



America

CERTIFICATE

No. U8 080346 0038 Rev. 00

Holder of Certificate: **Fortress Interlocks Ltd**
2 Inverclyde Drive
Wolverhampton, West Midlands WV4 6FB
UNITED KINGDOM

Certification Mark:



Product: **Control units**

This product was voluntarily tested to the relevant safety requirements referenced on this certificate. It can be marked with the certification mark above. The mark must not be altered in any way. This product certification system operated by TÜV SÜD America Inc. most closely resembles system 3 as defined in ISO/IEC 17067. Certification is based on the TÜV SÜD "Testing and Certification Regulations". TÜV SÜD America Inc. is an OSHA recognized NRTL for USA and a Standards Council of Canada ISO/IEC 17065 accredited Certification body for Canada.

Test report no.: 713264449

Date, 2022-10-05

(Benedikt Pulver)



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Model(s): tGard series
For nomenclature, please refer attachment

Tested according to: UL 508:2018/R:2021-07
CSA C22.2 No. 14:2018

Parameters:

Switches	
Rated voltage:	24V AC/DC
Rated frequency:	50/60 Hz
Rated current:	0.5A
Degree of Protection class against liquids	IP65 – (Type 1 Enclosure)

Pushbuttons	
Rated voltage:	24V DC
Rated frequency:	---
Rated current:	0.1A
Degree of Protection class against liquids	IP65 – (Type 1 Enclosure)

Solenoid	
Rated voltage:	24V DC
Rated frequency:	---
Rated current:	0.35A
Degree of Protection class against liquids	IP65 – (Type 1 Enclosure)

RF Module	
Rated voltage:	24V DC
Rated frequency:	---
Rated current:	0.05A
Degree of Protection class against liquids	IP65 – (Type 1 Enclosure)



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Nomenclature of tGard Series

TAx/ TEx	Hx	Rx	SG/ GN/ AB/ QB	Sx	SxxU/ SxxL	EB	Ex	Dx	Sx	SZ/ V4	Px/ Gx/ Jx/ Xx	Ux/ 2x	Zx	Px/ Gx/ Xx/ Kx/ MB/ PS	Lx	
1	2	3	4	5	6	7	8	8a	9	10	11a	11b	11c	12a	12b	13

3x/ K7	Nx	BF/ Qx	Qx	Wx	EBBx	KS/KM/WL
14	15	16	17	18	19	20

Device	Nomenclature	Description
1. Actuators		
	TAF	Fixed Actuator
	TAH	Handle Actuator – Hinged Door
	TAS	Handle Actuator – Sliding Door
	THB	Blank Handle
	TEN	Handle Actuator – (no internal knob)
	TEH	Handle Actuator
2. Head Modules		
	THC	Cap Element
	THM	Actuator Head Element
	THF	THM + TAF = THF / Head module including fixed actuator
	THH	THM + TAH = THH / Head module including hinged actuator
	THS	THM + TAS = THS / Head module including sliding actuator
	THE	THM + TEH = THE / Head module including handle actuator
	THN	THM + TEN = THN / Head module including handle actuator (no internal knob)
3: Internal Release		
	TRX	Standard 60 mm Internal Release
	TRZ	Variable length Internal Release
4: Safety & Access Lock Element		
	TSN	Standard Safety Lock (no key)
	TGN	Master Safety Lock (no key)



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	TAB	Standard Access Lock (no key)	
	TQB	Master Access Lock (no key)	
5: Safety Switches			
	TSM	Safety Switch	
	TSP	Safety Switch	
	TSS	Safety Switch – No N/O monitor contact	
	TZS	Safety Switch – Monitored -Equivalent to TSS	
6: Solenoid Controlled Lock & Safety Switch Elements – Power to Un-Lock / Power to Lock			
	TSMDU/ TSMDL	Head & solenoid safety in series (TSMDU – Power to Un-lock / TSMDL – Power to Lock)	
	TSMEU TSMEL	Safety on head element only (TSMEU – Power to Un-lock / TSMEL – Power to Lock)	
	TSMFU TSMFL	Four safety circuits (TSMFU – Power to Un-lock / TSMFL – Power to Lock)	
	TSSEU TSSEL	Safety on head element only (no monitoring contact on head) (TSSEU – Power to Un-lock / TSSEL – Power to Lock)	
7: Extension Blank			
	TEB	Blank	
8: Emergency Stop Element			
	TEC	Twist	0 – wired in series with TSS or TSM unit
	TED	Pull	
	TEW	Twist / Additional 1xNO Contact	
	TEV	Twist / Illuminated	
	TET	Twist	2 – independently wired
	TEM	Pull	
	TEP	Twist / Additional 1xNO Contact	
	TEI	Twist / Illuminated	
	TEY	Twist / Illuminated	
	TEA	Pull	



