with 2 half-width backplane (2x10 slots)	6FK100339-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

The TXS Compact subracks — SRACKC12, SRACKC13, and SRACKC23 — provide standardized system interfaces in the form of backplane connectors for module communication and power distribution.

The subrack variants differ only in their backplane arrangement:

- SRACKC12 is equipped with one full-width backplane (BPF2), providing the maximum slot capacity.
- SRACKC13 is equipped with one left-side half-width backplane (BPF3), while the right-side area is reserved for custom equipment.
- SRACKC23 is equipped with two half-width backplanes (BPF3), allowing the implementation of two independent automation sets.

Despite these mechanical differences, the interface types and functional principles remain the same for all subrack variants.

Roles

The SRACKCx subracks serve as the mechanical and electrical foundation for TXS Compact Automation Units (AUs), enabling the integration and reliable operation of I&C modules within safety-critical environments.

Available in three versions, these subracks provide the necessary infrastructure for mounting, power distribution, and signal connectivity.
Each SRACKCx subrack ensures secure installation of modules, optimal electromagnetic compatibility, and robust backplane communication, supporting both main and expansion AU configurations.

The design allows for flexible system scaling, with the SRACKC23 accommodating two independent automation sets within a single chassis. By facilitating the structured arrangement and interconnection of processing, I/O, and communication modules, the SRACKCx subracks play a pivotal role in maintaining the integrity, safety, and expandability of TXS Compact systems, fully meeting the stringent requirements of nuclear industry applications.

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – SCB2

Safety-grade Buffer Module for TXS Compact Automation Units

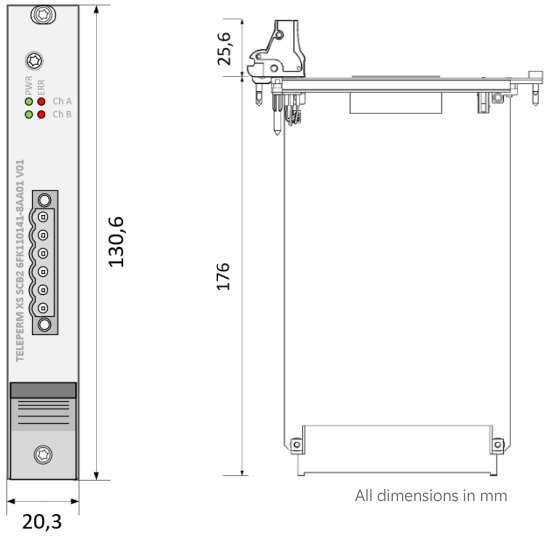
Features

The SCB2 is a Safety Class 1 Buffer Module designed to provide reliable 24 VDC buffered power supply within the TXS Compact system.

Intended for use in safety-critical Instrumentation and !Control (I&C) applications. The SCB2 features two independent channels, each capable of delivering stable output power with integrated overload protection and undervoltage monitoring. The module incorporates robust status indication and error signaling, ensuring dependable operation and seamless integration with other TXS Compact modules.



Physical Dimensions



Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160 mm
Weight	310 g
Flammability	Flammability Rating of 94 V-0 by UL
Backplane Connector	15 pin type H Connector HARTING 09 06 115 2932
Front Plate Connectors	Phoenix Contact type MSTB 2,5/6-GF Connector
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
SCB2 module	6FK110141-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

Type	Location	Functionality
15-pin male connector	Back	Power distribution (2 channels) Fault signal
4 LEDs	Front	For each channel: • 1 LED indicating a fault • 1 LED indicating input power
6-pin connector	Front	Power input (2 channels) Fault signal

Roles

The SCB2 module provides a 2-channel buffered 24 VDC power supply for safety Class 1 Instrumentation and Control (I&C) applications within the TXS Compact Product Platform.

The module comprises two independent channels, each incorporating a bypass switch, energy storage elements and DC/DC converters. This design ensures a continuous and stable output power supply during short-duration interruptions of the input supply voltage.
Each channel is equipped with undervoltage monitoring to trigger the discharge of the energy storage and support system availability.

For operational monitoring, the SCB2 provides dedicated status LEDs for each channel. In addition, fault conditions are signaled via a dry contact, allowing external monitoring and prompt fault handling.

The module may be configured for:
– Two-channel Operation, or
– Single-channel Operation with increased buffering time

Through its integration with the system power supply and other TXS Compact modules, the SCB2 ensures dependable and adaptable power buffering and distribution.

Electrical Specifications

Nominal Input Voltage	+24 VDC
Input Voltage Limits	Static: 21,5 V - 30 V Dynamic: 0 V – 35 V
Permissible Input Ripple Voltage	≤ 2,4 Vpp (50–360 Hz) ≤ 0,25 Vpp (>360 Hz–1 kHz)
Input Current per channel	8 A
Input Inverse Polarity Protection	Up to -40 V
Nominal Output Voltage	+24 VDC
Minimum Output Voltage (at low input voltage or during buffering)	19,2 VDC
Output Current Range per channel	0 A to 7,5 A
Input Power Supply Interruption, buffering time	2-channel configuration: • 20 ms at 90 W • or 10 ms at 180 W 1-channel configuration: • 20 ms at 90 W
Recovery time, Energy Storage Recharge Time	10 s

Self-monitoring

The SCB2 monitors and checks functions such as:
- Output voltage (undervoltage monitoring on each channel)
- Status indication via dedicated LEDs (PWR and ERR for each channel)
- Error signaling via a dry contact (ERR-A, ERR-B)
- Power input polarity (reverse polarity protection)
- Power supply status (presence of I-POWER-INT)
- Error delay and filtering to suppress short disturbances

