

CERTIFICATE

Issued to:
Applicant:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Licensee:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Product : Electronic controlgear for LED modules
Trade name(s) : TCI, TCI (with little dragon), TCI LED, TCI LED (with little dragon),
TCI LIGHT (with little dragon and ball in square), TCI LIGHT Saronno Italy or
TN101
Type(s)/model(s) : DC MAXI JOLLY (series), DC MJ (series), IPR1 (series) and MP (series)

The product and any acceptable variation thereto as specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to EN 61347-2-13:2014, EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 61347-1:2015/A1:2021 and EN IEC 62384:2020
- an inspection of the factory location according to CENELEC Operational Document CIG 021
- a DEKRA certification agreement with the number 2033015

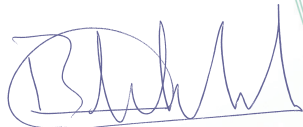
DEKRA hereby grants the right to use the ENEC certification mark.

The ENEC certification mark may be applied to the product as specified in this certificate for the duration and under the conditions of the ENEC certification agreement.

This certificate is issued on 15 March 2023 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-127788

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



MT Tonsi
Certification Manager

© Integral publication of this certificate is allowed

ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL



SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: Electronic controlgear for LED modules
Trade name(s)	: TCI, TCI (with little dragon), TCI LED, TCI LED (with little dragon), TCI LIGHT (with little dragon and ball in square), TCI LIGHT Saronno Italy or TN101
Type(s)/model(s)	: DC MAXI JOLLY (series), DC MJ (series), IPR1 (series) and MP (series)
Primary voltage	: 100-240 V for a.c., 189-250 for d.c.
Rated frequency	: 50/60 Hz, 0 Hz
Primary current	: From 0,16 to 0,55 A for a.c., from 0,18 to 0,46 A for d.c.
Secondary current	: From 0,25 to 1,4 A
Secondary power	: From 3,5 to 70 W
Type of load	: LED modules, power LED
Classification	: Independent, Built-in

TESTS**Test requirements**

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015
EN 61347-1:2015/A1:2021
EN IEC 62384:2020

Test result

The test results are laid down in DEKRA test file 350033600.

Additional information

DEKRA test report No. 3500336.262 and 3500336.263 are laid down in DEKRA test file 350033600; they contain test results.

DEKRA test report No. 3500336.262 contains the critical component list.

For specific Model/Type electrical rating refer to following pages.

Conclusion

The examination proved that all requirements were met.

Factory location

TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

General product information: These devices are electronic controlgears for LED modules with SELV output. The devices have a stabilized output current (CC) or voltage (CV) according to S50 DIP switch selection. BLL, ZB3 and CASAMBI models have wireless control; dimming features are detailed in the technical specification: PUSH L, 1-10V, MIDNIGHT, BILEVEL, BILEVEL N, PIR, PLV, DALI. An alternative /xxxx at the end of the commercial code can be present if a particular setting value of the output is requested from the client (i.e.: /700 stands for S50= 700 mA); different commercial codes are assigned for PWM, AM+PWM, AM dimming. MP models are not dimmable. Supply can be ac 50/60 Hz or dc 0 Hz, but dc can't be used for PUSH L/RED ON/ RED OFF/ OPERATION features. The Kxxxx can replace the type reference.

Type/s	ac or *dc [1] PRI current [A] at voltage	Power Factor [2]	Output Power (W)	Output Parameter	U _{out} (V)	ta (°C)	tc (°C) [3]	Use [4]
MP 50 K3 (K2224), MP 50 PR K3 (K2438), MP 50 S K3** (K2442)	0,25 at 220-240 V 0,55 at 110-127 V	0,95	25-50 25-40 25-35	0,35 -1,05 A 58 V**	90	-25..45/50 /55 at 40 W 700 mA	85	II, 110
MP 50 BI (K2241), MP 50 PR BI (K2439), MP 50 S BI** (K2443)	0,42 at 100 V *0,33 at 170-280 V							BI, 110
MP 50 OF (K2230), MP 50 PR OF (K2440), MP 50 S OF** (K2444)							80	OF
MP 40 K3 (K2728)	0,22 at 220-240 V 0,45 at 110-127 V	0,92 C- 0,95	25-40	0,35 -1,05 A	90	-25..45/50	85	II, 110
MP 40 BI (K2734)	*0,27 at 170-280 V							BI, 110
MP 40 OF (K2740)							80	OF
MP 50 SV K3 (K2725)	0,25 at 220-240 V 0,55 at 110-127 V	0,92 C- 0,95	20-50	0,35 -1,05 A	60	-25..45/50	85	II, 110
MP 50 SV BI (K2731)	*0,33 at 170-280 V							BI, 110
MP 50 SV OF (K2737)							80	OF
MP 40 SV K3 (K2728)	0,2 at 220-240 V 0,45 at 110-127 V	0,92 C- 0,95	20-40	0,35 -1,05 A	60	-25..45/50	85	II, 110
MP 40 SV BI (K2734)	*0,27 at 170-280 V							BI, 110
MP 40 SV OF (K2740)							80	OF

