



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx ULD 17.0018X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 5	Issue 4 (2022-09-29)
Date of Issue:	2023-01-19		Issue 3 (2022-05-26)
Applicant:	Weidmüller Interface GmbH & Co. KG Klingenbergstrasse 26 Detmold 32758 Germany		Issue 2 (2022-02-04)
Equipment:	Electronic Load Monitoring Modules with accessories		Issue 1 (2017-08-21)
Optional accessory:	AMG FIM-0 EX, FIM-C EX, AMG EP, AMG PP, AMG CM EX, AMG OD EX, AMG PD EX, AMG MD EX, AMG XMD EX and AMG DIS EX*		Issue 0 (2017-06-29)
Type of Protection:	Increased safety "ec"		
Marking:	Ex ec IIC T4 Gc -40°C to +70°C		

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:
(for printed version)

2023-01-19

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2. This certificate is not transferable and remains the property of the issuing body.
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UL International DEMKO A/S
Borupvang 5A
DK-2750 Ballerup
Denmark





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Manufacturer: **Weidmüller Interface GmbH & Co. KG**
Klingenbergstrasse 26
Detmold 32758
Germany

Manufacturing locations: **Weidmüller Interface GmbH & Co. KG**
Klingenbergstrasse 26
Detmold 32758
Germany

Weidmüller Interface GmbH & Co. KG
Klingenbergstrasse 16
32758 Detmold
Germany

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[DK/ULD/ExTR17.0020/00](#)
[DK/ULD/ExTR17.0020/03](#)

[DK/ULD/ExTR17.0020/01](#)
[DK/ULD/ExTR17.0020/04](#)

[DK/ULD/ExTR17.0020/02](#)
[DK/ULD/ExTR17.0020/05](#)

Quality Assessment Report:

[NL/DEK/QAR12.0052/08](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Electronic Load Monitoring Modules AMG ELM are solid-state integrated circuit that switches the output depending on when the output load exceeds the current-limit threshold or when a load-side short-circuit is present.

The current selector switches enable an independent setting of the nominal currents only for Variable output versions. When exceeding the nominal currents, the corresponding channel will be disconnected.

The type of protection is increased safety "ec", insulating parts made of Wellamid, with accessories, type AMG FIM-0 EX, ..FIM-C EX, ..EP, ..PP, ..CM EX, ..OD EX, ..PD EX, ..MD EX, ..XMD EX and ..DIS EX.

AMG EP is an End Plate; AMG PP is a Partition Plate.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The final enclosure shall be constructed to block all sun and UV light from affecting the ELM Modules and accessories.

Installation Instructions:

- The products must be installed in a tool-secured enclosure with a degree of protection of at least IP54 according to IEC 60079-0.
- If cut cross-connectors are used, AMG PP separation plates must be inserted wherever there are bare cut edges next to another.
- The cables used must be specified for a temperature at least 35 Kelvin above the ambient temperature under rated conditions.
- A stabilized power supply (24 V DC) with double or reinforced isolation must be used (SELV/PELV).



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Wire range of model AMG FIM-C EX was corrected. Stripping length of model AMG FIM-0 EX was corrected.

Issue 2: Adding alternative fuses and alternate electronic switch on Electronic Load Monitoring Modules.

Issue 3: Adding Model ELM-18 EX and update from IEC 60079-0, 6th to 7th edition and IEC 60079-7, Edition 5.0 to 5.1.

Issue 4: Ambient temperature range increased to -40°C to +70°C for all models; Gas group IIC added for all models; Max. permitted voltage range added; Model AMG AM deleted.

Issue 5: Adds Model AMG ELM-1 LIM CL2 EX.

Annex:

[Annex to IECEx ULD 17.0018X Issue 5.pdf](#)



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TYPE DESIGNATION

Electronic Load Monitoring Module, Fixed output

AMG ELM-	2	F	EX
I	II	III	IV

I – Basic Model Designation

AMG ELM – Electronic Load Monitoring Module

II – Output Current Rating - Fixed

1 - 1 A
2 - 2 A
4 - 4 A
6 - 6 A
8 - 8 A
10 - 10 A

III - Function

F - Fix Output Rating

IV – Application

EX – Hazardous Location; one pole output.

