



Instruction manual Device platform Shark

**ET-xx8
MT-xx8**

**SERIES 400 Panel PC
SERIES 500 Thin Clients
SERIES 600 KVM Systems**

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Table of contents

	Description	Page
	Table of contents	2
1	Intended use	4
2	Marking	4
2.1	Type code	4
2.1.1	Type code definition	5
2.2	Ex marking ATEX / IECEx	6
2.2.1	ET-xx8 HMI SERIES	6
2.2.2	MT-xx8 HMI SERIES	6
2.3	Ex marking TR (EAC)	6
2.3.1	ET-xx8 HMI SERIES	6
2.3.2	MT-xx8 HMI SERIES	6
2.4	Certificates	6
2.5	Notified Body ID number	6
2.6	Temperature range	6
2.7	Type of protection	6
2.8	Warnings	7
2.9	Serial number	7
2.10	Manufacturing date	7
2.11	Manufacturer	7
3	Applied standards	7
4	Electrical parameter	8
4.1	Intrinsically safe interfaces (Ex ia)	8
4.1.1	X30 PB - power button	8
4.1.2	X31 - Fan	8
4.1.3	X32 - Barcode / reader	9
4.1.4	X33 / X34 - USB KB/M	10
4.1.5	X35 - USB	10
4.1.6	X36 / X37 - RF1 / RF2	10
4.2	Bluetooth - B1	10
4.3	Reader interface RFID - RF1, RF2	11
4.4	Inherently safe optical interfaces (Ex op is)	11
4.4.1	X20 / X21 Fibre 1 / Fibre 2 type FX	11
4.4.2	X20 / X21 Fibre 1 / Fibre 2 type SX	11
4.4.3	X20 / X21 Fibre 1 / Fibre 2 type LX	11
4.4.4	X22 Fibre 3 type OSX	11
4.4.5	X22 Fibre 3 type OLX	11
4.5	Non intrinsically safe interfaces (Ex e / Ex nA)	11
4.5.1	X1 - Power	11
4.5.2	X2 / X3 - copper1 / copper2	11
4.5.3	X4 - DC out	12
4.5.4	X5 - CAN	12
4.5.5	X6 - USB	12
4.5.6	X7 - RSxxx	12
4.5.7	X8 - DVI	12

4.5.8	X9 - Audio / Video	12
4.5.9	X10 - SATA	12
5	Instructions for safety	12
5.1	Putting into service	12
5.2	Use	12
5.3	Assembling	12
5.4	Maintenance, overhaul and repair	13
5.5	Installation	13
5.5.1	Details for connection compartments	13
5.5.2	Details for electrical connection of Interfaces X1 ... X9, X31 ... X35	14
5.5.3	Details for electrical connection of Interface X10	14
5.5.4	Earthing	14
5.6	Adjustment	14
6	Training instructions	14
7	Special conditions of use	15
8	Special tools	15
9	Cells and Batteries	15
10	Drawings	15
11	Declaration of EC conformity	16
11.1	ET-xx8	16
11.2	MT-xx8	17
12	Release notes	18

1 Intended use

The HMIs of the xx8 SERIES - device platform Shark - are explosion-proof equipment for installation in hazardous areas. They are designed for operation, visualization and processes control in these areas. Whilst the ET-xx8 devices can be installed in zones 1, 2, 21 and 22 (EPL Gb, Db) according to ATEX directive 94/9/EC, the MT-xx8 devices are suitable for installation in zones 2 and 22 (EPL Gc, Dc).