Notes: Codes: 122xxx, 127xxx. [1] – 170-280 V is the operative d.c. range at which the product can work; they can be used for centralized emergency installations in the rated 189-250 V. [2] – Rated value at output power greater than 25 W. [3] – tc measured on the top of C16 capacitor for OF models. [4] – II= independent, IP20, class II; BI=built-in with enclosure; OF= built-in without enclosure; 110= overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of IEC/EN 60598-1.

Type/s	ac or *dc [1] PRI current [A] at voltage	Power Factor [2]	Output Power (W)	Output Current (A)	U _{out} (V)	ta (°C)	tc (°C) [3]	Use [4]
DC MAXI JOLLY SV (K2996), DC MAXI JOLLY SV DALI (K2997), DC MAXI JOLLY SV DALI NG (K2G69), DC MAXI JOLLY SV MIDNIGHT (K2998), DC MAXI JOLLY SV BILEVEL (K2999), DC MAXI JOLLY SV BILEVEL N (K2A00), DC MAXI JOLLY SV PLV (K2A01), DC MAXI JOLLY SV BLL (K2A02), DC MAXI JOLLY SV BLL EX (K2F17), DC MAXI JOLLY SV ZB3 (K2A03), DC MAXI JOLLY SV 1-10V S (K2F20), DC MAXI JOLLY SV 1-10V S NG	0,26 at 220-240 V 0,42 at 110-127 V *0,32 at 170-276 V	0,9 C (Po>21 W) 0,96	18,5-50	0,35 -1,2	60	-25..50	90	II, 110

(K2G70)									
DC MAXI JOLLY SV BI (K2A05), DC MAXI JOLLY SV DALI BI (K2A06), DC MAXI JOLLY SV DALI BI NG (K2G71), DC MAXI JOLLY SV MIDNIGHT BI (K2A07), DC MAXI JOLLY SV BILEVEL BI (K2A08), DC MAXI JOLLY SV BILEVEL N BI (K2A09), DC MAXI JOLLY SV PLV BI (K2A10), DC MAXI JOLLY SV BLL BI (K2A11), DC MAXI JOLLY SV BLL EX BI (K2F18), DC MAXI JOLLY SV ZB3 BI (K2A12), DC MAXI JOLLY SV 1-10V S BI (K2F21), DC MAXI JOLLY SV BI 1-10V S NG (K2G72)							-25..55		BI, 110
DC MJ SV OF (K2A14), DC MJ SV DALI OF (K2A15), DC MAXI JOLLY SV DALI NG OF (K2G73), DC MJ SV MIDNIGHT OF (K2A16), DC MJ SV BILEVEL OF (K2A17), DC MJ SV BILEVEL N OF (K2A18), DC MJ SV PLV OF (K2A19), DC MJ SV BLL OF (K2A20), DC MJ SV BLL EX OF (K2F19), DC MJ SV ZB3 OF (K2A21), DC MJ SV 1-10V S OF (K2F22), DC MAXI JOLLY SV 1-10V S NG OF (K2G74)							-	80	OF
DC MAXI JOLLY SV CASAMBI (K2I28)	0,32 at 220-240 V	0,9 C (Po>26 W)	18,5-62	0,35 -1,2	60	-25..50	90	II, 110	
DC MAXI JOLLY SV CASAMBI BI (K2I29)	0,46 at 110-127 V	0,96				-25..55		BI, 110	
DC MJ SV CASAMBI OF (K2I30)	*0,4 at 170-276 V					-	80	OF	
Notes: Codes for dimming: 125xxx for AM+PWM, 127xxx or 151xxx for AM, 135xxx for BLL									