Electronic Load Monitoring Module, Variable output

AMG ELM-	6	EX
I	II	III

I - Basic Model Designation

AMG ELM – Electronic Load Monitoring Module

II – Output Current Rating - Output adjustable

6 - 1, 2, 3, 4, or 6 A
12 - 4, 6, 8, 10 or 12 A 18 - 10, 12, 14, 16 or 18 A

III - Application

EX – Hazardous Location; one pole output



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AMG ELM-	1	LIM	CL2	EX
I	II	III	IV	V

I – Basic Model Designation

AMG ELM – Electronic Load Monitoring Module

II – Output Current Rating – Adjustable

1 – 0.1, 0.2, 0.5, 0.8 or 1 A

III – Application

LIM - Current limiting

IV - Application

CL2 – The outputs meets Class 2 limits

V – Application

EX – Designed for Hazardous Locations



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TYPE	Rated (Vdc)	Max. Voltage range (Vdc)	Rated (A)	Strip length [mm]	Rigid wire size (mm ²)	Flexible wire size (mm ²)
AMG OD EX	24	18-30	12	10	2x 0.14-1.5 / 2x 0.14-2.5	2x 0.14-1.5 / 2x 0.14-2.5
AMG PD EX	24	18-30	12	10	2x 0.14-1.5 / 2x 0.14-2.5	2x 0.14-1.5 / 2x 0.14-2.5
AMG MD EX	24	18-30	12	10	2x 0.14-1.5 / 2x 0.14-2.5	2x 0.14-1.5 / 2x 0.14-2.5
AMG XMD EX	24	18-30	12	10	2x 0.14-1.5 / 2x 0.14-2.5	2x 0.14-1.5 / 2x 0.14-2.5
AMG DIS EX	24	18-30	12	10	0.14-2.5	0.14-2.5

TYPE	Rated (Vdc)	Rated (A)	Strip length [mm]	Rigid wire size (mm ²)	Flexible wire size (mm ²)
Cross Connectors:					
ZQV 4N/2	N/A	32	N/A	N/A	N/A
ZQV 4N/3	N/A	32	N/A	N/A	N/A
ZQV 4N/4	N/A	32	N/A	N/A	N/A
ZQV 4N/5	N/A	32	N/A	N/A	N/A
ZQV 4N/6	N/A	32	N/A	N/A	N/A
ZQV 4N/7	N/A	32	N/A	N/A	N/A
ZQV 4N/8	N/A	32	N/A	N/A	N/A
ZQV 4N/9	N/A	32	N/A	N/A	N/A
ZQV 4N/10	N/A	32	N/A	N/A	N/A
ZQV 4N/50	N/A	32	N/A	N/A	N/A



