



OPERATING AND MONITORING SYSTEMS

Product	Installation in Zone						Series	Page	WebCode
	0	1	2	20	21	22			
Box PC									
Industrial Box PC								225	IBPC5X1A
HMI Device Platforms									
Device Platform EAGLE Panel Mount Device		•	•		•	•		218	
Device Platform MANTA Operator Station		•	•		•	•		214	
Device Platform MANTA Panel Mount Device		•	•		•	•		216	
Device Platform RAPTOR Operator Interfaces and Operator Stations		•	•		•	•		223	
Device Platform SHARK Operator Station "Rugged Design"		•	•		•	•		220	
HMI Technologies for all Applications									
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Peripheral Devices Barcode & RFID Readers									
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Peripherals RFID Readers		•	•		•	•		232	RFIDA

For additional products and information please refer to r-stahl.com



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HMI Technologies for all Applications

HMI products and solutions from series EXICOM have been designed for worldwide operation in hazardous areas, rough ambient conditions, cleanrooms and onboard ships. Be it in the form of a 7" Operator Panel or a 24" widescreen terminal, we offer safe high-tech in all shapes and sizes: KVM systems, Thin Clients, Panel PCs, Operator Interfaces and peripherals.

Our four different device platforms provide the ideal solution for each application: SHARK HMIs for oil and gas applications and rough ambient conditions, MANTA HMIs for process automation, GMP and cleanroom applications, universally applicable EAGLE devices for machine automation, and the 7" RAPTOR Operator Interfaces with integrated software for visualisation and operation of machines, for logistics or for tankfarm automation.

	Device platform SHARK	Device platform MANTA	Device platform EAGLE	Device platform RAPTOR
Area of application	Oil & Gas rough ambient conditions	Process automation GMP- and clean room applications	Machine automation	Oil & Gas rough ambient conditions Machine automation GMP- and clean room applications
Technology	KVM systems Thin Client Panel PC	KVM systems Thin Client Panel PC	Thin Client Panel PC Operator Interface	Operator Interface

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GLOSSARY OF HMI TERMS

USING THE ET-438 AS AN EXAMPLE

ZONE	TECHNOLOGY / SERIES	DISPLAY SIZE	DEVICE PLATFORM
ET	4	3	8
<ul style="list-style-type: none"> ET Zone 1 MT Zone 2 IT Non Ex 	<ul style="list-style-type: none"> 2 Operator Interfaces 3 Operator Interfaces 4 Panel PC 5 Thin Clients 6 KVM Systems 	<ul style="list-style-type: none"> 0 7" (800 x 480) 1 10.4" (800 x 600) 3 15" (1024 x 768) 5 19" (1280 x 1024) 6 22" (1680 x 1050) 7 24" (1920 x 1080) Full HD 8 24" WU (1920 x 1200) 	<ul style="list-style-type: none"> 6 EAGLE Machine Operation, universal 7 MANTA Pharmaceutical Industry Fine Chemical Industry Hygienic Applications 8 SHARK / RAPTOR Oil & Gas, Harsh Environments

SERIES 500 / SERIES 400

SERIES 500 consists of THIN CLIENTS and SERIES 400 of PANEL PCs for installation in hazardous and industrial areas. The Thin Clients have been designed for application within modern Server-Client structures, thus providing flexible access options from different HMIs to different servers. The Panel PCs provide additional local applications on-site. Each of our device platforms has a fast processor, such as Intel®, AMD or Atom, which ensure fast software processing. The Panel PCs can also operate in extreme temperatures.

SERIES 300 / SERIES 200

Series 300 and 200 both are "Operator Interfaces", i.e. HMI devices with integrated software for visualising and operating machinery and for logistics and tankfarm automation. SERIES 300 with 10" / 15" monitors is universally applicable, i.e. also in machine operation. SERIES 200 consisting of 7" Operator Interfaces is suitable for extreme ambient conditions (e.g. oil & gas), as well as in the pharmaceutical, chemical and life sciences industries.

SERIES 600

SERIES 600 consists of KVM systems where the data issuing PC is installed separately in the safe area and the HMI on-site in the hazardous or industrial area. KVM systems are ideal for classic point-to-point connections, i.e. for access from one HMI to one dedicated PC.

INDUSTRIAL BOX PC

To be able to benefit fully from the advantages of our industrial-grade REMOTE V5 firmware, from the field to the control room, we have now launched the IBPC-5x1 Box PC. This Thin Client for the control room has been configured with the V5 Remote HMI firmware, ensuring a high degree of communication security from the control room to the on-site Thin Client.

PERIPHERALS

Our barcode scanners and RFID readers are modern devices for comfortable data capture and authentication in hazardous areas Zone 1, 2, 21 and 22. The barcode scanners can process all common barcodes and are available wireless or with cable. The RFID readers are universally applicable card readers. Both device groups can also be operated in hazardous areas without our HMIs.



