



HMI Solutions

Innovations for all Industry Sectors







R. STAHL HMI Systems GmbH—member of the R.STAHL Technology Group—has been specializing in the development and production of operating and monitoring systems for hazardous and industrial environments for over 25 years. Our modern Human Machine Interfaces (HMIs) provide a high degree of safety and efficiency in potentially explosive production environments.

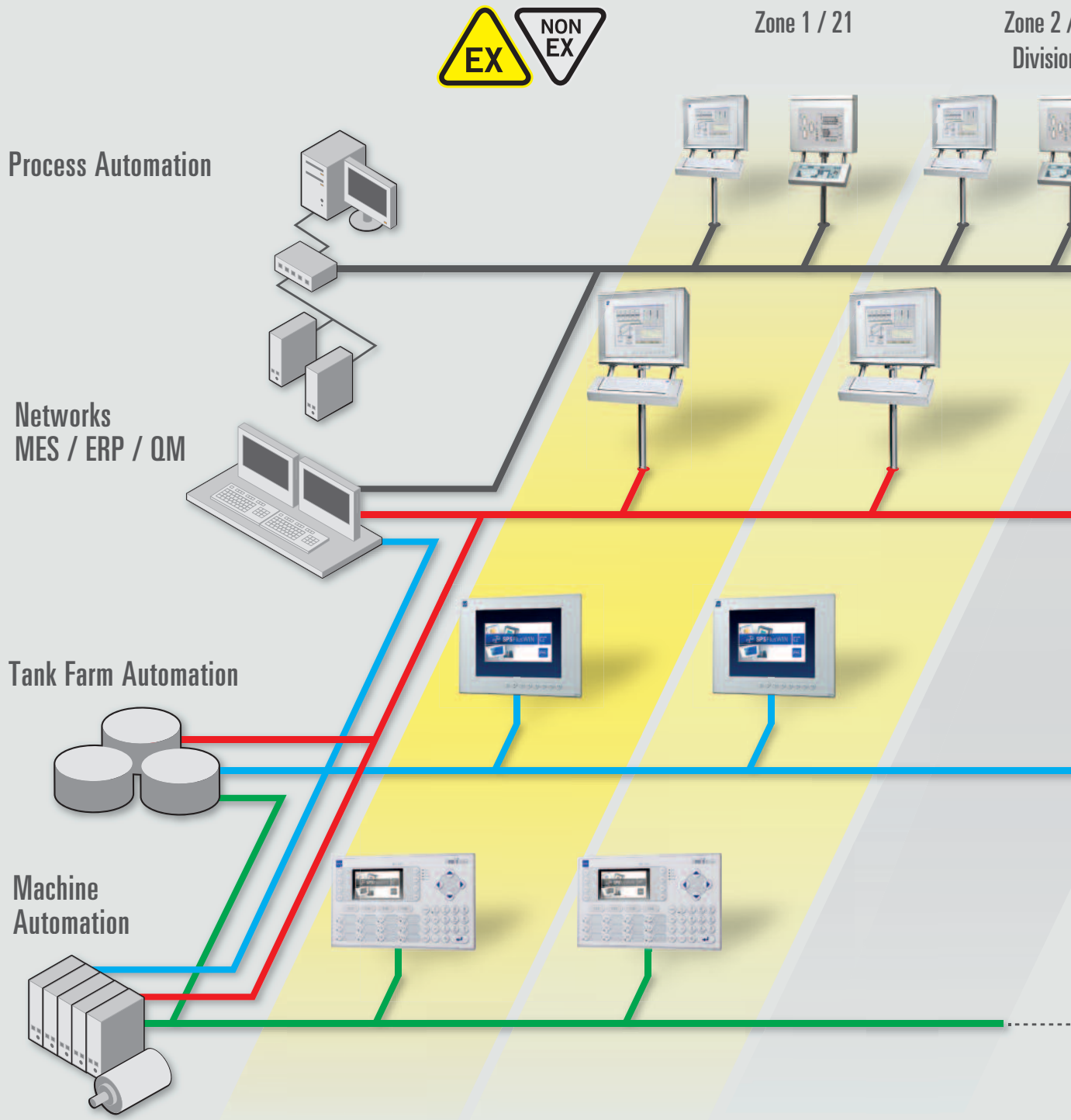
Among our most recent Ex-zone 1 and Ex-zone 2 innovations are bright widescreen displays for state-of-the-art process control systems, a polarization filter system that ensures outdoor, direct sunlight readability, and a mobile “Rigfloor PC” that is ideally suited for mobile applications on oil rigs.

Our main focus is on integrated system solutions. Our expert knowledge and experience in the field of system integration allows us to develop and implement the ideal HMI system solution in any production plant. We offer the broadest range of explosion-protected Human Machine Interfaces, from a 4.5" operator interface, through to a 24" full HD widescreen display.

Our distinctive operator system solutions meet the highest international safety standards and certifications required for applications in the most harsh and challenging environments: from marine offshore environments with temperatures ranging from -50°C up to +70°C, to chemically aggressive or sterile cleanroom environments.

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HMI Network Overview



/ 22
n 2

Non-Ex



Our philosophy is to develop and customize the ideal system solution for each plant. Our four product groups provide a wide range of possibilities for custom applications.

Remote HMI

PC installed in the safe area—remote operator terminal installed on-site—this is the most common set-up of Remote HMI terminals in the process industry worldwide. We provide both classic point-to-point system solutions and state-of-the-art, network-based solutions.

Open HMI / Panel PC

Open for any kind of software applications and equipped with high-speed Intel® Atom™ processors, the Panel PC series is ready for use in Ethernet networks, and often used to perform tasks such as PLT, MES, ERP and QM. With the modular set-up and robust design, this series is used as standard in machine and process automation as well as in the oil and gas industry.

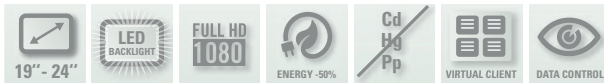
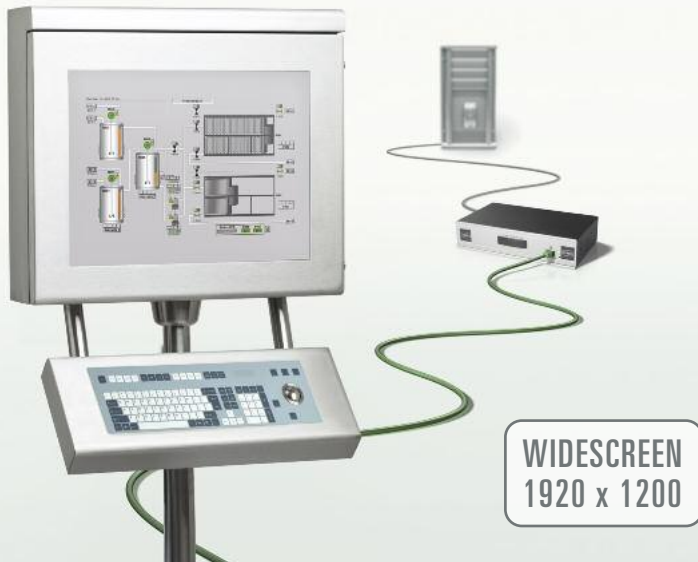
Operator Interfaces EAGLE

EAGLEs offer the ideal system for operating complex machines in hazardous areas (Zone 1, 21, 2, 22). The pre-installed operating system allows immediate use in the network architecture; the comfortable SPSPPlusWIN software allows easy engineering and connectivity to any important automation systems. EAGLE HMIs are primarily used in machine and tank farm automation.

Operator Interfaces FALCON

The FALCON HMIs ensure easy machine operation and monitoring. They can seamlessly be integrated in any kind of automation systems and easily combined with reader systems, such as barcode and RFID. FALCON HMIs are an easy solution for machine and tank farm applications.

Innovative HMI Solutions



Remote HMI

All our Remote systems offer state-of-the-art display technology, from small 15" up to 24" full HD widescreen formats. In this way, our Remote HMIs already meet the future requirements of the leading process control system manufacturers.

