

AMS Asset Monitor

Online Prediction, Protection, and Process Monitor



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Patents

The product(s) described in this manual are covered under existing and pending patents.

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Vermerk zur Installation der Messketten in explosionsgefährdeter Umgebung.

Soll die Messkette in explosionsgefährdeter Umgebung installiert werden, so ist auf die Einhaltung der in der Gebrauchsanweisung enthaltenen Installationshinweise zu achten. Sollten dabei sprachliche Schwierigkeiten auftreten, wenden Sie sich bitte an die Herstellerfirma, sie wird Ihnen eine Übersetzung der relevanten Artikel in der Landessprache des Verwendungslandes zukommen lassen.



Nota fuq l-installazzjoni tal-ktajjen tal-kejl f'ambjent esploziv

Jekk il-ktajna tal-kejl support li tigi installata f'ambjent esploziv, hu importanti li ssewji l-istruzzjonijiet pertinenti tal-manwal. Jekk issib xi diffikultà bil-lingwa, jekk joghgbok ikkuntatja lill-manifattur biex tikseb traduzzjoni tal-paragrafi rilevanti fil-lingwa mehtiega.



Anmärkning beträffande installation av mätkedjorna i explosionsfarlig miljö.

Ska mätkedjan installeras i explosionsfarlig miljö, måste de anvisningar följas som ges i instruktionsboken beträffande installationen. Skulle därvid språkproblem uppstå, ber vi dig kontakta det tillverkande företaget som då kommer att sända dig en översättning av de relevanta artiklarna på användningslandets språk.



Opomba za namestitve merilne verige v eksplozivno ogroženem okolju

Če se merilna veriga namešča v eksplozivno ogroženem okolju, je potrebno upoštevati namestitvena opozorila, ki so v Navodilih za uporabo. Če se pri tem pojavijo jezikovne težave, se posvetujte z izdelovalcem; poslali vam bodo prevod ustreznih člankov v jeziku države, kjer se naprava uporablja.



Záznam k inštalácii meracích reťazcov vo výbušnom prostredí

Ak má byť merací reťazec inštalovaný vo výbušnom prostredí, treba dbať na dodržiavanie pokynov k inštalácii, uvedených v návode na použitie. V prípade, že by sa pritom vyskytli jazykové problémy, obráťte sa prosím na výrobcu, ktorý Vám zašle preklad relevantných článkov v jazyku Vašej krajiny.



Nota referente à instalação de cadeias de agrimensor em ambientes potencialmente explosivos

Caso a cadeia de agrimensor deva ser instalada em um ambiente potencialmente explosivo, é imprescindível observar e cumprir as indicações de instalação das instruções de serviço. Caso tenha dificuldades idiomáticas, queira entrar em contato com a firma produtora, esta poderá enviar-lhe uma tradução dos capítulos mais importantes no idioma do país onde o produto deverá ser empregado.



Wskazówka dotycząca instalacji łańcuchów mierniczych w otoczeniach zagrożonych eksplozją

Jeżeli łańcuch mierniczy ma być zainstalowany w otoczeniu zagrożonym eksplozją, należy uwzględnić wskazówki dotyczące instalacji zawarte w instrukcji obsługi. Jeżeli w trakcie lektury wstąpią jakiegokolwiek problemy związane ze zrozumieniem tekstu, prosimy zwrócić się do producenta, który chętnie prześle tłumaczenie konkretnego artykułu w języku danego kraju.



Opmerking m.b.t. installatie van elektrische meet circuits in explosiegevaarlijke omgeving

Dient de installatie van elektrische meet circuits in een explosiegevaarlijke omgeving te geschieden, moet men toezien dat de in de gebruikshandleiding opgenomen installatieinstructies worden nageleefd. Bij taalkundige problemen gelieve contact op te nemen met de fabrikant, deze zal u vervolgens een vertaling in de taal van het gebruiksland doen toekomen.



Pastaba dėl matavimo grandinės įrengimo sprogimo atžvilgiu pavojingoje aplinkoje

Jei matavimo grandinė turi būti įrengta sprogimo atžvilgiu pavojingoje aplinkoje, privaloma laikytis vartotojo instrukcijose pateiktų įrengimo nurodymų. Jei kiltų sunkumų dėl kalbos, prašome kreiptis į gamintojo įmonę, kuri pateiks jums reikiama skyriaus vertimą į vartotojo valstybės kalbą.