Type/s	ac or *dc [1] PRI current [A] at voltage	Power Factor [2]	Output Power (W)	Output Current (A)	U _{out} (V)	ta (°C)	tc (°C) [3]	Use [4]
DC MAXI JOLLY SV WR (K2F23), DC MAXI JOLLY SV DALI WR (K2F24)	0,26 at 220-240 V	0,9 C (Po>26 W)	18,5-50	0,35 -1,2	60	-25..50	90	II, 110
DC MAXI JOLLY SV WR BI (K2F36), DC MAXI JOLLY SV DALI WR BI (K2F37)	0,52 at 100-127 V	0,96						BI, 110
DC MJ SV WR OF (K2F38), DC MJ SV DALI WR OF (K2F39)	*0,32 at 170-276 V					-	80	OF
Notes: Codes for dimming: 151xxx for AM. 277 V is only for supply in USA/Canada. [1] – 170-276 V is the operative d.c. range at which the product can work; they can be used for centralized emergency installations in the rated 189-250 V. [2] – Rated value. [3] – tc measured on the top of C14 capacitor for OF models. [4] – II= independent, IP20, class II; BI=built-in with enclosure; OF= built-in without enclosure; 110= overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of IEC/EN 60598-1.								

Type/s	ac or *dc [1] PRI	Power	Output	Output	U _{out}	ta	tc	Use
--------	-------------------	-------	--------	--------	------------------	----	----	-----

	current [A] at voltage	Factor [2]	Power (W)	Current (A)	(V)	(°C)	(°C) [3]	[4]
DC MAXI JOLLY SV 40 (K2A23), DC MAXI JOLLY SV DALI 40 (K2A24), DC MAXI JOLLY SV CASAMBI 40 (K2F11)	0,21 at 220-240 V	0,9 C (Po>21 W) 0,96	18,5-40	0,35 -1,2	60	-25..50	90	II, 110
DC MAXI JOLLY SV 40 BI (K2A26), DC MAXI JOLLY SV DALI 40 BI (K2A27), DC MAXI JOLLY SV CASAMBI 40 BI (K2F12)	0,42 at 110-127 V							
DC MJ SV 40 OF (K2A29), DC MJ SV DALI 40 OF (K2A30), DC MJ SV CASAMBI 40 OF (K2F13)	*0,26 at 170-276 V					-	80	OF

Notes: Codes for dimming: 125xxx for AM+PWM, 151xxx for AM. [1] – 170-276 V is the operative d.c. range at which the product can work; they can be used for centralized emergency installations in the rated 189-250 V. [2] – Rated value. [3] – tc measured on the top of C14 capacitor for OF models. [4] – II= independent, IP20, class II; BI=built-in with enclosure; OF= built-in without enclosure; 110= overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of IEC/EN 60598-1.

Type/s	ac or *dc [1] PRI current [A] at voltage	Power Factor [2]	Output Power (W)	Output Parameter	U _{out} (V)	ta (°C)	tc (°C) [3]	Use [4]
DC MAXI JOLLY US (K2931), DC MAXI JOLLY US 24 (K2A96)**, DC MAXI JOLLY US DALI (K2932), DC MAXI JOLLY US MIDNIGHT (K2933), DC MAXI JOLLY US BILEVEL (K2934), DC MAXI JOLLY US BILEVEL N (K2935), DC MAXI JOLLY US PLV (K2936), DC MAXI JOLLY US BLL (K2922), DC MAXI JOLLY US BLL EX (K2F04), DC MAXI JOLLY US ZB3 (K2960), DC MAXI JOLLY US CASAMBI (K2F00), DC MAXI JOLLY US 1-10V S (K2F07)	0,29 at 220-240 V	0,95 (Po>30 W) 0,98 (Po>20 W)	25-60	0,35 -1,05 A 24 V**	90	-25..50 /55 at 40 W 700 mA	90	II, 110
DC MAXI JOLLY US BI (K2937), DC MAXI JOLLY US 24 BI (K2A96)**, DC MAXI JOLLY US DALI BI (K2938), DC MAXI JOLLY US MIDNIGHT BI (K2939), DC MAXI JOLLY US BILEVEL BI (K2940), DC MAXI JOLLY US BILEVEL N BI (K2941), DC MAXI JOLLY US PLV BI (K2942), DC MAXI JOLLY US BLL BI (K2923), DC MAXI JOLLY US BLL EX BI (K2F05), DC MAXI JOLLY US ZB3 BI (K2961), DC MAXI JOLLY US CASAMBI BI (K2F01), DC MAXI JOLLY US 1-10V S BI (K2F08)	0,42 at 110-127 V		25-40					
DC MJ US OF (K2943), DC MJ US 24 OF (K2A98)**, DC MJ US DALI OF (K2944), DC MJ US MIDNIGHT OF (K2245), DC MJ US BILEVEL OF (K2946), DC MJ US BILEVEL N OF (K2947), DC MJ US PLV OF	*0,38 at 170-276 V		22**			-	80	OF

