

SIB Series
single-in-line Strips
breakable and solid insulator available
Unless otherwise specifically requested, the strips will be delivered either in solid or breakable plastic depending on availability of the insulator bodies.

breakable shown solide shown

2.50

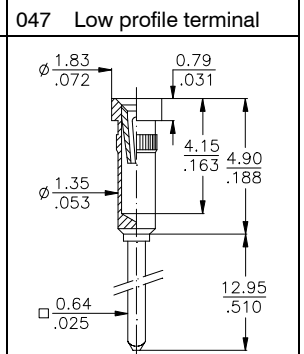
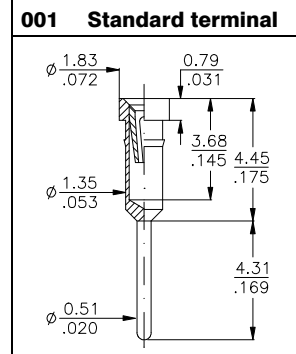
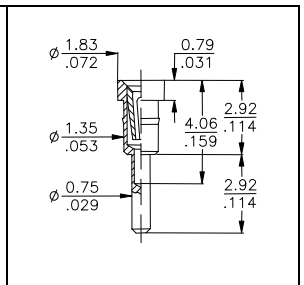
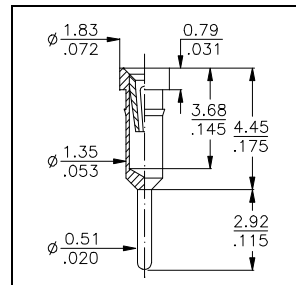
"head flush" "head above"

SIB Series
Standard "head flush"
SIB-1xx-Fxxx-xx

Alternative: "head above"
SIB-1xx-Sxxx-xx

Number of contacts standard breakable sizes
20; 32 and 40

Number of contacts either breakable or solid available
from **02 to 40**



DIS & TIS Series
dual and triple row 2,54mm grid

2.54 5.00

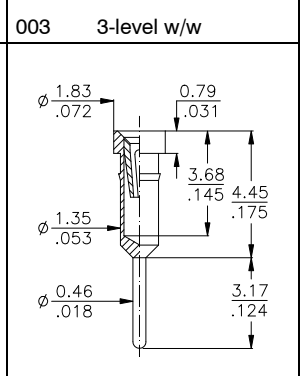
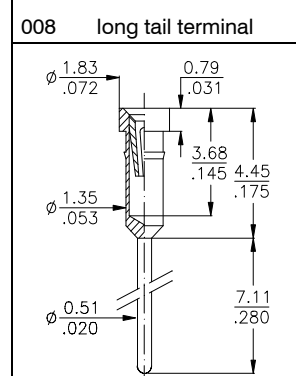
2.54

DIS Series
DIS-2xx-Fxxx-xx

Number of contacts available
from **04 to 80**

TIS Series
TIS-3xx-Exxx-xx

Number of contacts available
from **06 to 96**



Strips
Other lengths & pin-outs available on request.

Specifications
refer to page 49 of this catalogue

Terminals
For other terminal styles please refer to the pages 46 to 48 of this catalogue or contact your closest sales office.

How to order

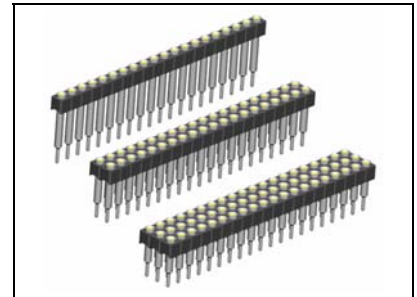
XXX - xxx - X xxx - xx

Series SIB = single-in-line strips DIS = dual-in-line strips... TIS = triple-in-line strips...	Rows 1 2 3	Nbr of contacts see above table	Insulator F = head flush S = head above E = Epoxy FR4 TIS Series only	Terminal style see drawings above or refer to pages 46 to 48 of this catalogue for other types.	Plating - 95 = tin/gold - 55 = gold/gold - 99 = tin/tin (tin is leadfree)
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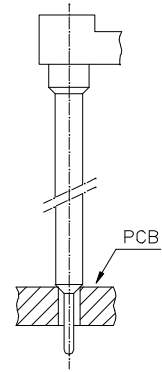


