0.50, 1.00 and 1.25 mm pitch Flat Flexible Cables 100 micron conductors

Standard versions

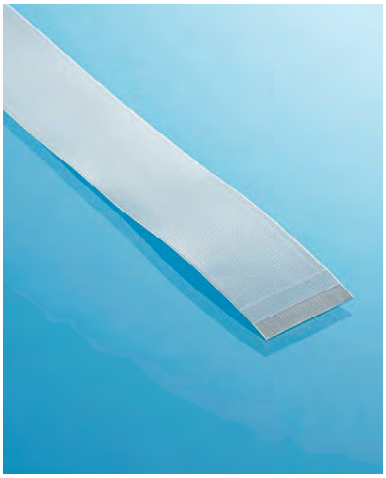
General characteristics

Temperature rating: up to 105°C.

Voltage rating: up to 60V AC.

Conductor

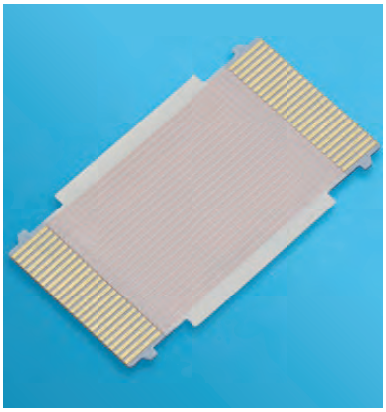
Pitch (mm)	Width (mm)	Max conductor resistance (Ω/km) at 20°C	Conductor thickness (mm)
0.50	0.30 ± 0.02	730	0.10 ± 0.015
1.00	0.70 ± 0.03	300	0.10 ± 0.015
1.25	0.80 ± 0.03	280	0.10 ± 0.015



0.50 MM PITCH STANDARD FLAT FLEXIBLE CABLE

Conductor plating

Tin	0.4 µm mini
Gold	0.3 µm Ni mini / 0.05 µm Au



0.50 MM PUNCHED FLAT FLEXIBLE CABLE

Insulation

Polyester insulation with flame retardant adhesive.

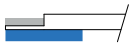
White colour.

Connection schemes

With ZIF connectors

Reinforcement tape: Polyester K code.

Blue colour.



Hot bar soldering

Reinforcement tape: Polyimide H code.

Natural colour (amber).

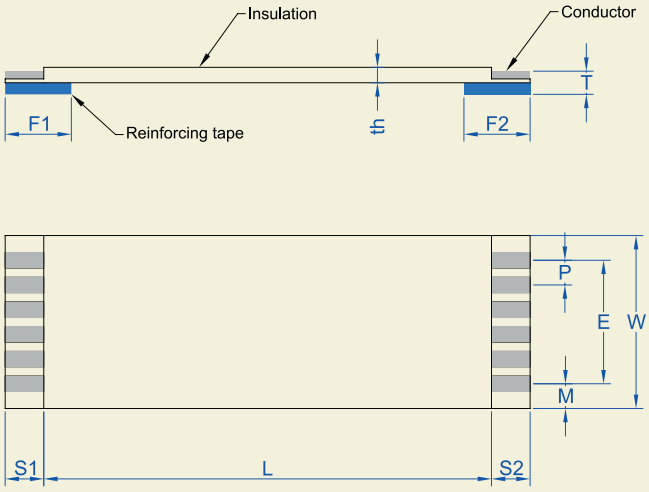
Manual soldering

Code for the end: T.

F1 ; F2 = 2.50 mm.

0.50, 1.00 and 1.25 mm pitch Flat Flexible Cables
100 micron conductors

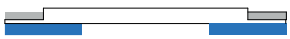
General drawing



Processing forms

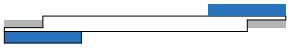
Type A

Reinforcements at both ends,
on the same side.



Type D

Reinforcements at both ends,
on opposing side.



Dimensions

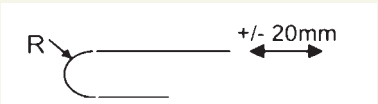
Pitch: P (mm)	0.50 ± 0.05	1.00 ± 0.08	1.25 ± 0.10
Number of conductors: N	6 to 80	4 to 60	4 to 60
Span: E (mm)	(N-1)*0.50 ± 0.07	(N-1)*1.00 ± 0.15	(N-1)*1.25 ± 0.15
Width: W (mm)	(N+1)*0.50 ± 0.06	(N+1)*1.00 ± 0.10	(N+1)*1.25 ± 0.15
Margin: M (mm)	0.50 ± 0.12	1.00 ± 0.20	1.25 ± 0.20
Strip length: S1-S2 (mm)	2.00 to 10.0 ± 0.80 (standard value: 4 mm)		
Reinforcement length: F1-F2 (mm)	6.00 to 20.0 ± 2.00 (standard value: 8 mm)		
Insulated length: L (mm)	20 to 60 ± 2 61 to 100 ± 3 101 to 200 ± 4		201 to 3999 ± 5 4000 to 5999 ± 10 6000 to 9999 ± 15
Thickness at end of cable: T (mm)	0.30 ± 0.05 (only for ZIF connectors)		
Cable thickness: th (mm)	0.25 typical		

0.50, 1.00 and 1.25 mm pitch Flat Flexible Cables 100 micron conductors

Electrical properties

	Testing conditions	Pitch		
		0.50	1.00	1.25
Dielectric Test (V AC) - Min	Conductor to conductor, during 1 minute	200	400	500
Current rating (A) - Max	FFC at 23°C Allowable temperature rise: 40°C	0.55	1.25	1.40
Insulation resistance (MΩ.m min)	Conductor to conductor	10 at DC 200V	10 at DC 400V	10 at DC 500V
Continuity test	DC 3.0 V at 0.1mA	Passed	Passed	Passed
Impedance cond/cond balanced method (typical value)	FFC without shielding at 1MHz	130 Ω	120 Ω	130 Ω
Capacitance cond/cond balanced method (typical value)	FFC without shielding at 1KHz	62 pF/m	50 pF/m	30 pF/m

Other properties

	Testing conditions	Characteristics	
Heat resistance	136°C, 168 hours	Dielectric test Insulation resistance	Passed Passed
Thermal shock	(-55°C x 30 min → 25°C x 5 min → 85°C x 30 min → 25°C x 5 min) x 25 cycles	Dielectric test Insulation resistance	Passed Passed
Cold coiling	-40°C, 96 hours The sample is initially wound on a mandrel of 3 mm	At room temperature: Visual inspection Dielectric test Insulation resistance	 Passed Passed Passed
Wear by abrasion	Test following EN3475-503 Weight: 500 g Speed: 60 cycles/min Abrasion tool: Ø = 0.50 mm	Dielectric test Insulation resistance: After 10 000 cycles	 Passed
Flame resistance	UL 758	VW-1	Passed
Folding	The specimen shall be folded manually at 180°	Continuity after more than 20 times	Passed
Moisture resistance	60°C, 95% RH, 96 hours	Dielectric test Insulation resistance	Passed Passed
Flex-life (typical values)	speed 100 cycles /min Flex-life tests are performed at 23°C. 	Radius 10 mm	100 000 cycles