(K2948), DC MJ US BLL OF (K2924), DC MJ US BLL EX OF (K2F06), DC MJ US ZB3 OF (K2962), DC MJ US CASAMBI OF (K2F02), DC MJ US 1-10V S OF (K2F09)					
<p>Notes: Codes for dimming: 123xxx or 125xxx or 127xxx for AM+PWM, 151xxx or 126xxx** for AM, 135xxx for BLL. [1] – 170-276 V is the operative d.c. range at which the product can work; they can be used for centralized emergency installations in the rated 189-250 V. [2] – Rated value. [3] – tc measured on the top of C16 capacitor for OF models. [4] – II= independent, IP20, class II; BI=built-in with enclosure; OF= built-in without enclosure; 110= overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of IEC/EN 60598-1.</p>					

Type/s	ac or *dc [1] PRI current [A] at voltage	Power Factor [2]	Output Power (W)	Output Current (A)	U _{out} (V)	ta (°C)	tc (°C) [3]	Use [4]
DC MAXI JOLLY HV (K2A32), DC MAXI JOLLY HV DALI (K2A33), DC MAXI JOLLY HV MIDNIGHT (K2A34), DC MAXI JOLLY HV BILEVEL (K2A35), DC MAXI JOLLY HV BILEVEL N (K2A36), DC MAXI JOLLY HV PLV (K2A37), DC MAXI JOLLY HV BLL (K2A38), DC MAXI JOLLY HV BLL EX (K2F25), DC MAXI JOLLY HV ZB3 (K2A39), DC MAXI JOLLY HV CASAMBI (K2F26), DC MAXI JOLLY STREET HV (K2E98), DC MAXI JOLLY HV 1-10V S (K2F27)	0,30 at 220-240 V 0,44 at 110-127 V *0,38 at 170-276 V	0,95 (Po>30 W) 0,98 (Po>20 W)	28-60 28-40	0,25 -0,7	119	-25..50	90	II, 110
DC MAXI JOLLY HV BI (K2A40), DC MAXI JOLLY HV DALI BI (K2A41), DC MAXI JOLLY HV MIDNIGHT BI (K2A42), DC MAXI JOLLY HV BILEVEL BI (K2A43), DC MAXI JOLLY HV BILEVEL N BI (K2A44), DC MAXI JOLLY HV PLV BI (K2A45), DC MAXI JOLLY HV BLL BI (K2A46), DC MAXI JOLLY HV BLL EX BI (K2F28), DC MAXI JOLLY HV ZB3 BI (K2A47), DC MAXI JOLLY HV CASAMBI BI (K2F29), DC MAXI JOLLY STREET HV BI (K2F34), DC MAXI JOLLY HV 1-10V S BI (K2F30)						-25..55		BI, 110
DC MJ HV OF (K2A48), DC MJ HV DALI OF (K2A49), DC MJ HV MIDNIGHT OF (K2A50), DC MJ HV BILEVEL OF (K2A51), DC MJ HV BILEVEL N OF (K2A52), DC MJ HV PLV OF (K2A53), DC MJ HV BLL OF (K2A54), DC MJ HV BLL EX OF (K2F31), DC MJ HV ZB3 OF (K2A55), DC MJ HV CASAMBI OF (K2F32), DC MJ STREET HV OF (K2F35), DC MJ HV 1-10V S OF (K2F33)						-	80	OF
Notes: Codes for dimming: 127xxx for AM+PWM, 151xxx for AM, 135xxx for BLL. [1] – 170-276 V is the operative d.c. range at which the product can work; they can be used for centralized emergency installations in the rated 189-250 V. [2] – Rated value. [3] – tc measured on the top of C16 capacitor for OF models. [4] – II= independent, IP20, class II; BI=built-in with enclosure; OF= built-in without enclosure; 110= overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of IEC/EN 60598-1.								

