



1.0 SCOPE

This specification defined the product performance requirements for the Picoflex connector system.

2.0 PRODUCTION DESCRIPTION

90325-****	Header assembly, straight P.C. tail version
90715-****	Header assembly, with kinked P.C. tails and optional polarising pegs.
90779-****	Header assembly, high temperature thermoplastic material.
90327-****	Insulation displacement female assembly.
90327-9001	Insulation displacement female assembly with pull tab feature.
90584-***	Board-in insulation displacement assembly
90800-****	Header assembly right angle P.C. tail version.
90814-****	Header assembly SMT version.

	REV	Η	Н	Н	Н	Н	Н	Н	Н	Н	Н													
	SHT	1	2	3	4	5	6	7	8	9	10													
		REV	ISE (ON F	0 0	NLY			TIT	LE			PF	ROD	OUC	ΤS	PEC	;IFI	CA	τιο	Ν			
	G Revised to Corporate Standard				dard							F		OR OFL	EX									
									THI	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MO														
	REV	DESCRIPTION							INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															
	DES	IGN (CON	TRO	L	S	ΤΑΤΙ	JS	WR	WRITTEN BY: CHECKED BY: APPROVED BY: DATE: YR /				YR /	MO	/ DAY								
	MOLE	X IRI	ELAN	ND L	TD		Μ		E	BBC)									94	. / '	11 /	03	
DO	CUMENT	NO.																	FIL	E NA	٩ΜΕ	5	і тна	NO.
	PS-99020-0011															PS9	92011	1.SA	1	OF	11			
	ES-40000-3996 REV. A SHEET 3 95/MAR/10 EC U5-0926 DCBRD03.SAM																							

3.0





5.2 MECHANICAL PERFORMANCE

ITEM	TEST COND	ITION	REQUIREMENT				
Insertion Force (per individual contact)	Insertion force tested standard gauge blad section 7.0		1.7N maximum for initial insertion of Tin-Lead contact				
	Rate of insertion =25	5 ±6 mm/sec	1.1N maximum for initial insertion of Gold on Gold contact				
Withdrawal Force (per individual contact)	Rate of withdrawal =	25 ±6 mm/sec	Withdrawal force = 0.25N Minimum				
Durability	1 durability cycle = 1 Unmating of the conr Picoflex extraction to	nector using	Allowable variation from initial insertion force value = 0.50N Maximum				
	For Tin-Lead on Tin- Number of cycles = 3 (using extraction tool	Lead system	Change in contact resistance from initia value = 10mOhms Maximum				
	For 0.76µm Gold on Number of cycles = 1 (using pull tab or exti	100					
Shock	Acceleration = 50g Duration = 11 millise per IEC 512-4, test c		Change in contact resistance from initial value = 10mOhms Maximum				
			Discontinuity = 1micro second. Maximum				
Vibration	Sweep = $10-55-10$ Amplitude = 0.35 mm Pulse = $1/2$ Sine	or 5g	Change in contact resistance from initial value = 10mOhms Maximum				
	Duration = 2 hours X-Y-Z direc per IEC condition 6	tion 512-4 test	Discontinuity = 1micro second Maximum				
RE\/IG	E ON PC ONLY						
	sed to Corporate Standard		ITLE PRODUCT SPECIFICATION FOR PICOFLEX				

				THIS DO	DCUMENT CONT	AINS INFORMATIO	ON THAT IS PRO	PRIETARY	/ ТО МО		
	REV	DESCRIPT	ΓΙΟΝ	II	INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
DOC	CUMENT	NO.					FILE N	IAME	SHE	ET	
		PS-99020-0011					PS9920	11.SAM	3 of	11	
		ES-40000-3996	REV. A	SHEET 4	95/MAR/10	EC U5-0926	DCBRD03.S	SAM			



PRODUCT SPECIFICATION



ITEM	TEST CONDITION	REQUIREMENT
Terminal Retention Force in Housing (Header Terminal)	Terminal withdrawal force to be applied at the rate of 25 ± 6mm per minute	Terminal Rentention force = 7N Minimum