Nota sull'installazione delle catene per misurazione in ambienti a rischio di esplosioni

Nel caso in cui si debbano installare le catene per misurazione in ambienti a rischio di esplosioni, è necessario attenersi alle avvertenze per l'installazione contenute nelle istruzioni d'uso. Per difficoltà di carattere linguistico, rivolgetevi alla ditta produttrice. Quest'ultima Vi farà pervenire una traduzione degli articoli rilevanti nella lingua del paese d'impiego.



Megjegyzés a mérőláncok robbanásveszélyes környezetben történő szereléséhez.

Ha a mérőláncot robbanásveszélyes környezetben kell felszerelni, akkor ügyeljen a Használati útmutatóban közölt szerelési utasítások betartására. Amennyiben nyelvi nehézségek merülnek fel, szíveskedjen a gyártó céghez fordulni, amely elküldi Önnek a felhasználó ország nyelvére lefordított, erre vonatkozó cikket.



Remarque concernant l'installation des chaînes de mesure dans un environnement présentant un risque d'explosion

Si la chaîne de mesure doit être installée dans un environnement présentant un risque d'explosion, il est impératif de veiller à respecter les consignes d'installation contenues dans les instructions de service. S'il devait ce faisant surgir des problèmes linguistiques, veuillez vous adresser à la société fabricante: elle vous fera parvenir une traduction des articles significatifs dans la langue du pays de mise en oeuvre.



Huomautus mittausketjun asentamisesta räjähdysalttiissa ympäristössä

Jos mittausketju tulee asentaa räjähdysalttiissa ympäristössä, on käyttöohjeessa annettuja asennusohjeita noudatettava. Jos käyttöohjeessa käytetty kieli aiheuttaa ongelmia, kääntykää valmistajayrityksen puoleen. Se toimittaa käyttöönnne tarvittavat artikkelit käyttömaan viralliselle kielelle käännettynä.



Juhend mõõdukettide ülespanemiseks plahvatusohtlikus piirkonnas.

Kui panna üles mõõdukettid plahvatusohtlikkus piirkonnas, nii tuleb jälgida kasutusjuhendis sisaldatud instalationimärkmeid. Juhul kui tekkivad raskused keelega, siis pöörduge palun tootja poole. Tootja saadab emakeelse tõlge vastavalt artiklile ning maale.



Notas sobre la instalación de cadenas de medición en un entorno potencialmente explosivo.

Si ha de instalar la cadena de medición en un entorno potencialmente explosivo, deberá respetar las indicaciones sobre la instalación, contenidas en el manual de uso. Si surgieran dificultades lingüísticas, póngase en contacto con la empresa fabricante, que le facilitará una traducción del artículo en la lengua del país donde se emplee.



Note on the installation of the measuring chains in an explosive environment

If the measuring chain is supposed to be installed in an explosive environment, it is important to follow the pertinent installation instructions in the manual. Should you encounter difficulties with the language, please contact the manufacturer to obtain a translation of the relevant paragraphs into the language required.



Σημείωση για την εγκατάσταση αλυσίδων μέτρησης σε περιβάλλον, στο οποίο υπάρχει κίνδυνος έκρηξης

Εάν η αλυσίδα μέτρησης πρόκειται να εγκατασταθεί σε περιβάλλον, στο οποίο υπάρχει κίνδυνος έκρηξης, πρέπει να τηρηθούν οπωσδήποτε οι οδηγίες εγκατάστασης που περιλαμβάνονται στις οδηγίες Χρήσης. Εάν υπάρξουν γλωσσικές δυσκολίες κατανόησης, παρακαλούμε να απευθυνθείτε στην κατασκευαστρια εταιρεία, η οποία θα φροντίσει για την αποστολή μιας μετάφρασης του σχετικού άρθρου στη γλώσσα της Χώρας Χρήσης.