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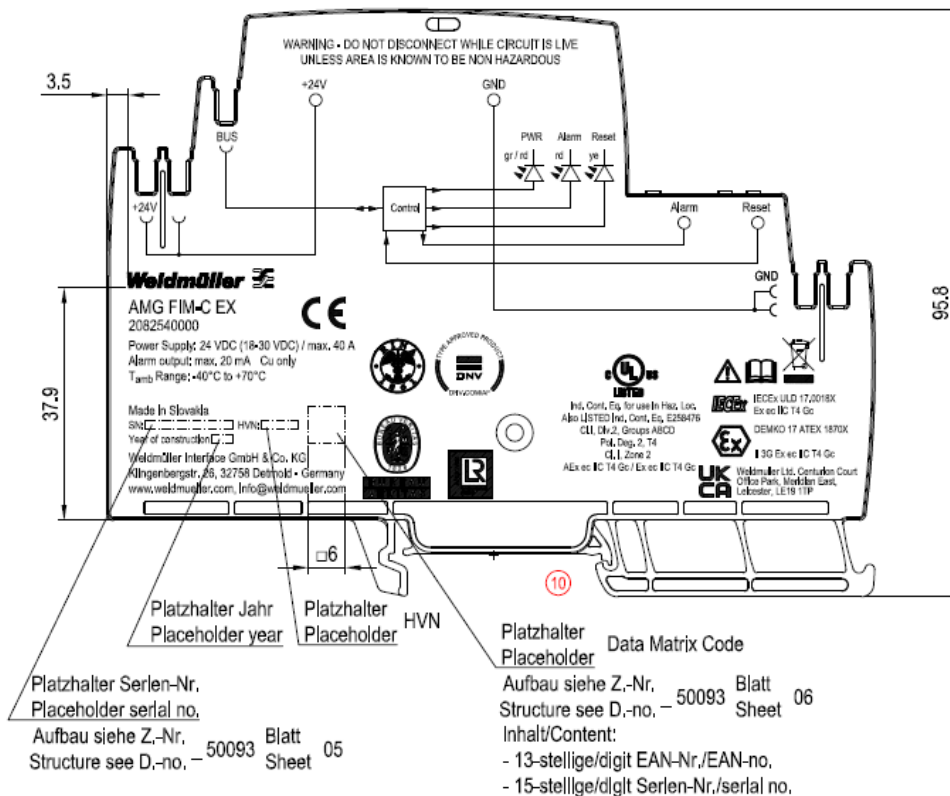
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MARKING

Marking has to be readable and indelible; it has to include the following indications:

AMG FIM-C EX (Represents AMG FIM-0 EX)