Smooth integration in any kind of process automation is possible via different types of digital transmission technologies: KVM Classic, KVM USB, KVM over IP, and Thin Client.

These transmission technologies always ensure perfect image quality, irrespective of transmission distance.

Open HMI / Panel PCs

Panel PCs are "ready-to-run" systems: with multilingual Windows Embedded or Windows Professional, they start fast and reliably. It is not necessary to download additional drivers.

High-quality, "industrial grade" components and a special front cooling system ensure reliable operation at extreme temperatures ranging from -30°C up to +55°C. All EXICOM Panel PCs come with touch screen as standard and ensure easy and intuitive operation.

SUNLIGHT READABLE display: a new polarization filter system allows unparalleled screen readability for outdoor applications in direct sunlight.

For more information, see page 8 - 15

For more information, see page 16 - 19



Operator Interface EAGLE

The EAGLE series has been developed for operations at machine level. All displays come with touch screen as standard and provide a set of functions for user-defined applications.

The Operator Interfaces allow easy connection to SPS systems to perform complex visualization tasks.

Data communication with automation systems is realized via current Ethernet protocols, such as Profinet, Ethernet IP, Modbus TCP, or via Profibus, Modbus, MPI and other serial protocols.

EAGLES have a pre-configured, closed real-time operating system and ensure high levels of data integrity. Our professional SPSPlusWIN software provides easy and cost-saving engineering. The combination of intelligent hard- and software, together with reliable performance in extreme temperatures ranging from -30°C up to +55°C make the EAGLES the world's most popular HMIs in this category.

For more information, see page 20 - 23

Operator Interface FALCON

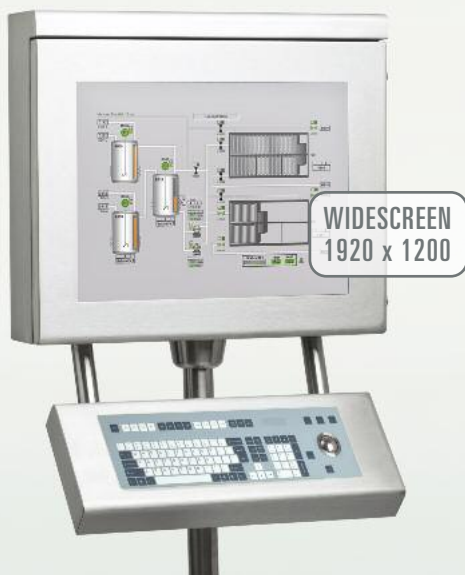
The main fields of applications of the FALCON HMIs are access control in tank farms, operations at machine level and performance of simple automation tasks. All versions of the 5" displays operate reliably even at temperatures ranging from -20°C up to +70°C. The transreflective LCD monochrome display with LED backlights ensures enhanced readability in any environment, and makes the FALCON a reliable device to perform simple operating tasks.

All versions of the FALCON series feature a number of individually assignable function keys, soft keys and alphanumeric keys, and can be customized for specific applications. Card reader modules for operator control can easily be integrated into the enclosures.

All FALCONS come with a pre-installed and pre-configured operating system and SPSPlusWIN Lite engineering software for immediate operation and cost-saving engineering.

For more information, see page 24 - 27

Remote HMI T-Ex / T-Ind - Operator Terminals 19" / 22" / 24"



MAIN FIELDS OF APPLICATION
 Process Industry
 Pharmaceutical Industry
 Chemical Industry

A special feature of the T-series is the brilliant image quality: High-quality, energy-saving LED technology is combined with display sizes from 19" up to 24", resolutions of 1280 x 1024 up to 1920 x 1200, and aspect ratios of 5:4, 16:9 and 16:10.

The T-series meets the highest efficiency and ecological standards, with energy savings of up to 50% compared to conventional CFL displays, and it is cadmium-, lead- and mercury-free.

The T-series can be used universally in the process industry, both in potentially explosive and in cleanroom environments according to the GMP standard.

Its perfect design and leading-edge technology makes the T-Series a must-have operator system for the process industry.

New: 2-IN-1

The latest 22" T-display supports both 1680 x 1050 resolution (5:4), and 1280 x 1024 resolution of the 19" display, even over a distance of up to 500 m.

This is a highly cost-effective 2-in-1 solution that allows you to use tomorrow's technology today.

SPECIAL FEATURES

- Widescreen terminals with resolutions of up to Full HD (1920 x 1200)
- Brilliant image quality with LED backlights
- KVM Classic / KVM USB / KVM over IP / Thin Client
- Highly eco-friendly, cadmium-, lead- and mercury-free



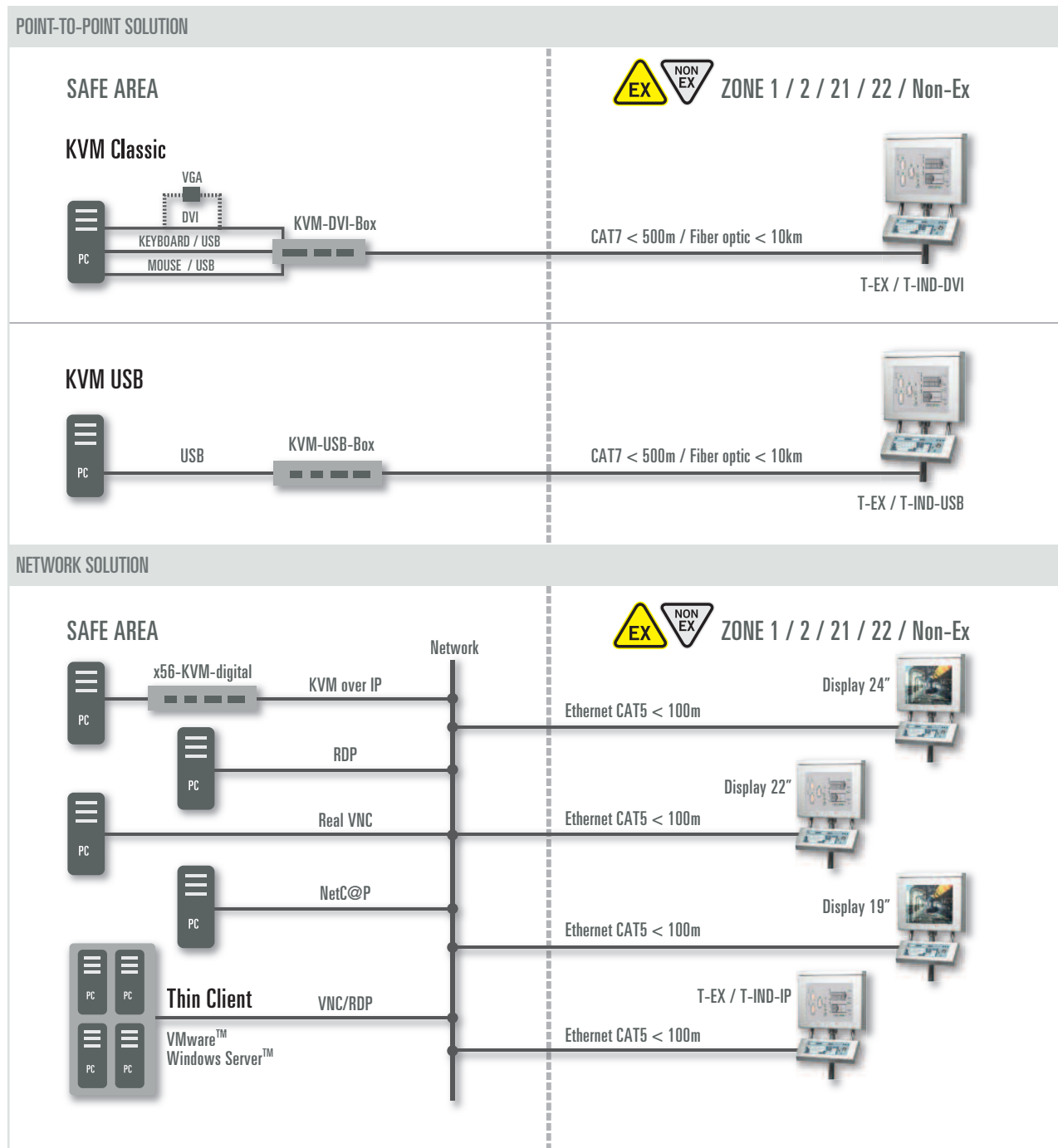
EX-ZONE						IP	TEMPERATURE RANGE
ZONE 0	ZONE 1	ZONE 2	ZONE 21	ZONE 22	NON-EX	IP66	-20°C UP TO +50°C -30°C UP TO +50°C (WITH HEATING)
	✓	✓	✓	✓	✓		

Functional Principles

The T-series offers the full spectrum of remote transmission technologies: KVM Classic and KVM USB for point-to-point connection from PC to Remote terminal.

