Product Change Notification

Date Issued :	August 12, 2026	**PCN Number :**	518589
Reason for Change :	Change to Product		
Description of Change :	This notification is to inform you about changes that are being made to the part(s) as identified in the list. This change is not a product change, just a specification change, and will not affect the Fit, Form, Function, or appearance of the parts.		
Reason for Short Notice :	Special Request		
Assessment of Change :	No change to parts - Form/Fit/Function		
Planned Implementation Date :	November 01, 2026		
Customer Sample Availability Date:	August 30, 2026		

Last date to request Samples by Customer : September 30, 2026

Please note if Samples are not requested as per Customer Samples Request date, it may take additional 4-6 weeks to arrange Samples.

Traceability Code Markings / Date : No special marking on the product or packaging

Change Overview for 220099/210100/219018/219019

- This change is to revise the Product Specifications(PS) to match pollution degree 3 according to the Creepage distance of this product to the standard(IEC 60664-01) as follows.
- This change is a revision of the PS document and there are no changes related to the product and process.

ITEM	BEFORE	AFTER
Creepage Distance	FPC : 0.62mm FFC : 0.605mm	
Pollution degree	Referenced Rated Voltage when use FPC Application Pollution Degree / Allowable Voltage (R.M.S) Pollution Degree 1 / V < 250 Pollution Degree 2 / V < 32 Pollution Degree 3 / V < 10 Referenced Rated Voltage when use FFC Application Pollution Degree / Allowable Voltage (R.M.S) Pollution Degree 1 / V < 200 Pollution Degree 2 / V < 25 Pollution Degree 3 / V < 10	Referenced Rated Voltage when use FPC. Application Pollution Degree / Allowable Voltage (R.M.S) Pollution Degree 1 / V < 250 Pollution Degree 2 / V < 32 Pollution Degree 3 / Not Applicable Referenced Rated Voltage when use FFC. Application Pollution Degree / Allowable Voltage (R.M.S) Pollution Degree 1 / V < 250 Pollution Degree 2 / V < 25 Pollution Degree 3 / Not Applicable
IEC 60664-01		Creepage distance for Pollution degree 3 : 1.0mm Min. (See the next page for details)

Change Overview for 225433/219019/226538/226539

- This change is to revise the Product Specifications(PS) to match pollution degree 3 according to the Creepage distance of this product to the standard(IEC 60664-01) as follows.
- This change is a revision of the PS document and there are no changes related to the product and precess.

<table>
<tr><th>ITEM</th><th>BEFORE</th><th>AFTER</th></tr>
<tr><td>Creepage Distance</td><td colspan="2">225433 series : FPC 0.62mm
226538 series : FPC 0.62mm/FFC 0.65mm</td></tr>
<tr><td>Pollution degree</td><td>Referenced Rated Voltage when use FPC
<table><tr><th>Application Pollution Degree</th><th>Allowable Voltage (R.M.S)</th></tr><tr><td>Pollution Degree 1</td><td>V < 250</td></tr><tr><td>Pollution Degree 2</td><td>V < 32</td></tr><tr><td>Pollution Degree 3</td><td>V < 10</td></tr></table>Referenced Rated Voltage when use FFC
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<tr><td>IEC 60664-01</td><td></td><td>Creepage distance for Pollution degree 3 : 1.0mm Min.
(See the next page for details)</td></tr>
</table>

Change Overview

- Part Number Impact :
  - 2200991010 & 2200991011/2200991020 & 2200991021
  - 2201001200 & 2201001201/2190191010 & 2190191011
  - 2190180010 & 2190180011 & 2190180120 & 2190180121
- Part Number Impact :
  - 2190190120 & 2190190121/2190190240 & 2190190241
  - 2254330120 & 2254330121/2254330240 & 2254330241
  - 2265380120 & 2265380121/2265390120 & 2265390121
- Product Impact :
  - There will be no impact to fit, form or function of product.
- This change is simply a change in PS(Product Specification) and no samples and reports are provided.
- Implementation date may be updated due to customer demand and production condition.

IEC 60664-01 Creepage distance

Table F.4 – Creepage distances to avoid failure due to tracking

Voltage r.m.s. [1]	Minimum creepage distances								
	Printed wiring material		Pollution degree						
	1	2	1	2			3		
	All material groups	All material groups, except IIIb	All material groups	Material group I	Material group II	Material group III	Material group I	Material group II	Material group III [2]
V	mm	mm	mm	mm	mm	mm	mm	mm	mm
10	0,025	0,040	0,080	0,400	0,400	0,400	1,000	1,000	1,000
12,5	0,025	0,040	0,090	0,420	0,420	0,420	1,050	1,050	1,050
16	0,025	0,040	0,100	0,450	0,450	0,450	1,100	1,100	1,100
20	0,025	0,040	0,110	0,480	0,480	0,480	1,200	1,200	1,200
25	0,025	0,040	0,125	0,500	0,500	0,500	1,250	1,250	1,250
32	0,025	0,040	0,14	0,53	0,53	0,53	1,30	1,30	1,30
40	0,025	0,040	0,16	0,56	0,80	1,10	1,40	1,60	1,80
	[illegible]	0,040	0,18		[illegible]	1,20	1,50	1,70	
		[illegible]				1,25	1,60		

PCN Qualification and Validation Plan

- Below is the List of Part Numbers will be used for internal qualification & validation purposes.
- Samples and Qualification data will be provided upon request.

2190191010

You may address inquires regarding this PCN by clicking on the below link
mailto:pcn_coordinator@molex.com?subject=PCN_Notification:518589
or contact your Local Sales Engineer.

Note: While responding, please retain " **PCN Notification: 518589** " in the e-mail Subject line for faster response.

Molex, LLC
2222 Wellington Court
Lisle, IL 60532
TEL (800) 786-6539
www.molex.com

PCN #	Customer #	Customer Name	Search Term	Molex Part #
518589	103679	TTI, Inc.	TTI INC	2190190120
518589	103679	TTI, Inc.	TTI INC	2190190121
518589	103679	TTI, Inc.	TTI INC	2254330120
518589	103679	TTI, Inc.	TTI INC	2254330121
518589	152294	Shanghai TTI Electronics Co., LTD.	TTI	2254330120

Customer Material #	City	State	Country	Sales Engineer Name
MLX219019-0120	Maisach-Gernlinden	09	DE	Carlos ARINO
MLX219019-0121	Maisach-Gernlinden	09	DE	Carlos ARINO
MLX225433-0120	Maisach-Gernlinden	09	DE	Carlos ARINO
MLX225433-0121	Maisach-Gernlinden	09	DE	Carlos ARINO
MOL225433-0120	Shanghai	020	CN	Eva Zhang

Sales Engineer email	Opportunity #	Opportunity Item Lost Indicator
CARLOS.ARINOMORENO@MOLEX.COM		
CARLOS.ARINOMORENO@MOLEX.COM		
CARLOS.ARINOMORENO@MOLEX.COM		
CARLOS.ARINOMORENO@MOLEX.COM		
EVA.ZHANG@MOLEX.COM		

PCN No	Part List
518589	2190180010
518589	2190180011
518589	2190180120
518589	2190190120
518589	2190190121
518589	2190190240
518589	2190190241
518589	2190191010
518589	2190191011
518589	2200991010
518589	2200991011
518589	2200991020
518589	2200991021
518589	2201001200
518589	2201001201
518589	2254330120
518589	2254330121
518589	2254330240
518589	2254330241
518589	2265380120
518589	2265390120