5.3 ENVIRONMENTAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT		
Damp Heat	Mate connectors and expose to:	Change in contact resistance from initial value = 10mOhms Maximum		
	Temperature = $+40^{\circ}$ C $+3/-0^{\circ}$ C Humidity = 90 - 95% R.H Duration = 1000 Hours	No visual damage		
Dry Heat	Mate connectors and expose to:	Change in contact resistance from initial value = 10mOhms Maximum		
	Temperature = +105°C +3/-0°C Duration = 240 hours	No visual damage		
Thermal Shock	Mate connectors and expose to: 10 cycles of the following profile Temperature °C Time Duration	Change in contact resistance from initial value = 10mOhms Maximum		
	-40 +0 /-3 30 minutes +20 ± 5 5 minutes max +105 +3/-0 30 minutes	No visual damage		
Corrosive Atmosphere Sulphur Dioxide	Mate Connectors and expose to: Atmosphere: 10 parts per million (ppm) SO ₂	Change in contact resistance from initial value = 10mOhms Maximum		
(SO ₂)	Duration: 240 hours Temperature: 25 °C Humidity: 75% R.H.	No visual damage		

		REVISE ON PC ONLY	TITLE PRODUCT SPECIFICATION					
	G	Revised to Corporate Standard	FOR PICOFLEX					
			THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MO					
	REV	DESCRIPTION	INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
DOC	UMENT I	NO.	FILE NAME SHEE	Г				
		PS-99020-0011	PS992011.SAM 4 of 1	1				
		ES-40000-3996 REV. A SH	HEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM					



PRODUCT SPECIFICATION



LANGUAGE

ITEM	TEST C	ONDITION	REG	QUIREMENT	
Corrosive Atmosphere Hydrogen Sulphic (H ₂ S)	Duration: 96 Temperature: 25	art per million HS hours	initial value =	ontact resistanc - 10mOhms Ma isual damage	
Resistance to Infra-Red Reflow (90814 only)	Subject Unma	ted connectors to shown in appendix		isual damage	
REVISE	ON PC ONLY	TITLE PF	RODUCT SPEC	IFICATION	
G Revise	d to Corporate Standard				/ TO MO
REV	DESCRIPTION			OUT WRITTEN PERMIS	



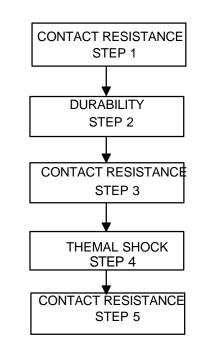


5.4 TEST SEQUENCE

5.4.1 TEST SEQUENCE (ALL PARTS EXCEPT 90814 SMT PICOFLEX)

TEST ITEM	Group I.	Group II.	Group III.	Group IV.	Group V.
CONTACT RESISTANCE	1.3.5.7	1.3.5	1.3.6	1.3.5	1.3.5
DURABILITY	2	2	2	2	2
DRY HEAT	4				
DAMP HEAT	6				
THERMAL SHOCK		4			
VIBRATION			4		
DROP SHOCK			5		
SULPHUR DIOXIDE				4	
HYDROGEN SULPHIDE					4

Note: The numbers in the boxes represent the sequence of testing. For example, the sequence of testing for Group II is shown in flow chart form below:



	REVISE ON PC ONLY			TITLE PRODUCT SPECIFICATION						
	G	Revised to Corporate Standard	FOR PICOFLEX							
			THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MC							
	REV	DESCRIPTION	IN	C. AND SHOULD	NOT BE USED W	ITHOU	T WRITTEN PERMI	SSION		
DOC	UMENT	NO.					FILE NAME	SHE	ET	
		PS-99020-0011					PS992011.SAM	6 of	11	
		ES-40000-3996 REV. A SI	HEET 4	95/MAR/10	EC U5-0926	DCB	RD03.SAM			

LANGUAGE





5.4.1 TEST SEQUENCE FOR 90814 SMT PICOFLEX

TEST ITEM	Group I.	Group II.	Group III.	Group IV.	Group V.
RESISTANCE TO INFRA-RED REFLOW	1	1	1	1	1
CONTACT RESISTANCE	2.4.6.8	2.4.6	2,4,7	2.4.6	2.4.6
DURABILITY	3	3	3	3	3
DRY HEAT	5				
DAMP HEAT	7				
THERMAL SHOCK		5			
VIBRATION			5		
DROP SHOCK			6		
SULPHUR DIOXIDE				5	
HYDROGEN SULPHIDE					5

	REVISE ON PC ONLY		TITLE	P	RODUCT SP	EC	IFICATION		
	G	Revised to Corporate Standard	FOR PICOFLEX						
			THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MO						
	REV	DESCRIPTION	INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
DOC	UMENT I	NO.					FILE NAME	SHE	ET
		PS-99020-0011					PS992011.SAM	7 of	11
		ES-40000-3996 REV. A SI	HEET 4	95/MAR/10	EC U5-0926	DC	BRD03.SAM		