Info vedrørende installation af målekæderne i eksplosionstruede omgivelser

Hvis målekæden skal installeres i eksplosionstruede omgivelser, skal installationsanvisningerne i brugsanvisningen følges. Hvis der i denne forbindelse opstår sproglige problemer, bedes De henvende Dem til produktionsfirmaet, som så vil sørge for, at De modtager en oversættelse af den relevante artikel på Deres sprog.



Poznámka k instalaci měřicích řetězců v prostředí s nebezpečím výbuchu.

Když má být měřicí řetězec (sestávající z čidla a konvertoru) instalován v prostředí s nebezpečím výbuchu, tak je třeba respektovat instalační pokyny, které jsou součástí návodu k upotřebení. Kdyby při tom došlo k jazykovým potížím, tak prosíme kontaktujte výrobní firmu, která Vám relevantní článek zašle v jazyku krajiny použití.



Piezīme par mērīšanas ķēžu instalēšanu sprādziena bīstamās zonās.

Ja mērīšanas ķēde jāuzstāda sprādzienbīstamā zonā, ir jāievēro lietošanas instrukcijā dotie instalēšanas norādījumi. Ja rodas kādas valodas grūtības, lūdzu griezties pie izgatavotāja firmas, kas Jums nosūtīs nozīmīgāko nodaļu tulkojumus lietotāja valsts valodā.

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1 General

This quick start guide contains first steps in using the AMS Asset Monitor, information about the hazardous location installation, and certificates. For the complete installation guide and other technical documentation, go to <https://emerson.com/AMSAssetMonitor> and select **View Product**. For a current firmware file go to <https://guardian.emerson.com>.

Table 1-1: Related documents

MHM-97925-PBF	Installation Guide VI Piezo CHARM
MHM-97923-PBF	Installation Guide AMS Asset Monitor
MHM-97924-PBF	Operating Manual AMS Asset Monitor

Table 1-2: Product type and ordering numbers of AMS Asset Monitor, compatible DeltaV hardware, and accessories

Hardware	Product type number	Ordering number
AMS Asset Monitor	AM 5820-IM	SE8701T01-IM
+24 V DC Power Module	AM 5730	SE8701T02-IP
Address Terminal Screw Block	KL4502X1-DA1	KL4502X1-DA1-RS
Address Terminal Plug #1	KL4501X1-BA1	KL4501X1-BA1-RS
VI Piezo CHARM	AM 5125	SE8701V01-PZ
RTD CHARM	KL3031X1-BA1	SE4303T03-RS
Thermocouple/mV input CHARM	KL3032X1-BA1	SE4303T02-RS
AI 4 to 20 mA CHARM	KL3021X1-BA1	SE4303T01-RS
DI 24 V DC Low-Side Sens (dry contact) CHARM	KL3003X1-BA1	SE4301T02-RS
DO 24 V DC High-Side CHAR	KL3002X1-BA1	SE4302T01-RS
Standard Terminal Block	KL4502X1-BA1	SE4501-RS
Thermocouple/mV Terminal Block	KL4502X1-NA1	SE4504-RS
Relay Output Terminal Block	KL4502X1-MA1	SE4503-RS
CHARM labeling component	KL4502X1-VA1	KL4502X1-VA1-RS

Table 1-2: Product type and ordering numbers of AMS Asset Monitor, compatible DeltaV hardware, and accessories *(continued)*

Hardware	Product type number	Ordering number
Replacement label for labeling component	---	SE4606T02-RS
Universal mounting bracket	---	SE8701UMB

⚠ DANGER

Because the device is electrical equipment, commissioning and service must be performed only by trained and authorized personnel. Maintenance must be carried out only by trained, specialized, and experienced personnel.

⚠ DANGER

The KL4502X1-MA1 CHARM Relay Output Terminal Block may have hazardous live voltages on its output terminals. This terminal block is capable to switch field power of 250 V AC. Ensure that proper safety precautions, such as de-energizing field power, are observed during installation, maintenance, or any time wiring changes are made to the CHARM Relay Output Terminal Block.

1.1 Symbols

Note

This symbol marks passages that contain important information.

⚠ CAUTION

This symbol marks operations that can lead to malfunctions or faulty measurements, but will not damage the device.

