1 # UK-TYPE EXAMINATION CERTIFICATE

2 **Safety Device, Controlling Device or Regulating Device intended for use outside a potentially explosive atmosphere but required for or contributing to the safe functioning of Product and Protective Systems with respect to the risks of explosion**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3	UK-Type Examination Certificate Number:	**BAS23UKEX0025**
4	Product:	**MTL4500 & MTL5500 Series Galvanic Isolators – Digital Output modules**
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 Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR23.0018/00**

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

EN IEC 60079-0:2018 **EN 60079-11: 2012**

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 UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

II (1) GD	**[Ex ia Ga] IIB – Model 5522 only**	
	[Ex ia Ga] IIC	**-20°C ≤ Ta ≤ +60°C – All Models**
I (M1)	**[Ex ia Da] IIIC**	**-20°C ≤ Ta ≤ +65°C – MTL5514-T Model only**
	[Ex ia Ma] I	

SGS Baseefa Customer Reference No. **0703** Project File No. **22/0560**

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UKAS PRODUCT CERTIFICATION
0191

R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 # Schedule 1 – MTL452* Series Solenoid / Alarm Drivers

14 ## Certificate Number BAS23UKEX0025

15 Description of Product

The MTL452* Series Solenoid / Alarm Drivers are designed to control and monitor a device located in the hazardous area and restrict the transfer of energy from unspecified apparatus in the non-hazardous area to an intrinsically safe circuit in the hazardous area by the limitation of voltage and current. Opto-isolators and a transformer provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The apparatus comprises an isolating transformer, opto-isolators, duplicated zener diode chains and current limiting resistors to provide voltage and current limitation. The above, together with other electronic components are mounted on a printed circuit board (PCB) and housed in a moulded plastic enclosure. Polarised plugs and sockets are provided for hazardous and non-hazardous area connections.

The MTL452* Series Solenoid / Alarm Drivers comprises a number of different models denoted by * in the model number. All models are built on a common PCB and are configured have certain features such as Line Fault Detection (LFD) and Phase Reversal facilities. There are also models in the range that are loop powered or have low current hazardous area outputs. All models have LED indication dependant on the model configuration.

Model Range

Model No.	
MTL4521	Loop Powered Solenoid / Alarm Driver
MTL4521L	Loop Powered Solenoid / Alarm Driver
MTL4523	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL4523R	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL4523L	Loop Powered Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL4523V	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL4523VL	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL4524	Solenoid / Alarm Driver with Override
MTL4524S	Solenoid / Alarm Driver with Override
MTL4525	Solenoid / Alarm Driver with Override (Low Current Output)

Input / Output Parameters

MTL4521, MTL4523, MTL4523R, MTL4523L, MTL4523V, MTL4524 & MTL4524S

Non-Hazardous Area Terminals 7 to 14

U_m = 253V

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V
I_o = 147mA
P_o = 0.92W
C_i = 0
L_i = 0

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.11	1.4		40
IIB**	0.84	7.2		159
IIA	2.97	14.4		328
I	4.87	20.2		478

** Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

1) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

2) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

MTL4521L & MTL4523VL

Non-Hazardous Area Terminals 7 to 14

U_m = 253V

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V
I_o = 108mA
P_o = 0.68W
C_i = 0
L_i = 0

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.11	3.04		52
IIB*	0.84	12.19		210
IIA	2.97	24.38		421
I	4.87	40.0		691

*Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

1) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

2) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

MTL4525

Non-Hazardous Area Terminals 8, 9, 10, 11, 13 & 14

U_m = 253V

The equipment is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V
I_o = 83.3mA
P_o = 0.52W
C_i = 0
L_i = 0

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.11	5.3	68
IIB	0.84	21.8	254
IIA	2.97	44.7	536
I	4.87	64.9	814

*Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:
1) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

2) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

16 Report Number

GB/BAS/ExTR23.0018/00

17 Specific Conditions of Use

None

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
13	Protection against other hazards (LVD type requirements, etc.)
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CI4521-1	6 of 6	7	2.23	MTL4521 Certification Label Details - Baseefa
CI4521-11	6 of 6	5	2.23	MTL4521L Certification Label Details - Baseefa
CI4523-1	6 of 6	6	2.23	MTL4523V & MTL4523VL Certification Label Details - Baseefa

For all other drawings see SGS23ATEX0018.