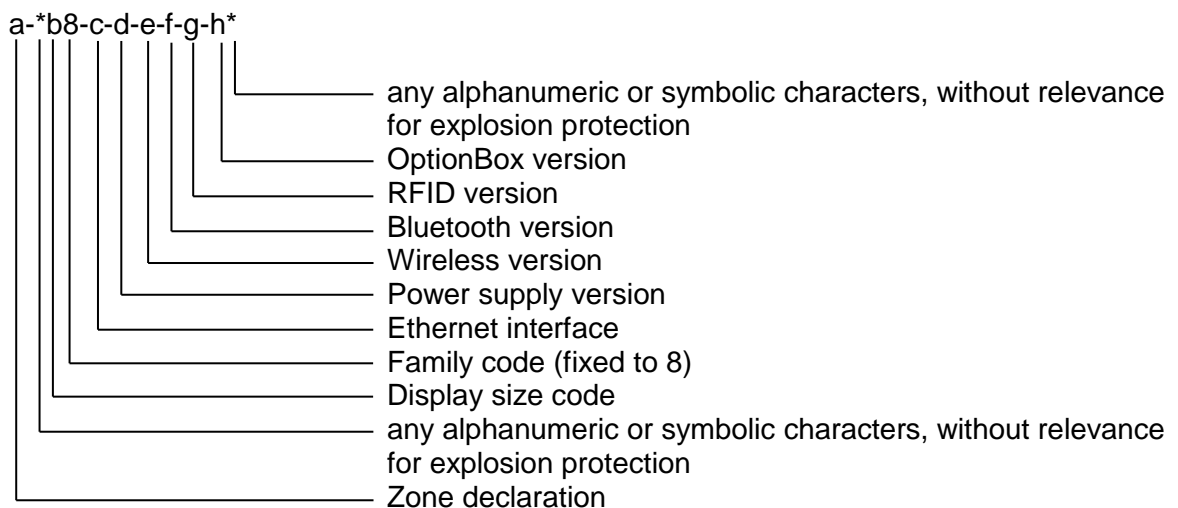
All devices have a modular structure, which makes changes and maintenance easy.

The HMIs of the xx8 SERIES consist of a display and a E-Box module which are mounted together. The display module mostly covers the display (available in different sizes) and the E-Box module mostly covers the electronic.

The connection of external cables is realized via an integrated connection compartments for Ex e / Ex nA and Ex ia circuits.

2 Marking

2.1 Type code



2.1.1 Type code definition

Number from type code	Possible value	Description
a	ET	Devices for zone 1, zone 21, EPL Gb, Db
	MT	Devices for zone 2, zone 22, EPL Gc, Dc
*	4	SERIES 400, Panel PC
	5	SERIES 500, Thin Clients
	6	SERIES 600, KVM Systems
b	3	15" display
	4	(placeholder for further display version)
	5	(placeholder for further display version)
	6	(placeholder for further display version)
	7	(placeholder for further display version)
	8	24"WU display
	9	21,5" display
8	8	Generation 8
c	*TX	* = number of Ethernet interface (1 or 2) Copper Ethernet interface 10/100/1000Base-TX
	*FX	* = number of Ethernet interface (1 or 2) Optical fibre Ethernet interface 100Base-FX, multi-mode
	*SX	* = number of Ethernet interface (1 or 2) Optical fibre Ethernet interface 1000Base-SX, multi-mode
	*LX	* = number of Ethernet interface (1 or 2) Optical fibre Ethernet interface 1000Base-LX, single mode
	00	Other interface
d	AC	AC power supply version
	DC	DC power supply version
e	W00	No wireless RF interface integrated
	W02	Wireless interface RF 2.4 GHz
	W05	Wireless interface RF 5 GHz
	W22	Wireless interface 2x RF 2.4 GHz
	W55	Wireless interface 2x RF 5 GHz
	W25	Wireless interface RF 2.4 GHz and RF 5 GHz
f	B0	No Bluetooth integrated
	B1	Bluetooth integrated
g	RF0	No Reader interface integrated
	RF1	Reader interface 13.56 MHz and RFID integrated
	RF2	Reader interface 2.4 GHz and RFID integrated
h	O00	No OptionBox interface
	OSX	Optical fibre OptionBox interface 1000Base-SX, multi-mode
	OLX	Optical fibre OptionBox interface 1000Base-LX, single mode
*	*	Additional type code definition for device specification (see further documentation)

2.2 Ex marking ATEX / IECEx

ATEX and IECEx marking according to IEC 60079-0 and ATEX directive 94/9/EC.