Board Stacker Terminals

<p>079</p>	<p>0623</p>	<p>062</p>
<p>060</p>	<p>063</p>	<p>080</p>
<p>084</p>	<p>085</p>	<p>088</p>
<p>065</p>	<p>Many other terminals and custom specific terminal styles are available on request, or refer to the pages 46 to 48 of this catalogue.</p>	

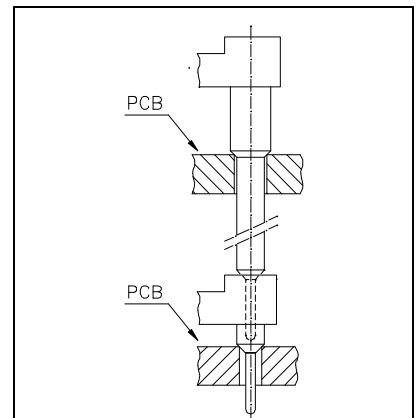


Application Examples



Possible Terminals:

060; 062; 063; 065; 079
080; 084; 085; 088; 623



Possible Terminals:

060; 062; 063; 079; 623

Specifications

See page 49 of this catalogue

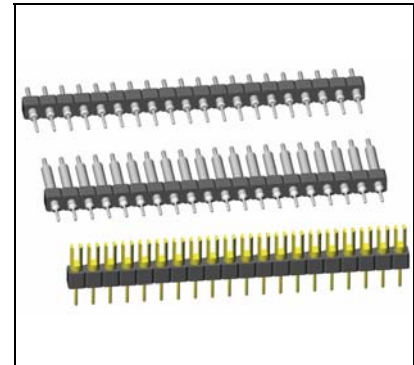
How to order

XXX - xxx - X xxx - 95

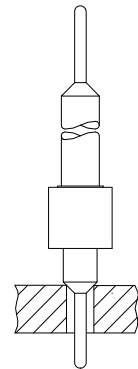
<p>Series SIB = single-in-line strips. DIS = dual-in-line strips... TIS = triple-in-line strips..</p>	<p>Rows 1 2 3</p>	<p>Nbr of contacts 1-row = 02 to 40 2-row = 04 to 80 3-row = 06 to 96</p>	<p>Insulator see socket strip page 5</p>	<p>Terminal style see drawings above or refer to pages 46 to 48 of this catalogue for other types.</p>	<p>Plating - 95 = tin/gold (tin leadfree) other on request</p>
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Board to Board Terminals

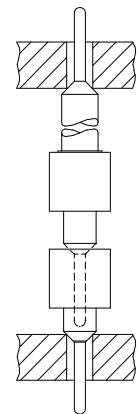
<p>077</p>	<p>057</p>	<p>037</p>
<p>058</p>	<p>059</p>	<p>056</p>
<p>542</p>	<p>038</p>	<p>353</p>
<p>036</p>	<p>Many other terminals and custom specific terminal styles are available on request, or refer to the pages 46 to 48 of this catalogue.</p>	