⚠ DANGER

A danger indicates actions that can lead to property damage or personal injury.

	According to IEC 61010, this symbol means that the documentation of the device must completely be read and understood before installing and commissioning of
---	--

	the device. Observe all safety related instructions in this document.
	Warning, electric shock hazard.
	According to IEC 61010, this symbol means that this device must be operated with DC voltage.

1.2 Technical support

You may need to ship this product for return, replacement, or repair to an Emerson Product Service Center. Before shipping this product, contact Emerson Product Support to obtain a Return Materials Authorization (RMA) number and receive additional instructions.

Product Support

Emerson provides a variety of ways to reach your Product Support team to get the answers you need when you need them:

Phone Toll free 800.833.8314 (U.S. and Canada)
+1.512.832.3774 (Latin America)
+63.2702.1111 (Asia Pacific, Europe, and Middle East)

Email ap-sms@emerson.com

Web <http://www.emerson.com/en-us/contact-us>

To search for documentation, visit <http://www.emerson.com>.

To view toll free numbers for specific countries, visit <http://www.emersonprocess.com/technicalsupport>.

Note

If the equipment has been exposed to a hazardous substance, a Material Safety Data Sheet (MSDS) must be included with the returned materials. An MSDS is required by law to be available to people exposed to specific hazardous substances.

2 Minimum hardware requirements

The AMS Asset Monitor BASE hardware consists of a rugged enclosure with internal electronics designed to support up to 12 CHARMs, an address module, and a +24 V DC Power Module. The BASE unit provides the infrastructure that connects the CHARMs and their field signal to the integrated analytics. For communication and configuration, the AMS Asset Monitor is equipped with three Ethernet interfaces.

The following parts are required to connect to the AMS Asset Monitor BASE and to the system:

- +24 V DC / 4 A external power supply
- PC with one free Ethernet port for a direct one-to-one connection to the AMS Asset Monitor.
- The PC must have a compatible web browser installed.

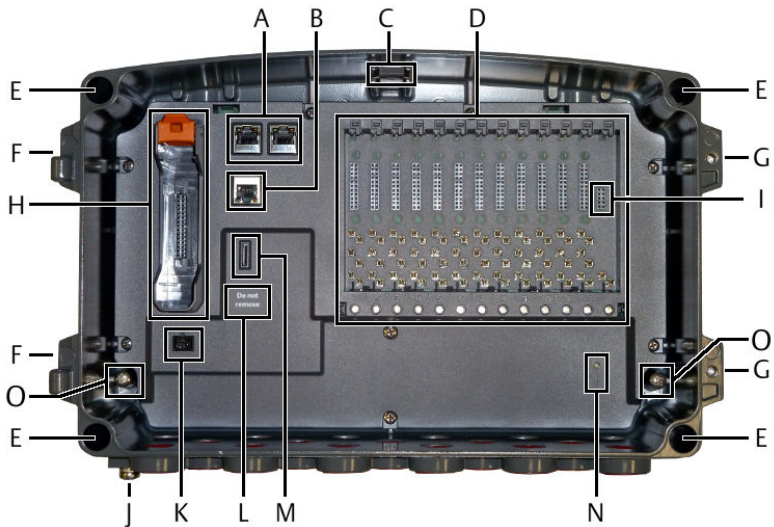
Web browser	Version
Google Chrome	78.0 or later
Mozilla Firefox	70 or later
Apple Safari	12.1 or later

- Ethernet cable (CAT 5 or better)

2.1 Hardware overview and preparation

For the first commissioning, the AMS Asset Monitor must have installed at least the +24 V DC Power Module and an address plug.

[Figure 2-1](#) provides an overview of the AMS Asset Monitor hardware.