2.2.1 ET-xx8 HMI SERIES

Version	94/9/EC prefix	Ex marking
Gas	⊕ II 2(1) G	Ex e q [ia op is Ga] IIC T4 Gb
Dust	⊕ II 2(1) D	Ex tb [ia op is Da] IIIC T115°C Db

2.2.2 MT-xx8 HMI SERIES

Version	94/9/EC prefix	Ex marking
Gas	⊕ II 3(1) G	Ex nA nR [ia op is Ga] IIC T4 Gc
Dust	⊕ II 3(1) D	Ex tc [ia op is Da] IIIC T115°C Dc

2.3 Ex marking TR (EAC)

2.3.1 ET-xx8 HMI SERIES

Version	Ex-Kennzeichnung
Gas	1Ex e q [ia op is Ga] IIC T4 Gb X
Dust	Ex tb [ia op is Da] IIIC T115°C Db X

2.3.2 MT-xx8 HMI SERIES

Version	Ex-Kennzeichnung
Gas	2Ex nA nR [ia op is Ga] IIC T4 Gc X
Dust	Ex tb [ia op is Da] IIIC T115°C Dc X

2.4 Certificates

ATEX EC-Type Examination Certification number:	BVS 14 ATEX E 134 X
IECEx Certification number:	BVS 14.0116X
TR (EAC) Certification number:	TC RU C-DE.ME92.B.00717

2.5 Notified Body ID number

Notified Body ID number:	0158
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2.6 Temperature range

Temperature range:	-40 °C ... +70 °C
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2.7 Type of protection

Type of protection:	IP66
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2.8 Warnings

- Do not open ! This container has been permanently sealed and cannot be repaired.
- Isolate supply and all Ex e / Ex nA circuits and wait 5 minutes before opening the connection compartments !

Additional for MT-xx8 HMIs:

- Do not open, maintain or service in an area where an explosive atmosphere may be present.

2.9 Serial number

Serial number is printed on a label.

2.10 Manufacturing date

Manufacturing date is printed on a label.

2.11 Manufacturer

Manufacturers name:

R. STAHL HMI Systems GmbH
Im Gewerbegebiet Pesch 14
50767 Köln

3 Applied standards

Standard	Classification
IEC 60079-0 : 2011	General requirements
IEC 60079-5 : 2015	Protection by powder filling "q"
IEC 60079-7 : 2006	Protection by increased safety "e"
IEC 60079-11 : 2011	Protection by intrinsic safety "i"
IEC 60079-15 : 2010	Protection by type of protection "n"
IEC 60079-26 : 2006	Equipment with EPL "Ga"
IEC 60079-28 : 2006	Optical radiation "op is"
IEC 60079-31 : 2013	Protected by enclosures "t" (dust ignition protection)

4 Electrical parameter

4.1 Intrinsically safe interfaces (Ex ia)

4.1.1 X30 PB - power button

X30: PB, power button (X30-1, X30-2) connected parallel, GND (X30-3, X30-4):

Max. output voltage	U_o	=	5.36	VDC	
Max. output current	I_o	=	46	mA	
Max. output power	P_o	=	0.061	W	
Trapezoidal output characteristics					
Max. external capacitance	C_o	=	65	10	μF
Max. external inductance	L_o	=	1	20	μH

C_o and L_o pairs directly above / underneath each other may be used.

4.1.2 X31 - Fan

X31: Fan power (X31-1), (X31-3) each circuit, GND (X31-2, X31-4):

Max. output voltage	U_o	=	15.75	VDC	
Max. output current	I_o	=	189	mA	
Max. output power	P_o	=	1.092	W	
Trapezoidal output characteristics					
Max. external capacitance	C_o	=	0.290	0.478	μF
Max. external inductance	L_o	=	100	20	μH

C_o and L_o pairs directly above / underneath each other may be used.