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	TES	Black Twist	
8a: Emergency Stop Element with shroud			
	TDC	Twist with shroud	0 – wired in series with TSS or TSM unit
	TDD	Pull with shroud	
	TDW	Twist / Additional 1xNO Contact with shroud	
	TDV	Twist / Illuminated with shroud	
	TDT	Twist with shroud	2 – independently wired
	TDM	Pull	
	TDP	Twist / Additional 1xNO Contact	
	TDI	Twist / Illuminated	
	TDS	Black Twist with shroud	
9: Start Re-Start Switch			
	TSR	Start Re-start Switch - Blue	
	TS3	Start Re-start Switch - Green	
	TST	Start Re-start Switch - Black	
	TSK	Start Re-start Switch - Black Mushroom	
10: Blue Independently Wired Switch & Potentiometer			
	TSZ	Blue Independently Wired Change Over Switch	
	TV4	Potentiometer 10K	
11a: Illuminating Switches			
	TP1	Illuminated Push Button – Red	
	TP2	Illuminated Push Button – Yellow	
	TP3	Illuminated Push Button – Green	
	TP6	Illuminated Push Button – Blue	
	TP7	Illuminated Push Button - White	
	TG1	Protruding Illuminated Push Button – Red	
	TG3	Protruding Illuminated Push Button - Green	



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	TG5	Protruding Illuminated Push Button – Yellow
	TG6	Protruding Illuminated Push Button – Blue
	TG7	Protruding Illuminated Push Button – White
	TP9	Recessed Illuminated Push Button - White
	TJ1	1 N/O Illuminated Push Button (Latching) – Red
	TJ2	1 N/O Illuminated Push Button (Latching) – Yellow
	TJ3	1 N/O Illuminated Push Button (Latching) – Green
	TJ6	1 N/O Illuminated Push Button (Latching) – Blue
	TJ7	1 N/O Illuminated Push Button (Latching) – White
	TX1	1 N/O & 1N/C Illuminated Push Button - Red
	TX2	1 N/O & 1N/C Illuminated Push Button - Yellow
	TX3	1 N/O & 1N/C Illuminated Push Button - Green
	TX6	1 N/O & 1N/C Illuminated Push Button - Blue
	TX7	1 N/O & 1N/C Illuminated Push Button - White
	TY1	1 N/O & 1N/C Protruding Illuminated Push Button - Red
	T4Y	2 N/O Illuminated Push Button - Green
	T4Z	2 N/O Illuminated Push Button - Blue
11b: Illuminating Switches		
	TU1	Volt Free Contacts Illuminated Push Button - Red
	TU2	Volt Free Contacts Illuminated Push Button - Green
	TU3	Volt Free Contacts Illuminated Push Button - Yellow
	TU6	Volt Free Contacts Illuminated Push Button - Blue
	TU7	Volt Free Contacts Illuminated Push Button - White
	T2E	2 Position Illuminated Selector Switch - Latching
	T2F	2 Position Illuminated Selector Switch - Momentary
	TTY	Volt Free Contacts Push Button – Yellow -1N/O 1N/C
	TT3	Volt Free Contacts Push Button- Green-1N/O 1N/C
	TT6	Volt Free Contacts Push Button- Blue-1N/O 1N/C
	TT7	Volt Free Contacts Push Button- White-1N/O 1N/C
11c Touch Sensor/LED Indicator		
	TZB	2 Colour Touch Sensor
	TZL	3 Colour Indicator
	TZ1	Red Colour Touch Sensor
	TZ3	Green Colour Touch Sensor



