[1] # TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] Type Examination Certificate Number: **DEMKO 17 ATEX 1870X Rev. 4**

[4] Product: **Electronic Load Monitoring Modules with accessories**

[5] Manufacturer: **Weidmüller Interface GmbH & Co. KG**

[6] Address: **Klingenbergstrasse 26, 32758 Detmold, Germany**

[7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. **DK/ULD/ExTR17.0020/05.**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN IEC 60079-7: 2015/A1:2018**

except in respect of those requirements listed at item 18 of the Schedule.

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

[12] The marking of the product shall include the following:

II 3 G Ex ec IIC T4 Gc

Certification Manager
Thomas Wilson

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2017-06-29
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Certification Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Schedule
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[15] Description of Product:

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.

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

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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Temperature range:
The ambient temperature range is -40°C to +70°C (ELM-18 EX only, with derating).

Electrical data

TYPE	Rated (Vdc)	Max. Voltage range (Vdc)	Rated (A)	Strip length [mm]	Rigid wire size (mm^2)	Flexible wire size (mm^2)
Electronic Load Monitoring Modules						
AMG ELM-1 LIM CL2 EX	24	18-30	0.1, 0.2, 0.5, 0.8 or 1	10	0.14-2.5	0.14-2.5
AMG ELM-6 EX	24	18-30	1, 2, 3, 4, or 6	10	0.14-2.5	0.14-2.5
AMG ELM-12 EX	24	18-30	4, 6, 8, 10 or 12	10	0.14-2.5	0.14-2.5
AMG ELM-18 EX (up to 55°C)	24	18-30	10, 12, 14, 16 or 18	10	0.14-2.5	0.14-2.5
>55°C: linear derating to 16 A @70 °C)	24	18-30	10, 12, 14, 16 or 18	10	0.14-2.5	0.14-2.5
AMG ELM-1F EX	24	18-30	1	10	0.14-2.5	0.14-2.5
AMG ELM-2F EX	24	18-30	2	10	0.14-2.5	0.14-2.5
AMG ELM-4F EX	24	18-30	4	10	0.14-2.5	0.14-2.5
AMG ELM-6F EX	24	18-30	6	10	0.14-2.5	0.14-2.5
AMG ELM-8F EX	24	18-30	8	10	0.14-2.5	0.14-2.5
AMG ELM-10F EX	24	18-30	10	10	0.14-2.5	0.14-2.5
Accessories						
Feed in Modules:						
AMG FIM-0 EX	24	18-30	N/A	18	0.75-10	0.75-16
AMG FIM-C EX	24	18-30	N/A	18 10	0.75-10 0.14-1.5	0.75-16 0.14-1.5
Signal Modules						
AMG CM EX	24	18-30	N/A	10	0.14-2.5	0.14-2.5
Distribution Terminals						
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
Cross Connectors						
ZQV 4N/2	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/3	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/4	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/5	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/6	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/7	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/8	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/9	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/10	N/A	N/A	32	N/A	N/A	N/A
ZQV 4N/50	N/A	N/A	32	N/A	N/A	N/A

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Routine tests:
According to EN 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.

Installation Instructions:

- The products must be installed in a tool-secured enclosure with a degree of protection of at least IP54 according to EN 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 stabilised power supply (24 V DC) with double or reinforced isolation must be used (SELV/PELV).

[16] Descriptive Documents
The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

[17] Special Conditions of Use:

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

[18] Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information
The trademark Weidmüller will be used as the company identifier on the marking label.