

IL-402/402R SERIES CONNECTORS

1.0mm (.039") Contact Spacing, ZIF Type SMT Connectors for FPC/FFC

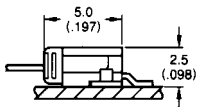


FEATURES

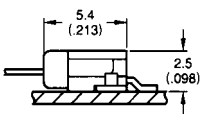
- SMT configuration
- Low profile of 2.5mm (0.98")
- Easy termination of cable utilizing a slide actuator
- Zero Insertion Force (ZIF) cable termination
- Hold down tabs prevent floating up of the connector during soldering and secure the connector on PCB
- Optional embossed tape packaging for automatic mounting

Connector Profile (Ref.)

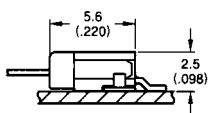
IL-402 4 to 20 Contacts



21 to 30 Contacts



IL-402R



The IL-402/402R Series has been developed to meet the demands of increased density of components in the surface mount environment. This 1.0mm (.039") pitch, low profile connector for Flexible Printed Circuit (FPC) and Flexible Flat Cable (FFC) has a mounting height of 2.5mm (.098"). Its construction is compatible with automatic mounting equipment when ordered on embossed tape. Zero Insertion Force cable termination allows for simplified operation.

GENERAL SPECIFICATIONS

Number of Contacts	IL-402/4 to 30, IL-402R/4, 7, 8, 10 to 12, 14 to 18, 20, 23
Contact Spacing	1.0mm (.039"), Single Row
Current Rating	0.5 Amps
Operating Voltage	200 VAC, VDC
Dielectric Withstanding Voltage	500 VAC r.m.s. (one minute)
Insulation Resistance	1000 megohms min.
Contact Resistance	20 milliohms max.
Operating Temperature	-40°C +85°C
Applicable FPC	1.0mm (.039") Center (IL-402) 0.3mm ^{+0.05} / _{-0.02} mm (.012" ^{+0.002} / _{-0.001}) Thick (IL-402R) 0.3mm ± 0.05mm (.012" ± .002") Thick

MATERIALS AND FINISHES

Description	Materials/Finishes
Contact	Phosphor Bronze/Tin Plated
Insulator	Glass-filled PPS (UL94V-0, Light Gray)
Hold-down Tab	Phosphor Bronze/Tin Plated
Slider	Glass filled PPS

ORDERING INFORMATION

IL - 402 * - ** S - S 1 L - SA - E****

Series _____
 IL-402 – Bottom Contact Mating
 IL-402R – Top Contact Mating

No. of Contacts _____

Contact Type _____
 S – Socket

Contact Arrangement _____
 S – Single Row

Contact Pitch _____
 1 – 1.0mm (.039")

Termination _____
 L – Right Angle

Modification Code _____

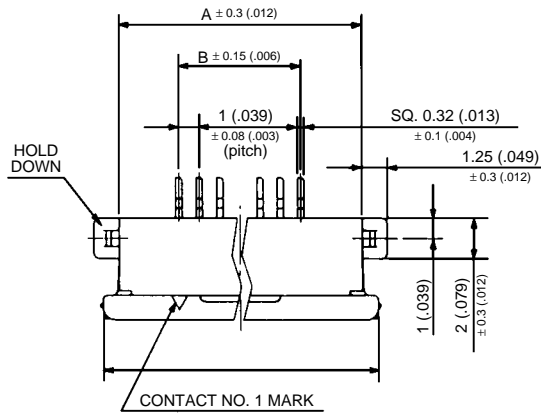
Embossed Tape Packaging _____
 E1000 – 1000 pcs. per reel (4 to 24 contacts)
 E1500 – 1500 pcs. per reel. (25 to 30 contacts)

Dimensions and specifications subject to change without notice.