For advanced network architectures, we offer a cost-saving IP solution that can be implemented as Thin Client or with KVM box via KVM over IP. Up to 4 Remote HMIs can use one software license to access one KVM box and communicate with several PCs—suitable, for example, for simultaneous monitoring of production processes and condition monitoring applications.

Multi-monitoring with a number of on-site terminals is as easy to realize as Thin Client server environments with virtual operator terminals.



T-Ex / T-Ind - Operator Terminals 19" / 22" / 24"

Technical Data

	SIZE	RESOLUTION / ASPECT RATIO	BACKLIGHT / BRIGHTNESS	FRONT DIMEN. (W X H X D)	INTERFACES	OPERATION	
						KEYBOARD	POINTING DEVICES
ZONE 1 / 2 / 21 / 22							
T-Ex 19"  	48 cm (19")	1280 x 1024 (5:4) optional as touch screen	CFL / LED Backlight 350 cd/m ² (1000 : 1)	660 x 475 x 110 mm	RS-232 Ex e Audio Ex e	foil keyboard	Trackball Mouse Joystick Touchpad
T-Ex 22"  	56 cm (22")	1680 x 1050 (16:10) optional as touch screen	LED Backlight 350 LED cd/m ² (1000 : 1)	660 x 475 x 110 mm	RS-232 Ex e Audio Ex e	foil keyboard	Trackball Mouse Joystick Touchpad
T-Ex 24"   <p>24" display, resolution 1920x1200, soon available</p>	61 cm (24")	1920 x 1080 (16:9) optional as touch screen	LED Backlight 350 LED cd/m ² (1000 : 1)	660 x 475 x 110 mm	RS-232 Ex e Audio Ex e	foil keyboard	Trackball Mouse Joystick Touchpad
NON-EX							
T-Ind 19" 	48 cm (19")	1280 x 1024 (5:4) optional as touch screen	CFL / LED Backlight 350 cd/m ² (1000 : 1)	660 x 475 x 100 mm	RS-232 Ex e Audio Ex e	foil keyboard	Trackball Mouse Joystick Touchpad
T-Ind 22" 	56 cm (22")	1680 x 1050 (16:10) optional as touch screen	LED Backlight 350 LED cd/m ² (1000 : 1)	660 x 475 x 100 mm	RS-232 Ex e Audio Ex e	foil keyboard	Trackball Mouse Joystick Touchpad
T-Ind 24"  <p>24" display, resolution 1920x1200, soon available</p>	61 cm (24")	1920 x 1080 (16:9) optional as touch screen	LED Backlight 350 LED cd/m ² (1000 : 1)	660 x 475 x 100 mm	RS-232 Ex e Audio Ex e	foil keyboard	Trackball Mouse Joystick Touchpad



Enclosures & Mounting

KVM BOX INTERFACES	POWER SUPPLY	CERTIFICATIONS
VGA DVI USB PS2	24 V DC / 100-240 V AC	ATEX IECEX Further certifications soon available
VGA DVI USB PS2	24 V DC / 100-240 V AC	ATEX IECEX Further certifications soon available
VGA DVI USB PS2	24 V DC / 100-240 V AC	ATEX IECEX Further certifications soon available
VGA DVI USB PS2	24 V DC / 100-240 V AC	
VGA DVI USB PS2	24 V DC / 100-240 V AC	
VGA DVI USB PS2	24 V DC / 100-240 V AC	



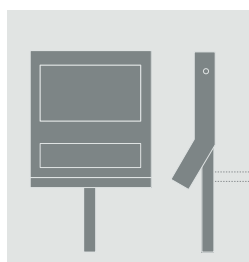
Standard Enclosure



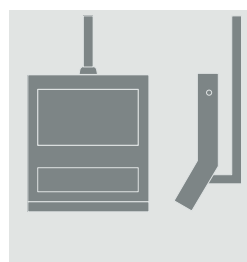
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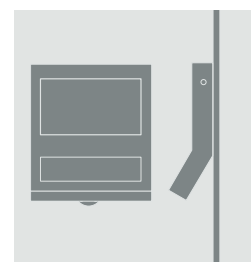
Customized Enclosure



Standard
Floor / Wall Mounting



Standard
Suspended Wall Mounting



Standard
Wall Mounting

Accessories & Options

- Barcode scanner (handheld scanner Ex i / wireless scanner Ex e) via external interface/supply box
- Intrinsically safe, contactless card reader (Ex i Mifare reader) via external interface/supply box
- Mouse, Joystick, Keyboard

Web

www.exicom.de
www.stahl-hmi.de

Web Code: T-ExA, T-IndA

Remote HMI ET-5xx/MT-5xx Series - Operator Terminals 15"/19"



MAIN FIELDS OF APPLICATION

- Process Industry
- Machine Automation
- Drilling Rigs

The modular system of the ET-/MT-5 series allows direct application in hazardous areas without any additional enclosures. The front panel is designed for easy integration in machines and drilling equipment.

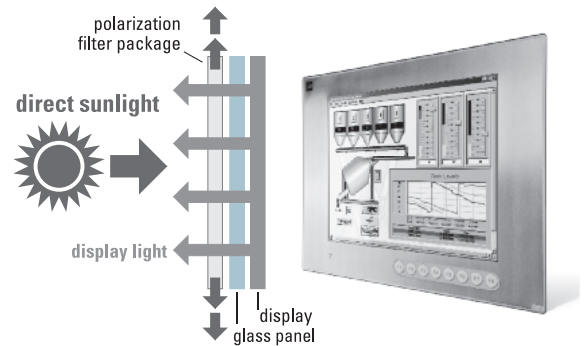
The lightweight construction and rig floor enclosure allows applications as "non-stationary systems" in Ex-zone 1.

The standard touch screen and unique remote software allow operations without keyboard and pointing device.

LED backlights and the fanless set-up ensure maintenance-free operation even under extreme environmental conditions. The systems have marine certification, and can be used at temperatures ranging from -30°C up to +55°C.

New: Highest Degree of Sunlight Readability

Our latest innovation is the 1000 cd/m², 15" sunlight readable display certified to meet the highest requirements for direct sunlight readability.



