

WORKSWELL SAFETIS CONTROL UNIT

Datasheet

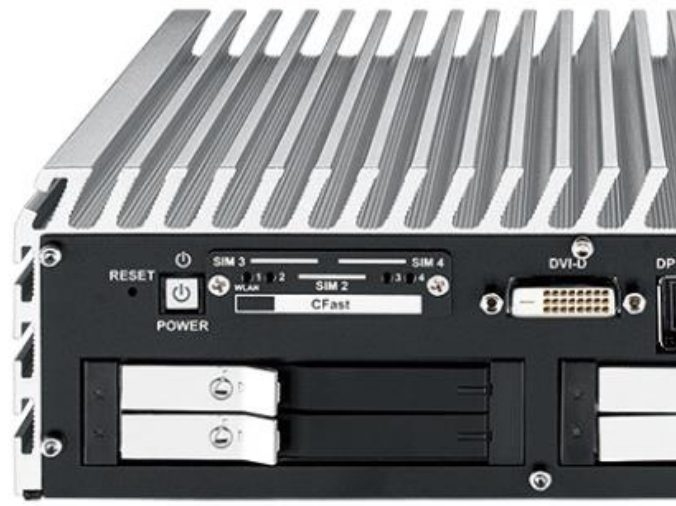
Release date: 26th of April 2021

Revision Number: 210426

SAFETIS Control Unit

Introduction

SAFETIS Control Unit (SCU) has been developed for complex early fire detection and protection requiring 24/7 monitoring. This allows you to prevent critical situations and fire hazards that can damage huge amount of company properties and cause unplanned outages. Thanks to advanced SCU features, **all alarms are activated even before any fire starts** thanks to advanced thermal imaging measurements and evaluations in dedicated SAFETIS SDK or sample Labview application. The SCU is available in two versions for **up to 8 or 16 SAFETIS** cameras connected at the same time.



WORKSWELL SAFETIS Control Software

Application: SCU Cameras
12.9.2019 11:58:18
User: Admin is logged in since 11:47:13

SAFETIS	ROI	Type	Limit	Value
SAFETIS 0	0	RECTANGLE	0.0°C	25.6°C
SAFETIS 0	1	RECTANGLE	0.0°C	25.3°C
SAFETIS 0	2	CIRCLE	0.0°C	25.8°C
SAFETIS 0	3	CIRCLE	0.0°C	25.5°C
SAFETIS 1	0	RECTANGLE	30.0°C	22.7°C
SAFETIS 2	0	RECTANGLE	30.0°C	29.4°C
SAFETIS 3	0	RECTANGLE	30.0°C	27.6°C

Digital Alarm Table

SCU	SAFETIS 0	SAFETIS 1	SAFETIS 2	SAFETIS 3
●	●●●●●	●●●●●	●●●●●	●●●●●

Multicamera Overview Detail Camera View Time Graphs Event Logger

SAFETIS 0 28.8
10.0.10.18 Disconnect Info

SAFETIS 4 31.4
10.0.10.15 Disconnect Info

KEY FEATURES IN CONTROL UNIT

- Up to 16 SAFETIS cameras at the same time
- Specially developed sample Labview application
- Real-time streaming of each connected SAFETIS
- Additional 7 digital alarm outputs**
- Advanced visualization, recording and streaming
- Periodical recording of radiometric images
- Continuous recording of encoded sequences
- Live graphs based on temperature values
- Settings of all parameters of any SAFETIS unit
- Up to 4 TB of memory** in each Control Unit
- Advanced DVR functions and temperature analysis**



Early fire detection and prevention with SAFETIS products

The main usage of the system is a monitoring warehouses or areas where the risk of fire hazard is high. The SCU together with connected **SAFETIS cameras helps to eliminate the risk of fire in real-time**. The SCU together with SAFETIS cameras is not used only for early fire detection but in many facilities and industries such a petrochemical, steel, refining or power industry for **real-time temperature monitoring**, warning and alarming when a temperature exceed set limits. Failure of any part could cause catastrophic consequences that cost millions of EUR and more. **Thermal inspection could be the best way of prevention** and very often the only one. This is the main the reason why the SAFETIS products were designed for real-time monitoring.