Application Examples



Possible Terminals:
037; 056; 057; 058; 059
077; 220; 542; 544
562; 583; 770



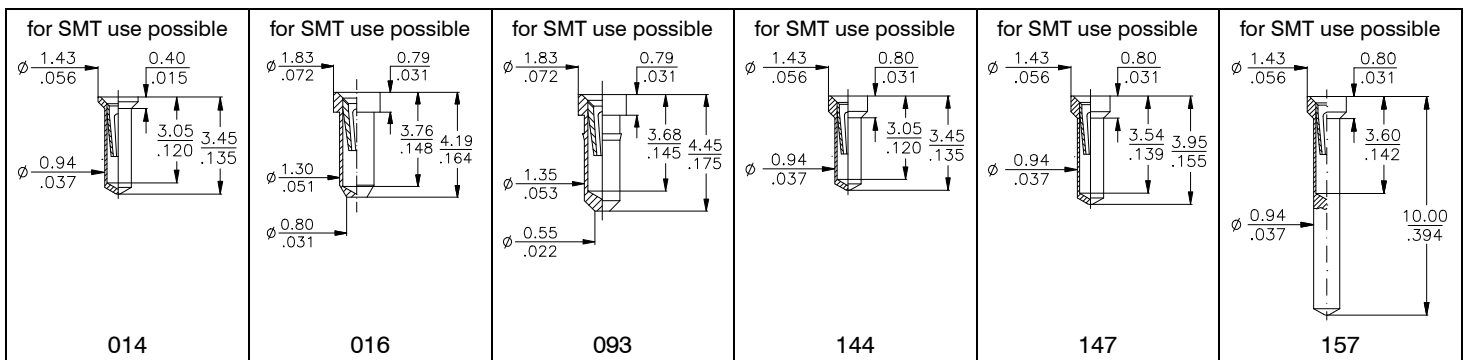
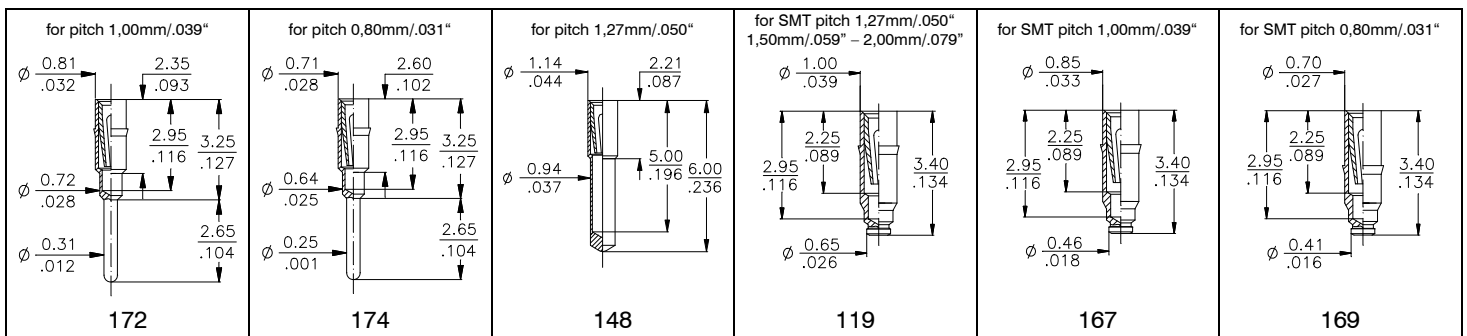