SPECIAL FEATURES

- Modular set-up and lightweight construction
- Multiple Remote HMIs can simultaneously access multiple PCs
- Monitoring software for permanent data transmission tasks



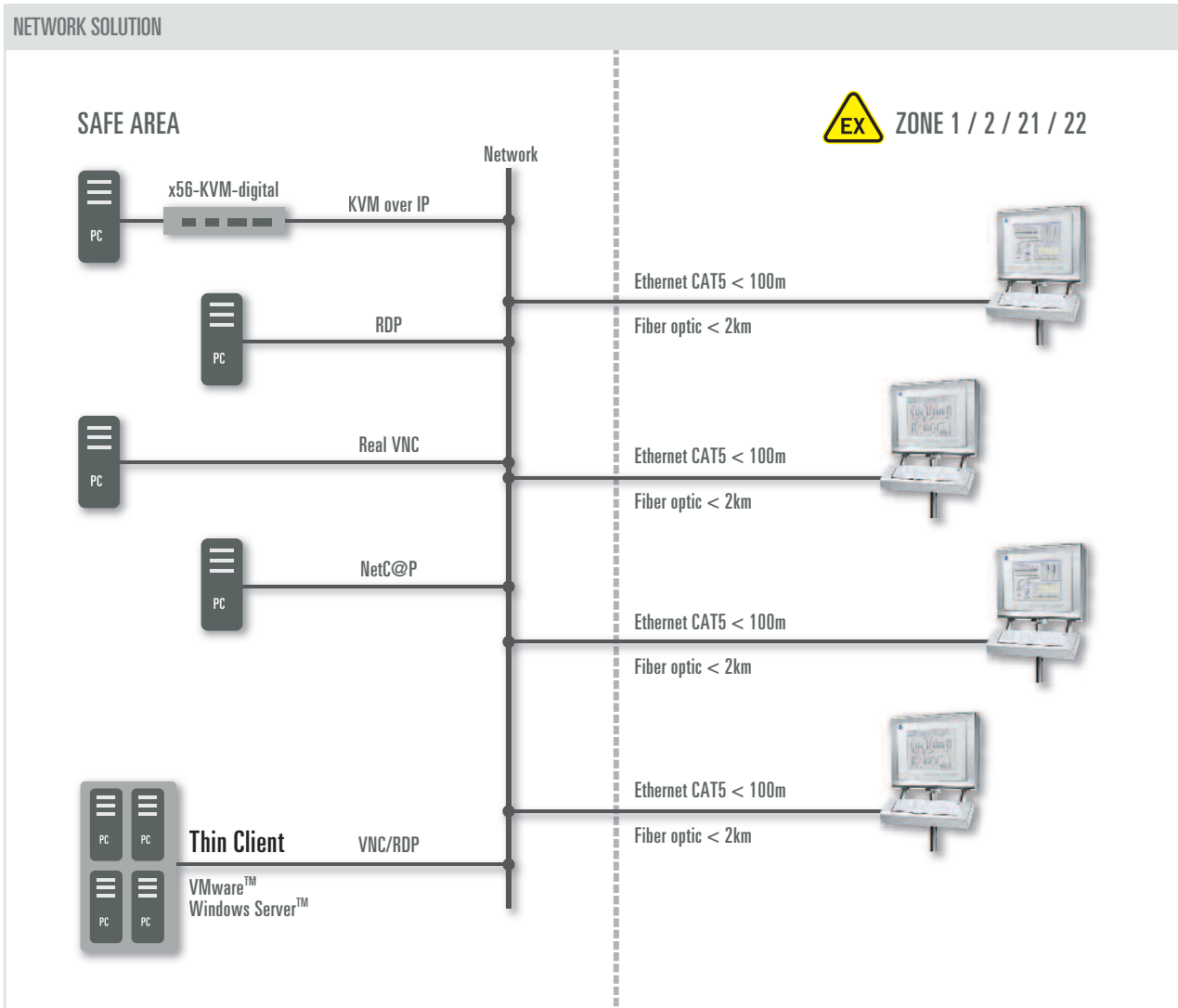
EX-ZONE						IP	TEMPERATURE RANGE
ZONE 0	ZONE 1	ZONE 2	ZONE 21	ZONE 22	NON-EX	IP66	-20°C UP TO +55°C -30°C UP TO +55°C (WITH HEATING)
	✓	✓	✓	✓	✓		

Functional Principles

All Remote HMIs of the ET-/MT-5xx series can be integrated in advanced network architectures as Thin Client or with a KVM box via KVM over IP.









Up to 4 Remote HMIs can use one software license to access one KVM box and communicate with several PCs—suitable, for example, for simultaneous monitoring of production processes and condition monitoring applications.

Multi-monitoring with a number of on-site terminals is as easy to realize as Thin Client server environments with virtual operator terminals.



ET-5xx/MT-5xx Series - Operator Terminals 15"/19"

Technical Data

	DISPLAY					OPERATION	
	SIZE	RESOLUTION / ASPECT RATIO	BACKLIGHT / BRIGHTNESS	FRONT DIMEN. (W X H X D)	INTERFACES	KEYBOARD	POINTING DEVICES
ZONE 1 / 21 / 2 / 22							
ET-536  	38 cm (15")	1024 x 768 (4:3) touch screen as standard	CFL: 600 cd/m ² LED: 350 cd/m ²	440 x 340 x 165 mm	RS-232 Ex e RS-422 Ex e RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is Audio Ex e	8 integrated fn-keys / optional external keyboard	optional external Trackball Joystick
ET-556  	48 cm (19")	1280 x 1024 (5:4) touch screen as standard	CFL: 350 cd/m ² LED: 350 cd/m ²	535 x 425 x 165 mm	RS-232 Ex e RS-422 Ex e RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is Audio Ex e	8 integrated fn-keys / optional external keyboard	optional external Trackball Joystick
ZONE 2 / 22 / NON-EX							
MT-536  	38 cm (15")	1024 x 768 (4:3) touch screen as standard	CFL: 600 cd/m ² LED: 350 cd/m ²	440 x 340 x 165 mm	RS-232 Ex nA RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is Audio Ex e	8 integrated fn-keys / optional external keyboard	optional external Trackball Joystick
MT-556  	48 cm (19")	1280 x 1024 (5:4) touch screen as standard	CFL: 350 cd/m ² LED: 350 cd/m ²	535 x 340 x 165 mm	RS-232 Ex nA RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is Audio Ex e	8 integrated fn-keys / optional external keyboard	optional external Trackball Joystick



Enclosures & Mounting

KVM BOX INTERFACES	DATA TRANSMISSION	POWER SUPPLY	CERTIFICATIONS
2x PS2 2x USB DVI USB	Ethernet CAT5 / LWL	24 V DC	ATEX GOST-R DNV INMETRO UL
2x PS2 2x USB DVI USB	Ethernet CAT5 / LWL	24 V DC	ATEX GOST-R DNV INMETRO UL
2x PS2 2x USB DVI USB	Ethernet CAT5 / LWL	24 V DC	ATEX GOST-R DNV INMETRO UL
2x PS2 2x USB DVI USB	Ethernet CAT5 / LWL	24 V DC	ATEX GOST-R DNV INMETRO UL



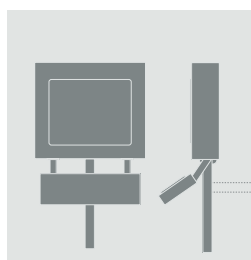
Standard Enclosure



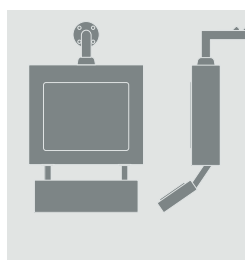
Customized Enclosure



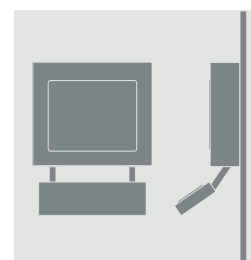
Customized Enclosure



Floor / Wall Mounting



Suspended Wall Mounting



Wall Mounting

Accessories & Options

- Barcode scanner (handheld scanner Ex i / wireless scanner Ex e)
- Intrinsically safe swipe reader (Wiegand reader with WCRi interface)
- Intrinsically safe, contactless card reader (Ex i Mifare reader)
- Intrinsically safe USB stick

Web

www.exicom.de
www.stahl-hmi.de

Web Code: ET-536A, MT-536A

Open HMI ET-4xx/MT-4xx Series - Panel PC 10" / 15" / 19"



Rig floor PC

MAIN FIELDS OF APPLICATION

- Petrochemistry
- Oil- and Gas Exploration / Production
- Machine Automation

Open HMI Panel PCs—open for all applications. They offer an open platform to run different types of automation software, such as Siemens WinCC flexible, Rockwell Factory Talk View or Schneider Vijeo Citect.