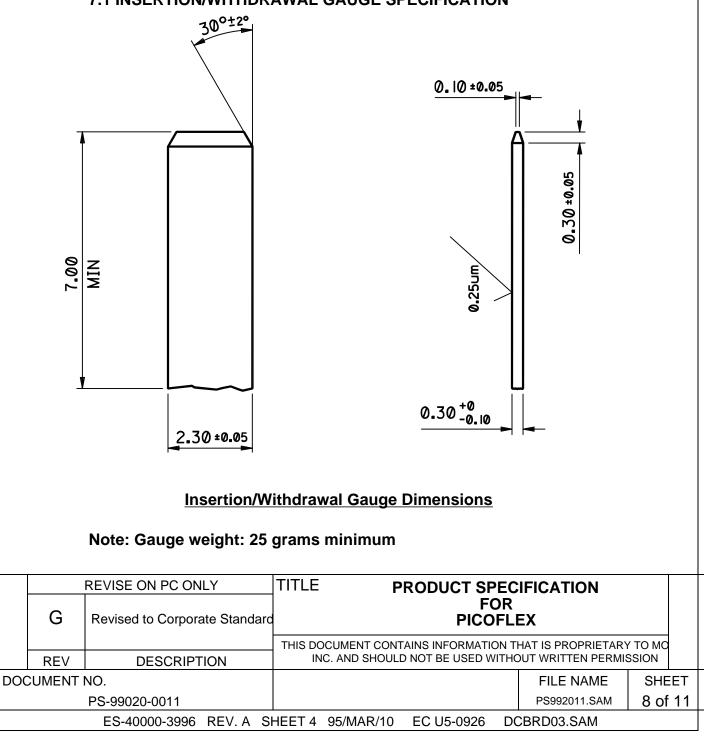
LANGUAGE

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. For details of packaging see applicable family sales drawing.

7.0 GAUGES & FIXTURES

7.1 INSERTION/WITHDRAWAL GAUGE SPECIFICATION



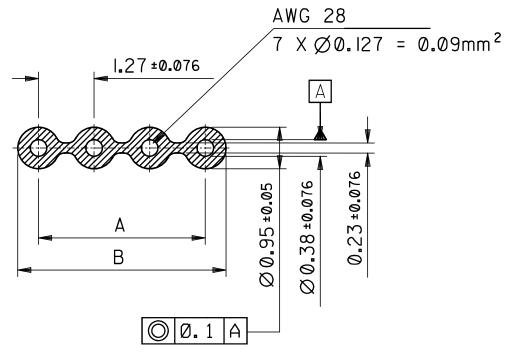




8.0 OTHER INFORMATION

8.1 CABLE SPECIFICATION

The cable profile is representational. Cable which meets the specified dimensions, constructions, and performance criteria is acceptable.



CIRCUIT SIZE	DIMENSION A	DIMENSION B
4	3.81	4.74
6	6.35	7.28
8	8.39	9.82
10	11.43	12.36
12	13.97	14.90
14	16.51	17.44
16	19.05	19.98
18	21.59	22.52
20	24.13	25.06
26	31.75	32.68

		REVISE ON PC ONLY	TITLE PRODUCT SPECIFICATION	
	G	Revised to Corporate Standard	ard FOR PICOFLEX	
			THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MO	
	REV	DESCRIPTION	INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
DOCUMENT NO.		NO.	FILE NAME SHE	ET
		PS-99020-0011	PS992011.SAM 9 of	11
		ES-40000-3996 REV. A SI	SHEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM	

LANGUAGE





8.1.1 CONDUCTOR

EL-Cu stranded, 7 X 0.127mm diameter. 28 AWG (0.09 square millimetre) EL-Cu-58F21 to DIN 40500, Tin plated V3 to DIN 40500. Twist length to 6.8 maximum.

8.1.2 INSULATION

PVC Y17 to VDE 0207 Fire retardant rating VWI to UL62 and VDE 0472 and 804 Shore hardness: A90+-5.