4.1.3 X32 - Barcode / reader

Notes:

For installation at X32 must be observed, that the connected device can be supplied either from the 10.4 V (X32-1) or the 5.36V (X32-2) power circuit.
The terminals 1 and 2 shall **NOT** be connected at the same time !

The terminal X32 includes one common terminal (X32-5) for the GND connection of the power and the data interfaces.

When only one common GND wire from the cable of the connected device is used, then the total current must be observed for determination of external inductances !

X32: Barcode / reader 10,4 V power (X32-1), GND (X32-5):

Max. output voltage	U_o	=	10.4	VDC	
Max. output current	I_o	=	391	mA	
Max. output power	P_o	=	2.253	W	
Trapezoidal output characteristics					
Max. external capacitance	C_o	=	2.52	1.2	μF
Max. external inductance	L_o	=	20	100	μH

C_o and L_o pairs directly above / underneath each other may be used.

X32: Barcode / reader 5,36 V power (X32-2), GND (X32-5):

Max. output voltage	U_o	=	5.36	VDC	
Max. output current	I_o	=	420	mA	
Max. output power	P_o	=	1.213	W	
Trapezoidal output characteristics					
Max. external capacitance	C_o	=	65	45	μF
Max. external inductance	L_o	=	1	2	μH

C_o and L_o pairs directly above / underneath each other may be used.

X32: Barcode / reader data TXD (X32-3), RXD (X32-4) each circuit, GND (X32-5):

Max. output voltage	U_o	=			
between RxD and GND, resp. TxD and GND			± 5.35	VDC	
between RxD and TxD			± 10.70	VDC	
Effective internal capacitance	C_i	=	negligible		
Effective internal inductance	L_i	=	negligible		
Max. output current	I_o	=	16	mA	
Max. output power	P_o	=	0.022	W	
Max. input voltage	U_i	=	± 12.5	VDC	
Trapezoidal output characteristics					
Max. external capacitance	C_o	=	2.23	2.23	μF
Max. external inductance	L_o	=	1	20	μH

C_o and L_o pairs directly above / underneath each other may be used.

Note:

The external capacitances and inductances were calculated for the maximum voltage of 10.7 V.

If only one of both signals RXD or TXD is connected, only a reduced voltage of 5.35 V has to be considered. Therewith, the following values are permissible:

Max. external capacitance	C_o	=	65	45	μF
Max. external inductance	L_o	=	1	2	μH

4.1.4 X33 / X34 - USB KB/M

X33 / X34: USB KB/M terminals + (X33/34-1), D- (X33/34-2), D+ (X33/34-3), GND (X33/34-4):

Max. output voltage	U_o	=	5.36	VDC				
Max. output current	I_o	=	249,85	mA				
Max. output power	P_o	=	0,518	W				
Trapezoidal output characteristics								
Max. external capacitance	C_o	=	65	46	32	25	21	μF
Max. external inductance	L_o	=	0,68	1,68	2,68	3,68	4,68	μH

C_o and L_o pairs directly above / underneath each other may be used.

4.1.5 X35 - USB

X35: USB terminals + (X35-1), D- (X35-2), D+ (X35-3), GND (X35-4):

Max. output voltage	U_o	=	5.36	VDC				
Max. output current	I_o	=	1,264	A				
Max. output power	P_o	=	2,949	W				
Trapezoidal output characteristics								
Max. external capacitance	C_o	=	65	44	30	23	19	μF
Max. external inductance	L_o	=	0,68	1,68	2,68	3,68	4,68	μH

C_o and L_o pairs directly above / underneath each other may be used.

4.1.6 X36 / X37 - RF1 / RF2

X36 / X37: RF1 / RF2, type W02, W05, W22, W55, W25 each circuit:

Radio frequency $f_o = 2.4 \text{ GHz} \dots 5 \text{ GHz}$
 Max. RF threshold power $P_o = 17 \text{ dBm (50 mW)}$

It is responsible of the installer to ensure that the RF threshold power radiated from the antenna must be limited to max. 33 dBm (2 W) for Gas Group IIC.
 The calculation of this should take into account of output power of the interface and the gain of the antenna. It is permissible to consider losses in the cable in this calculation.