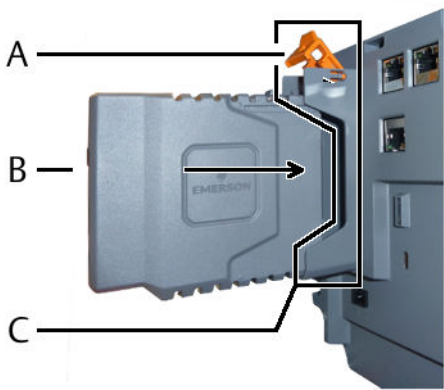
Figure 2-1: Overview AMS Asset Monitor

- A. Ethernet switch with two RJ-45 connectors to daisy chain up to eight AMS Asset Monitors and to connect to an Area Controlled Network (ACN). Speed 100 Mbit
- B. RJ-45 Ethernet connector for configuration and connection to subsequent systems. Speed 1 Gbit
- C. Status light
- D. CHARM baseplate with 12 slots for up to 12 CHARM terminal blocks, 12 CHARMS, and a CHARM labeling component
- E. Mounting holes
- F. Door hinge
- G. Screws holes for securing the door
- H. Power module slot
- I. Address plug slot
- J. External grounding terminal
- K. Power supply terminals
- L. Covered. Non-functional. For internal use only.
- M. microSD Card slot (for future use)
- N. Reset button with status LED
- O. Internal grounding terminals

+24 V DC Power Module installation and connection

1. Install the +24 V DC Power Module as shown in [Figure 2-2](#).

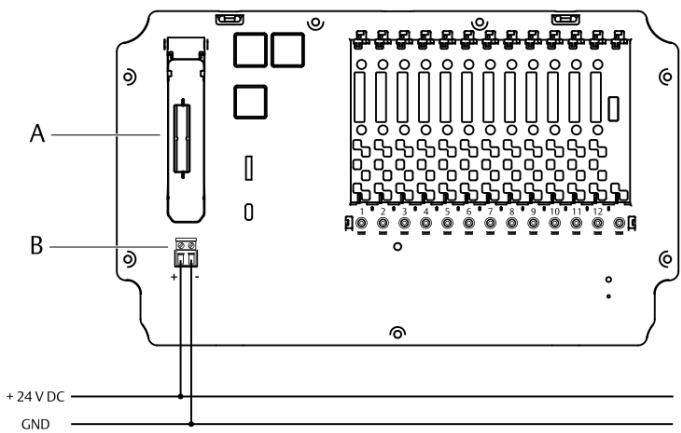
Figure 2-2: +24 V DC Power Module



- A. Latch in open position
- B. +24 V DC Power Module
- C. +24 V DC Power Module slot

2. Connect a +24 V DC power supply.

Figure 2-3: Power supply connection

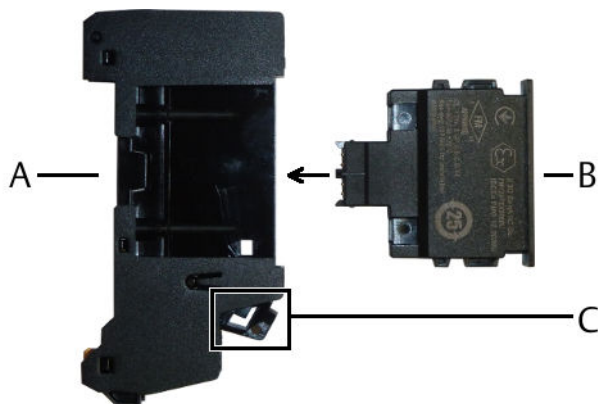


- A. +24 V DC Power Module slot
- B. Power supply terminal plug

Address plug installation

Install the CHARM Address Terminal Block and the Address Plug. See [Figure 2-1](#) for the location of the required slot.

Figure 2-4: Address Plug



- A. CHARM Address Terminal Block
- B. Address Plug
- C. Latch in open position

CHARM installation

1. Select the slot where the CHARM must be installed. CHARMs can be installed in slots 1 to 12.
2. Hook the CHARM Terminal Block into the lower part of the needed slot and push it in.

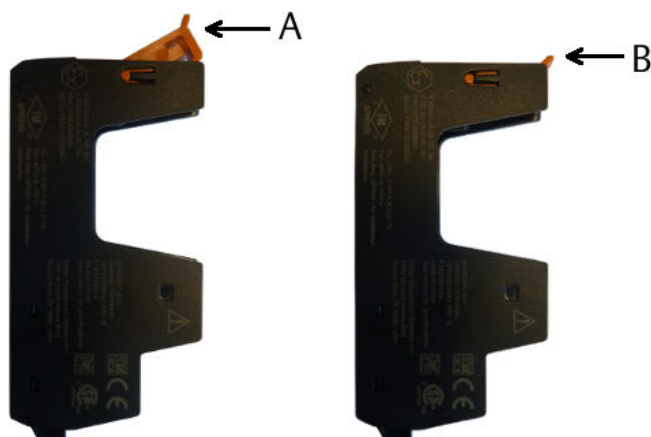
Figure 2-5: CHARM Terminal Block installation



The CHARM Terminal Block locks with an audible click.