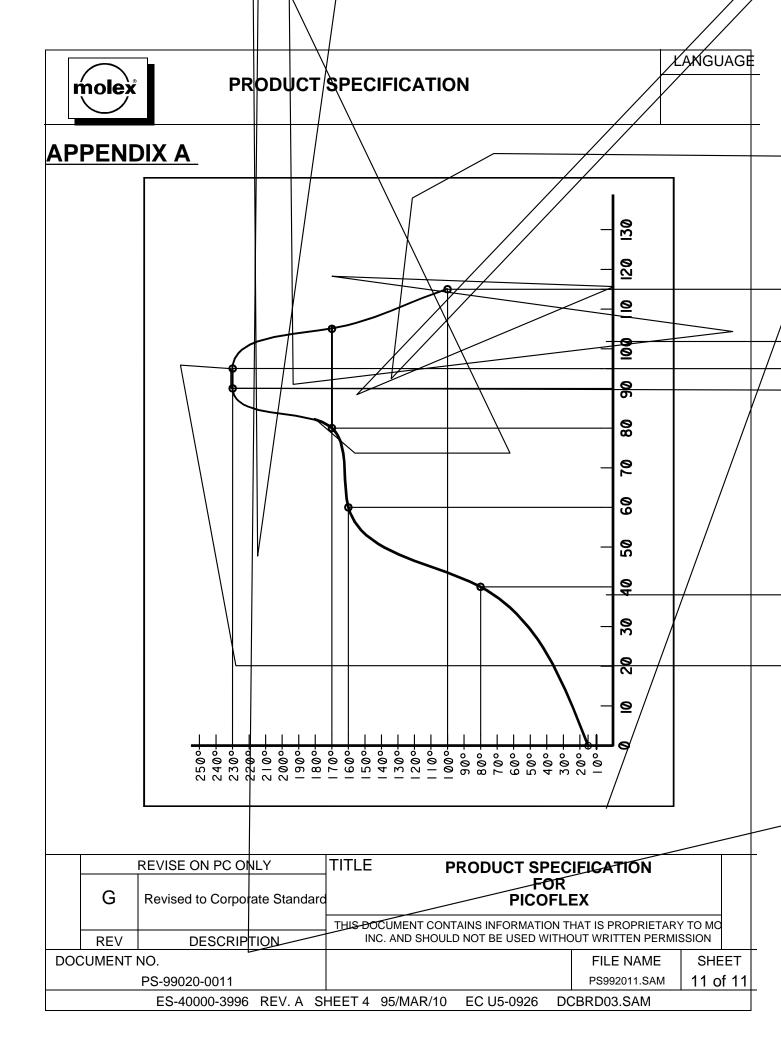
8.1.3 ELECTRICAL DATA: (at +20 degrees C)

Nominal voltage: 300V Test voltage:1500V Conductor resistance: less than or equal to 240 ohms/km Insulation resistance: greater than or equal to 100 ohms/km. Nominal current 1.2A (each conductor)

8.1.4 TEMPERATURE RANGE

Steady rise: -40 to +80 deg C. Random rise: -20 to +80 deg C.

		REVISE ON PC ONLY	TITLE PRODUCT SPECIFICATION		
	G Revised to Corporate Standard		d FOR PICOFLEX		
			THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MO		
	REV	DESCRIPTION	INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
DOC	UMENT	NO.	FILE NAME SHE	ET	
		PS-99020-0011	PS992011.SAM 10 o	f 11	
		ES-40000-3996 REV. A SI	HEET 4 95/MAR/10 EC U5-0926 DCBRD03.SAM		



\frown				\frown	LANGUAGE
molex	PRODUCT	SPECIFICATI	ON	molex 🛛	
\bigcirc				\bigcirc	
	REVISE ON PC ONLY	TITLE		ECIFICATION	
G	Revised to Corporate Standard		FC PICO	DR FLEX	
	•	THIS DOCUMENT CO	NTAINS INFORMATIC	ON THAT IS PROPRIETA	
REV	DESCRIPTION			ITHOUT WRITTEN PER	MISSION
DOCUMENT	NO. PS-99020-0011			FILE NAME PS992011.SAM	SHEET 12 of 11
	ES-40000-3996 REV. A SI		EC U5-0926	DCBRD03.SAM	

			\frown	LANGUAGE
mole	č PRODUCT	SPECIFICATION	molex	
			\bigcirc	
	REVISE ON PC ONLY		SPECIFICATION FOR	
G	REVISE ON PC ONLY Revised to Corporate Standard	PIC	FOR OFLEX	
	Revised to Corporate Standard		FOR OFLEX TION THAT IS PROPRIET	
G REV DOCUMENT	Revised to Corporate Standard	PIC THIS DOCUMENT CONTAINS INFORMATION	FOR OFLEX TION THAT IS PROPRIET	RMISSION