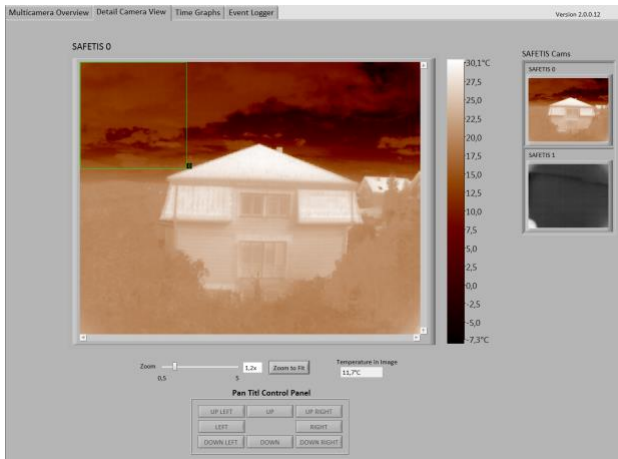
SCU Connection and settings

SCU can connect **up to 16 units SAFETIS cameras** no matter if it is ATEX, Stainless Steel, Outdoor and Outdoor PT or Indoor version. The settings of SCU and cameras **are very simple** and can be done via SAFETIS SDK or **sample Labview testing application**. User can setup all the parameters via SDK for final application with specific kind of analysis for each connected SAFETIS camera (ROI (Region Of Interest) like points, lines, rectangular, circles etc., the same as time settings of color pallets, isotherms or temperature ranges or **ADVANCED real-time** calculations to **avoid false alarms** such a trucks, moving objects, reflection materials and objects etc. or all can be done in each SAFETIS camera via web-server.



Graphical evaluation in real-time

SCU with SDK can display all SAFETIS cameras as live thermal streams in real time in tile view. In case of need any SCU could be viewed in detailed window for particular monitoring including visualization of all ROI. With using SAFETIS SDK can be programmed **live graphs** of maximal temperatures in time of all SCU. Application events log is also available where all the alarms, connections, disconnections or logins are listed with exact date and time.



Alarm visualization and digital output control

Thermal imaging with SAFETIS products is very important and practical method how to detect the fire hazard before it even starts by monitoring critical areas and temperatures. SAFETIS products can monitor each area and ROI in real-time, **check with ADVANCED features to avoid false alarms** and if the limit is exceeded, it can show moreover the alarm on the screen and activates the corresponding digital output. Digital outputs can be set for each camera and each ROI as needed.

ROI SAFETIS Table

SAFETIS	ROI	Analog	Limit	Value
SAFETIS 0	0	6.7 V	33.0°C	25.4°C
SAFETIS 0	1	6.9 V	33.0°C	26.4°C
SAFETIS 0	2	2.3 mA	32.0°C	25.1°C
SAFETIS 0	3	9.4 V	32.0°C	26.3°C
SAFETIS 0	4	32.0°C	25.9°C	
SAFETIS 1	0		33.0°C	36.7°C