3. Ensure that the latch of the CHARM Terminal Block is in the open position. If the latch is in the closed position, move it outwards to open it.

Figure 2-6: Latch positions



A. Latch open

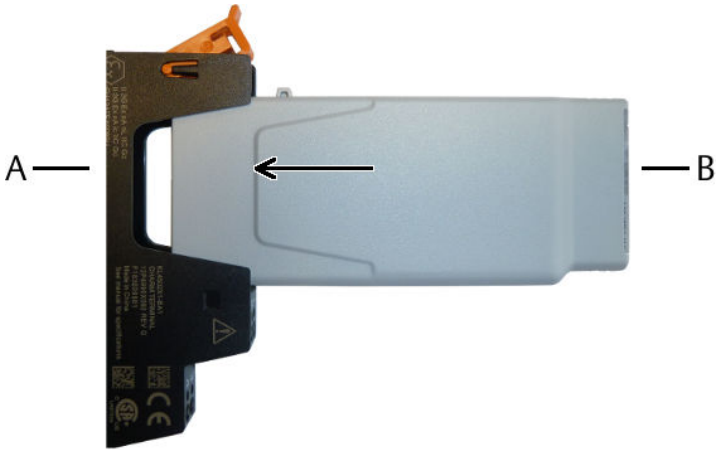
B. Latch close

-
4. Gently push the CHARM straight into the CHARM Terminal Block installed before. The CHARM latch locks with an audible click in the closed position.

⚠ DANGER

Do not try to install a CHARM into a CHARM Terminal Block with keying posts set for another CHARM type. This might damage the terminal block and CHARM. Always reset the keying post settings before installing another CHARM.

Figure 2-7: CHARM Installation



- A. CHARM Terminal Block
- B. CHARM

-
5. Wire the CHARM Terminal Block according to the requirements of the installed CHARM.

3 First connection to the AMS Asset Monitor

Procedure

1. Ensure that the AMS Asset Monitor is powered by a +24 V DC power supply.
2. Open the AMS Asset Monitor.
3. Connect the PC to the AMS Asset Monitor.
Use the lower socket of the three RJ-45 sockets (see [Hardware overview and preparation](#)).
4. Ensure that the Ethernet settings of the PC aligns to the default IP address of the AMS Asset Monitor.
5. Start your web browser and enter the default AMS Asset Monitor IP address: **169.254.153.110**.
6. The web browser indicates an insecure connection. Ignore this warning and continue to connect to the AMS Asset Monitor until you reach the login dialog.
Add the certificate, created by the AMS Asset Monitor, to your web browser to enable encrypted communication.
7. Enter user name and password to log into Asset Studio, the web served interface.
Credentials for the first login:
User name: **admin**
Password: **admin**
The home screen of Asset Studio opens.
8. Configure the AMS Asset Monitor according to the requirements of the assets to be monitored.

4 Hazardous location installation

Version 1.0

4.1 General installation requirements

The AMS Asset Monitor must be solely connected to SELV/PELV electrical circuits to meet the requirements for explosion protection. This also applies to all devices connected to the AMS Asset Monitor. Exceptions are explicitly stated. In version 1.0, the Relay Terminal Block is approved for voltages up to 250 V. An installation in Zone 2 is permitted if the conditions stated in the following chapters are met.

Ensure a distance of at least 50 mm between the outer edge of the terminals used for intrinsically safe field installation wiring and all other circuits or wirings.

Use wire types and wiring apparatus with a temperature rating $\geq 70^{\circ}\text{C}$.

4.2 Connection requirements

The wire cross-section of the used cables must be within the range of $0.34 < F < 2.5 \text{ mm}^2$. Use ferrules at stranded conductors.