The Open HMI Panel PCs are powered by Intel™Atom® processors and are ideal to perform even the most complex on-site operations. An outstanding feature is the backup and recovery system that allows to save complete images and to transfer them to new Open HMIs without any special IT knowledge. The Panel PCs are designed for long-term operation without any mechanical wearing parts (e.g. fans, drives). High quality, "industrial grade" components and a special front cooling system ensure reliable operation at extreme temperatures between -30°C up to +50°C.

All Panel PCs come with touch screen as standard to ensure easy operation. For reliable data storage, only Solid State CF cards or extremely rugged hard drives are used.

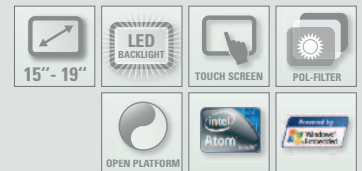
Open HMIs are among the lightest of the Panel PCs used in hazardous areas. And together with rig floor enclosures, they can be used as "non-stationary systems".

NEW: Rig Floor PC

Our latest lightweight "Rigfloor PC" allows mobile and customized applications on oil rigs (< 23.6 kg / 52 lbs).

SPECIAL FEATURES

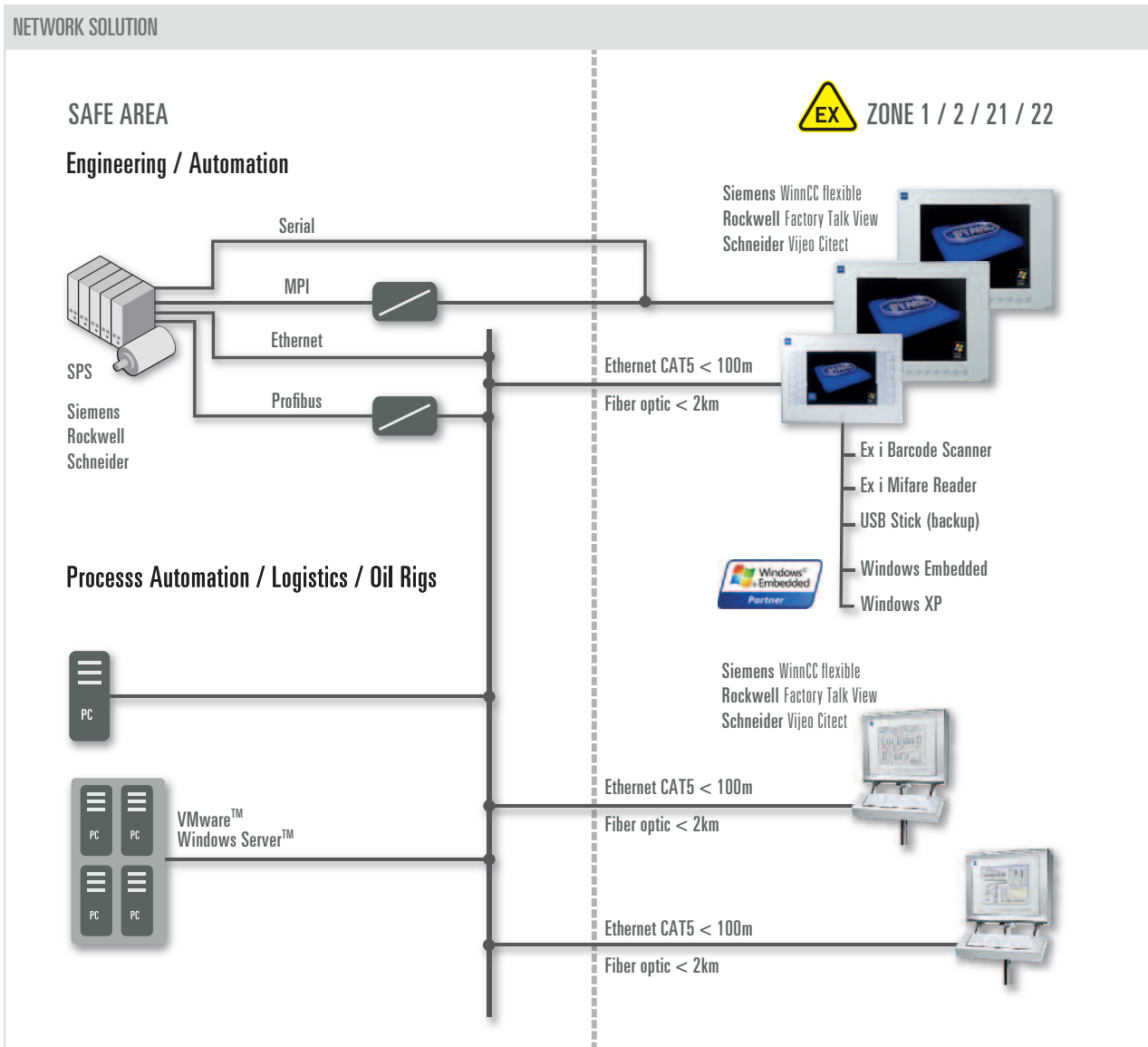
- Ready-to-run with pre-configured Windows operating system
- Easy-to-use backup/recovery system without any specific IT knowledge
- Touch screen and soft keyboard as standard



EX-ZONE						IP	TEMPERATURE RANGE
ZONE 0	ZONE 1	ZONE 2	ZONE 21	ZONE 22	NON-EX	IP66	-20°C UP TO +55°C -40°C UP TO +55°C (WITH HEATING, PROTECT. GLASS PANEL)
	✓	✓	✓	✓	✓		

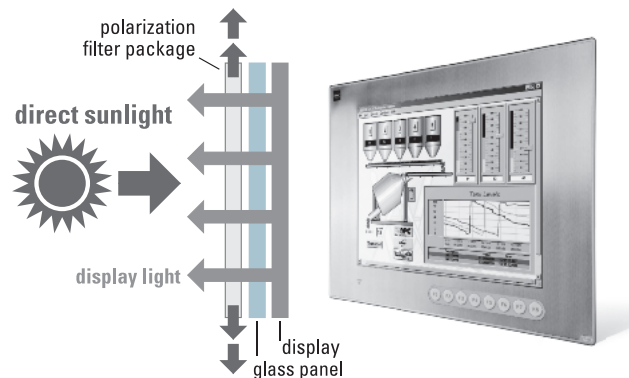
Functional Principles

Open HMI Panel PCs communicate over SPS via Profibus, MPI or serial RS 232/422/485 interfaces as well as via Ethernet, and by using converters also via bus systems.



New: Highest Degree of Sunlight Readability

Our latest innovation is the 1000 cd/m², 15" sunlight readable display certified to meet the highest requirements for direct sunlight readability.



ET-4xx/MT-4xx Series - Panel PC 10" / 15" / 19"

Technical Data

	DISPLAY					OPERATION
	SIZE	RESOLUTION / ASPECT RATIO	BACKLIGHT / BRIGHTNESS	FRONT DIMEN. (W X H X D)	INTERFACES	KEYBOARD
ZONE 1 / 2 / 21 / 22						
ET-406  	26 cm (10")	800 x 600 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 400 cd/m ²	400 x 270 x 150 mm	RS-232 Ex e, RS-422 Ex e, RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is Audio Ex e	optional external keyboard
ET-416  	26 cm (10")	800 x 600 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 400 cd/m ²	372 x 270 x 150 mm	RS-232 Ex e, RS-422 Ex e, RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is Audio Ex e	optional external keyboard
ET-436  	38 cm (15")	1024 x 768 (4:3) touch screen as standard	CFL: 600 cd/m ² LED: 350 cd/m ² optional 1000 cd/m ² as pol. display	440 x 340 x 165 mm	RS-232 Ex e, RS-422 Ex e, RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is Audio Ex e	optional external keyboard
ET-456  	48 cm (19")	1280 x 1024 (5:4) touch screen as standard	CFL: 300 cd/m ² LED: 350 cd/m ²	535 x 425 x 165 mm	RS-232 Ex e, RS-422 Ex e, RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is Audio Ex e	optional external keyboard
ZONE 2 / 22 / NON-EX						
MT-406  	26 cm (10")	800 x 600 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 400 cd/m ²	400 x 270 x 150 mm	RS-232 Ex nA, RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is Audio Ex e	optional external keyboard
MT-416  	26 cm (10")	800 x 600 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 400 cd/m ²	372 x 270 x 150 mm	RS-232 Ex nA, RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is Audio Ex e	optional external keyboard
MT-436  	38 cm (15")	1024 x 768 (4:3) touch screen as standard	CFL: 600 cd/m ² LED: 350 cd/m ² optional 1000 cd/m ² as pol. display	440 x 340 x 165 mm	RS-232 Ex nA, RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is Audio Ex e	optional external keyboard
MT-456  	48 cm (19")	1280 x 1024 (5:4) touch screen as standard	CFL: 300 cd/m ² LED: 350 cd/m ²	535 x 425 x 165 mm	RS-232 Ex nA, RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is Audio Ex e	optional external keyboard