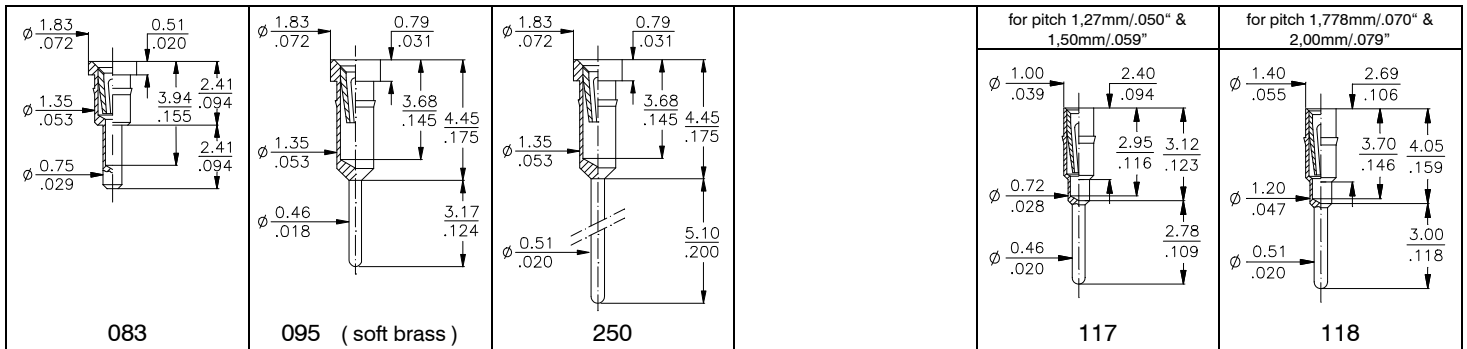
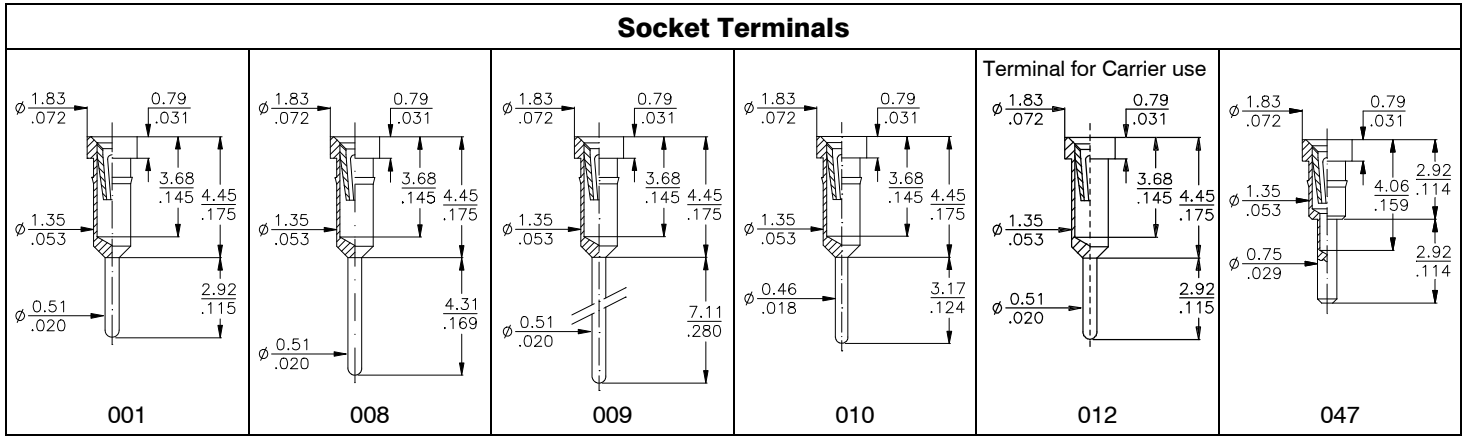
Possible Terminals:
037; 056; 057; 058; 059
077; 078; 542; 544
562; 583; 770