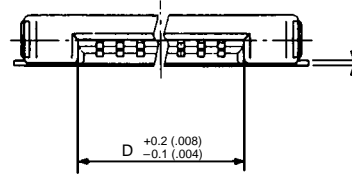


IL-402/402R SERIES CONNECTORS

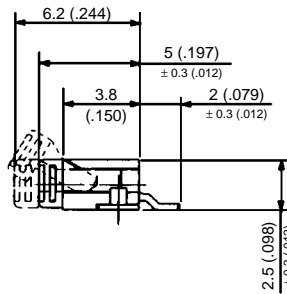
1.0mm (.039") Contact Spacing, ZIF Type SMT Connectors for FPC/FFC



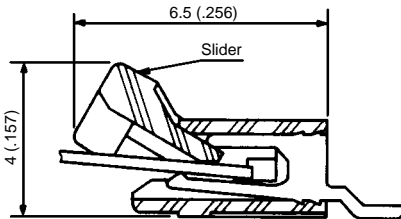
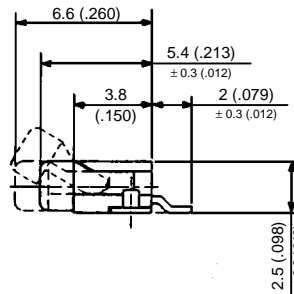
IL-402 SERIES (Bottom Contact Mating)



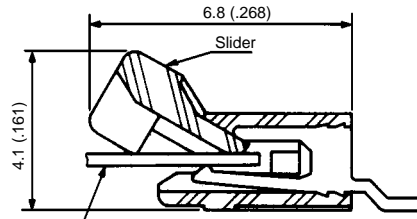
4-20 Positions



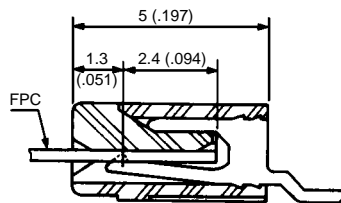
21-30 Positions



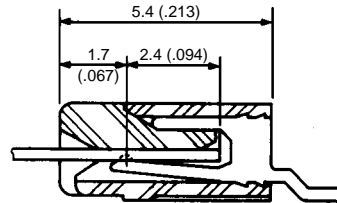
Unlocked



Unlocked

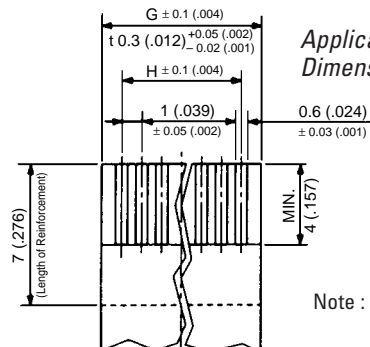
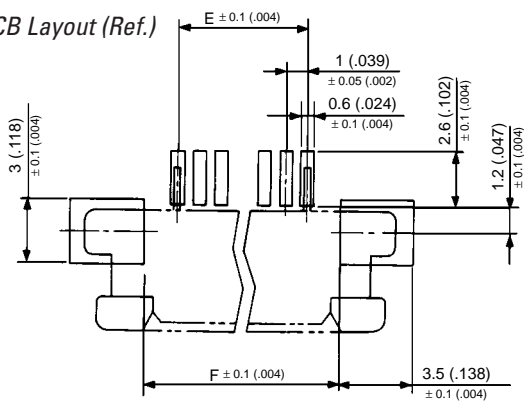


Locked



Locked

PCB Layout (Ref.)



Applicable Cable Dimensions (Ref.)