- Modular Operator Station up to Zone 1, 2, 21, 22, stainless steel enclosure IP66, optionally according to GMP
- Optional resistive glass or foil touch screen
- Thin Client (SERIES 500), Panel PC (SERIES 400) or KVM (SERIES 600)



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	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in	•	•		•	•	

	NEC 505 Class I			NEC 506		
Zone	0	1	2	20	21	22
Installation in	•	•				

	NEC 500					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Installation in	•					

Selection Table

Technology	Thin Client		
HMI type	Operator Station		
Product Type	Art. No.	PS	Weight kg
ET-577-2TX-230A010002M-212021000000	271589	40	64.500

Technical Data

Explosion Protection	
Application range (zones)	1 2 21 22
Certifications	ATEX, IECEx, NEC, CEC, EAC, KGS, PESO
Electrical Data	
Processor type	AMD GX
RAM	4 GB
Data memory	64 GB SSD
Ethernet / Data	2x 10/100Base-TX (Ex e)
Operating system	Windows 10 IoT Enterprise
Image	Remote Firmware V5.xx
Voltage range AC	100 – 240 V
Display	
Display size inch	24
Display resolution	1920 x 1080 / 1680 x 1050 / 1280 x 1024
Mechanical Data	
Ingress protection	IP66
Mounting / Installation	
Enclosure type	Stainless steel enclosure V2A (FR)
Mounting type	for mounting on stand

Technical Data

Components	
Keyboard	Keyboard with trackball, layout US

Possible Versions

Installation in	ET – up to zone 1, 21 MT – up to zone 2, 22 IT – Non Ex
Technology	Thin Client Remote HMI V5.xx, AMD GX Thin Client Remote HMI V5.xx, ATOM E3845 1.9 GHz Panel PC Windows 10 IoT, AMD GX Panel PC Windows 10 IoT, ATOM E3845 1.9 GHz KVM DVI3 system
Touch screen	Resistive foil or glass touch screen
Keyboard layout	DE, US, FR, CH, ES, other on request
Pointing devices	Trackball, touch pad, joystick
Network interfaces	100Base-TX, 100Base-SX
Enclosure	Stainless steel V4A Enclosure according to GMP (V2A)
Reader devices	RFID reader Preparation for wired barcode reader Preparation for bluetooth barcode reader
Other versions on request	

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Accessories

Description	Art. No.	PS	Weight kg
Storage Media			
USBi-Drive-32GB USB Stick, intrinsically safe, 32 GB	261529	43	0.500
USBi-Drive-32GB-Recovery USB Stick, intrinsically safe, 32 GB with recovery and backup function	261530	43	0.500
Enclosure Accessories			
HSG-xxx-V2A-MPW-450mm-2M25-1M20 Elbow with coupling Material: V2A (SS304) 1.4301, brushed 240 Length 450 mm, diameter: 60.3 mm (pipe), 2x M25 1x M20	252958	47	7.000
HSG-xxx-V2A-MPFL-1240mm-2M25-1M20 Stand with coupling Material: V2A (SS304) 1.4301, brushed 240 Length 1240 mm, diameter: 88.9 mm (pipe), 2x M25 1x M20	252949	47	10.000

Barcode scanners and RFID readers are listed in chapter A9 under Peripheral devices.



- Modular operator interface up to zone 1, 2, 21, 22, can be installed in hazardous areas without additional enclosure
- Optional resistive glass or foil touch screen
- Thin Client (SERIES 500), Panel PC (SERIES 400) or KVM (SERIES 600)



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	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

	NEC 505 Class I			NEC 506		
Zone	0	1	2	20	21	22
Installation in		•	•			

	NEC 500					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Installation in		•				

Selection Table

Technology	Panel PC		
HMI type	Panel mount device		
Product Type	Art. No.	PS	Weight kg
ET-477-TX-730A200002R-000000000000	274987	40	32.000

Technical Data

Explosion Protection	
Application range (zones)	1 2 21 22
Certifications	ATEX, IECEx, NEC, CEC, EAC, KGS, PESO
Electrical Data	
Processor type	ATOM E3845
RAM	4 GB
Data memory	64 GB SSD
Ethernet / Data	10/100Base-TX (Ex e)
Operating system	Windows 10 IoT Enterprise
Power supply	24 VDC
Display	
Display size inch	24
Display resolution	1920 x 1080 / 1680 x 1050 / 1280 x 1024
Touchscreen	Analogue resistive glass touch screen

Possible Versions

Installation in	ET - up to zone 1, 21 MT - up to zone 2, 22 IT - Non Ex
Technology	Thin Client Remote HMI V5.xx, AMD GX Thin Client Remote HMI V5.xx, ATOM E3845 1.9 GHz Panel PC Windows 10 IoT, AMD GX Panel PC Windows 10 IoT, ATOM E3845 1.9 GHz KVM DVI3 system
Touch screen	Resistive foil or glass touch screen
Network interfaces	100Base-TX, 100Base-SX, dual Ethernet 100Base-TX
Other versions on request	



- Modular operator interface up to zone 1, 2, 21, 22, can be installed in hazardous areas without additional enclosure
- Resistive foil touch screen
- Thin Client (SERIES 500), Panel PC (SERIES 400) or KVM (SERIES 600)



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	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in	•	•		•	•	

	NEC 505 Class I			NEC 506		
Zone	0	1	2	20	21	22
Installation in	•	•				

	NEC 500					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Installation in	•					

Selection Table

Technology HMI type	Operator Interface Panel mount device	Art. No.	PS	Weight kg
Product Type				
ET-316-A-TX-62031000004-000000000000		261860	40	13.600
Technology HMI type	Panel PC Panel mount device	Art. No.	PS	Weight kg
Product Type				
ET-436-A-TX-730A100000R-000000000000		271599	40	18.000
ET-416-A-TX-730A100000R-000000000000		268485	40	13.200