Type/s	ac or *dc [1] PRI current [A] at voltage	Power Factor [2]	Output Power (W)	Output Current (A)	U _{out} (V)	ta (°C)	tc (°C) [3]	Use [4]
DC MAXI JOLLY SV DALI IPR1 (K2E84), DC MAXI JOLLY SV DALI IPR1 LO (K2E85)	0,37 at 220-240 V 0,46 at 110-127 V	0,95 (Po>30 W)	3,5-70 3,5-40	0,35-1,4 [6]	60	-40..55 -40..60	90	II, IP68, 120
IPR1 70/1400 SV (K2E86)			14-70	1,4				

IPR1 70/1400 SV LO (K2E87)	*0,45 at 170-276 V		14-40			
IPR1 60/1200 SV (K2E88) IPR1 60/1200 SV LO (K2E89)	0,32 at 220-240 V 0,42 at 110-127 V *0,39 at 170-276 V	0,95 (Po>31 W)	12-60 12-40	1,2	-40..60 -40..65	
IPR1 52/1050 SV (K2E90) IPR1 52/1050 SV LO (K2E91)	0,28 at 220-240 V 0,42 at 110-127 V *0,33 at 170-276 V	0,95 (Po>31 W)	10-52 10-40	1,05	-40..70	
IPR1 45/900 SV (K2E92) IPR1 45/900 SV LO (K2E93)	0,25 at 220-240 V 0,42 at 110-127 V *0,29 at 170-276 V	0,95 (Po>31 W)	9-45 9-40	0,9	-40..70	
IPR1 35/700 SV (K2E94) IPR1 35/700 SV LO (K2E95)	0,2 at 220-240 V 0,37 at 110-127 V *0,23 at 170-276 V	0,95 (Po>31 W)	7-35	0,7	-40..70	
IPR1 25/500 SV (K2E96) IPR1 25/500 SV LO (K2E97)	0,16 at 220-240 V 0,26 at 110-127 V *0,18 at 170-276 V	0,85 C- 0,95	5-25	0,5	-40..70	

Notes: Codes for dimming: 152xxx for AM. LO models are provided of looping on mains, I_{max}= 5 A. [1] – 170-276 V is the operative d.c. range at which the product can work; they can be used for centralized emergency installations in the rated 189-250 V. [2] – Rated value. [3] – t_c measured on the enclosure. [4] – II= independent class II; BI=built-in with enclosure; OF= built-in without enclosure; IP68=case with IP68 protection. [6] – The value is according to AOC (Adjustable Output Current) via DALI port with DALI WEB PROGRAMMER (see instructions); 120= overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of IEC/EN 60598-1.

Connections		
Input supply	PRI (L, N)	screw terminal block 0,75...2,5 mm ² (for independent models) screwless terminal block 0,5...1,5 mm ² (for BI and OF models) IPR1 models provided with leads wiring J1-J2, J3-J4 (if present) H07RN-F 2x1 mm ²
Input for dimming or control	PUSH L, RED ON, RED OFF, DA, OPERATION, INSULATED 1..10V	screwless terminal block 0,75...1,5 mm ² IPR1 models provided with leads wiring J6-J7 H05RN-F 2x0,75 mm ²
Other controls	ADIM +/- or 1..10V, LEVEL, PUSH LV, NTC +/-, PIR +/-	screw terminal block 0,2...1,5 mm ² IPR1 models provided with leads wirings J13-J14 Style 20233 FT2 2x18AWG
Output reference	PR, NG	screwless terminal block 0,5...1,5 mm ²
Auxiliary voltage	V _{aux} +/-	screw terminal block 0,2...1,5 mm ²
Syncro	SYNC +/-	connector
Output load	SEC +/-	screw terminal block 0,75...2,5 mm ² (for independent models) screwless terminal block 0,5...1,5 mm ² (for BI and OF models) IPR1 models provided with leads wirings J15-J16 Style 20233 FT2 2x18AWG