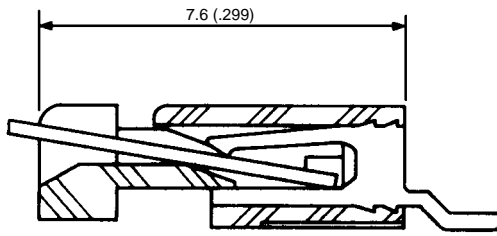
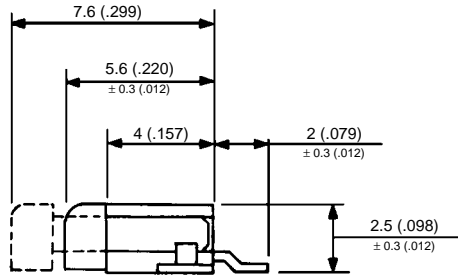
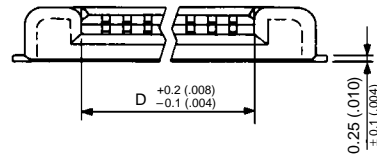
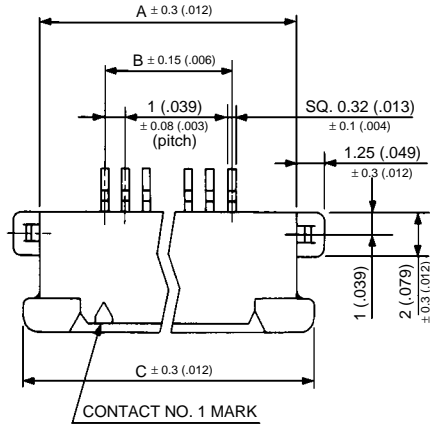
Note: Refer to Dimension Tables.

Dimensions in mm (inches).

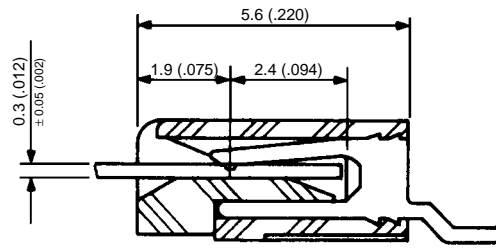
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IL-402R SERIES (Top Contact Mating)

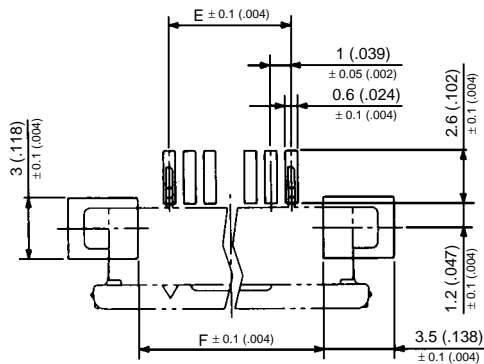


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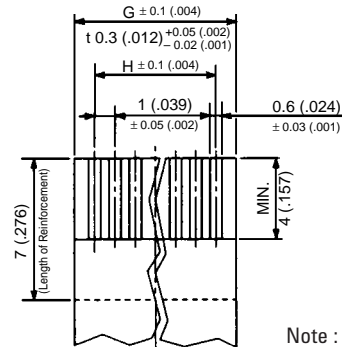


Locked

PCB Layout (Ref.)



Applicable Cable Dimensions (Ref.)



Note : Refer to Dimension Tables.

Dimensions in mm (inches).