Technical Data

Variant	ET-316-A-TX	ET-416-A-TX	ET-436-A-TX
Explosion Protection			
Application range (zones)	1 2 21 22	1 2 21 22	1 2 21 22
Certifications	ATEX, IECEx, NEC, CEC, EAC, KGS, PESO, INMETRO, CNEX	ATEX, IECEx, NEC, CEC, EAC, KGS, PESO, INMETRO, CNEX	ATEX, IECEx, NEC, CEC, EAC, KGS, PESO, INMETRO, CNEX
Ship certificates	DNV, ABS, LR	DNV, ABS, LR	DNV, ABS, LR
Electrical Data			
Processor type	ATOM E3815	ATOM E3845	ATOM E3845
RAM	2 GB	4 GB	4 GB
Data memory	16 GB SSD	64 GB SSD	64 GB SSD
Ethernet / Data	10/100Base-TX (Ex e)	10/100Base-TX (Ex e)	10/100Base-TX (Ex e)
Operating system	Windows Embedded Compact 7	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
Power supply	24 VDC	24 VDC	24 VDC
Display			
Display size inch	10	10	15

Technical Data			
Variant	ET-316-A-TX	ET-416-A-TX	ET-436-A-TX
Display			
Total pixels	800 x 600	800 x 600	1024 x 768
Touchscreen	Analogue resistive film touch screen	Analogue resistive film touch screen	Analogue resistive film touch screen

Possible Versions	
Installation in	ET – up to zone 1, 21 MT – up to zone 2, 22
Technology	Thin Client Remote HMI V5.xx, ATOM E3845 1.9 GHz Panel PC Windows 10 IoT, ATOM E3845 1.9 GHz Operator interface ATOM E3815, Windows Embedded Compact 7, SPSPlus Runtime Operator interface ATOM E3815, Windows Embedded Compact 7, Movicon CE 4096 I/O Runtime
Network interfaces	100Base-FX
Operator Station	Stainless steel V2A or V4A Operator Station IP66
Other versions on request	

Accessories			
Description	Art. No.	PS	Weight kg
Storage Media			
USBi-Drive-32GB USB Stick, intrinsically safe, 32 GB	261529	43	0.500
USBi-Drive-32GB-Recovery USB Stick, intrinsically safe, 32 GB with recovery and backup function	261530	43	0.500
Software			
SPSPlusWin 6.xx Project engineering software for all Operator Interfaces	263160	43	0.100
Movicon11-Dongle Project engineering software Progea Movicon11 (for devices with Progea Movicon Runtime)	241090	43	0.500
Barcode scanners and RFID readers are listed in chapter A9 under Peripheral devices.			



- Operator Station with 15- or 21.5 inch display
- Rugged Design: IP66, shock, vibration and seawater-proof
- Temperature range - 40 °C to +65 °C
- Compact, lightweight HMI design with 15 inch display
- Optional sunlight-readable SR display >1000 cd/m²



	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

	NEC 505 Class I			NEC 506		
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

	NEC 500					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Installation in		•		•	•	•

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Selection Table

Technology HMI type	Panel PC Operator station Rugged Design		
Product Type	Art. No.	PS	Weight kg
ET-498-2TX-931C313000R-B30500000000	275445	40	35.000
ET-438-2TX-2305313000R-B30500000000	271523	40	24.000

Technical Data

Variant	ET-438-2TX	ET-498-2TX
Explosion Protection		
Application range (zones)	1 2 21 22	1 2 21 22
Certifications	ATEX, IECEx, NEC, CEC, PESO, CNEX	ATEX, IECEx, NEC, CEC, PESO, CNEX
Ship certificates	DNV, ABS	DNV, ABS
Electrical Data		
Processor type	AMD GX	Intel i5
RAM	4 GB	4 GB
Data memory	60 GB SSD	240 GB SSD
Ethernet / Data	2x 10/100/1000Base-TX (Ex e)	2x 10/100/1000Base-TX (Ex e)
Operating system	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
Ambient Conditions		
Ambient temperature operation	-40 °C ... +65 °C	-40 °C ... +65 °C
Display		
Display size inch	15	21.5
Display resolution	1024 x 768	1920 x 1080
Touchscreen	Capacitive multi-touch	Capacitive multi-touch

Possible Versions

Installation in	ET – up to zone 1, 21 MT – up to zone 2, 22
Technology	Panel PC Windows 10 IoT, Intel i7 or i5 Thin Client Remote HMI V5.xx, Windows 10 IoT, AMD GX Thin Client Remote HMI V5.xx, Windows 10 IoT, Intel i7 or i5 KVM DVI3 system
Network interfaces	2x 100Base-FX, 1x 10/100/1000Base-TX + WLAN (WLAN not for KVM systems)
Further options	Bluetooth, RFID (only 21.5")
Other versions on request	