Additional information	
Use	Independent and built-in for ordinary luminaire; up to 2000 m above sea level.
Features	Control gear for LED with stabilized output current or voltage (not for all models); multiple value load; short-circuit proof type; short-circuit proof type; impulse withstand category II and III; pollution degree 2; material group IIIa; overheating protection (C.5.a type) and comply with temperature limit of IEC/EN 60598-1; the material of enclosure was tested for Glow-wire at temperature of 750-960 °C. Vaux can supply an external fan (12 V, max. 100 mA). The PR connection is for protection of the LED module load. The output can be reduced by NTC control signal (if present) in case of overheating on the LED module. The SYNC port can synchronize other devices as master/slave configuration. IPR1 models have IP68 enclosure, input/output/dimming tails should be connected in terminal block or enclosure which is IP68 or better. NG models have an additional connection to reduce the glowing effect. Total circuit power: 28 W for IPR1 25/500 SV models, 39 W for IPR1 35/700 SV models, 47 W for SV 40 with cod. 125xxx, 151xxx and MP 40 models, 49 W for IPR1 45/900 SV models, 55 W for MP 50 S models, SV models with cod. 125xxx, 151xxx, WR models, 56 W for IPR1 52/1050 SV models, 57 W for other MP models with cod. 122xxx, SV cod. 127xxx, 65 W for DC MAXI JOLLY US and DC MJ models with cod. 123xxx, 125xxx, 126xxx, 127xxx, 135xxx, 151xxx, HV models, IPR1 60/1200 SV models, 68 W for DC MAXI JOLLY SV CASAMBI models, 75 W for DC MAXI JOLLY SV DALI IPR1, IPR1 70/1400 SV models.
DC operation	The products were tested in 176-280 V 0 Hz operational range according to IEC/EN 61347-2-13 and they can be used for centralized emergency installations in the rated range 189-250 V; d.c. operation can't be used for PUSH L/RED ON/OFF/ OPERATION features; d.c. operation for standards different from IEC/EN 61347 can be allowed with external fuse installed in front of the controlgear (e.g. Littelfuse, 477 series, 5x20 mm time-lag rated for 500 Vac / 400 Vdc, VDE certificate No. 40025413).
INSULATION (B= basic, S= supplementary, R= double or reinforced) between:	
PRI, PUSH L ↔ DA, DA1, DA2 (if present) PRI, PUSH L ↔ INSULATED 1-10V +/- (if present)	B
INSULATED 1..10V +/- (if present) ↔ Vaux +/-, NTC +/-, LED +/- DA, DA1, DA2 (if present) ↔ PR, NG (if present) DA, DA1, DA2 (if present) ↔ SYNC +/-, Vaux +/-, NTC +/-, ADIM +/- or 1-10V +/- (if present), LED+, LED-	S
PRI, PUSH L, RED ON, RED OFF, OPERATION (if present) ↔ PR (if present) PRI, PUSH L, ↔ NG (if present) PRI ↔ SYNC +/-, Vaux +/-, NTC +/-, ADIM +/- or 1-10V +/-, LEVEL +/-, PUSH LV +/-, PIR +/- (if present) PRI, PUSH L, RED ON, RED OFF, OPERATION (if present) ↔ LED+, LED-	R
active parts ↔ external touchable parts of independent models active parts ↔ bottom side of BI models	R
The creepage distances, clearances and connections of control gears shall be according to EN 60598-1 or national deviations of the country where installed in the final application. For SELV with Uout > 60Vdc, at least basic insulation according to Uout should be maintain between output circuit and accessible parts after class III application or at least one pole of the conductive parts in the SELV circuit shall be insulated by insulation capable of withstanding a test voltage of 500 V r.m.s. for 1 min.	
Assessment to EN 60598-2-22:2014/A1:2020 used in conjunction with EN IEC 60598-1:2021 has been performed. Assessment to EN 62493:2015 has been performed. Assessment to EN IEC 62442-3:2022 has been performed.	