

FLAT FLEXIBLE CABLES

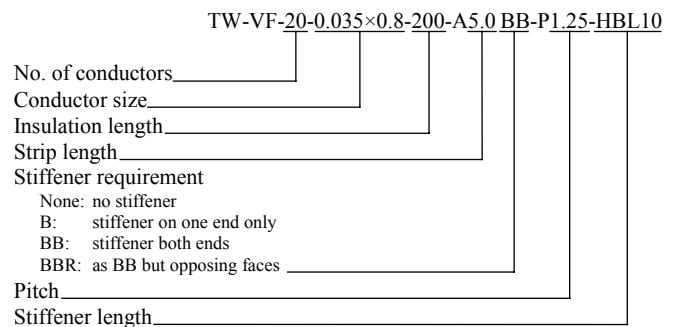
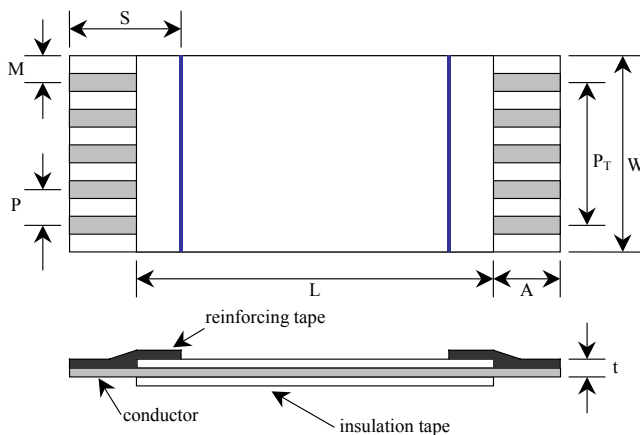
The drive towards higher performance yet smaller sized cables has led Fujikura to develop its own range of flat flexible cables (FFCs). Used in conjunction with the myriad of connectors now available, FFCs are more reliable and cost effective than standard wiring systems.

Features

- extremely compact designs for cost efficiency
- unbeatable flexibility for the most constrained of applications
- harness configurations possible using Fujikura's branching system
- constructions incorporating EMI/RFI counter measures
- pre-assemble to PCB or other wiring materials
- reliable performance over extended periods
- operational durability exceeding 1 million bending cycles

Applications

- PCB jumper
- printers
- CD players
- FDD
- LCD displays



Construction

Item	Unit	Specification				
Conductor pitch	mm	1.25	1.00	0.80	0.50	0.30
Conductor size (tin-coated copper tape)	mm	0.1x0.8 0.05x0.8 0.035x0.8	0.1x0.6 0.05x0.6 0.035x0.6	0.05x0.5 0.035x0.5	0.05x0.3 0.035x0.3	0.035x0.2
Insulation	-	0.1mm flame retardant polyester				
No. of conductors	-	4~40		5~50	6~50	17~50
Insulation (L)	mm	25~3000			25~2000	20~1000
Pitch (P)	mm	1.25±0.10	1.00±0.10	0.80±0.06	0.50±0.05	0.30±0.03
Total pitch (P _T)	mm	1.25(N-1)±0.15	1.00(N-1)±0.10	0.80(N-1)±0.06	0.50(N-1)±0.05	0.30(N-1)±0.03
Margin (M)	mm	1.25±0.20	1.00±0.15	0.80±0.12	0.50±0.07	0.30±0.05
Width (W)	mm	1.25(N+1)±0.15	1.00(N+1)±0.12	0.80(N+1)±0.07	0.50(N+1)±0.07	0.30(N+1)±0.03
Stripped conductor (A)	mm	2.00±0.50, 2.50±0.50, 3.00±0.50, 3.50±0.50, 4.00±0.50, 5.00±0.50, 6.00±1.00				
Terminal thickness (t)	mm	0.30±0.05				0.20±0.03
Reinforcing tape (S)	mm	5.00±1.00, 6.00±1.00, 8.00±1.50, 10.00±2.00				