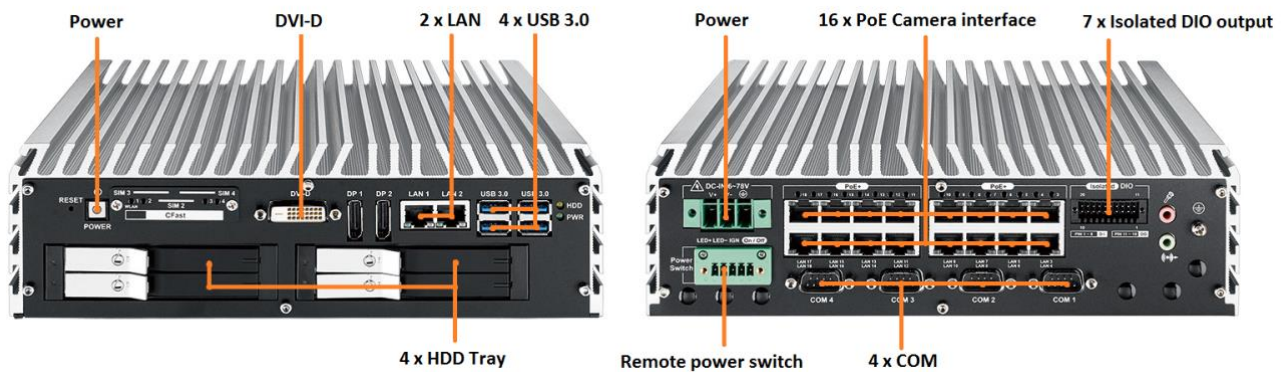
Digital Alarm Table

SCU	Alarm Status
SAFETIS 0	●●●●●●●●
SAFETIS 1	●●●●●●●●
	●●●●●●●●
	●●●●●●●●
	●●●●●●●●
	●●●●●●●●
	●●●●●●●●
	●●●●●●●●



Technical specification – SAFETIS CONTROL UNIT

General information	
Up to 16 SAFETIS cameras can be connected (2 versions available, up to 8 or up to 16 cameras)	
High performance Quad Core industrial control unit with SDK and sample Labview application FREE	
Fan-less, Plug and Play system for easy DIN-RAIL and Rack installation	
System	
Processor	Intel® Quad Core i7-6820EQ/i5-6440EQ Processor (Skylake-H)
Chipset	Intel® CM236
Memory	16GB DDR4
Camera and Display/Monitor connection	
SAFETIS camera communication	8 or 16 independent ETH RJ45 LAN ports
Display/Monitor interface	DVI-D : Up to 1920 x 1200 @ 60Hz
Interfaces	
Serial	4 COM RS-232/422/485
Ethernet	2 ETH LAN RJ45 connectors
Digital Outputs	7 Isolated Digital Alarm outputs
Additional functions	
DVR recording	4 TRAY slots for easy disk changing (max 4 x 1TB)
Remote control	Remote power and reset switch



SAFETIS CONTROL UNIT – main software functions via SDK	
Camera configuration	Camera is completely configured via SAFETIS SDK or web-server
Number of cameras	Up to 16 cameras connected to single SAFETIS Control unit
Monitoring and alarming	Advanced analytics functions, Extreme detection, MAX evaluation, Dynamic/Static measurements, User Control Table (Logical rules for PLC connection), Selectable digital outputs for specific ROI measurement analysis
Advanced analytics functions	Yes, eliminating of non-alarm triggers, eliminating of moving objects etc.
Graphical alarm visualization	Yes
Recording	Continuous video recording function allows to record all events
Image recording	Yes
Logging	Yes
Visualization	Real-time video streaming from up to 16 cameras, Pallet settings, Overlay elements, Digital zooming, Numeric and statistical indicators. The refresh rate of the stream could be variable according number of connected cameras
Visualization on desktop	Visualization can be reorganized according to customer wish
Graphs visualization from ROI	Yes
ROI	User definable measurement area (Point, Line, Polyline, Rect., Polygon, Circle)
Digital outputs	7 digital outputs on SAFETIS Control unit, 7 digital outputs on each connected SAFETIS camera to the SCU simultaneously

Power	
Power Input	6V to 78V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Surge Protection	Up to 200V/1ms Transient Power
Mechanical	
Dimensions (W x L x H)	260mm x 215mm x 79mm
Weight	4.5 kg (9.92 lb)
Mounting	DIN-Rail or Rack mounting bracket
Environment	
Operating Temperature	-25°C to +50°C (-13 °F to 122 °F)
Storage Temperature	-40°C to 65°C
Humidity	-40°C to +70°C (-40 °F to 158 °F)
Vibration	IEC 60068-2-64; SSD : 5Grms, 5Hz to 500Hz, 3 Axis
Certification	CE, FCC, EN50155, EN50121-3-2