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	TOT	2 Colour Touch Sensor Gen 2, Momentary Output
12a: Non-Illuminating Switches		
	TPB	1 N/O Non- Illuminated Push Button – Black
	TPR	1 N/O Non- Illuminated Push Button - Red
	TPG	1 N/O Non- Illuminated Push Button – Green
	TPW	1 N/O Non- Illuminated Push Button – White
	TPY	1 N/O Non- Illuminated Push Button – Yellow
	TPZ	1 N/O Non- Illuminated Push Button – Blue
	TGB	Protruding 1 N/O Non- Illuminated Push Button Protruding – Black
	TGR	Protruding 1 N/O Non- Illuminated Push Button Protruding - Red
	TGG	Protruding 1 N/O Non- Illuminated Push Button Protruding – Green
	TGW	Protruding 1 N/O Non- Illuminated Push Button Protruding – White
	TGY	Protruding 1 N/O Non- Illuminated Push Button Protruding – Yellow
	TGZ	Protruding 1 N/O Non- Illuminated Push Button Protruding – Blue
	TYR	Protruding 1 N/O & 1 N/C Non- Illuminated Push Button Protruding - Red
	TPL	1 N/O Non- Illuminated Recessed Push Button – White
	TXB	1 N/O & 1 N/C Non- Illuminated Push Button - Black
	TXR	1 N/O & 1 N/C Non- Illuminated Push Button - Red
	TXG	1 N/O & 1 N/C Non- Illuminated Push Button - Green
	TXW	1 N/O & 1 N/C Non- Illuminated Push Button - White
	TXY	1 N/O & 1 N/C Non- Illuminated Push Button - Yellow
	TXZ	1 N/O & 1 N/C Non- Illuminated Push Button - Blue
	TDK	1 N/O & 1 N/C Non- Illuminated Push Button with Mushroom head - Black
	TSB	2 N/C Non- Illuminated Push Button – Black
12b: Non-Illuminating Switches		
	TUB	Volt Free Contacts Non-Illuminated Push Button - Black
	TUR	Volt Free Contacts Non-Illuminated Push Button - Red
	TUG	Volt Free Contacts Non-Illuminated Push Button - Green
	TUW	Volt Free Contacts Non-Illuminated Push Button - White
	TUY	Volt Free Contacts Non-Illuminated Push Button - Yellow



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	TUZ	Volt Free Contacts Non-Illuminated Push Button - Blue
	T2A	2 Position Non-Illuminated Selector Switch - Latching
	T2D	2 Position Non-Illuminated Selector Switch - Momentary
	T2V	2 Position Non-Illuminated Selector Switch – 1 N/O & 1 N/C
	TK5	2 Position Non-Illuminated Selector Key Switch - Latching
	TK6	2 Position Non-Illuminated Selector Key Switch - Momentary
	TMB	1 N/O Non-Illuminated Mushroom Push Button - Black
	TPS	1 N/O Non-Illuminated Push Button (Latching) - Black
	TTY	Volt Free Contacts Push Button – Yellow -1N/O 1N/C
	TT3	Volt Free Contacts Push Button- Green-1N/O 1N/C
	TT6	Volt Free Contacts Push Button- Blue-1N/O 1N/C
	TT7	Volt Free Contacts Push Button- White-1N/O 1N/C
	T5Z	Volt Free Contacts Non-Illuminated Push Button – 2 N/O Blue
	T5G	Volt Free Contacts Non-Illuminated Push Button – 2 N/O Green
13: LED Lamp Element		
	TLB	LED Lamp Element - Blue
	TLG	LED Lamp Element - Green
	TLR	LED Lamp Element - Red
	TLW	LED Lamp Element - White
	TLY	LED Lamp Element - Yellow
14: Position Selector Switches – Latching & Momentary		
	T3A	Latching (Both Sides)
	T3D	Momentary
	T3E	Latching (Both Sides) Illuminated
	T3F	Momentary Illuminated
	T3H	Momentary / Latching
	T3J	3 Position. Anti-Clock = Latching, Clock = Momentary.
	T3K	3 Position Anti-Clock = Latching, Clock = Momentary. Illuminated
	T3L	3 Position Anti-Clock = Latching NC, Clock = Momentary. NO, Illuminated
	TK7	Key Latching (Both Sides)
	TK8	3 Position Key Switch, Momentary
	TK9	Key Latching (Both Sides) 1 NO ,1NC
	TKA	2 Position Momentary Key Selector Switch