Accessories

Description	Art. No.	PS	Weight kg
Storage Media			
USBi-Drive-32GB USB Stick, intrinsically safe, 32 GB	261529	43	0.500
USBi-Drive-32GB-Recovery USB Stick, intrinsically safe, 32 GB with recovery and backup function	261530	43	0.500
Keyboard / Pointing device Ex i			
KBDi-USB-J-DE-HSG-xx8-V4A-YM Keyboard with integrated joystick USB interface 3/5 keys, V4A stainless-steel enclosure (SS316L) Keyboard language: DE, QWERTZ	256794	43	12.500
KBDi-USB-M-DE-HSG-xx8-V4A-YM Keyboard with integrated mouse USB interface 3/5 keys, V4A stainless-steel enclosure (SS316L) Keyboard language: DE, QWERTZ	253701	43	12.500
Enclosure Accessories			
HSG-xxx-V4A-MPFL-1240mm-2M25-1M20 Stand with coupling Material: V4A (SS316L) 1.4404, brushed 240 Length 1240 mm, diameter: 88.9 mm (pipe), 2x M25 1x M20	252950	47	10.000
HSG-xxx-V4A-MPW-450mm-2M25-1M20 Elbow with coupling Material: V4A (SS316L) 1.4404, brushed 240 Length 450 mm, diameter: 60.3 mm (pipe), 2x M25 1x M20	252959	47	7.000
HSG-xx8-V4A-YOKE-MOUNT-FIX Yoke mount for xx8 devices Mounting on stand or elbow Material: V4A (SS316L) 1.4404, brushed 240 2x M20, 1x M25 Dimensions (WxHxD): 379,5 mm x 347,5 mm x 156 mm	267444	47	-
HSG-xx8-V4A-WALL-MOUNT-KIT Mounting kit for wall mount of xx8 device swiveling for connection Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 60 mm x 430 mm x 183 mm including screws for display mounting	267443	47	-
HSG-xx8-V4A-KB-MOUNT-W Adapter kit for mounting a xx8 keyboard at the wall bracket Material: V4A (SS316L) 1.4404, brushed 240	267451	47	-
HSG-xx8-V4A-HANDLE-FEET-KIT Set consisting of handle and feet Material: V4A (SS316L) 1.4404, brushed 240 Dimensions handle (WxHxD): 361 mm x 186 mm x 27 mm Dimensions feet (WxHxD): 94 mm x 192 mm x 195 mm	267456	47	-
HSG-xx8-V4A-HANDLE Handle Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 361 mm x 186 mm x 27 mm	267447	47	-

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Accessories

Description	Art. No.	PS	Weight kg
Enclosure Accessories			
HSG-xx8-V4A-FEET-SET 1 pair feet Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 94 mm x 192 mm x 195 mm	267455	47	-
HSG-x38-V4A-SUNSHADE-KIT Sun roof with bracket for x38 devices including handle Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 596 mm x 546 mm x 136 mm	267446	47	-
HSG-x98-V4A-SUNSHADE-KIT Sun roof with bracket for x98 devices including handle Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 596 mm x 546 mm x 136 mm	267445	47	7.000
HSG-xx8-V4A-HOLDER-BCR-IDM Holder for wired barcode scanner IDMX6x Mounted at Yoke Mount Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 361 mm x 186 mm x 27 mm	267449	47	-
HSG-xx8-V4A-HOLDER-BCR-IDMBT Holder for bluetooth barcode scanner IDMX6x-BT Mounted at Yoke Mount Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 361 mm x 186 mm x 27 mm	267450	47	-
HSG-xx8-V4A-HOLDER-BCR-IDM-W Adapter kit for mounting the barcode scanner holder at the wall bracket Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 361 mm x 186 mm x 27 mm	267454	47	-
HSG-xx8-V4A-WIFI-MOUNT-KIT-YOKE Antenna iANT212 including connection cable and mounting bracket for mounting at the Yoke Mount Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 60 mm x 430 mm x 183 mm	267453	47	-
HSG-xx8-V4A-WIFI-MOUNT-KIT-W Antenna iANT212 including connection cable and mounting bracket for mounting at the wall bracket Material: V4A (SS316L) 1.4404, brushed 240 Dimensions (WxHxD): 60 mm x 430 mm x 183 mm	267452	47	-
HSG-x38-V2A-FP-Mounting-Kit Mounting plate for front panel mount of x38 device Material: V2A (SS304) 1.4301, brushed 240 including mounting material for mounting the display	259976	47	5.000
HSG-x98-V2A-FP-Mounting-Kit Mounting plate for front panel mount of x98 device Material: V2A (SS304) 1.4301, brushed 240 including mounting material for mounting the display	257498	47	2.000

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- Operator interface up to zone 1, 2, 21, 22, can be installed in hazardous areas without additional enclosure
- Projected-capacitive glass touch screen
- Flexible enclosure configuration possible with up to 32 individual buttons for Operator Station



	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

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Selection Table				
Technology HMI type	Operator Interface	Art. No.	PS	Weight kg
Product Type	Panel mount device			
ET-208-TX-40103000004-000500000000		246222	40	5.000

Technical Data	
Explosion Protection	
Application range (zones)	1 2 21 22
Certifications	ATEX, IECEx, EAC, PESO, CNEX, KGS
Electrical Data	
Processor type	Cortex A8
Ethernet / Data	10/100Base-TX (Ex e)
Operating system	Windows Embedded Compact 7
Image	Movicon CE 4096 I/O Runtime
Power supply	24 VDC
Display	
Display size inch	7
Total pixels	800 x 480
Touchscreen	Capacitive glass touch screen

Possible Versions	
Operator Station	Stainless steel V2A or V4A Operator Station IP66
Other versions on request	

Accessories			
Description	Art. No.	PS	Weight kg
Storage Media			
USBi-Drive-32GB USB Stick, intrinsically safe, 32 GB	261529	43	0.500
USBi-Drive-32GB-Recovery USB Stick, intrinsically safe, 32 GB with recovery and backup function	261530	43	0.500
Software			
SPSPlusWin 6.xx Project engineering software for all Operator Interfaces	263160	43	0.100
Movicon11-Dongle Project engineering software Progea Movicon11 (for devices with Progea Movicon Runtime)	241090	43	0.500

Barcode scanners and RFID readers are listed in chapter A9 under Peripheral devices.



- The IBPC-5x1 for the control room ensures secure process communication from the field to the control room
- With integrated REMOTE V5 firmware on the basis of Windows® 10 IoT Enterprise LTSB (Microsoft support until 2026)
- Integrated UWF and FORM filter
- Powerful AMD dual core processors with 4 GB RAM
- Dual-monitor operation and resolutions up to state-of-the-art Ultra-HD 4K

WebCode **IBPC5X1A**



Our latest V5 version of the REMOTE HMI firmware was developed for highly secure and permanent process communication - AUTOMATIC RECONNECT, FALLBACK MECHANISM and ETHERNET REDUNDANCY as well as various error messages and diagnosis tools are integrated.