Connect the shield of the Ethernet cable to ground at the remote station. Integrate the grounding of all cable shields into to potential equalization system.

All used connectors (Ethernet- and power supply terminals) must be locked. Ensure this besides using suitable connectors by using cable glands, suitable for the respective cable diameter approved for the use in potentially explosive atmospheres.

Only use the USB port at open field housing, which requires a hazard-free environment.

4.3 Special conditions of safe use

1. The USB port shall only be used in safe area, known to be non-hazardous.
2. The end user shall ensure appropriate earthing upon installation. The transmission resistance for SELV/PELV circuits must not exceed $10^9 \Omega$. For the grounding of hazardous live voltages comply with the additional requirements of protective grounding.
3. Electrostatic charging during operation and maintenance has to be excluded. The device shall only be installed in areas where operational and process related electrostatic charges are not present.

- 4. Final acceptance of this equipment when installed is subject to the jurisdiction of the local inspection authority. The DeltaV CHARMs have their own component certification to be assessed within the overall system.

The following warnings must be observed:

- **WARNING: EXPLOSION HAZARD - DO NOT CONNECT OR DISCONNECT WHILE CIRCUITS ARE LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS**
AVERTISSEMENT: RISQUE D'EXPLOSION- NE PAS CONNECTER OU DECONNECTER TANT QUE LES CIRCUITS SONT SUR TENSION SEULEMENT SI LA ZONE EST CONNU POUR ÊTRE NON DANGEREUX
- **WARNING: DO NOT USE USB PORT UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS**
AVERTISSEMENT: NE PAS UTILISER PORT USB SEULEMENT SI LA ZONE EST CONNU POUR ÊTRE NON DANGEREUX
- **WARNING: EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE CHARM MODULES UNLESS POWER HAS BEEN DISCONNECTED OR THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS**
AVERTISSEMENT: RISQUE D'EXPLOSION. NE PAS ENLEVER OU REMPLACER LES MODULES DE CHARME À MOINS QUE L'ALIMENTATION SOIT DÉCONNECTÉE OU QUE LA ZONE SOIT EXEMPT DE CONCENTRATIONS IGNITIBLES
- **WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY**
AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SECURITE INTRINSEQUE

4.4 Technical data, explosion protection

The AMS Asset Monitor is checked and certified for the following, if connected to SELV/PELV - electrical circuits for use in potentially explosive atmospheres:

IECEx/ATEX/CSA		
Type of protection		non-sparking nA in combination with nC and [ic], depending on the installed CHARMs
Identification	IECEx/ATEX	II 3G - Ex nA nC [ic] IIC T4 Gc
	CSA	Class I Div 2, Group A, B, C, D, T4 Class I, Zone 2 Ex/AEx nA nC IIC [ic] T4 Gc
Temperature range		-40°C < Tamb < 55°C

IECEX/ATEX/CSA		
Standards	IECEX	IEC 60079-0:2011; Edition 6.0 IEC 60079-15:2010; Edition 4
	ATEX	EN 60079-0:2012 EN 60079-15:2010
	CSA	CAN/CSA-C22.2 No. 0-10 CAN/CSA-C22.2 No. 61010-1:12 + Amd 1-18 CAN/CSA C22.2 No. 94.2-15 CAN/CSA-C22.2 No. 60079-0:15 CAN/CSA C22.2 No. 60079-0:19 CAN/CSA-C22.2 No. 60079-11:14 CAN/CSA-C22.2 No. 60079-15:16 CAN/CSA C22.2 No. 213-17 CAN/CSA-C22.2 No. 60529:16 IEC 60529:2013 + COR2:2015 NEMA ANSI/IEC 60529-2004 (R2011) ANSI/UL 50E (Second Edition) ANSI/UL 61010-1 (Third Edition) ANSI/UL 121201-2017 (Ninth Edition (R2019)) ANSI/UL 60079-0-2019 (Seventh Edition) ANSI/UL 60079-11-2014 (Sixth Edition) ANSI/UL 60079-15-2013 (Fourth Edition (R2017))
IECEX approval number		IECEX BVS 20.0001X
ATEX approval number		BVS 20 ATEX E 001 X
CSA approval number		19CA70218089