Example of RF threshold power calculation:

Output power of the interface X36 / X37 = 17 dBm (50 mW)
 Coaxial cable loss = 2 dB
 Gain of the antenna = 5 dBi

RF threshold power radiated from the antenna = 17 dBm – 2 dB + 5 dBi = 20 dBm (100 mW)

20 dBm (100 mW) < 33 dBm (2 W) so that the operation of this coaxial cable and antenna combination used in this example pass the requirements for use in Gas Group IIC.

The antennas connected to the interface X36 / X37 must be installed in accordance with earthing requirements of IEC60079-14:2007 clause 12.2.4.

4.2 Bluetooth - B1

Radio frequency $f_o = 2.4 \text{ GHz}$
 Max. RF threshold power $P_o = 33 \text{ dBm / 2 W}$

4.3 Reader interface RFID - RF1, RF2

Radio frequency for type RF1	f_o =	13.56 MHz
Radio frequency for type RF2	f_o =	2.4 GHz
Max. RF threshold power	P_o =	33 dBm / 2 W

4.4 Inherently safe optical interfaces (Ex op is)

4.4.1 X20 / X21 Fibre 1 / Fibre 2 type FX

Wavelength	=	1310 nm
Nominal optical radiated power	=	0.344 mW
Max. optical radiated power under fault conditions	=	35 mW

4.4.2 X20 / X21 Fibre 1 / Fibre 2 type SX

Wavelength	=	850 nm
Nominal optical radiated power	=	0.22 mW
Max. optical radiated power under fault conditions	=	35 mW

4.4.3 X20 / X21 Fibre 1 / Fibre 2 type LX

Wavelength	=	1310 nm
Nominal optical radiated power	=	0.22 mW
Max. optical radiated power under fault conditions	=	35 mW

4.4.4 X22 Fibre 3 type OSX

Wavelength	=	850 nm
Nominal optical radiated power	=	0.22 mW
Max. optical radiated power under fault conditions	=	35 mW

4.4.5 X22 Fibre 3 type OLX

Wavelength	=	1310 nm
Nominal optical radiated power	=	0.22 mW
Max. optical radiated power under fault conditions	=	35 mW

4.5 Non intrinsically safe interfaces (Ex e / Ex nA)

4.5.1 X1 - Power

Nominal voltage		=		
for device variant AC		=	100 ... 240	VAC
for device variant DC		=	20 ... 30	VDC
Nominal current		=		
for device variant AC		=	5	A
for device variant DC		=	8	A
Nominal power		=	150	W
Max. input voltage	U_m	=	250	VAC

4.5.2 X2 / X3 - copper1 / copper2

Nominal voltage	=	5 VAC / VDC
Max. input voltage U_m	=	250 VAC

4.5.3 X4 - DC out

Nominal voltage terminal 1	=	12 VDC
Nominal voltage terminal 4	=	24 VDC
Max. input voltage U_m	=	250 VAC

4.5.4 X5 - CAN

Nominal voltage	=	5 VAC / VDC
Max. input voltage U_m	=	250 VAC

4.5.5 X6 - USB

Nominal voltage	=	5 VAC / VDC
Max. input voltage U_m	=	250 VAC

4.5.6 X7 - RSxxx

Nominal voltage	=	12 VAC / VDC
Max. input voltage U_m	=	250 VAC

4.5.7 X8 - DVI

Nominal voltage	=	5 VAC / VDC
Max. input voltage U_m	=	250 VAC

4.5.8 X9 - Audio / Video

Nominal voltage	=	5 VAC / VDC
Max. input voltage U_m	=	250 VAC

4.5.9 X10 - SATA

Nominal voltage	=	5 VAC / VDC
Max. input voltage U_m	=	250 VAC

5 Instructions for safety

5.1 Putting into service

No special conditions.