To be able to benefit fully from the advantages of this industrial-grade firmware, from the field to the control room, we have now launched the IBPC-5x1 Box PC. This Thin Client for the control room has been configured with the V5 Remote HMI firmware, ensuring a high degree of communication security from the control room to the on-site Thin Client.

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Selection Table				
Technology	Thin Client			
Product Type		Art. No.	PS	Weight kg
IBPC-5X1-2TX-234X01000XM-000000000000		267758	41	1.000

Technical Data	
Electrical Data	
Power supply	only via external power supply adapter
Processor type	AMD GX-222GC
Processor details	2.2 – 2.4 GHz; Dual Core, 10W TDP
RAM	4 GB (DDR3 / 1600)
Data memory	32 GB
Operating system	Windows 10 IoT Enterprise 2016 LTSB (64 bit)
Image	Remote firmware
Ethernet / Data	2 x 10/100/1000 Mbit
Interface USB	4 x USB 2.0
Interface display	1x DVI-I 1 x Display Port (DP V1.2)
Maximum resolution	DVI: 1920 x 1200 DP: 3840 x 2160
Ambient Conditions	
Ambient temperature operation	0 °C ... +35 °C
Temperature note 1	+50 °C with optional fan
Mechanical Data	
Dimensions (WxHxD)	250 mm x 52 mm x 191 mm (without feet)

Overview

R. STAHL's barcode scanners and RFID readers capture data in hazardous areas and transmit these to explosion-protected HMIs or PCs and automation equipment in safe areas. The barcode scanners are robust industrial hand-held scanners for accurate data capture; the RFID readers can be used as panel-mount devices for access control.

In hazardous areas barcodes have become the standard method of registering material and its uses, as well as recording access to operating stations. For both applications R. STAHL provides professional solutions which can also be operated separately from our Human Machine Interfaces (HMIs). The IDM barcode readers are available as a fixed-cable version and as a Bluetooth scanner for 1D and 2D barcodes. Our RFID readers for access control to HMIs, machinery and premises use the Mifare protocol. The corresponding chips with individual access data are available in the form of cards or key fobs.

Barcode scanner



RFID reader



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Highlights

- Barcode scanners and RFID readers for installation in hazardous zones 1, 2, 21 and 22
- Robust, industrial HMI devices for connection to EXICOM operating devices, PCs or automation devices
- Comfortable and safe material inventory, access control, etc.

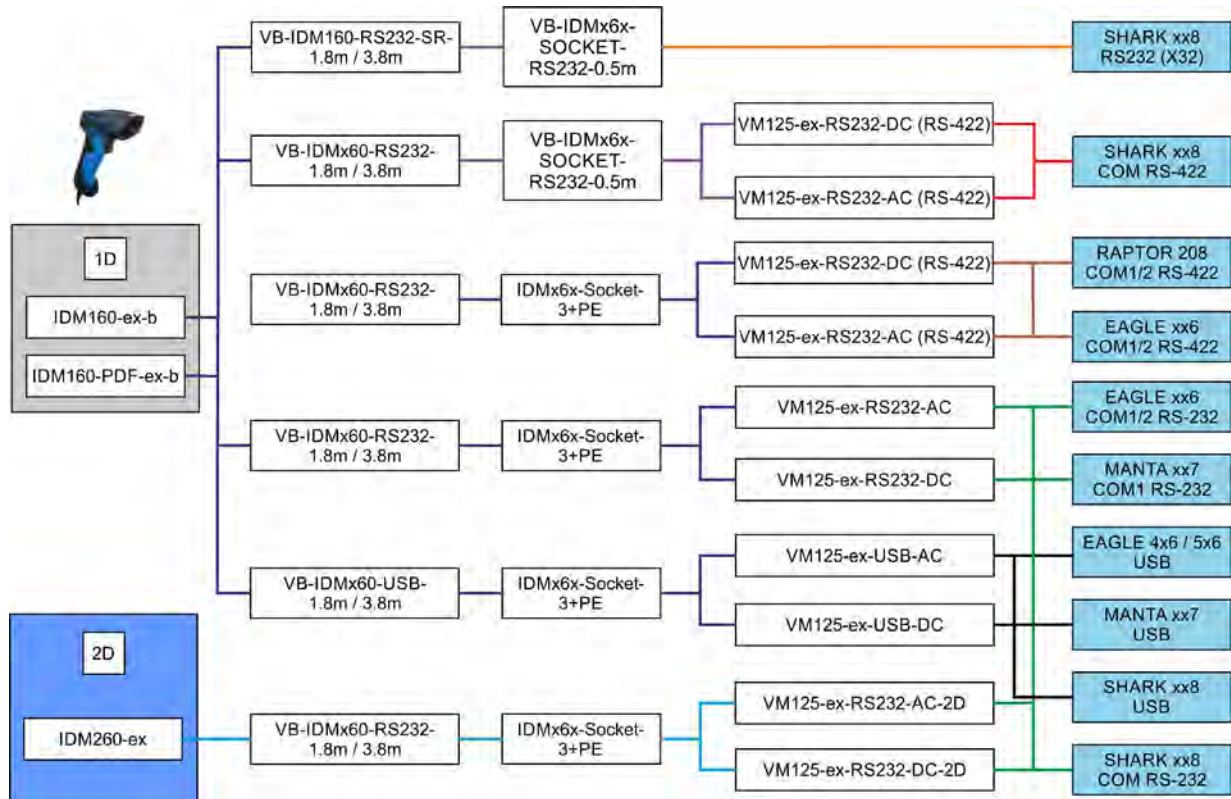
Type and Connection Overview

Barcode scanners are used in industry for many different tasks – R. STAHL's IDM device series enables you to use this convenient method of data capture in hazardous areas too. Our scanners process 1-D barcodes (IDM 160 series), 2-D barcodes (IDM 260 series) and stacked codes and can be connected with a cable or wirelessly via Bluetooth. Supply modules for power supply and data communication are available suitable to all of our HMI platforms and with different interfaces. Below is a detailed overview of scanner types and base loading stations.