Enclosures & Mounting

FUNCTION KEYS		POINTING DEVICES	POWER SUPPLY	CERTIFICATIONS
12	optional external Trackball Joystick	24 V DC	ATEX INMETRO GOST-R DNV UL	
12	optional external Trackball Joystick	24 V DC	ATEX INMETRO GOST-R DNV UL	
8	optional external Trackball Joystick	24 V DC	ATEX INMETRO GOST-R DNV UL	
8	optional external Trackball Joystick	24 V DC	ATEX INMETRO GOST-R DNV UL	
12	optional external Trackball Joystick	24 V DC	ATEX GOST-R DNV	
12	optional external Trackball Joystick	24 V DC	ATEX GOST-R DNV	
8	optional external Trackball Joystick	24 V DC	ATEX GOST-R DNV	
8	optional external Trackball Joystick	24 V DC	ATEX GOST-R DNV	



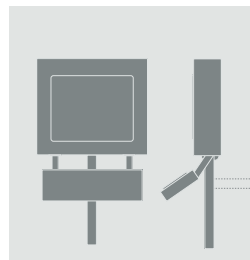
Standard Enclosure



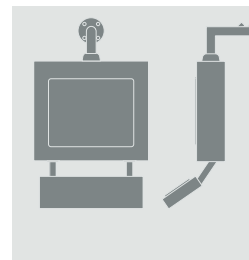
Customized Enclosure



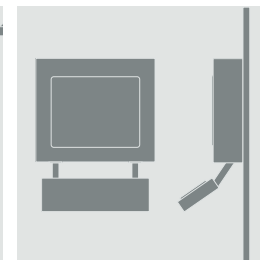
Customized Enclosure



Floor / Wall Mounting



Suspended Wall Mounting



Wall Mounting

Accessories & Options

- Barcode scanner (handheld scanner Ex i / wireless scanner Ex e)
- Intrinsically safe swipe reader (Wiegand reader with WCRi interface)
- Intrinsically safe, contactless card reader (Ex i Mifare reader)
- Intrinsically safe USB stick
- Backup / recovery system
- Windows Embedded installation multilingual
- Windows XP Professional installation multilingual
- Pre-installed WinCC flexible 2008
- Pre-configured RSView and Citect upon request

Web

www.exicom.de
www.stahl-hmi.de

Web Code: ET-406A, MT-406A

Operator Interface EAGLE - Visualization 10" / 15"



MAIN FIELDS OF APPLICATION

Machine Automation
Tank Farm Automation

The EAGLE series has been developed for operations at machine level. All displays come with touch screen as standard and provide a set of functions for user-defined applications.

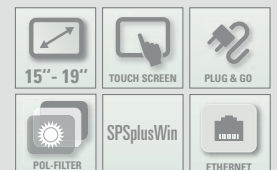
EAGLE operator interfaces allow easy connection to SPS systems and can perform complex visualization tasks. The closed and embedded real-time operating system ensures a very high degree of data integrity. EAGLEs incur no additional runtime costs and are a cost-saving all-in-one solution.

Our professional SPSplusWIN software ensures easy and cost-saving engineering. The import / export functions provided by Excel®, the multilinguality, the Ethernet up- and download functions are only a few of the software's many features. The combination of intelligent hard- and software makes the EAGLEs the world's most favorite HMIs in this category, even at extreme temperatures from -30°C up to +55°C.

Data communication is realized via Ethernet (CAT5 / fiber optic) with common controllers, such as Siemens S7 or Rockwell Logix, or via serial ports (RS-232/422/485). Professionally embedded card reader systems allow the use of these terminals for access control, for example in tank farms.

SPECIAL FEATURES

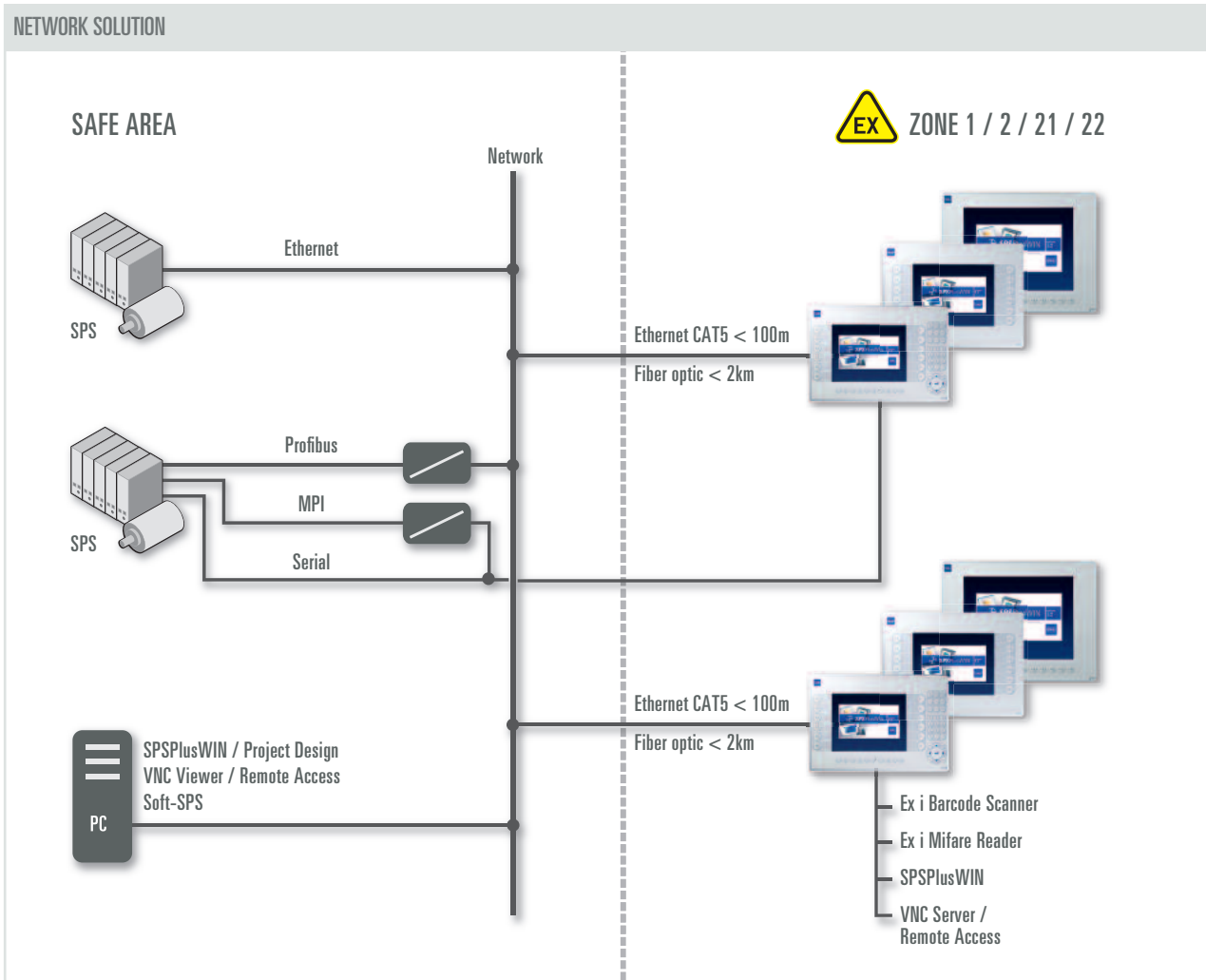
- Ready-to-use HMIs with touch screen as standard
- Embedded operating and runtime system saves licensing and runtime costs
- Can be used under extreme temperature conditions from -30°C up to +55°C