13 Schedule 2 – MTL4526 Two Channel Switch-operated Relay Output

14 Certificate Number BAS23UKEX0025

15 Description of Product

The MTL4526 Two Channel Switch-operated Relay Output is designed to enable two separate intrinsically safe 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 comprises a relay, a zener diode and fuse to provide voltage and current limitation to the relay. The above, 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.

Input / Output Parameters

Non-Hazardous Area Terminals 8, 9, 10, 11, 13 & 14)

U_m = 253V r.m.s.

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.

Hazardous Area Terminals 1 to 3 (Channel 1)
Or
Hazardous Area Terminals 4 to 6 (Channel 2)

U_i	=	30V	U_o	=	0
C_i	=	0	I_o	=	0
L_i	=	0			

16 Report Number

GB/BAS/ExTR23.0018/00

17 Specific Conditions of Use

None

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
13	Protection against other hazards (LVD type requirements, etc.)
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CI4526-1	5 of 5	5	2.23	MTL4526 Certification Label Details - Baseefa

For all other drawings see SGS23ATEX0018.

Schedule 3 – MTL4521Y, MTL4521YL, MTL4523Y & MTL4523YL Solenoid / Alarm Drivers

13

14 **Certificate Number BAS23UKEX0025**

15 Description of Product

The MTL4521Y, MTL4521YL, MTL4523Y & MTL4523YL Solenoid / Alarm Drivers are designed to control and monitor a device located in the hazardous area and restrict the transfer of energy from unspecified apparatus in the non-hazardous area to an intrinsically safe circuit in the hazardous area by the limitation of voltage and current. Opto-isolators and a transformer provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The apparatus comprises an isolating transformer, opto-isolators, duplicated zener diode chains and current limiting resistors to provide voltage and current limitation. The above, together with other electronic components are mounted on a printed circuit board (PCB) and housed in a moulded plastic enclosure. Polarised plugs and sockets are provided for hazardous and non-hazardous area connections.

The MTL4521Y, MTL4521YL, MTL4523Y & MTL4523YL Solenoid / Alarm Drivers are built on a common PCB with different components fitted to give certain output parameters and features. The MTL4521Y & MTL4521YL are loop-powered Solenoid / Alarm Drivers, with the only difference between the models being the current limitation fitted on the hazardous area connections. The MTL4523Y and MTL4523YL variants are similar but are bus powered and have additional Line Fault Detection (LFD) circuitry populated. All models have LED indication fitted dependent on the model indicating output status, Power on and LFD status where applicable.

Model Range

Model No.	
MTL4521Y	Loop Powered Solenoid / Alarm Driver
MTL4521YL	Loop Powered Solenoid / Alarm Driver
MTL4523Y	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL4523YL	Solenoid / Alarm Driver with Line Fault Detection Alarm

Input / Output Parameters

MTL4521Y & MTL4523Y Models Parameters

Non-Hazardous Area Terminals 7 to 14

U_m = 253V r.m.s

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V
I_o = 147mA
P_o = 0.92W
C_i = 0
L_i = 0

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.11	1.4	40
IIB**	0.84	7.2	159
IIA	2.97	14.4	328
I	4.87	20.2	478

** Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

3) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

4) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

MTL4521YL & MTL4523YL

Non-Hazardous Area Terminals 7 to 14

U_m = 253V r.m.s.

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V
I_o = 108mA
P_o = 0.68W
C_i = 0
L_i = 0

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.11	3.04	52
IIB*	0.84	12.19	210
IIA	2.97	24.38	421
I	4.87	40.0	691

*Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

3) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

4) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

16 Report Number

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17 Specific Conditions of Use

None

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
13	Protection against other hazards (LVD type requirements, etc.)
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CI4521Y-6	1 of 1	3	2.23	MTL4521Y Certification Label Details – Baseefa – Ex i

For all other drawings see SGS23ATEX0018.

13 Schedule 4 – MTL552* Series Solenoid / Alarm Drivers

14 Certificate Number BAS23UKEX0025

15 Description of Product

The MTL552* Series Solenoid / Alarm Drivers are designed to control and monitor a device located in the hazardous area and restrict the transfer of energy from unspecified apparatus in the non-hazardous area to an intrinsically safe circuit in the hazardous area by the limitation of voltage and current. A transformer and opto-isolators provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The apparatus comprises an isolating transformer, opto-isolators, duplicated zener diode chains and current limiting resistors to provide voltage and current limitation. The above, together with other electronic components are mounted on a printed circuit board (PCB) and housed in a moulded plastic enclosure. Polarised plugs and sockets are provided for hazardous and non-hazardous area connections.