Scanner type	wired	Bluetooth	1D	PDF	2D
IDM160-ex-b	✓		✓		
IDM160-PDF-ex-b	✓		✓	✓	
IDM260-ex	✓		✓	✓	✓
IDM161-BT-ex		✓	✓		
IDM161-BT-PDF-ex		✓	✓	✓	
IDM261-BT-ex		✓	✓	✓	✓

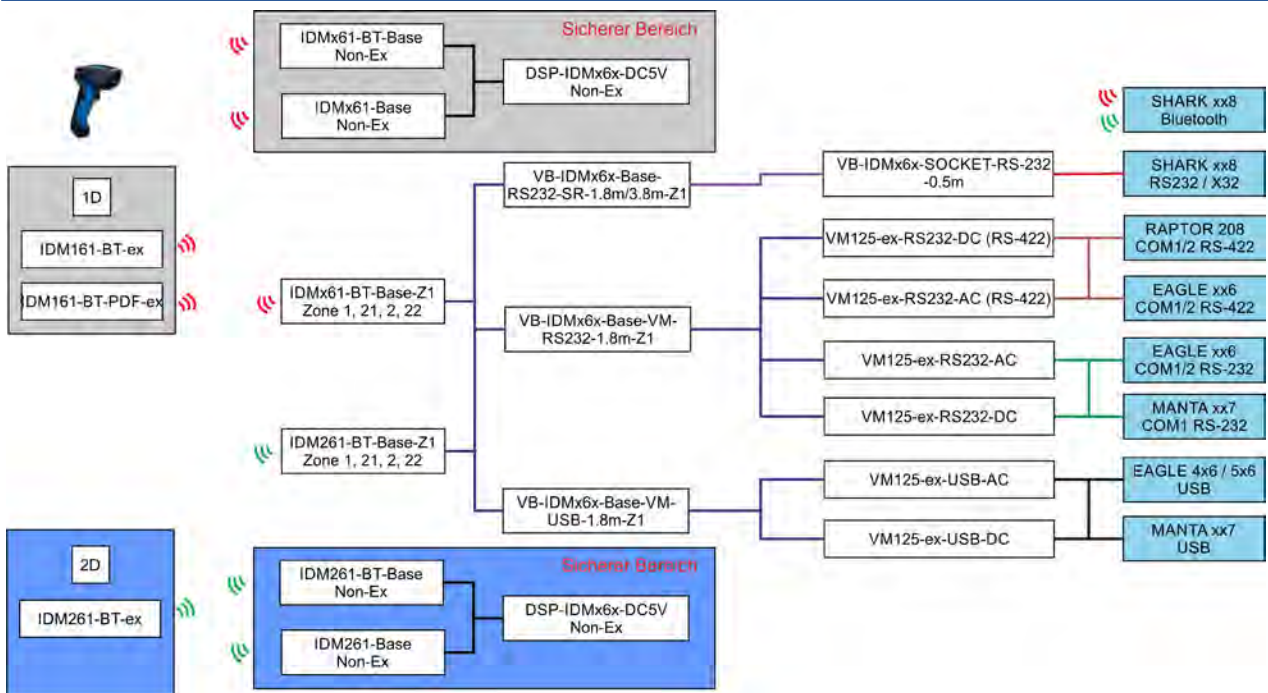
Base loading station	without cable	Bluetooth	Ex Zone 1	Non-Ex	IDM161	IDM261
IDMx61-BT-Base-Z1	✓	✓	✓		✓	
IDM261-BT-Base-Z1	✓	✓	✓			✓
IDMx61-BT-Base	✓	✓		✓	✓	
IDM261-BT-Base	✓	✓		✓		✓
IDMx61-Base	✓			✓	✓	
IDM261-Base	✓			✓		✓

Connection Overview Wired Handheld Scanner



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Connection Overview Bluetooth Scanner





- Certified acc. to ATEX and IECEx for hazardous zones 1, 2, 21, 22
- Wired or wireless Bluetooth scanners
- 1D / 2D barcodes, stacked codes
- Scanner compatible with R. STAHL's SHARK, MANTA, EAGLE and RAPTOR HMI device platforms

WebCode **IDMEXA**



R. STAHL's IDM barcode scanners are ATEX and IECEx certified for hazardous zones 1, 2, 21 and 22. Depending on the scanner, all common 1D / 2D barcodes and stacked codes can be read. The reading process is confirmed acoustically with a beep, visually with LED and with vibration. The explosion-protected HMI devices are all-round designed to meet industrial requirements: their compact enclosure with IP65 is extremely robust - it can withstand up to 50 drops onto concrete from a height of 2 m. The wired scanners support all common cable interfaces, and, when required, the cables can be replaced without the need for any tools. The wireless Bluetooth scanners transmit all data via Bluetooth.

For industrial applications (Non-Ex) various types of industrial barcode scanners are available. In this case please contact R. STAHL HMI Systems GmbH.

