

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

- 2. **Certificate No:** FM16US0108X
- 3. **Equipment:** Minifast Process Wiring System
(Type Reference and Name)
- 4. **Name of Listing Company:** Turck Inc
- 5. **Address of Listing Company:** 5000 Fernbrook Ln N
Plymouth, MN 55441
United States

6. The examination and test results are recorded in confidential report number:
3052174 dated 4th July 2016

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM3600:2018, FM3611:2021, FM3810:2021, ANSI/UL 12.12.01:2017
ANSI/UL 60079-0:2020, ANSI/UL 60079-7:2017, ANSI/ISA 60079-15: 2013,
ANSI/UL 61010-1:2015, ANSI/IEC 60529:2004

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10. Equipment Ratings:

Non Incendive for Class I, Division 2, Groups A, B, C, D hazardous locations indoors and outdoors (IP68).
Nonsparking and Increased safety for Class I, Zone 2, Groups IIC; Increased Safety for Class I, Zone 1 or Zone 2, Groups IIC.

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

21 October 2021

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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11. The marking of the equipment shall include:

A-Sized Minifast Cords with 2, 3, or 4 conductors, A-Size Minifast Receptacles with 2, 3, or 4 conductors

CL I, Zn 1, AEx eb IIC T5 Gb
Install per NI-2.422
 $-40^{\circ}\text{C} \leq \text{Ta} \leq 70^{\circ}\text{C}$ ($\leq 90^{\circ}\text{C}$ with $I \leq 600\text{mA}$)

A-Sized Minifast Cords with 2, 3, 4, 5 or 6 conductors, A-Size Minifast Receptacles with 2, 3, 4, 5 or 6 conductors, B-Sized Minifast Cords, B-Size Minifast Receptacles, C-Sized Minifast Cords, C-Size Minifast Receptacles, Minifast Junction Box, Field Wireable Front Panel Mount Receptacles

CL I, Div 2, Grps A, B, C, D, T5
CL I, Zn 2, AEx nA IIC T5 Gc
CL I, Zn 2, AEx ec IIC T5 Gc
Install per NI-2.422
 $-40^{\circ}\text{C} \leq \text{Ta} \leq 70^{\circ}\text{C}$ ($\leq 90^{\circ}\text{C}$ with $I \leq 600\text{mA}$)

12. **Description of Equipment:**

General - The Turck process wiring system is comprised of male and female minifast cords, receptacles, connector guards, and junction boxes. The cords, receptacles, and junction boxes have varying pinouts or number of ports. The Lokfast connector guard prevents disconnection without the use of a tool.

Ratings - The Turck cords and receptacles are supplied with voltages up to 300V. The ambient operating temperature range is -40°C to $+70^{\circ}\text{C}$. For specific model code configurations, a maximum ambient temperature of $+82^{\circ}\text{C}$, $+85^{\circ}\text{C}$, or $+90^{\circ}\text{C}$ is permitted if the current is reduced as detailed in Control Drawing NI-2.422 and NI-2.425.

A-Size Minifast Cords

Model No.	Description
P-Xa-RKVZ bc-de-fMg	Female A-size cord with 7/8" coupling thread, standard
P-Xa-RKVBZ bc-de-fMg	Female A-size cord with 7/8" coupling thread, large diameter
P-Xa-RSVZ bc-de-fMg	Male A-size cord with 7/8" coupling thread, standard
P-Xa-RSVBZ bc-de-fMg	Male A-size cord with 7/8" coupling thread, large diameter

- a = Approval Code: 2 or blank
- b = Number of Conductors: 2, 3, 4, 5, or 6
- c = Pinout: 0-9, 00-09, 10-99
- d = Cable Type: 3- or 4-digit number
- e = Cable Option: XL or blank
- f = Lead/Cable Length
- g = Accessory Option: /S1331, /S1599, /S3400, or blank

B-Size Minifast Cords

Model No.	Description
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P-Xa-RKVZ bc-de-fMg	Female B-size cord with 1" coupling thread
P-Xa-RSVZ bc-de-fMg	Male B-size cord with 1" coupling thread

- a = Approval Code: 2 or blank
- b = Number of Conductors: 7 or 8
- c = Pinout: 0-9, 00-09, 10-99
- d = Cable Type: 4-digit number
- e = Cable Option: XL or blank
- f = Lead/Cable Length
- g = Accessory Option: /S1331, /S1599, /S3400, or blank