4.5 Revision history

Version	Date	Remarks/Changes
1.0	30. April 2020	Initial version

5 Certificates



EU-Declaration of Conformity (Translation)



We: epro GmbH, Jöbkesweg 3, 48599 Gronau
declare under our sole responsibility that following product(s):

Product designation:	AMS Asset Monitor	
Product description:	Online Prediction, Protection and Process Monitor	
Part numbers	AM5820-IM	AMS Asset Monitor Base - Imperial Threaded Unit
	AM5730	AMS Asset Monitor – +24V SC Power Module
	AM5125	VI Piezo CHARM

are in conformity with the terms of the directives mentioned below including any amendment valid at the date of declaration:

2014/30/EU	Electromagnetic compatibility
2014/34/EU	Equipment and protective system intended for use in potentially explosive atmospheres
2011/65/EU	The restriction of the use of certain hazardous substances in electrical and electronic equipment

Following harmonized standards have been applied:

2014/30/EU	EN 61326-1	Electrical equipment for measurement, control and laboratory use. EMC requirements. Part 1: General requirements
2014/34/EU	EN 60079-0	Explosive atmospheres - Part 0: Equipment - General requirements
	EN 60079-11	Explosive atmospheres - Part 11: Intrinsic Safety „i“
	EN 60079-15	Explosive atmospheres - Part 15: Equipment protection by type of protection “n”
	DIN EN 50581	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

For the type examination according to EN 60079-0, EN 60079-11 and EN 60079-15 the following notified body has been involved:

DEKRA EXAM GmbH
Type examination certificate BVS 20 ATEX E 001 X

Authorized person for technical documentation:
Bruno Hecker, Jöbkesweg 3, 48599 Gronau

Gronau, 17th February, 2020
Place, Date



Site Leader



Quality



Emerson Automation Solutions
Systems and Solutions
1100 W. Louis Henna Blvd.
Round Rock, TX 78681

Statement Regarding the China RoHS Compliance of Emerson Product – AMS820-IM

Please refer to Table 1 for the names and contents of the toxic or hazardous substances or elements contained in Emerson products.

Table 1: Names and Contents of Toxic or Hazardous Substances or Elements

表1: 有毒有害物质或元素的名称及含量

部件名称 Part Name	有毒有害物质或元素 Toxic or hazardous Substances and Elements						
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr (VI))	多溴联苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)	
印刷电路板铜块 PC BD ASSY	X	0	0	0	0	0	
围堰 ENCLOSURE	0	0	0	0	0	0	
硬件 HARDWARE	0	0	0	0	0	0	
印刷电路板铜块支持 PC BD ASSY SUPPORT	0	0	0	0	0	0	
O 表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下 O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.							
X 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。 X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572.							
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Statement Regarding the China RoHS Compliance of Emerson Product – AM5730

Please refer to Table 1 for the names and contents of the toxic or hazardous substances or elements contained in Emerson products.

Table 1: Names and Contents of Toxic or Hazardous Substances or Elements

表1: 有毒有害物质或元素的名称及含量

部件名称 Part Name	有毒有害物质或元素 Toxic or hazardous Substances and Elements						
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr (VI))	多溴联苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)	
印刷电路板组装 PC BD ASSY	X	0	0	0	0	0	
围端 ENCLOSURE	0	0	0	0	0	0	
硬件 HARDWARE	0	0	0	0	0	0	
O 表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下 O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.							
X 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。 X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572							
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Statement Regarding the China RoHS Compliance of Emerson Product – AMS125

Please refer to Table 1 for the names and contents of the toxic or hazardous substances or elements contained in Emerson products.

Table 1: Names and Contents of Toxic or Hazardous Substances or Elements

表1: 有毒有害物质或元素的名称及含量

部件名称 Part Name	有毒有害物质或元素 Toxic or hazardous Substances and Elements						
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr (VI))	多溴联苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)	
印刷电路板组件 PC BD ASSY	X	0	0	0	0	0	2P
围堰 ENCLOSURE	0	0	0	0	0	0	E
O 表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下 O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.							
X 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。 X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572.							
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