IL-402/402R SERIES CONNECTORS

1.0mm (.039") Contact Spacing, ZIF Type SMT Connectors for FPC/FFC

Dimension Table

IL-402 SERIES

CONTACTS	PART NUMBER	A	B	C	D	E	F	G	H
4	IL-402- 4S-S1L-SA	9 (.354)	3 (.118)	10.6 (.417)	5.2 (.205)	3 (.118)	6.1 (.240)	5 (.197)	3 (.118)
5	IL-402- 5S-S1L-SA	10 (.394)	4 (.157)	11.6 (.457)	6.2 (.244)	4 (.157)	7.1 (.280)	6 (.236)	4 (.157)
6	IL-402- 6S-S1L-SA	11 (.433)	5 (.197)	12.6 (.496)	7.2 (.283)	5 (.197)	8.1 (.319)	7 (.276)	5 (.197)
7	IL-402- 7S-S1L-SA	12 (.472)	6 (.236)	13.6 (.535)	8.2 (.323)	6 (.236)	9.1 (.358)	8 (.315)	6 (.236)
8	IL-402- 8S-S1L-SA	13 (.512)	7 (.276)	14.6 (.575)	9.2 (.362)	7 (.276)	10.1 (.398)	9 (.354)	7 (.276)
9	IL-402- 9S-S1L-SA	14 (.551)	8 (.315)	15.6 (.614)	10.2 (.402)	8 (.315)	11.1 (.437)	10 (.394)	8 (.315)
10	IL-402-10S-S1L-SA	15 (.591)	9 (.354)	16.6 (.654)	11.2 (.441)	9 (.354)	12.1 (.476)	11 (.433)	9 (.354)
11	IL-402-11S-S1L-SA	16 (.630)	10 (.394)	17.6 (.693)	12.2 (.480)	10 (.394)	13.1 (.516)	12 (.472)	10 (.394)
12	IL-402-12S-S1L-SA	17 (.669)	11 (.433)	18.6 (.732)	13.2 (.520)	11 (.433)	14.1 (.555)	13 (.512)	11 (.433)
13	IL-402-13S-S1L-SA	18 (.709)	12 (.472)	19.6 (.772)	14.2 (.559)	12 (.472)	15.1 (.594)	14 (.551)	12 (.472)
14	IL-402-14S-S1L-SA	19 (.748)	13 (.512)	20.6 (.811)	15.2 (.598)	13 (.512)	16.1 (.634)	15 (.591)	13 (.512)
15	IL-402-15S-S1L-SA	20 (.787)	14 (.551)	21.6 (.850)	16.2 (.638)	14 (.551)	17.1 (.673)	16 (.630)	14 (.551)
16	IL-402-16S-S1L-SA	21 (.827)	15 (.591)	22.6 (.890)	17.2 (.677)	15 (.591)	18.1 (.713)	17 (.669)	15 (.591)
17	IL-402-17S-S1L-SA	22 (.866)	16 (.630)	23.6 (.929)	18.2 (.717)	16 (.630)	19.1 (.752)	18 (.709)	16 (.630)
18	IL-402-18S-S1L-SA	23 (.906)	17 (.669)	24.6 (.969)	19.2 (.756)	17 (.669)	20.1 (.791)	19 (.748)	17 (.669)
19	IL-402-19S-S1L-SA	24 (.945)	18 (.709)	25.6 (1.008)	20.2 (.795)	18 (.709)	21.1 (.831)	20 (.787)	18 (.709)
20	IL-402-20S-S1L-SA	25 (.984)	19 (.748)	26.6 (1.047)	21.2 (.835)	19 (.748)	22.1 (.870)	21 (.827)	19 (.748)
21	IL-402-21S-S1L-SA	26 (1.024)	20 (.787)	27.6 (1.087)	22.2 (.874)	20 (.787)	23.1 (.909)	22 (.866)	20 (.787)
22	IL-402-22S-S1L-SA	27 (1.063)	21 (.827)	28.6 (1.126)	23.2 (.913)	21 (.827)	24.1 (.949)	23 (.906)	21 (.827)
23	IL-402-23S-S1L-SA	28 (1.102)	22 (.866)	29.6 (1.165)	24.2 (.953)	22 (.866)	25.1 (.988)	24 (.945)	22 (.866)
24	IL-402-24S-S1L-SA	29 (1.142)	23 (.906)	30.6 (1.205)	25.2 (.992)	23 (.906)	26.1 (1.028)	25 (.984)	23 (.906)
25	IL-402-25S-S1L-SA	30 (1.181)	24 (.945)	31.6 (1.244)	26.2 (1.031)	24 (.945)	27.1 (1.067)	26 (1.024)	24 (.945)
26	IL-402-26S-S1L-SA	31 (1.220)	25 (.984)	32.6 (1.283)	27.2 (1.071)	25 (.984)	28.1 (1.106)	27 (1.063)	25 (.984)
27	IL-402-27S-S1L-SA	32 (1.260)	26 (1.024)	33.6 (1.323)	28.2 (1.110)	26 (1.024)	29.1 (1.146)	28 (1.102)	26 (1.024)
28	IL-402-28S-S1L-SA	33 (1.299)	27 (1.063)	34.6 (1.362)	29.2 (1.150)	27 (1.063)	30.1 (1.185)	29 (1.142)	27 (1.063)
29	IL-402-29S-S1L-SA	34 (1.339)	28 (1.102)	35.6 (1.402)	30.2 (1.189)	28 (1.102)	31.1 (1.224)	30 (1.181)	28 (1.102)
30	IL-402-30S-S1L-SA	35 (1.378)	29 (1.142)	36.6 (1.441)	31.2 (1.228)	29 (1.142)	32.1 (1.264)	31 (1.220)	29 (1.142)

