# CERTIFICATE OF COMPLIANCE

Certificate Number E60645

**Report Reference** E60645-20130524

Date 2023-March-30

Issued to: Tyco Electronics France SAS

3 rue Jean Perrin Chassieu 69680 FR

This is to certify that representative samples of

TERMINAL BLOCKS - COMPONENT

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in

performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: UL 1059 - Terminal Blocks

CAN/CSA C22.2 No. 158 - Terminal Blocks

Additional Information: See the UL Online Certifications Directory at

https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner, VP Regulatory Services

UL LLC

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# CERTIFICATE OF COMPLIANCE

Certificate Number E60645

**Report Reference** E60645-20130524

Date 2023-March-30

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

USR and CNR Recognized Component - Spring type Terminal Blocks, Series ZK:

Cat. No(s). ZK followed by 2.5 may be followed by –CH-4P-LR, –CH-4P-RL, –S, -S-4P, SP, -SP-4P, –SF, -SF-R1, -SF-R3, -S-R1, -3P, 4P-R1, or -4P, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

Cat. No(s). ZK followed by 4 may be followed by –SF1, -SF1-R1, -SF1-R3, -S-R3, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

USR and CNR Recognized Component - Terminal Block Plugs, Series PG-FH, Cat. Nos: PG-FH, PG-FH-R1 and PG-FH-R3.

Cat. No(s). ZK followed by 4 may be followed by -3P or -4P, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

Cat. No(s). ZK followed by 6, 10, 16 may be followed by -3P followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

Cat. No(s). ZK followed by 10, 16 may be followed by -3P, followed by –PV, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

USR, CNR Recognized Component – Protective Conductor Terminal Blocks, Cat. No(s). ZK2.5-PE, ZK2.5-PE-3P, ZK2.5-PE-4P, ZK4-PE, ZK4-PE-3P, ZK4-PE-4P, ZK6-PE, ZK6-PE-3P, ZK10-PE, ZK10-PE-3P and ZK16-PE-3P.

Debrah Jennings-Course

Deborah Jennings-Conner, VP Regulatory Services

UL LLC

File E60645 Project 13CA10391

Issued: May 24,2013
Revised: March 21, 2023

REPORT

on

Terminal Blocks - Component

Tyco Electronics France SASChassieu Cedex

Recognized Company: Tyco Electronics France SAS

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#### DESCRIPTION

#### PRODUCT COVERED:

USR and CNR Recognized Component - Spring type Terminal Blocks, Series ZK:

Cat. No(s). ZK followed by 2.5 may be followed by -CH-4P-LR, -CH-4P-RL, -S, -S-4P, SP, -SP-4P, -SF, -SF-R1, -SF-R3, -S-R1, -3P, 4P-R1, or -4P, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

Cat. No(s). ZK followed by 4 may be followed by -SF1, -SF1-R1, -SF1-R3, -S-R3, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

USR and CNR Recognized Component - Terminal Block Plugs, Series PG-FH, Cat. Nos: PG-FH, PG-FH-R1 and PG-FH-R3.

Cat. No(s). ZK followed by 4 may be followed by -3P or -4P, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

Cat. No(s). ZK followed by 6, 10, 16 may be followed by -3P followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

Cat. No(s). ZK followed by 10, 16 may be followed by -3P, followed by -PV, followed by BL, OR, YL, GN, RD, PR, BR, WH, BK or blank;

USR, CNR Recognized Component - Protective Conductor Terminal Blocks, Cat. No(s). ZK2.5-PE, ZK2.5-PE-3P, ZK2.5-PE-4P, ZK4-PE, ZK4-PE-3P, ZK4-PE-4P, ZK6-PE, ZK6-PE-3P, ZK10-PE, ZK16-PE, ZK10-PE-3P and ZK16-PE-3P.

### GENERAL CHARACTER AND USE:

The terminal blocks covered by this Report are intended for use in the following applications and within the ratings specified.

### RATINGS:

Application -

Commercial appliances (such as business and EDP equipment, etc.)

General industrial (such as motor controllers, pushbutton stations, etc.  $% \left( 1\right) =\left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right)$ 

Terminal Blocks rated 601-1500V.

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Terminal Type -

Front	Back
Push-In Type (Wire Secured by Spring	Push-In Type (Wire Secured by Spring
Type Action)	Type Action)

Type Wiring - Factory and Field wiring.