The MTL552* Series Solenoid / Alarm Drivers comprise a number of different models denoted by * in the model number. All models are built on a common PCB and are configured have certain features such as Line Fault Detection (LFD) and Phase Reversal facilities. There are also models in the range that are loop powered or have low current hazardous area outputs. All models have LED indication dependent on the model configuration.

The MTL5521-T Loop Powered Solenoid / Alarm Driver is of similar construction to the MTL5521 Loop Powered Solenoid / Alarm Driver with the same input and output parameters, but has an extended ambient temperature range of -20°C to +65°C.

Model Range

Model No.	
MTL5521	Loop Powered Solenoid / Alarm Driver
MTL5521-T	Loop Powered Solenoid / Alarm Driver
MTL5522	Loop Powered Solenoid / Alarm Driver, IIB
MTL5523	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL5523V	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL5523VL	Solenoid / Alarm Driver with Line Fault Detection Alarm
MTL5524	Solenoid / Alarm Driver with Logic Control, Phase Reversal
MTL5525	Low Current Solenoid / Alarm Driver

Input / Output Parameters

MTL5521, MTL5521-T, MTL5523, MTL5523V & MTL5524 Model Parameters

Non-Hazardous Area Terminals 7 to 14

U_m = 253V

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V C_i = 0
I_o = 147mA L_i = 0
P_o = 0.92W

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.11	1.4	40
IIB**	0.84	7.2	159
IIA	2.97	14.4	328
I	4.87	20.2	478

** Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

5) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

6) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

MTL5522 Model Parameters

Non-Hazardous Area Terminals 7 to 14

U_m = 253V

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V C_i = 0
I_o = 166mA L_i = 0
P_o = 1.04W

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIB*	0.84	5.6	132
IIA	2.97	10.4	286
I	4.87	16.0	428

*Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC
Notes:

5) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

6) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

MTL5523VL Model Parameters

Non-Hazardous Area Terminals 7 to 14

U_m = 253V

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V
I_o = 108mA
P_o = 0.68W
C_i = 0
L_i = 0

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.11	3.04		52
IIB*	0.84	12.19		210
IIA	2.97	24.38		421
I	4.87	40.0		691

*Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

1) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

2) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

MTL5525 Model Parameters

Non-Hazardous Area Terminals 7 to 14

U_m = 253V

The apparatus is designed to operate on the above terminals from a d.c. supply voltage of up to 35V.

Hazardous Area Terminals 2 / 3 w.r.t. 1

U_o = 25V C_i = 0
I_o = 83.3mA L_i = 0
P_o = 0.52W

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.11	5.3		68
IIB	0.84	21.8		254
IIA	2.97	44.7		536
I	4.87	64.9		814

*Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

3) The above load parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

4) The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) is ≥ 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) is ≥ 1% of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIB, IIA & I and 600nF for Group IIC.

16 Report Number

GB/BAS/ExTR23.0018/00

17 Specific Conditions of Use

None

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
13	Protection against other hazards (LVD type requirements, etc.)
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CI5521-T-1	1 of 1	3	2.23	MTL5521-T Certification Label Details - Baseefa
CI5521-1	1 of 1	6	2.23	MTL5521 Certification Label Details - Baseefa
CI5523-1	1 of 1	6	2.23	MTL5523V & MTL5523VL Certification Label Details - Baseefa

For all other drawings see SGS23ATEX0018.

13 Schedule 5 – MTL5526 Two Channel Switch-operated Relay Output

14 Certificate Number BAS23UKEX0025

15 Description of Product

The MTL5526 Two Channel Switch-operated Relay Output is designed to enable two separate intrinsically safe 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 comprises a relay, a zener diode and fuse to provide voltage and current limitation to the relay. The above, 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.

Input / Output Parameters

Non-Hazardous Area Terminals 8, 9, 10, 11, 13 & 14)

U_m = 253V r.m.s.

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.

Hazardous Area Terminals 1 to 3 (Channel 1)
Or
Hazardous Area Terminals 4 to 6 (Channel 2)

U_i	=	30V	U_o	=	0
C_i	=	0	I_o	=	0
L_i	=	0			

16 Report Number

GB/BAS/ExTR23.0018/00

17 Specific Conditions of Use

None

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
13	Protection against other hazards (LVD type requirements, etc.)
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CI5526-1	1 of 1	5	2.23	MTL5526 Certification Label Details & DIN Rail Fittings - Baseefa

For all other drawings see SGS23ATEX0018.