IL-402R SERIES

CONTACTS	PART NUMBER	A	B	C	D	E	F	G	H
4	IL-402R- 4S-S1L-SA	9 (.354)	3 (.118)	10.6 (.417)	5.2 (.205)	3 (.118)	6.1 (.240)	5 (.197)	3 (.118)
7	IL-402R- 7S-S1L-SA	12 (.472)	6 (.236)	13.6 (.535)	8.2 (.323)	6 (.236)	9.1 (.358)	8 (.315)	6 (.236)
8	IL-402R- 8S-S1L-SA	13 (.512)	7 (.276)	14.6 (.575)	9.2 (.362)	7 (.276)	10.1 (.398)	9 (.354)	7 (.276)
10	IL-402R- 10S-S1L-SA	15 (.591)	9 (.354)	16.6 (.654)	11.2 (.441)	9 (.354)	12.1 (.476)	11 (.433)	9 (.354)
11	IL-402R- 11S-S1L-SA	16 (.630)	10 (.394)	17.6 (.693)	12.2 (.480)	10 (.394)	13.1 (.516)	12 (.472)	10 (.394)
12	IL-402R- 12S-S1L-SA	17 (.669)	11 (.433)	18.6 (.732)	13.2 (.520)	11 (.433)	14.1 (.555)	13 (.512)	11 (.433)
14	IL-402R- 14S-S1L-SA	19 (.748)	13 (.512)	20.6 (.811)	15.2 (.598)	13 (.512)	16.1 (.634)	15 (.591)	13 (.512)
15	IL-402R- 15S-S1L-SA	20 (.787)	14 (.551)	21.6 (.850)	16.2 (.638)	14 (.551)	17.1 (.673)	16 (.630)	14 (.551)
16	IL-402R- 16S-S1L-SA	21 (.827)	15 (.591)	22.6 (.890)	17.2 (.677)	15 (.591)	18.1 (.713)	17 (.669)	15 (.591)
17	IL-402R- 17S-S1L-SA	22 (.866)	16 (.630)	23.6 (.929)	18.2 (.717)	16 (.630)	19.1 (.752)	18 (.709)	16 (.630)
18	IL-402R- 18S-S1L-SA	23 (.906)	17 (.669)	24.6 (.969)	19.2 (.756)	17 (.669)	20.1 (.791)	19 (.748)	17 (.669)
20	IL-402R- 20S-S1L-SA	25 (.984)	19 (.748)	26.6 (1.047)	21.2 (.835)	19 (.748)	22.1 (.870)	21 (.827)	19 (.748)
23	IL-402R- 23S-S1L-SA	28 (1.102)	22 (.866)	29.6 (1.165)	24.2 (.953)	22 (.866)	25.1 (.988)	24 (.945)	22 (.866)

• TO ORDER BY REEL OF EMBOSSED TAPE, ADD -E1000 FOR 4 TO 24 CONTACTS OR -E1500 FOR 25 TO 30 CONTACTS TO END OF PART NUMBER.

Dimensions in mm (inches).