C-Size Minifast Cords

Model No.	Description
P-Xa-RKVZ bc-de-fMg	Female C-size cord with 1 1/8" coupling thread
P-Xa-RSVZ bc-de-fMg	Male C-size cord with 1 1/8" coupling thread

- a = Approval Code: 2 or blank
- b = Number of Conductors: 9, 10, 12, or 19
- c = Pinout: 0-9, 00-09, 10-99
- d = Cable Type: 4-digit number
- e = Cable Option: XL or blank
- f = Lead/Cable Length
- g = Accessory Option: /S1331, /S1599, /S3400, or blank

A-Size Minifast Receptacles

Model No.	Description
P-X-RaFV bcd-e/fg	A-size receptacle with 7/8" coupling thread

- a = K (female) or S (male)
- b = Number of Conductors: 2, 3, 4, 5, or 6
- c = Pinout: 0-9, 00-09, 10-99
- d = Drain connected: D or blank
- e = Lead/Cable Length
- f = Entry Thread: 14.5/NPT, 14.75/NPT, M20 or M20/S3526
- g = Accessory Option: /S1331, /S1599, /S3399, or blank

B-Size Minifast Receptacles

Model No.	Description
P-X-RaFV bcd-e/fg	B-size receptacle with 1" coupling thread

- a = K (female) or S (male)
- b = Number of Conductors: 7 or 8
- c = Pinout: 0-9, 00-09, 10-99
- d = Drain connected: D or blank
- e = Lead/Cable Length
- f = Entry Thread: 14.5/NPT, 14.75/NPT, M20 or M20/S3526
- g = Accessory Option: /S1331, /S1599, /S3399, or blank

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C-Size Minifast Receptacles

Model No.	Description
P-X-RaFV bcd-e/fg	C-size receptacle with 1 1/8" coupling thread

- a = K (female) or S (male)
- b = Number of Conductors: 9, 10, 12 or 19
- c = Pinout: 0-9, 00-09, 10-99
- d = Drain connected: D or blank
- e = Lead/Cable Length
- f = Entry Thread: 14.5/NPT, 14.75/NPT, M20 or M20/S3526
- g = Accessory Option: /S1331, /S1599, /S3399, or blank

Minifast Junction Box

Model No.	Description
P-X-a-b-c RdFVef [c RdFVef]* [c RdFVef]* - RdFVgfh	Minifast ports, A-, B-, or C-size home-run connector

- a = Enclosure material: SS or blank
- b = Total number of ports 3, 4, 5, 6, 7 or 8
- c = Number of ports of a given type if all ports are not identical: -1, -2, -3, -4, -5, -6, -7 or blank
- d = Port connector gender: K or S
- e = Number of port connector conductors: 2, 3, 4, 5, 6, 7, or 8
- f = Wiring option: 0, 1, 2, 3, . . . 9, 01, 02, 03, . . . 99
- g = Home-run connector conduit count: 4, 5, 6, 7, 8, 9, 10, 12 or 19.
- h = Accessory Option: /S1331, /S1599, or blank

Field Wireable Front Panel Mount Receptacles

Model No.	Description
081-004-293 or P-X-RSFV 126/Flange	Field Wireable Front Panel Mount Receptacle

13. **Specific Conditions of Use:**

1. The Lokfast guards present a potential electrostatic charging hazard. Clean only with a damp cloth.
2. Elevated ambient temperatures are permitted for specific configurations per control drawing NI-2.422 and NI-2.425.

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

Details of the supplements to this certificate are described below:

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Date	Description
4 th July 2016	Original Issue.
18 th August 2017	<u>Supplement 1:</u> Report Reference: 3060887 dated 18 th August 2017. Description of the Change: Adding method of protection "ec". Additional model options.
13 th December 2018	<u>Supplement 2:</u> Report Reference: RR216656 dated 13 th December 2018. Add shortened M20 thread option. Added option M20/S3526, previous M20 is now short version new M20/3526 is now long version.
7 th April 2020	<u>Supplement 3:</u> Report Reference: PR452231 dated 7 th April 2020. Description of the Change: Added the Field Wireable Front Panel Mount Receptacles to the Minifast process wiring system.
21 st October 2021	<u>Supplement 4:</u> Report Reference: PR258717 dated 21 st October 2021. Update standard editions to the FM3600:2018, FM3611:2021, FM3810:2021, ANSI/UL 60079-0:2020. Add increased safety 'eb' protection level for A Size Minifast products. Updated address.

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