5.2 Use

See "intended use".

5.3 Assembling

- The device may be installed and operated in any position.
- The device must be mounted securely, using the threads or holes integrated into the enclosure or at the outer cooling fins of the display module.

5.4 Maintenance, overhaul and repair

The devices are maintenance-free across their entire lifespan. System maintenance should focus on the following:

- a. Seal wear
- b. Display damage
- c. All screws are tightened fast
- d. All cables and lines are properly connected and undamaged

The HMIs of the xx8 SERIES consist of a display module and an E-Box module which are mounted together. For service proposals these modules are interchangeable. All circuits must be de-energised for interchanging. The mounting torque of the screws for mounting the display and E-Box module together is 4...5 N. These screws are located under the covers of the connection compartments.

5.5 Installation

5.5.1 Details for connection compartments

The cover of the connection compartments (Ex i / Ex e / Ex nA) includes mounting options for associated equipment (e.g. cable glands, cable connectors, buttons).

The associated equipment to be mounted in the cover of the connection compartments must pass IP66 rating and adhere to the relevant IEC requirements.

- for Ex e connection compartments the IEC 60079-7
 - for Ex i connection compartments the IEC 60079-11
 - for Ex nA connection compartments the IEC 60079-15
-
- The details of used associated equipment must be observed (for example permitted cable diameter for used cable glands, tighten rules, cable clamping).
 - Country-specific regulations must be observed, in particular any possible changes in ambient parameters (e.g. ambient temperature range).
 - Unused openings must be closed by a suitable blind plug.
 - Threaded entries with tapered threads must be used with not less than 3 threads. Parallel threads must be used with a tolerance class of 6H or better and an additional seal or gasket.
 - The mounting torque of the connection compartment cover screws is 1 ... 1.5 N.

5.5.2 Details for electrical connection of Interfaces X1 ... X9, X31 ... X35

Stripping length: 7 mm
Mounting torque: 0.5 ... 0.6 N

Connectable conductor cross section:

- rigid [mm²] or (AWG): 0.2 ... 2.5 or (24 ... 12)
- flexible [mm²] or (AWG): 0.2 ... 2.5 or (24 ... 12)

Multi-conductor connection (two conductor with the same cross section and conductor type):

- rigid [mm²] or (AWG): 0.2...1.5 or (24...16)
- flexible [mm²] or (AWG): 0.2...1.0 or (24...*1)

* Note: No direct equivalent AWG size listed in IEC 60079-7.

Multi-conductor connection for X1 as screw terminal (two conductor with the same cross section and conductor type):

- rigid [mm²] or (AWG): 0.2...1.5 or (24...16)
- flexible [mm²] or (AWG): 0.2...0.75 or (24...18)

- The connectors are designed to be readily connected or disconnected without load.
- The device must be disconnected from the mains before assembly, maintenance, or repair.
- The connector fixing screws must be fitted.
- It is the responsibility of the installer to ensure the maximum rated current of 12 A for each contact of connector terminal X1.
- In case of screw terminals for X1 the maximum rated current of 16 A for each contact of X1 must be guaranteed.
- The maximum voltage of 250 V and a short current of 1500 A must not be exceeded at the place of installation.

5.5.3 Details for electrical connection of Interface X10

- The connector X10 is usable with manufacturers approved connectors / devices only.

5.5.4 Earthing

The devices must be earthed with a core cross section of at least 4 mm² or in line with applicable standards. An external earth connection facility is provided.

5.6 Adjustment

n. A.

6 Training instructions

n. A.

7 Special conditions of use

The intrinsically safe circuits are connected to earth. Along the intrinsically safe circuits, potential equalization must exist.

For devices with wireless interface (characters W02, W05, W22, W55 or W25 in the type code):
The maximum radio frequency power threshold at the antennas connected to the interfaces X36 and X37 shall not exceed the admissible value of 2 W for group IIC.

The calculation of this should be taken into account the output power of the transmitter (X36 / X37), the gain of the antenna and the losses in the cable.