EX-ZONE						IP	TEMPERATURE RANGE
ZONE 0	ZONE 1	ZONE 2	ZONE 21	ZONE 22	NON-EX	IP66	-20°C UP TO +55°C -30°C UP TO +55°C (WITH HEATING)
	✓	✓	✓	✓	✓		

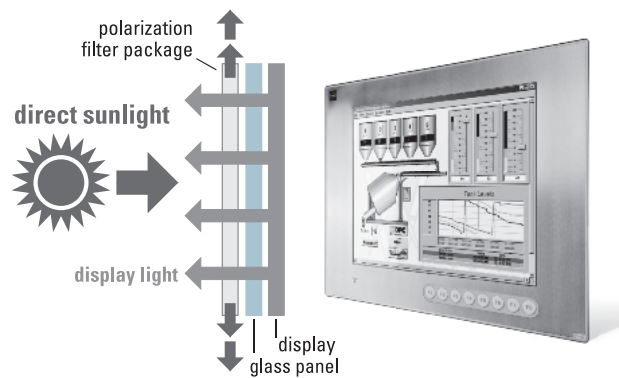
Functional Principles

Automation devices can be connected via current Ethernet protocols, such as Profinet, Ethernet IP, Modbus TCP or via Profibus, Modbus, MPI, and other serial protocols.



New: Best Sun Readability

For outdoor applications, we have developed a new display with polarization filter that ensures clear readability even in direct sunlight.



EAGLE - Visualization 10" / 15"

Technical Data

	DISPLAY					OPERATION	
	SIZE	RESOLUTION / ASPECT RATIO	BACKLIGHT / BRIGHTNESS	FRONT DIMEN. (W X H X D)	INTERFACES	KEYBOARD	FUNCTION KEYS
ZONE 1 / 2 / 21 / 22							
ET-306 	26 cm (10")	640 x 480 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 450 cd/m ²	400 x 270 x 150 mm	RS-232 Ex e RS-422 Ex e RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is	foil keyboard	12
ET-316 	26 cm (10")	800 x 600 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 400 cd/m ²	372 x 270 x 150 mm	RS-232 Ex e RS-422 Ex e RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is	foil keyboard	12
ET-336 	38 cm (15")	1024 x 768 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 350 cd/m ²	440 x 340 x 165 mm	RS-232 Ex e RS-422 Ex e RS-485 Ex e 10/100Base-TX Ex e 100Base-FX Ex op is	foil keyboard	8
ZONE 2 / 22 / NON-EX							
MT-306 	26 cm (10")	640 x 480 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 450 cd/m ²	400 x 270 x 150 mm	RS-232 Ex nA RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is	foil keyboard	12
MT-316 	26 cm (10")	800 x 600 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 400 cd/m ²	372 x 270 x 150 mm	RS-232 Ex nA RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is	foil keyboard	12
MT-336 	38 cm (15")	1024 x 768 (4:3) touch screen as standard	CFL: 350 cd/m ² LED: 350 cd/m ²	440 x 340 x 165 mm	RS-232 Ex nA RS-422 Ex nA RS-485 Ex nA 10/100Base-TX Ex nA 100Base-FX Ex op is	foil keyboard	8



Enclosures & Mounting

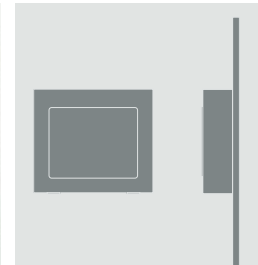
SOFT KEYS		ALPHANUM. KEYS	POWER SUPPLY	CERTIFICATIONS
10	23		24 V DC	ATEX INMETRO GOST-R DNV UL
			24 V DC	ATEX INMETRO GOST-R DNV UL
			24 V DC	ATEX INMETRO GOST-R DNV UL
10	23		24 V DC	ATEX INMETRO GOST-R DNV UL
			24 V DC	ATEX INMETRO GOST-R DNV UL
			24 V DC	ATEX INMETRO, GOST-R DNV UL



Customized Enclosure



Customized Enclosure



Wall Mounting

Software

- Project Design Software SPSPPlusWIN
 - All basic functions for current HMI software (bar graph, trend, scale, graphic lists, alarm)
 - Easy to use, easy to learn
 - Easy to connect to common, larger SPS software systems (Siemens, Rockwell, Schneider)
 - All-purpose basic software
 - Cost-effective site licensing (one license for all computers at the location)
 - Cost-effective volume licensing (no runtime costs, reasonable license fees)
- Pre-installed operating system
- Profibus DP modules

Accessories & Options

- Barcode scanner (handheld scanner Ex i / wireless scanner Ex e)
- Intrinsically safe swipe reader (Wiegand reader with WCRi interface)
- Intrinsically safe, contactless card reader (Ex I Mifare reader)
- Intrinsically safe USB stick

Web

www.exicom.de
www.stahl-hmi.de

Web Code: ET-306A, MT-306A

Operator Interface FALCON - Text / Graphics Displays 5"



MAIN FIELDS OF APPLICATION

- Tank Farm Automation
- Access Control
- Machine Automation

Designed for connection to SPS, FALCON terminals are the ideal solution for visualizations at machine level in hazardous areas. They can be used as easy-to-use operating devices for single machine control, for access control in tank farms, and with GL/DNV approval on LNG tank ships. In addition, Wiegand, Mifare and other card readers can easily be integrated into the field enclosure.

The FALCON series can be connected to all major automation systems. The variety of function keys and soft keys available in the different product versions allows many different user-defined settings. Data transmission via Profibus DP, Modbus, MPI or other serial protocols are among the FALCON's characteristic communication tasks.

The pre-installed SPSPPlusWIN Lite software allows easy and cost-saving basic engineering and facilitates project design.

The transreflective LCD monochrome display with LED backlights ensures optimal readability, and makes the FALCON series an essential device for operations at machine level. FALCONS are used worldwide, even at temperatures ranging from -20°C up to +70°C.

