

# molex<sup>®</sup> PRODUCT SPECIFICATION

## PRODUCT SPECIFICATION OF THE 0,50MM CENTER FFC JUMPER CABLE (HIGH TEMPERATURE)

### *Revision List*

REVISION	MODIFICATION	SHEETS	DATE
A	First Release	1 - 5	2004/07/05
B	Updated Specification	1 - 4	2011/09/29
C	Updated Specification	1 - 4	2014/02/17
D	Margin updated from 0.50 + 0.15/-0.096mm to 0.50 +/- 0.12mm Span updated from 0.50 (N-1) +/- 0.10mm to 0.50 (N-1) +/- 0.07mm	2	2019/04/04
E	Corrected Insulation resistance unit of measure	3	2020/03/12

REVISION: <b>E</b>	ECR/ECN INFORMATION: EC No: 633948 DATE: 2019/04/04	TITLE: <b>PRODUCT SPECIFICATION 0,50MM CENTER FFC JUMPER CABLE (HIGH TEMPERATURE)</b>	SHEET No. <b>1 of 4</b>
DOCUMENT NUMBER: <b>PS-98266-001</b>	CREATED / REVISED BY: <b>M. SHANNON</b>	CHECKED BY: <b>D.FALLA</b>	APPROVED BY: <b>D.FALLA</b>

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## 1 SCOPE

This specification covers the 0,50mm center FFC (Flat Flexible Cable) jumper cable, high temperature style, using tin plated copper conductor.

## 2 PRODUCT DESCRIPTION

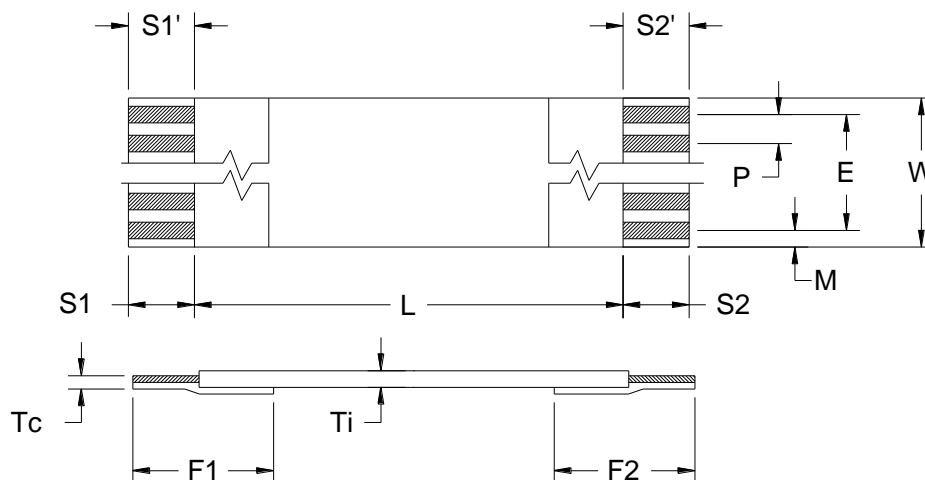
### 2.1 Product name and series number

Product name: 0,50MM CENTER FFC JUMPER CABLE (HIGH TEMP)  
Product material no: 98266-XXXX

### 2.2 Dimensions, materials and markings

Product dimensions according SD-98266-001.

Number of conductors	N: 6 to 50
Pitch	P: 0,50 ± 0,05mm
Span	E: 0,50 (N-1) ± 0,07mm
Total width	W: 0,50 (N+1) ± 0,10mm
Margin width	M: 0,50 ± 0,12mm
Strip length	S: 4,00 ± 1,00mm
End thickness of the connection area	Tc: 0,30 ± 0,05mm
Thickness of the insulated area	Ti: 0,22 ± 0,05mm
Insulated length	L: 30 to 60mm ± 2,00mm 61 to 100mm ± 3,00mm 101 to 200mm ± 4,00mm 201 to 999mm ± 5,00mm
Reinforcement length	F: 8,00 ± 2,00mm
End scariness	s-s': 0,30mm max.



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## 2.3 Composition

- FFC tape: Material: Polyester + Flame retardant adhesive  
Thickness: 0,073mm nominal  
Color: white
- Reinforcement tape: Material: Polyester + Adhesive  
Thickness: 0,15mm nominal  
Color: transparent/ blue
- FFC conductor: Material: Tin plated copper  
Width: 0,30mm  
Thickness: 0,10mm  
Plating: tin min. 1µm  
(FYI our tin plated in 2 minimum)

## 2.4 Safety agency approvals

Not applicable.

## 3 Ratings

### 3.1 Current and applicable conductors

Cross section	Amps
0,03mm <sup>2</sup>	0,5

### 3.2 Temperature

Operating temperature: -40°C to +105°C

## 4 PERFORMANCE

### 4.1 Electrical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Conductor resistance	ASTM B 193	730 ohms/km MAXIMUM
2	Insulation resistance cond. to cond.	200 V DC	10 Mohms/m MINIMUM
3	Dielectric test	200 V AC for 1 minute	No disruptive discharge
4	Continuity test	3,0 V DC at 0,1mA	passed
5	Voltage rating		60 V AC MAXIMUM

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6	Current rating	at 23°C increase in 10°C at the surface (all conductors under load)	0,5 A MINIMUM
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## 4.2 Physical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7	Temperature rating		-40°C to +105°C
8	Heat resistance	168 hours at 135°C	Insulation resistance Dielectric test
9	Thermal shock	30 minutes at -55°C 5 minutes at +25°C 30 minutes at +105°C 5 minutes at +25°C	Insulation resistance after 25 cycles
10	Cold coiling	96 hours at -40°C / The sample will be wound on a 3mm dia. Mandrel	Visual inspection Insulation resistance dielectric test
11	Wear by abrasion	Test following EN3475-503 Weight: 500g Speed: 60 cycles/min Abrasion tool: 0,50mm	10000 cycles MINIMUM
12	Folding	The specimen shall be folded manually (Bending angle: 180° / Radius: 4mm)	20 times MINIMUM
13	Moisture resistance	96 hours at 60°C, 95% RH	Insulation resistance

## 4.3 Mechanical properties

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
14	Insulation elongation	JIS C 2318	60 % MINIMUM
15	Tensile strength	JIS C 2318	32 N/mm <sup>2</sup> MINIMUM

## 5 PACKAGING

According to MOLEX packaging specification: PK-98266-001

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