The intrinsic safe circuits at X36 und X37 are connected to earth. The antennas connected to the interface must be installed in accordance with earthing requirements of EN 60079-14.

The covers of the connection compartments are equipped with cable glands and blind plugs. Optionally they can be equipped with plugs and sockets and switches.

This equipment has to fulfill IP66 and be separately certified for the respective type of protection.

8 Special tools

n. A.

9 Cells and Batteries

The internal battery is interchangeable by manufacturer only.

10 Drawings

For drawings see additional documents.

11 Declaration of EC conformity

11.1 ET-xx8

EG/EU-Konformitätserklärung
EC/EU Declaration of Conformity
Déclaration de Conformité CE/UE

R. STAHL HMI Systems GmbH • Im Gewerbegebiet Pesch 14 • 50767 Köln, Germany
erklärt in alleiniger Verantwortung, declares in its sole responsibility, déclare sous sa seule responsabilité,

dass das Produkt: Bedien- und Beobachtungsgeräte
that the product: *Operating and Monitoring Devices*
que le produit: *Consoles de commande et de visualisation*

Typ(en), type(s), type(s): ET-438-..., ET-538-..., ET-638-..., ET-738-...
ET-498-..., ET-598-..., ET-698-..., ET-798-...

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / Directive(s) / Directive(s)			Norm(en) / Standard(s) / Norme(s)	
Bis/Until/Jusque'au 2016-04-19:		Ab/From/De 2016-04-20:	EN 60079-0: 2012 EN 60079-5: 2007 EN 60079-7: 2007	EN 60079-11: 2012 EN 60079-28: 2007 EN 60079-31: 2014
94/9/EG	ATEX-Richtlinie	2014/34/EU		
94/9/EC	ATEX Directive	2014/34/EU		
94/9/CE	Directive ATEX	2014/34/UE		

Kennzeichnung, marking, marquage:
 II 2(1) G Ex e q [ia op is Ga] IIC T4 Gb CE158
II 2(1) D Ex tb [ia op is Da] IIC T115°C Db

EG/EU-Baumusterprüfbescheinigung: **BVS 14 ATEX E 134 X**
(DEKRA EXAM GmbH
Dinnendahlstraße 9, 44809 Bochum, Germany, NB0158)

Bis/Until/Jusque'au 2016-04-19:		Ab/From/De 2016-04-20:	EN 61000-6-2:2005 + AC:2005 EN 61000-6-4:2007 + A1:2011
2004/108/EG	EMV-Richtlinie	2014/30/EU	
2004/108/EC	EMC Directive	2014/30/EU	
2004/108/CE	Directive CEM	2014/30/UE	

Bis/Until/Jusque'au 2016-06-12:			EN 300 328 V1.8.1:2012-06
1999/5/EG	R&TTE-Richtlinie		
1999/5/EC	R&TTE Directive		
1999/5/CE	Directive R&TTE		

Ab/From/De 2016-06-13:			
2014/53/EU	Funkanlagen-Richtlinie		
2014/53/EU	Radio Equipment Directive		
2014/53/UE	Directive Équipement Radioélectrique		

Produktnormen nach Niederspannungsrichtlinie: <i>Product standards according to Low Voltage Directive:</i> <i>Normes des produit pour la Directive Basse Tension:</i>	EN 60950-1:2006 + A11:2009 + A12:2011 + A1:2010
Produktnormen nach RoHS-Richtlinie (2011/65/EU): <i>Product standards according to RoHS Directive:</i> <i>Normes des produit pour la Directive RoHS:</i>	EN 50581:2012

Köln, 2015-03-30

Ort und Datum
Place and date
Lieu et date

LV.

J. Düren
Technical Director

LV.