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	TK0	2 Position Latching Key Selector Switch
	TKY	2 Position Latching Key Selector Switch
	TKX	2 Position Momentary Key Selector Switch
	T3B	3 Position Momentary Illuminated Switch
15.RF Module		
	TNA	RF SSR and Monitor
	TNB	RF OSSD and Monitor
	TNC	RF OSSD with Inputs and Monitor
	TNR	RF SSR without Monitor
	TNS	RF OSSD without Monitor
	TNT	RF OSSD with Inputs and no Monitor
16: Foot Safety & Control Connectors		
	TBF	Foot – For terminating purely mechanical configurations (no wiring)
	TQ1	5 Pin M12 QD
	TQA	5 Pin M12 QD
	TQC	5 Pin M12 QD
	TQ2	8 Pin M12 QD
	TQ3	8 Pin M12 QD
	TQP	8 PIN M12 QD
	TQD	8 PIN M12 QD
	TQS	8 PIN M12 QD
	TQR	8 PIN M12 QD
	TQY	8 PIN M12 QD
	TQT	10 PIN M12 QD
	TQL	12 Pin M12 QD
	TQM	12 Pin M12 QD
	TQ4	12 Pin M23 QD
	TQ5	12 Pin M23 QD
	TQK	12 Pin M23 QD
	TQ7	14 Pin 7/8" UN2 QD
	TQE	14 Pin 7/8" UN2 QD
	TQ8	19 Pin M23 QD
	TQ9	19 Pin M23 QD



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	TB9	19 Pin M23 QD
	TQG	8 Pin M12 QD for OSSD
	TQO	12 Pin M12 QD for OSSD
	TQH	12 Pin M23 QD for OSSD
	TQI	14 Pin 7/8" UN2 QD for OSSD
	TQJ	19 Pin M23 QD for OSSD
	TQQ	19 Pin M23 QD for OSSD
17: Mating Cables for Quick Disconnect Connectors		
	TQ1	5 Pin Connector
	TQ2	8 Pin Connector
	TQ3	8 Pin Connector
	TQ4	12 Pin Connector
	TQ5	12 Pin Connector
	TQ7	14 Pin Connector
	TQ8	19 Pin Connector
	TQ9	19 Pin Connector
	TQG	8 Pin Connector
	TQO	12 Pin Connector
	TQH	12 Pin Connector
	TQI	14 Pin Connector
	TQJ	19 Pin Connector
	TQQ	19 Pin Connector
18: Self Wire Connectors		
	TW1	12 Terminals / 6 Control I/O / 2 Safety Circuits
	TW3	24 Terminals / 14 Control I/O / 4 Safety Circuits
	TW4	24 Terminals / 10 Control I/O / 6 Safety Circuits
	TW7	12 Terminals / 8 Control I/O / 2 Safety Circuits for OSSD
	TW8	24 Terminals / 16 Control I/O / 4 Safety Circuits for OSSD
	TW9	24 Terminals / 12 Control I/O / 6 Safety Circuits for OSSD
	TWP	12 Terminals Monitor and Safety
	TWK	12 Terminals Monitor ,Safety and Drive
19: AS-interface		
	TEBB4	Up to 2 AS-i nodes



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	TEBB8	Up to 4 AS-i nodes
	TEBB6	1 AS-I Safety node
20: Accessories		
	TKS	Standard Key
	TKM	Master Key
	TWL	White Legend Plate
	TNH	RF Actuator
	TNX	RF Teach Token
	TWA	Upward Facing Legend Plate
	TWB	Right Facing Legend Plate
	TWC	Bottom Facing Legend Plate
	TWD	Left Facing Legend Plate
	TWE	Bottom Facing Legend Plate
	TWF	Left Facing Legend Plate
	TWG	Top Facing Legend Plate
	TWH	Right Facing Legend Plate
	TYL	Yellow Legend Plate