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Ratings:

Ratings:									
Cat. No.	Wire Range	Wire Type, Cu	Stripping length	F W	Torqu e	Voltag e V ac	Current A	UG	CA
	AWG	21 7	(mm)		[N·m]				
ZK2.5	26-12	SOL / STR	11	2	N/A	600	20	В, С	2,(105),4
ZK2.5-3P	26-12	SOL / STR	11	2	N/A	600	20	В, С	2,(105),4
ZK2.5-4P	26-12	SOL / STR	11	2	N/A	600	20	В, С	2,(105),4
ZK2.5-S-4P	26-12	SOL / STR	11	2	N/A	300	20	В, С	2,(105),4
						600	5	D	2,(105),4
ZK2.5-SP- 4P	26-12	SOL / STR	11	2	N/A	300	18	В, С	2,(105),4
						600	5	D	2,(105),4
ZK2.5-4P- R1	26-12	SOL / STR	11	2	N/A	300	20	В, С	2,(105),4
						600	5	D	2,(105),4
ZK2.5-CH- 4P-LR	26-12	SOL / STR	11	2	N/A	300	1	В, С	2,(105),4
	0.0.1.0					600	1	D	2,(105),4
ZK2.5-CH- 4P-RL	26-12	SOL / STR	11	2	N/A	300	1	В, С	2,(105),4
	0.0.1.0					600	1	D	2,(105),4
ZK4	26-10	SOL / STR	12.5	2	N/A	600	30	В, С	2,(105),4
ZK4-3P	26-10	SOL / STR	12.5	2	N/A	600	30	В, С	2,(105),4
ZK4-4P	26-	SOL / STR	12.5	2	N/A	600	30	В, С	2,(105),4
ZK6	24-8	STR	12.5	2	N/A	600	50	В, С	2,(105),4
	(1)	SOL					30		
ZK6-3P	24-8	STR	12.5	2	N/A	600	50	в, с	2,(105),4
	(1)	SOL					30		
ZK2.5-SF	26-12	SOL / STR	11	2	N/A	300	16	В, С	2,(105),4
						600	5	D	2,(105),4
ZK2.5-SF- R1	26-12	SOL / STR	11	2	N/A	300 (2)	16	В, С	2,(105),4
						600	5	D	2,(105),4
ZK2.5-SF-	26-12				/-	300	16		0 (10=)
R3	20-12	SOL / STR	11	2	N/A	(2)	10	В, С	2,(105),4
						600 (2)	5	D	2,(105),4
ZK2.5-S-R1	26-12	SOL / STR	11	2	N/A	300	20	В, С	2,(105),4
					,	600	5	D	2,(105),4
ZK4-SF1	26-10	SOL / STR	12.5	2	N/A	300	7.5	В, С	2,(105),4
						600	5	D	2,(105),4
ZK4-SF1-R1	26-10	SOL / STR	12.5	2	N/A	300 (2)	7.5	в, с	2,(105),4
						600	5	D	2,(105),4
ZK4-SF1-R3	26-10	SOL / STR	12.5	2	N/A	300 (2)	7.5	в, с	2,(105),4
						600	5	D	2,(105),4
ZK4-S-R3	26-10	SOL / STR	12.5	2	N/A	300	7.5	в, с	2,(105),4
						600	5	D	2,(105),4

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## Ratings continued:

ZK2.5-SP	26-12	SOL /	11	2	N/A	300	18	В, С	2,(105),4		
		STR				600	5	D	2,(105),4		
ZK2.5-S	26-12	SOL /	11	2	N/A	N/A	N/A	300	20	В, С	2,(105),4
		STR				600	5	D	2,(105),4		
ZK10	20-6	STR	15	2	N/A	600	55	В, С	2,(105),4		
	20-10	SOL					30				
ZK10-3P	20-6	STR	15	2	N/A	600	56	В, С	2,(105),4		
	20-10	SOL					30				
7210 2D	20-6	STR	15		/-	1000	56	_	0 (105) 4		
ZK10-3P	20-10	SOL		2	N/A	1000	30	E	2,(105),4		
*											
ZK10-PV	20-6	STR	15	2	N/A	1000	55	E	2 (105) 4		
	20-10	SOL					30	E	2,(105),4		
ZK10-3P-PV	20-6	STR	15	2	N/A	1000	56		2 (105) 4		
	20-10	SOL					30	E	2,(105),4		
ZK16	20-4	STR	15	2	N/A	600	75	в, с	2,(105),4		
	20-10	SOL					30				
ZK16-3P	20-4	STR	15	2	27 / 7	600	75	D 0	0 (105) 4		
21(10-5)	20-10	SOL			N/A	000	30	В, С	2,(105),4		
ZK16-3P	20-4	STR	15	2	27 / 7	1000	75		0 (105) 4		
ZK10-5F	20-10	SOL			N/A	1000	30	E	2,(105),4		
ZK16-PV	20-4	STR	15	2	N/A	1000	75		0 (105) 4		
	20-10	SOL					30	E	2,(105),4		
ZK16-3P-PV	20-4	STR	15	2	N/A	1000	75	_	0 (105) 1		
	20-10	SOL					30	E	2,(105),4		
ZK10-PE, ZK10-PE-3P	20-6(1)	SOL/STR	15	2	N/A	N/A	N/A	В, С	2,(105),4		
ZK16-PE, ZK16-PE-3P	20-4(1)	SOL/STR	15	2	N/A	N/A	N/A	В, С	2,(105),4		
ZK6-PE, ZK6-PE-3P	24- 8(1)	SOL/STR	12.5	2	N/A	N/A	N/A	В, С	2,(105),4		
ZK2.5-PE, ZK2.5-PE-	26-12	SOL/STR	11	2	N/A	N/A	N/A	В, С	2,(105),4		
3P, ZK2.5-PE- 4P											
ZK4-PE, ZK4-PE-3P, ZK4-PE-4P	26-10	SOL/STR	12.5	2	N/A	N/A	N/A	В, С	2,(105),4		

Note 1. Maximum solid wire size is 10AWG.

Note 2 - **Models** ZK2.5-SF-R1, **ZK4-SF1-R1** will be used below 110V because electronic element is 24-110V rated, and Models ZK2.5-SF-R3, **ZK4-SF1-R3** will be used below 250V because electronic element is 115-250V rated.

The terminal blocks tabulated below have optional single-phase short circuit current ratings. The Terminal Blocks must be protected by the max ampere and Class of overcurrent protective device noted below.

Cat. No.	Wire Range kcmil/AWG Line, Load	Overcurrent Protection Fuse Required Class/Max Amp Rating						Torque [Nm]	SCCR, RMS Sym A	Volts Max AC
		RK1	RK5	J	Т	G	CC		(single phase only)	
ZK2.5, ZK2.5-3P, ZK2.5-4P	14-12 AWG STR/SOL	100	30	110	110	60	30	N/A	100000	600
ZK4, ZK4-3P, ZK4-4P	10 AWG STR	100	60	175	175	60	30	N/A	100000	600
ZK6, ZK6-3P	10-8 AWG STR 10AWG SOL	200	100	250	250	60	30	N/A	100000	600
ZK10	10-6 AWG STR 10AWG SOL	200	100	250	250	60	30	N/A	100000	600
ZK16	10-4 AWG STR 10AWG SOL	200	100	250	250	60	30	N/A	100000	600
ZK10-3P	10-6 AWG STR 10AWG SOL	200	100	250	250	60	30	N/A	100000	600
ZK16-3P	10-4 AWG STR 10AWG SOL	200	100	250	250	60	30	N/A	100000	600

For SCCR ratings, enclosure size employed for tests is  $80 \times 130 \times 100$  mm for Cat. Nos. ZK2.5, ZK2.5-3P, ZK2.5-4P, ZK4, ZK4-3P, ZK4-4P, ZK6, ZK6-3P, ZK10, ZK10-3P, ZK16 and ZK16-3P.

Ratings for Terminal Block Plugs, Series PG-FH:

Table

Cat.No.	Wire Range AWG	Wire Type, Cu	FW	Torque Nm	Voltage V	Current A	UG	CA
PG-FH, PG-	NI / I	27 / 7	37/7	27.7	300 (4)	18	В,С	0 (105) 4
FH-R1, PG- FH-R3 (5)	N/A	N/A	N/A	N/A	300 (4)	10	D	2(105),4

- (4) Terminal Block Plug, Model No. PG-FH-R1 will be used under 110V maximum because electronic element is 24-110V rated and Model No. PG-FH-R3 will be used under 250V maximum because electronic element is 115-250V rated.
- (5) Terminal Block Plugs, Model No(s): PG-FH, PG-FH-R1 and PG-FH-R3 are intended to be used with UL, recognized Terminal Block, Model No(s): ZS4-SP, ZS4-SP-T2, ZS4-SP-R1, ZS4-SP-T2-R1, ZK2.5-SP and ZK2.5-SP-4P recognized in file E60645 vol. 8, sec. 1 and 4.