Insulation Length Tolerance

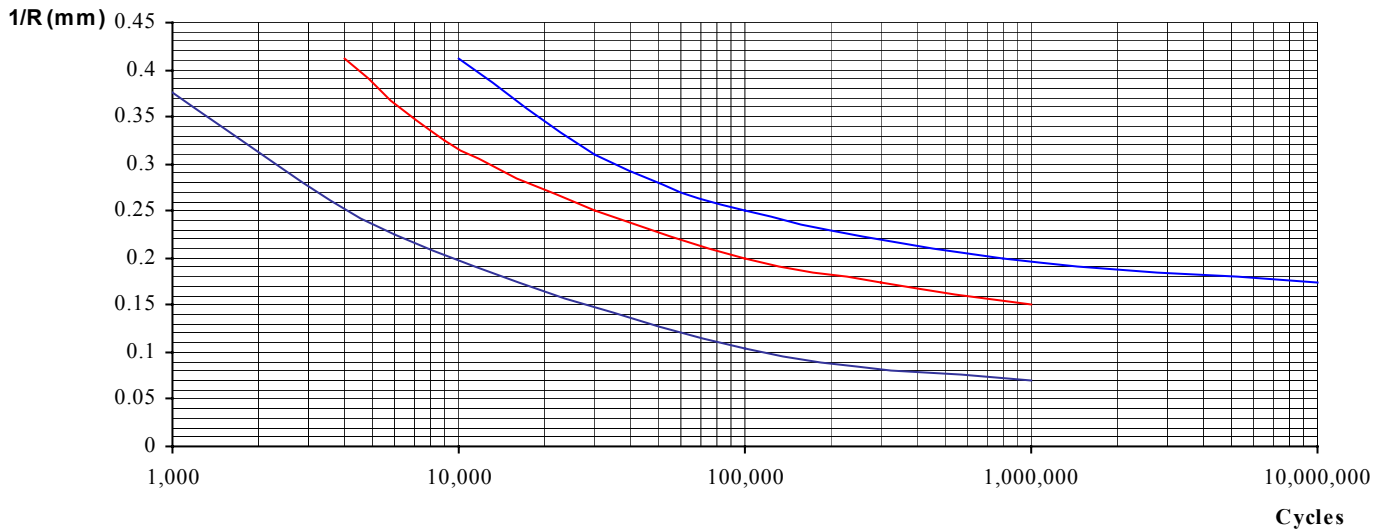
Length (mm)	Tolerance (mm, %)
5<L≤50	±1.0
50<L≤100	±1.5
100<L≤150	±2.0
150<L≤200	±2.5
200<L≤250	±3.0
250<L≤300	±3.5
300<L≤350	±4.0
350<L≤400	±4.5
400<L≤600	±5.0
600<L≤3000	±1%

Electrical

Item	Unit	Specification											
		1.25			1.00			0.80		0.50		0.30	
Pitch	mm	1.25			1.00			0.80		0.50		0.30	
Conductor width	mm	0.10	0.05	0.035	0.10	0.05	0.035	0.05	0.035	0.05	0.035	0.035	
Max. conductor resistance	Ω/km	301	560	820	387	719	1200	889	1320	1600	2200	3480	
Min. insulation resistance	MΩ·P	100											
Max. current	A	1.50	0.80	0.50	1.00	0.60	0.50	0.45	0.35	0.40	0.30	0.20	
Dielectric strength	Vac/min	500									250		
UL style no.	-	2896											
Rating	-	80°C, 30V											
Flame retardant	-	VW-1											

- Notes:
1. Other conductor widths available
 2. Cu/Al shielding available
 3. High voltage (to 300V) and high temperature (to 105°C) FFCs available

Bending Property



Shielded FFC

Due to the high wiring density currently in use the effects of electromagnetic interference become more and more prevalent within today's electronics designs.

To combat this, Fujikura are able to offer a shielded FFC using 9µm copper mylar film as the shield with a connection made to the ground wire by ultrasonic welding.