SPECIAL FEATURES

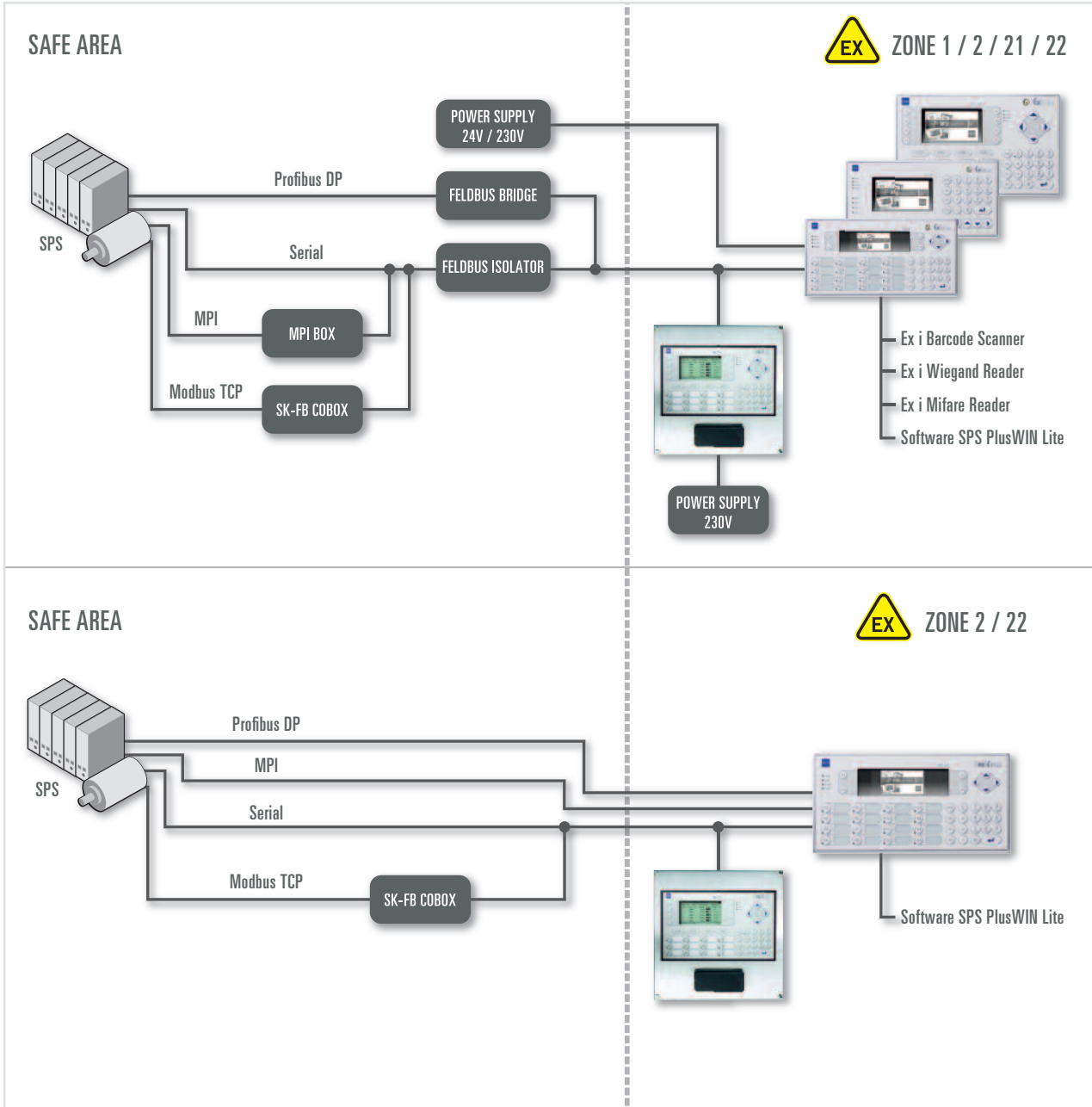
- All-purpose application for SPS communication in hazardous areas
- Ready-to-use with SPSPPlusWIN engineering software
- Serial protocols, MPI, Profibus DP, and others



EX-ZONE						IP	TEMPERATURE RANGE
ZONE 0	ZONE 1	ZONE 2	ZONE 21	ZONE 22	NON-EX	IP65 FRONT	 -20°C UP TO +70°C









Functional Principles

FALCON HMI's of the ET series for use in Ex-zone 1 require an external power supply and a set of different media converters for connection to the individual field bus system. Converters are not required for use in Ex-zone 2 (MT series).



FALCON - Text / Graphics Displays 5"

Technical Data

	DISPLAY						OPERATION		
	VERSION	SIZE (W X H)	RESOLUTION / ASPECT RATIO	BACKLIGHT	FRONT DIMEN. (W X H X D)	INTER-FACES	KEYBOARD	FUNCTION KEYS	SOFT KEYS
ZONE 1 / 2 / 21 / 22									
ET-65  	LCD mono-chrome	13,4 x 4 cm	240 x 64 Pixel	LED (additional supply)	290 x 146 x 80 mm	RS-422 Ex i	foil keyboard	16	4
ET-75  	LCD mono-chrome	11,4 x 6,4 cm	240 x 128 Pixel	LED (additional supply)	290 x 146 x 80 mm	RS-422 Ex i	foil keyboard	8	
ET-125  	LCD mono-chrome	11,4 x 6,4 cm	240 x 128 Pixel	LED (additional supply)	312 x 192 x 80 mm	RS-422 Ex i	foil keyboard	16	8
ZONE 2 / 22 / NON-EX									
MT-65  	LCD mono-chrome	13,4 x 4 cm	240 x 64 Pixel	LED	290 x 146 x 80 mm	RS232 RS-422 optional Profibus DP / MPI	foil keyboard	16	4



Enclosures & Mounting

ALPHANUM. KEYS	DATA TRANSMISSION	POWER SUPPLY	CERTIFICATIONS
23	serial Profibus DP MPI Modbus etc.	12 V DC (external power supply 9143)	ATEX IMMETRO GOST-R GL (C, EMC2) DNV
23	serial Profibus DP MPI Modbus etc.	12 V DC (external power supply 9143)	ATEX IMMETRO GOST-R GL (C, EMC2) DNV
23	serial Profibus DP MPI Modbus etc.	12 V DC (external power supply 9143)	ATEX IMMETRO GOST-R GL (C, EMC2) DNV
23	serial Profibus DP MPI Modbus etc.	24 V DC (external power supply 9143)	ATEX



Customized Enclosure



Customized Enclosure

Software

- Project design software SPSPPlusWIN Lite
- Pre-installed operating system
- Profibus DP modules

Accessories & Options

- Barcode scanner (handheld scanner Ex i)
- Intrinsically safe swipe reader (Wiegand reader with WCRi interface)
- Swipe reader (Wiegand reader with WCR interface)
- Intrinsically safe, contactless card reader (Ex i Mifare reader)

Web

www.exicom.de
www.stahl-hmi.de

Web Code: ET-65A, MT-65A

Expert Know-How in all Areas of Applications

STAHL HMI offers the broadest product range of explosion protected HMIs for the most different applications. Our standard systems are installed in many plants around the globe. And with our expert knowledge, we can develop customized system solutions according to your specific requirements.

In our day-to-day business we develop enclosures for use in extreme temperature conditions or clean rooms, we integrate keys, lighting and switches, and we provide the necessary explosion protection standards for specific markets.

STAHL HMI—we create your solution.

Gas & Oil Industry

Drilling Rigs

- On- and Offshore Applications
- Visualization of Control Points
- Compressor Control Systems
- Control Stations
- Monitoring Cabins

Tank Farms / Logistics

- Access Control
- On-Site Visualization
- Loading Management
- Satellite Refueling

Marine Applications

- Compressor Rooms
- Engine Rooms

Machines & Package Units

- Centrifuges
- Dryers
- Compressors
- Packaging Machinery
- Grinders
- Coaters
- Mixers
- Printing Machinery

Process Visualization

- Chemical Industry
- Food & Feed Industry
- Paints & Coatings
- Pharmaceutical Industry
- Biotechnology
- Distilleries





STAHL Service

Our HMI product portfolio for hazardous areas is among the most advanced and broadest in the world.

To quickly and easily find the appropriate on-site operator terminal for your plant, we have developed a set of tools that will direct you to the required information.

Website

www.exicom.de

You will find our HMIs, clear and detailed product information, downloads and relevant, project-related data as well as web-based learning methods on our website.

Product Configurator

www.exicom-configurator.de

The Configurator has been designed to provide a quick and solid overview on every possible configuration of our products. Choose the HMI, display size, keyboard language, etc., and you will quickly get the technically correct configuration, together with an offer including the technical specifications.

Web Learning

www.exicom-learning.de

For us, Web Learning means: "animations are used to provide product information and demonstrations". The 2-minute animation will give you a detailed overview of our product range.

Roadshow

www.exicom-roadshows.de

If your company is interested in a live presentation of our HMI portfolio, we can visit you with our Roadshow. All our operator terminals are integrated in a product wall, and can be presented live and in operation. See the differences between the monitors, learn about the different data transmission characteristics, and select the options that best fit your company's needs.



Expert Advise

Our team of experts and sales representatives will provide professional advice in all stages of the project planning and day-to-day operations. With our extensive knowledge in explosion protection, we are able to provide standard solutions and develop customized system solutions for most different applications.

Please contact us if you are interested in one of our international training courses in explosion protection we offer throughout the year.

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