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	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table							
Bluetooth wireless scanner							
Version	Product Type	Design	Barcode types	Base loading station	Art. No.	PS	Weight kg
IDM161-BT-ex	Linear imager scanner	Linear imager scanner	one-dimensional 1D (barcode)	IDMx61-BT-Base-Z1 IDMx61-BT-Base IDMx61-Base	249910	41	0.260
IDM161-BT-PDF-ex	Linear imager scanner	Linear imager scanner	one-dimensional 1D (barcode and stacked code) (PDF417)	IDMx61-BT-Base-Z1 IDMx61-BT-Base IDMx61-Base	249941	41	0.260
IDM261-BT-ex	two-dimensional imager scanner	two-dimensional imager scanner	one- and two-dimensional 1D and 2D (barcode and stacked code) (PDF417)	IDM261-BT-Base-Z1 IDM261-BT-Base IDM261-Base	249940	41	0.260
wired handheld scanner							
Version	Product Type	Design	Barcode types	Base loading station	Art. No.	PS	Weight kg
IDM160-ex-b	Linear imager scanner	Linear imager scanner	one-dimensional 1D (barcode)	-	249908	41	0.200
IDM160-PDF-ex-b	Linear imager scanner	Linear imager scanner	one-dimensional 1D (barcode and stacked code) (PDF417)	-	249909	41	0.200
IDM260-ex	two-dimensional imager scanner	two-dimensional imager scanner	one- and two-dimensional 1D and 2D (barcode and stacked code) (PDF417)	-	249986	41	0.200

Technical Data

Explosion Protection

IECEX gas explosion protection	Ex ib IIC T4 Gb
IECEX dust explosion protection	Ex ib IIIC T135°C Db
ATEX gas explosion protection	II 2 G Ex ib IIC T4 Gb
ATEX Dust explosion protection	II 2 D Ex ib IIIC T135°C Db
Certifications	ATEX, IECEx

Electrical Data

Light source	Visible red light, 630nm
Scan frequency	500 Hz
Reader distance	20 ... 850 mm
Code resolution	approx. ≥ 0.076 mm (depending on code)
Interfaces	Interface support (via supply module): RS-232 / RS-422 / USB
Status LED	optical: 2x LED (operating status / read confirmation) acoustic: beeper / buzzer (can be switched off) vibration

Ambient Conditions

Ambient temperature operation	-20 °C ... +50 °C
Shock resistance	50 drops from a height of 2 m onto a concrete surface

Mechanical Data

Dimensions (WxHxD)	104 mm x 185 mm x 76 mm
Ingress protection	IP65
Weight	0.2 kg

The Technical Data only apply to the IDM6x scanner versions. All data for the IDM26x scanner versions and the supplementary data for the wireless scanners can be found online at r-stahl.com or in the data sheets.

Accessories

Description	Art. No.	PS	Weight kg
Base Stations Scanner			
IDMx61-BT-Base-Z1 Base station for handheld scanner IDM161-BT, Bluetooth, zone 1, wireless access and loading station, Bluetooth, loading in zone 1	249925	41	-
IDMx61-BT-Base Base station for handheld scanner IDM161-BT, Bluetooth, Non-Ex, wireless access and loading station, Bluetooth, loading in safe area	249926	41	-
IDMx61-Base Base station for handheld scanner IDM161-BT, no Bluetooth, Non-Ex, wireless loading station, loading in safe area	249927	41	-
IDM261-BT-Base-Z1 Base station for handheld scanner IDM261-BT, Bluetooth, zone 1, wireless access and loading station, Bluetooth, loading in zone 1	249981	41	-
IDM261-BT-Base Base station for handheld scanner IDM-261-BT, Bluetooth, Non-Ex, wireless access and loading station, Bluetooth, loading in safe area	249982	41	-
IDM261-Base Base station for handheld scanner IDM261-BT, no Bluetooth, Non-Ex, wireless loading station, loading in safe area	249983	41	-
Connection Cable			
VB-IDM160-RS232-SR-1.8m Connection cable for IDM160, connection to ReaderBox or SHARK xx8-RSi, interface RS-232, Ex i 5.6 V cable length 1.8 m, straight, Binder plug	224085	43	0.200
VB-IDM160-RS232-SR-3.8m Connection cable for IDM160, connection to ReaderBox or SHARK xx8-RSi, interface RS-232, Ex i 5.6 V cable length 3.8 m, coiled, Binder plug	224086	43	0.300
VB-IDMx60-RS232-1.8m Connection cable for IDM160 / IDM260, connection to VM125-ex-*, interface RS-232, Ex i 5.6 V, cable length 1.8 m, straight, Binder plug	224081	43	0.200
VB-IDMx60-RS232-3.8m Connection cable for IDM160 / IDM260, connection to VM125-ex-*, interface RS-232, Ex i 5.6 V, cable length 3.8 m, coiled, Binder plug	224082	43	0.300
VB-IDMx60-USB-1.8m Connection cable for IDM160, connection to VM125-ex-*, interface USB, Ex i 5.6 V, cable length 1.8 m, straight, Binder plug	224083	43	0.200
VB-IDMx60-USB-3.8m Connection cable for IDM160, connection to VM125-ex-*, interface USB, Ex i 5.6 V, cable length 3.8 m, coiled, Binder plug	224084	43	0.300