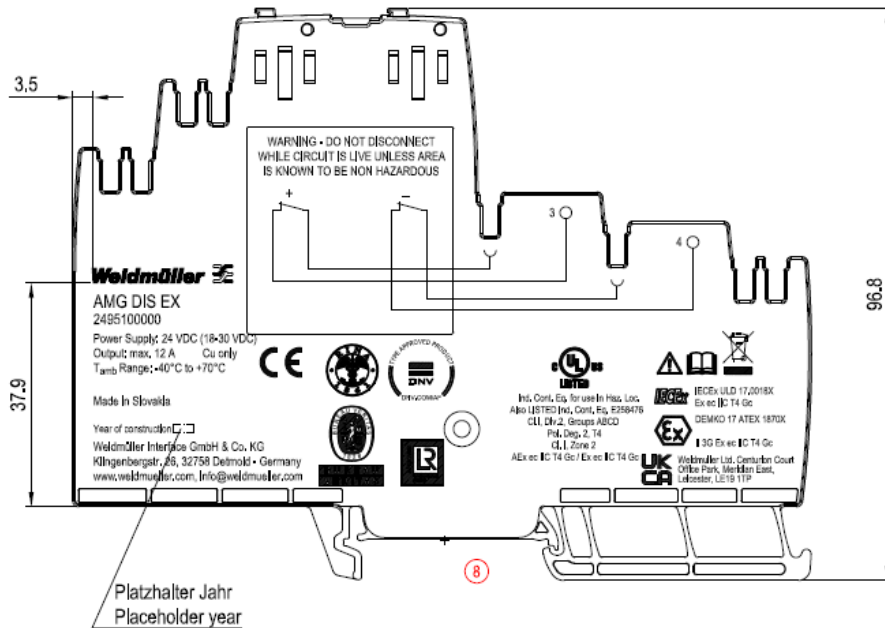


Certificate No.: IECEx ULD 17.0018X

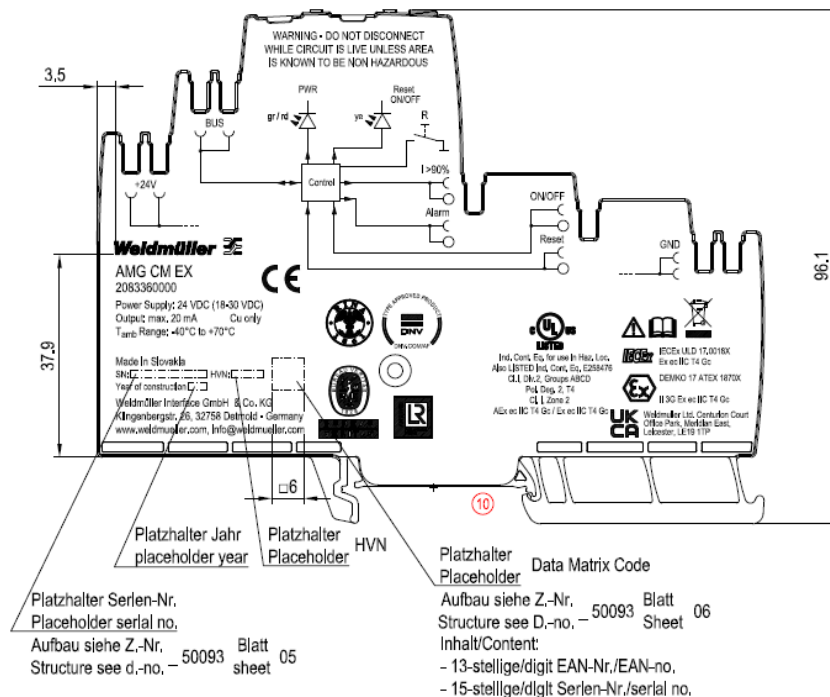
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AMG DIS EX (Represents AMG OD EX, AMG PD EX, AMG MD EX and AMG XMD EX)



AMG CM EX



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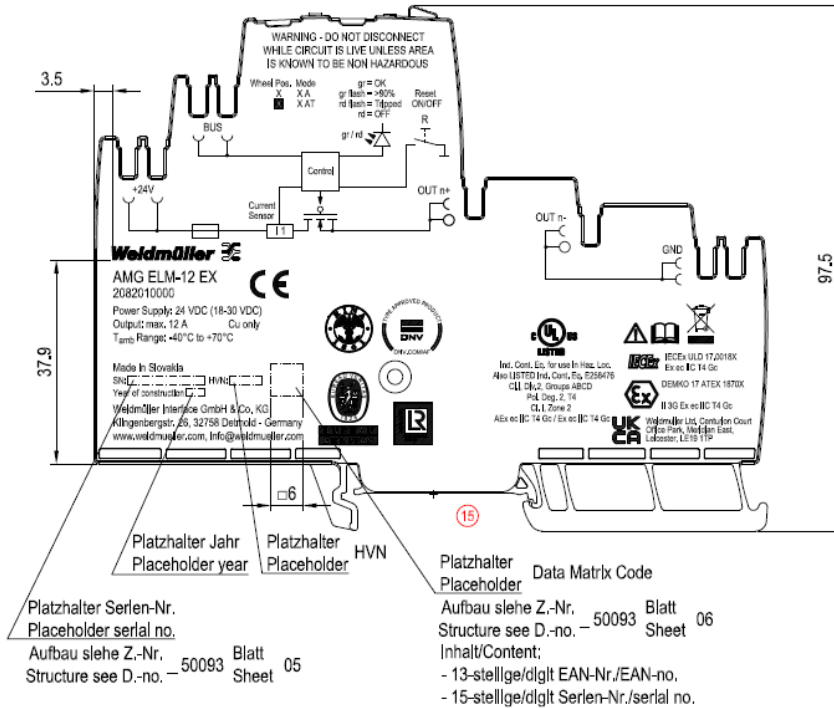
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AMG ELM-12 EX (Represents AMG ELM-6 EX)

