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:	**SGS24ATEX0013X**
4	Product:	**CPM/CCM16 Series Backplane Assembly with MTL4599N and MTL4626 Isolators**
5	Manufacturer:	**Eaton Electric Limited**
6	Address:	**Great Marlings, Butterfield, Luton, Bedfordshire, LU2 8DL United Kingdom**

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

8 SGS Fimko Oy certifies that the 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 the 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. **GB/SGS/ExTR24.0031/00**

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 EN IEC 60079-15: 2019

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 equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the product shall include the following:

Ⓔx II 3 G Ex ec nC IIC T4 Gc (-20 °C ≤ Tamb ≤ +60 °C)

SGS Fimko Oy Customer Reference No. **0703** Project File No. **23/0503**

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13 # Schedule

14 ## Certificate Number SGS24ATEX0013X

15 Description of Product

The CPM/CCM16 Series Backplane Assembly with MTL4599N and MTL4626 Isolators is a collection of up to 16 Isolators, performing different functions, mounted on a backplane.

The Backplane Assembly must be installed in a suitably certified enclosure with a minimum ingress protection of IP54 against the requirements of IEC 60079-0 and IEC 60079-7. The Backplane may or may not be conformally coated, dependent on the requirements of the application.

The CPM/CCM16 Series Backplane Assembly with MTL4599N and MTL4626 Isolators are intended to connect to Zone 2 and safe area equipment.

The equipment is rated 20 Vdc to 35 Vdc with a maximum power that is dependent on the isolators fitted to the assembly.

The Isolators that may be fitted to the equipment are as follows:

Isolator Designation
MTL4599N
MTL4626

The Isolator outputs are intended to connect to Zone 2 and safe area circuits.

The Backplane model will be the CPM16-AO3809X or CCM16-AO3809X.

The back planes may be coated for environmental reasons. The uncoated backplanes are identified in the part number by the prefix “CPM16” and the coated backplanes are marked with the prefix “CCM16”.

The backplane connections to the isolators are offset on one side the backplane. The backplanes may be provided in one of two configurations. The offset on the left side of the backplane or the right side. This is to assist in the installation of the equipment and has no bearing on the protection concept. The offset is identified by the “-L” (Left) suffix or the “-R” (Right) suffix. The function of the backplane is identical in both cases.

Information pertaining to the isolators referenced is as follows:

MTL4599N General Purpose Feed-through Module

The feed–through termination module allows non–IS connections to the MTL4500 backplanes. The wires from the field are connected using screw terminals. Six terminals are provided on top of the module and linked down to the multiway connector on the backplane.

The circuits connected to non-hazardous area terminals 7, 8, 9, 10, 11, 12 must not exceed 50V or 0.25A.

MTL4626 Two Channel Switch-operated Relay Output

The MTL4526 Two Channel Switch-operated Relay Output is designed to enable two separate circuits to be switched via relay contacts by on/off switches or logic signals from unspecified apparatus in the non-hazardous area. Configuration switches on the apparatus allow the two relay output channels to be alternatively controlled by one input. Each non-hazardous area input can also be loop powered. Two relays provide galvanic isolation between the hazardous and non-hazardous area circuitry.

Each channel of the apparatus includes a relay which together with other electronic components are mounted on a printed circuit board and housed in a moulded plastic enclosure. Polarised plugs and sockets are provided for hazardous and non-hazardous area connections. LED indication is provided for the status of each output channel and power-on.

The circuit connected to non-hazardous area terminals 8, 9, 10, 11, 13 & 14 is designed to operate from a d.c. supply voltage of up to 35V.

16 Report Number

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17 Specific Conditions of Use

1. The equipment must be installed in an area of Pollution Degree 2 or better, as defined in IEC 60664-1, and in an enclosure that provides a degree of protection of at least IP54 and meets the relevant requirements of IEC 60079-0 and IEC 60079-7.
2. If the equipment is installed in an enclosure with a non-metallic surface, with non-metallic parts of the enclosure including but not limited to non-metallic coatings then the final assembly may present an electrostatic hazard. Installation of the equipment must consider the environment that the equipment is installed in to prevent the build-up of electrostatic charges on the surface of the equipment. The equipment must only be cleaned with a damp cloth.
3. The ambient temperature stated on this certificate refers to the temperature within the enclosure into which it must be installed in accordance with condition number 1).
4. It is the responsibility of the installer to ensure that there is adequate isolation between the MTL4500/MTL4600 Isolator and backplane assembly and the frame of the supplementary enclosure. The equipment must be capable of withstanding the 500V dielectric strength test in accordance with clause 6.1 of IEC 60079-7 between the equipment and the supplementary enclosure. This must be taken into account during installation.
5. Live maintenance is not permitted on any part of the equipment. Power must be disconnected before opening the enclosure.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
MTL4599 Isolator				
CI4599-1	1	1	11.23	Parts List for MTL4599
CI4599-2	1	1	12.23	MTL4599 Circuit Diagram
CI4599-3	1	1	12.23	MTL4599 Track Layout
CI4599-4	1	1	12.23	MTL4599 Component Layout
CI4599-5	1	1	12.23	MTL4599 Certification Label Details - Ex ec
CI4500-100	1 of 1	2	1.13	MTL 4500 Case
MTL4626 Isolator				
CI4626-1	1	1	12.23	Parts List for MTL4626
CI4626-2	1	1	12.23	MTL4626 Circuit Diagram
CI4626-3	1	1	12.23	MTL4626 Track Layout
CI4626-4	1	1	12.23	MTL4626 Component Layout
CI4626-5	1	1	12.23	MTL4626 Certification Label Details - Ex ec
CI4500-7	1 of 1	3	12.23	MTL4500 Relay Encapsulant
CI4500-100	1 of 1	2	1.13	MTL 4500 Case
Backplane				
CI4500-1-659	1	1	11.23	CPM16-AO3809X ASSEMBLY

Number	Sheet	Issue	Date	Description
Labels				
CI4500-1-100	1	1	11.24	Backplane certification label - Ex ec
CI4500-1-102	1	1	11.24	Isolator certification label - Ex ec - Baseefa