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome

framatome

TELEPERM XS Compact – SPS21

Safety-grade Power Supply Module for TXS Compact Automation Units

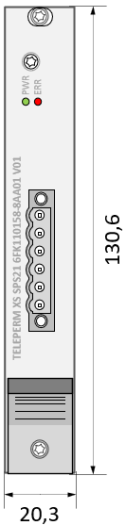
Features

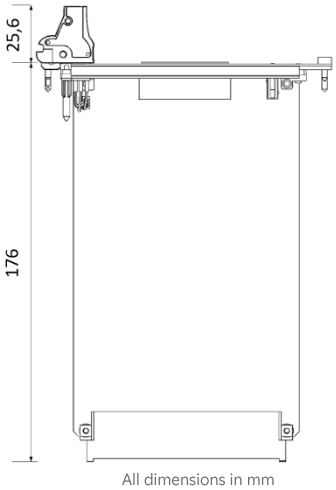
The SPS21 is a Safety Class 1 / 1E Power Supply Module designed to provide a stabilized 24 VDC output within the TELEPERM XS platform.

Intended for use in safety-critical instrumentation and control (I&C) systems, the SPS21 provides reliable, galvanically isolated power delivery with comprehensive monitoring, protection, and signaling capabilities. Its robust switched-mode DC/DC converter architecture enables seamless integration into the TXS system while supporting the stringent operational and safety requirements of nuclear-industry applications.



Physical Dimensions





Main Characteristics

Front Plate	3U / 4HP
Insertion Depth	160 mm
Weight	315 g
Flammability	Flammability rating of 94 V-0 by UL
Backplane Connector	15 pin type H connector HARTING 09 06 115 2932
Front Plate Connectors	Connecteur Phoenix Contact type MSTB 2,5/6-GF
Manufacturing Certification and Compliance	IPC-A-610 Class 3 / Lead Free (ROHS) / REACH

Ordering information

Reference	Orderable part number
SPS21 module	6FK110158-8AA01

Environmental Conditions

Operating Temperature	0°C to 70°C
Storage conditions	-25°C to 70°C
Relative Humidity (Operation)	5% to 85% (non-condensing)
Relative Humidity (Storage)	5% to 85% (non-condensing)
Shock (IEC 60068-2-27)	300 m/s^2, 18 ms, 3 axes
Vibration - Storage / Transport (IEC 60068-2-6)	5 to 8.42 Hz: 3.5 mm ; 8.42 to 200 Hz: 10 m/s^2 ; 200 to 500 Hz: 15 m/s^2
Vibration - Operation (IEC 60068-2-6)	5 to 58 Hz: 3.5 mm ; 58 to 500 Hz: 15 m/s^2

Your performance
is **our** everyday **commitment**

Characteristics

Interfaces

Type	Location	Functionality
6-pin MSTB connector	Front	Provides access to input power and error signaling
2 LEDs	Front	Indicate power and error status
Backplane Connector	Back	Power supply, communication

Roles

The SPS21 module provides a galvanically isolated 24 VDC power supply to the Automation Computer within the TELEPERM XS platform, drawing its input from the cabinet's 24 VDC source.

Designed for 19-inch subrack integration, the SPS21 delivers up to 5 A output current and incorporates comprehensive error monitoring, front-panel LED status indication, and an external shutdown input to support operational safety.

The module includes sense lines for precise output-voltage regulation and control, as well as a dry-contact interface for error signaling to higher-level systems. Its straightforward, non-complex architectural design is tailored for Class 1 safety I&C applications, ensuring high reliability and ease of maintenance in demanding industrial environments.

Electrical Specifications

Input Voltage	+24 VDC
Input Voltage Limits	Static: 19.2 V - 30 V Dynamic: 0 V – 35 V
Input Ripple	≤ 2.4 Vpp (50–360 Hz) ≤ 0.25 Vpp (>360 Hz–1 kHz)
Input Current	8 A
Inverse Polarity	Up to -40 V
Power On Delay	500 ms
Output Voltage	+24 VDC
Output Voltage Range	22.8 V to 25.2 V (including ripple)
Output Ripple	0.24 Vpp
Output Current Range	0 A to 5 A (no derating over full temperature range)
Overload Protection	Threshold: 110–120% of nominal current; output disabled with periodic auto-retries
Overvoltage Monitoring	Fault threshold: 25.3 – 25.8 V (if exceeded for >1 s)
Undervoltage Monitoring	Fault threshold: 22.2–22.7 V (if exceeded for > 1 s)
Power Supply Interruption	Buffers output for ≥ 1 ms within specified range
Efficiency	≥ 85.5% (at 24 V input, 3 A output, 32°C ambient)
Cooling	Natural convection, full load at up to 70°C ambient
Service Life	≥ 20 years (under normal conditions)
FIT Rate	< 700 @ 40°C (per SN 29500)
Maintenance	Maintenance-free, no preventive replacement required
Sense Lines	for remote voltage measurement and regulation

EMC/ESD

IEC 61000-4-2 (ESD Immunity)	Contact ±6 kV, Air ±8 kV
IEC 61000-4-3 (Radiated RF Immunity)	10 V/m (0.8 GHz to 6 GHz)
IEC 61000-4-4 (EFT/Burst Immunity)	2 kV PS, 1 kV signal
IEC 61000-4-5 (Surge Immunity)	1 kV CM / 0.5 kV DM (PS), 1 kV signal
IEC 61000-4-6 (Conducted RF Immunity)	10 V (150 kHz to 80 MHz)

Contact : ic@framatome.com
www.framatome.com

© 2026 Framatome. All rights reserved. This document is provided for informational purposes only and does not constitute a contractual offer or commitment. Product features, specifications, and availability are subject to change without notice. While every effort has been made to ensure the accuracy of this information, Framatome cannot be held liable for any errors or omissions. For the most current information, please contact Framatome.

framatome