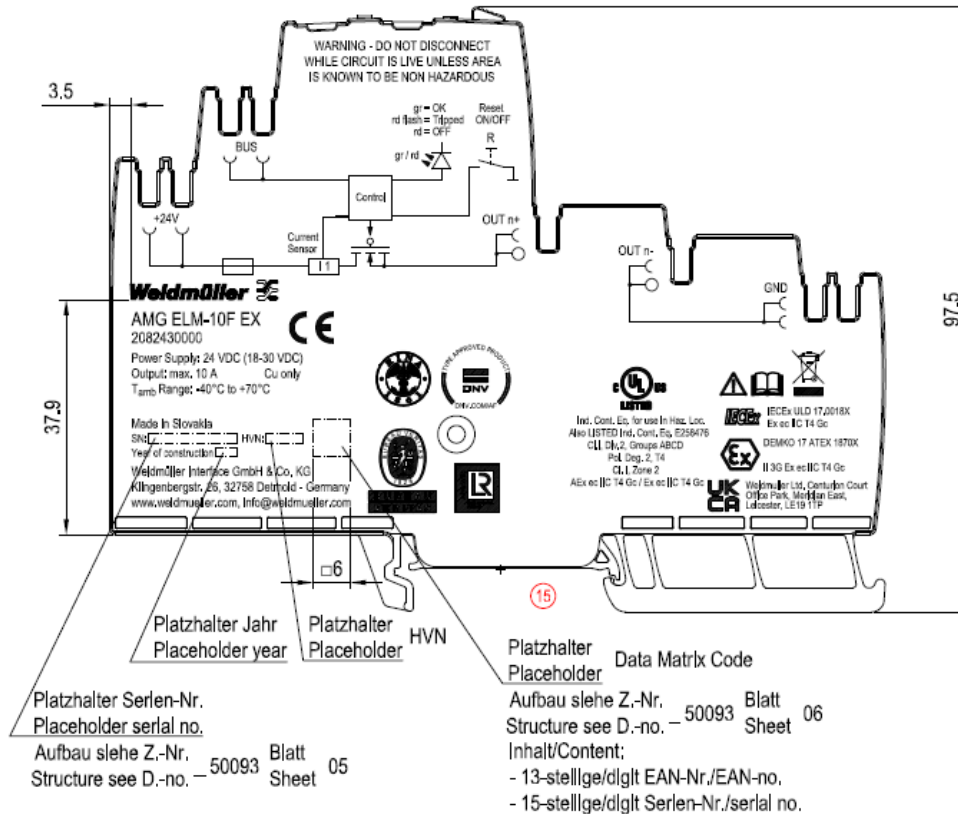


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AMG ELM-10 EX (Represents AMG ELM-1F, AMG ELM-2F, AMG ELM-4F, AMG ELM-6F and AMG ELM-8F)