W. Bertges
Quality Manager

20152970000 Konformitätserklärung ET-xx8.docx

Template_EGEU_KonfL_20150720.docx, Page 1 / 1

11.2 MT-xx8

EG/EU-Konformitätserklärung
EC/EU Declaration of Conformity
Déclaration de Conformité CE/UE



R. STAHL HMI Systems GmbH • Im Gewerbegebiet Pesch 14 • 50767 Köln, Germany
 erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: *that the product:* *que le produit:* Bedien- und Beobachtungsgeräte
 Operating and Monitoring Devices
 Consoles de commande et de visualisation

Typ(en), type(s), type(s): MT-438-..., MT-538-..., MT-638-..., MT-738-...
 MT-498-..., MT-598-..., MT-698-..., MT-738-...

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / Directive(s) / Directive(s)			Norm(en) / Standard(s) / Norme(s)
Bis/Until/Jusque'au 2016-04-19:		Ab/From/De 2016-04-20:	EN 60079-0: 2012 EN 60079-11: 2012 EN 60079-15: 2011 EN 60079-28: 2007 EN 60079-31: 2014
94/9/EG	ATEX-Richtlinie	2014/34/EU	
94/9/EC	ATEX Directive	2014/34/EU	
94/9/CE	Directive ATEX	2014/34/UE	

Kennzeichnung, marking, marquage: II 3(1) G Ex nA nR [ia op is Ga] IIC T4 Gc **CE** 0158
 II 3(1) D Ex tc [ia op is Da] IIC T115°C Dc

EG/EU-Baumusterprüfbescheinigung: **BVS 14 ATEX E 134 X**
EC/EU Type Examination Certificate: (DEKRA EXAM GmbH
Attestation d'examen CE/UE de type: Dinnendahlstraße 9, 44809 Bochum, Germany, NB0158)

Bis/Until/Jusque'au 2016-04-19:		Ab/From/De 2016-04-20:	EN 61000-6-2:2005 + AC:2005 EN 61000-6-4:2007 + A1:2011
2004/108/EG	EMV-Richtlinie	2014/30/EU	
2004/108/EC	EMC Directive	2014/30/EU	
2004/108/CE	Directive CEM	2014/30/UE	
Bis/Until/Jusque'au 2016-06-12:			EN 300 328 V1.8.1:2012-06
1999/5/EG	R&TTE-Richtlinie		
1999/5/EC	R&TTE Directive		
1999/5/CE	Directive R&TTE		
Ab/From/De 2016-06-13:			
2014/53/EU	Funkanlagen-Richtlinie		
2014/53/EC	Radio Equipment Directive		
2014/53/UE	Directive Équipement Radioélectrique		
Produktnormen nach Niederspannungsrichtlinie: <i>Product standards according to Low Voltage Directive:</i> <i>Normes des produit pour la Directive Basse Tension:</i>			EN 60950-1:2006 + A11:2009 + A12:2011 + A1:2010
Produktnormen nach RoHS-Richtlinie (2011/65/EU): <i>Product standards according to RoHS Directive:</i> <i>Normes des produit pour la Directive RoHS:</i>			EN 50581:2012

Köln, 2015-03-30

i.V.

i.V.

Ort und Datum
Place and date
Lieu et date

J. Düren
 Technical Director

W. Bertges
 Quality Manager

12 Release notes

The chapter entitled "Release Notes" contains all the changes made in every version of the Operating Instructions.

Version 01.00.00

- Initial manual issue, file name "20141870000 Instruction manual xx8 01.docx"

Version 01.00.01

- Formal and layout changes for print version
- Changes according to the requirements of the certification body

Version 01.00.02

- Addition of IECEx certification number

Version 01.00.03

- Formal changes
- Naming SERIES 600 KVM Systems
- Changing year at IEC 60079-5 into 2015, according to IECEx BVS 14.0116X, Issue No. 1

Version 01.00.04

- Declaration of EC conformity added.

Version 01.00.05

- Declaration of EC conformity actualized.

Version 01.00.06

- Addition "device platform Shark"
- Formal corrections

Version 01.00.07

- Changing address
- Addition of TR (EAC) certification (number and marking)
- Formal corrections

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