Accessories			
Description	Art. No.	PS	Weight kg
Connection Cable			
VB-IDMx6x-Base-RS232-SR-1.8m-Z1 Connection cable for base loading station IDM*-Z1, connection to ReaderBox or SHARK xx8-RSi, interface RS-232, Ex i 5.6 V, cable length 1.8 m, straight, Binder plug	224102	43	0.200
VB-IDMx6x-Base-RS232-SR-3.8m-Z1 Connection cable for base loading station IDM*-Z1, connection to ReaderBox or SHARK xx8-RSi, interface RS-232, Ex i 5.6 V, cable length 3.8 m, coiled, Binder plug	224103	43	0.300
VB-IDMx6x-Base-VM-RS232-1.8m-Z1 Connection cable for base loading station IDM*-Z1, connection to VM125-ex-*, interface RS-232, Ex i 5.6 V, cable length 1.8 m, straight, Binder plug	224100	43	0.200
VB-IDMx6x-Base-VM-RS232-3.8m-Z1 Connection cable for base loading station IDM*-Z1, connection to VM125-ex-*, interface RS-232, Ex i 5.6 V, cable length 3.8 m, coiled, Binder plug	224101	43	0.300
VB-IDMx6x-Base-VM-USB-1.8m-Z1 Connection cable for base loading station IDM*-Z1, connection to VM125-ex-*, interface USB, Ex i 5.6 V, cable length 1.8 m, straight, Binder plug	224104	43	0.200
VB-IDMx6x-Base-VM-USB-3.8m-Z1 Connection cable for base loading station IDM*-Z1, connection to VM125-ex-*, interface USB, Ex i 5.6 V, cable length 3.8 m, coiled, Binder plug	224105	43	0.300
Connection Cable Extension			
VB-IDMx6x-EXT-4.5m-Z1 Extension cable for IDMx6x zone 1, cable length 4.5m, coiled	224109	43	0.400
VB-IDMx6x-EXT-6m-Z1 Extension cable for IDMx6x zone 1, cable length: 6 m, straight	224108	43	0.500
Adapter Cable			
VB-IDMx6x-SOCKET-RS232-0.5m Adapter cable for IDMx6x scanner, display xx8 <-> IDMx6x connection cable, open ends to binder coupling for interface RSi-232 (xx8), cable length: 0.5 m straight	254452	43	0.200
Tripod			
IDMx6x-tripod Tripod for IDMx6x, material: ABS (acrylonitrile-butadiene-styrene)	224106	41	-
Deskholder			
IDMx6x-Deskholder Deskholder for IDMx6x, material: ABS (acrylonitrile-butadiene-styrene)	224107	41	0.200
Power supply			
DSP-IDMx6x-DC5V Power supply for non-ex base loading station	224095	41	-
Battery			
IDMx6x-BT-ex-Lion Replacement battery (Li ions) for IDMx6x-BT-ex	224091	41	0.200



- Universally applicable user authentication
- For all HMIs and other applications
- Certified for Zone 1, 2, 21, 22 (version Z1) or zone 2, 22 (version Z2)
- MIFARE CLASSIC, DESFIRE, LEGIC MIM, LEGIC ATC, SONY FELICIA, INSIDE SECURE and many other protocols
- Can be operated worldwide in temperatures ranging from -40 °C to +70 °C
- Installation directly in hazardous area
- As USB, RS-422, ASCII or CRYPT version

WebCode RFIDA



The new UB03 is a universally applicable RFID card reader for hazardous areas, certified for Zone 1, 2, 21, 22 (Z1) or Zone 2, 22 (Z2) acc. to ATEX, IECEx. The reader can be operated as a stand-alone device in hazardous areas or together with a Human-Machine Interface. It works together with all R. STAHL Human-Machine Interfaces (device platforms MANTA, EAGLE, SHARK, RAPTOR).

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	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table

Card reader type						
proximity card reader						
Application range (zones)	Product Type	Technology	Interfaces	Art. No.	PS	Weight kg
1 2 21 22	UB03-Z1-RFID-C05-RS422-PES-01	CRYPT card reader	RS-422	261217	43	1.000
	UB03-Z1-RFID-C05-USB-PES-01	CRYPT card reader	USB	261215	43	1.000
	UB03-Z1-RFID-C06-RS422-PES-01	ASCII card reader	RS-422	261218	43	1.000
	UB03-Z1-RFID-C06-USB-PES-01	ASCII card reader	USB	261216	43	1.000
2 22	UB03-Z2-RFID-C05-RS422-PES-01	CRYPT card reader	RS-422	268649	43	1.000
	UB03-Z2-RFID-C05-USB-PES-01	CRYPT card reader	USB	261219	43	1.000
	UB03-Z2-RFID-C06-RS422-PES-01	ASCII card reader	RS-422	272190	43	1.000
	UB03-Z2-RFID-C06-USB-PES-01	ASCII card reader	USB	261220	43	1.000

Technical Data

Variant	UB03-Z1-RFID	UB03-Z2-RFID
Explosion Protection		
IECEX gas explosion protection	Ex eb q IIC T4 Gb	Ex ec nC IIC T4 Gc
IECEX dust explosion protection	Ex tb IIIC T115 °C Db	Ex tc IIIC T115 °C Dc
ATEX gas explosion protection	⊕ II 2 G Ex eb q IIC T4 Gb	⊕ II 3 G Ex ec nC IIC T4 Gc
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T115 °C Db	⊕ II 3 D Ex tc IIIC T115 °C Dc
Certifications	ATEX, IECEx, EAC	ATEX, IECEx, EAC
Ambient Conditions		
Ambient temperature	-40 ... +70 °C	-40 ... +70 °C
Mechanical Data		
Front plate	Polyester on aluminium	Polyester on aluminium

Technical Data		
Variant	UB03-Z1-RFID	UB03-Z2-RFID
Mechanical Data		
Degree of protection (IP)	IP66	IP66