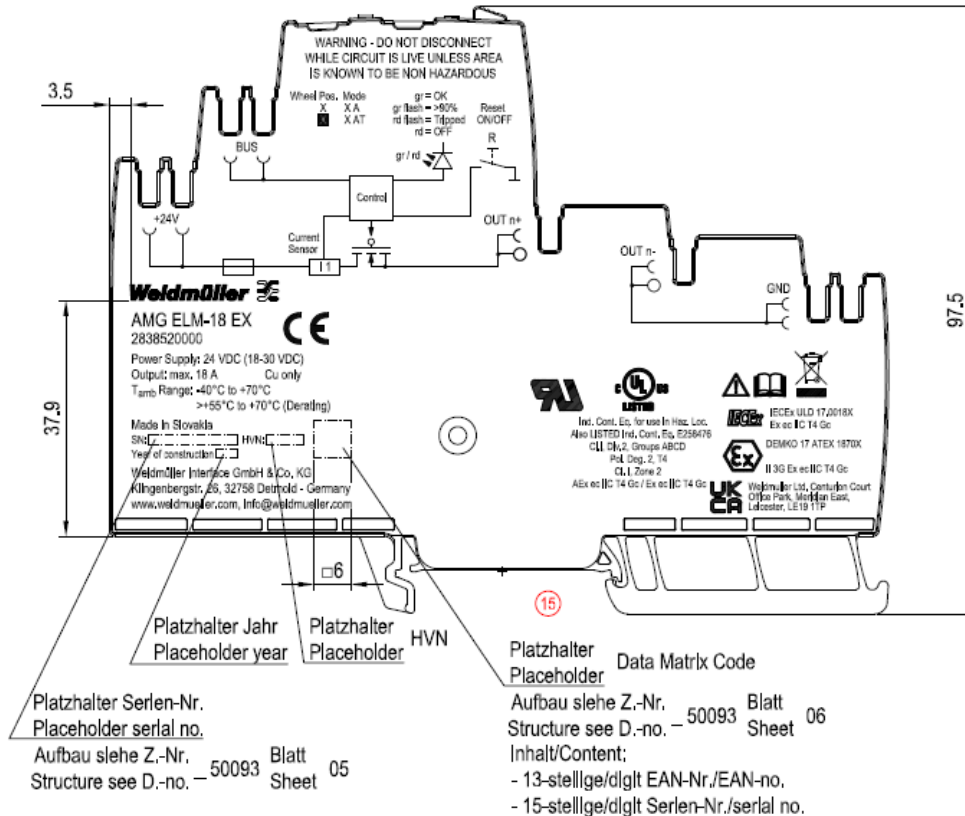


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AMG ELM-18 EX (with temperature derating marking for $T_{amb} > 55^{\circ}\text{C}$)





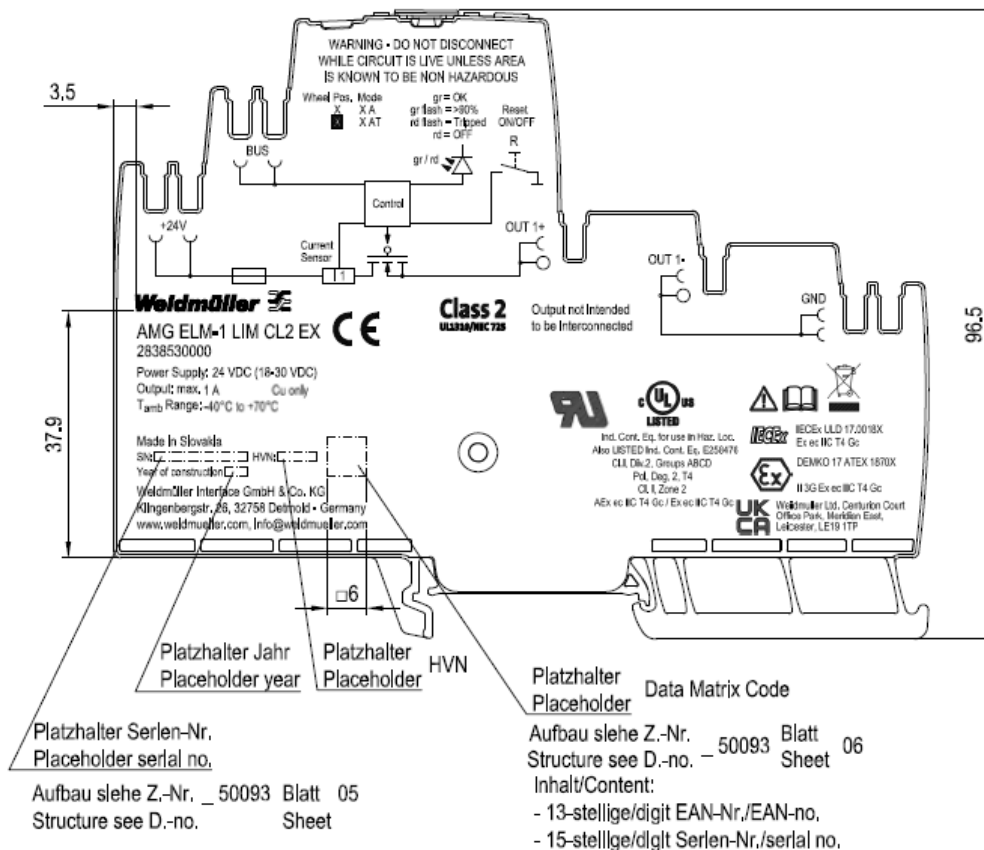
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AMG ELM-1 LIM CL2 EX



ROUTINE EXAMINATIONS AND TESTS

According to IEC 60079-7, clause 7.1 in combination with clause 6.1 a dielectric strength test has to be carried out. The routine tests may be performed on a statistical basis according to ISO 2859-1 with an acceptance quality limit (AQL) of 0,04. Routine test is to be carried out according to Weidmüller procedure "High voltage test" Document -NR: 7980631.