How to order

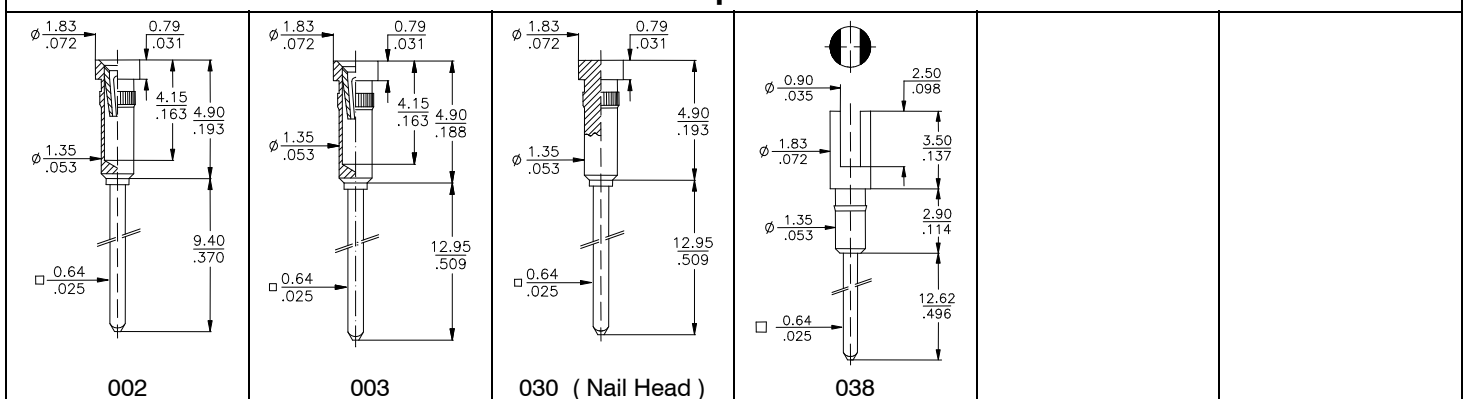
XXX - x XX - X xxx - xx

<p>Series SIB = single-in-line strips. DIS = dual-in-line strips... TIS = triple-in-line strips..</p>	<p>Rows 1 2 3</p>	<p>Nbr of contacts 1-row = 02 to 40 2-row = 04 to 80 3-row = 06 to 96</p>	<p>Insulator S = Plastic E = Epoxy FR4 (TIS Series only) dimension see socket strip page 5</p>	<p>Terminal style see drawings above or refer to pages 46 to 48 of this catalogue for other types.</p>	<p>Plating - 55 = gold - 99 = tin (leadfree)</p>
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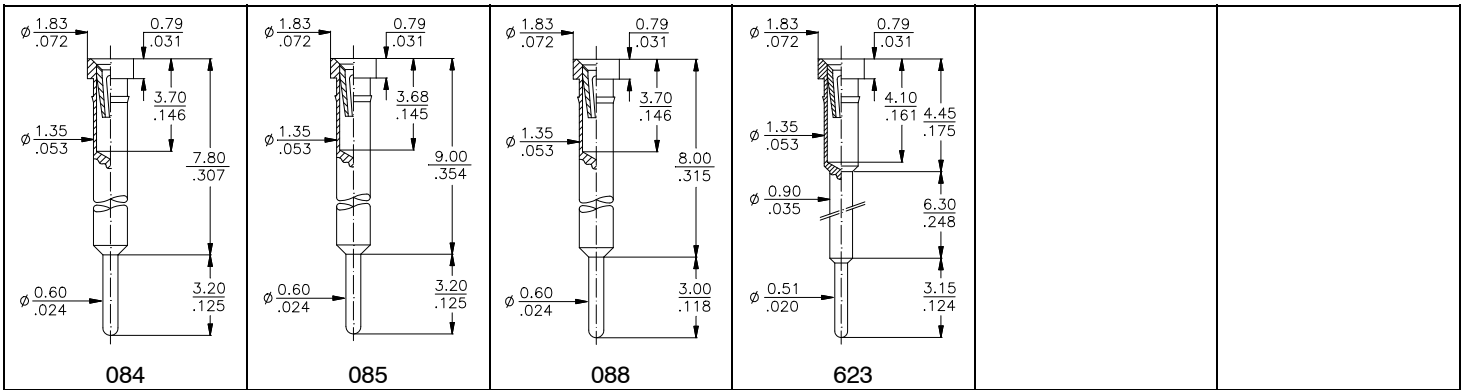
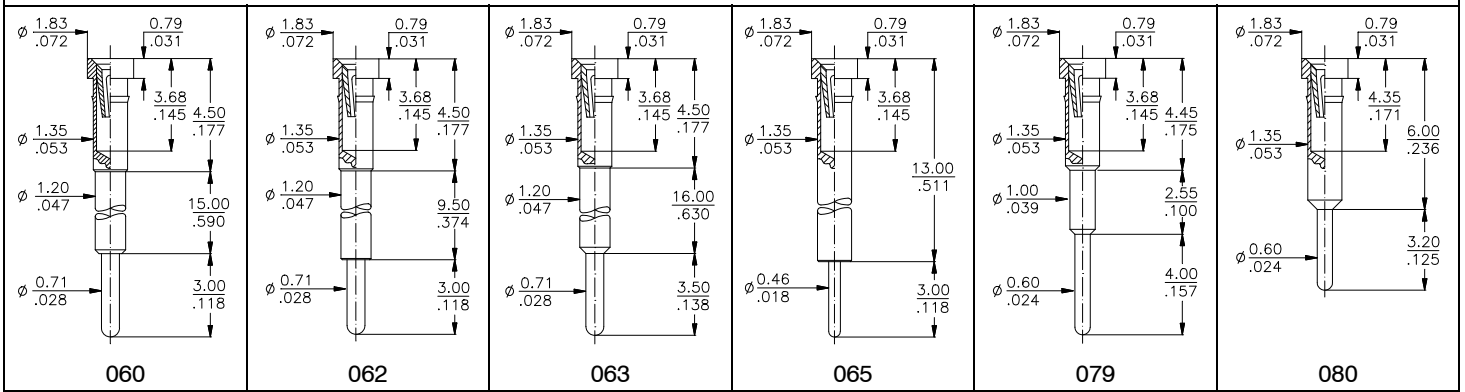
Socket Terminals



Wire Wrap Terminals

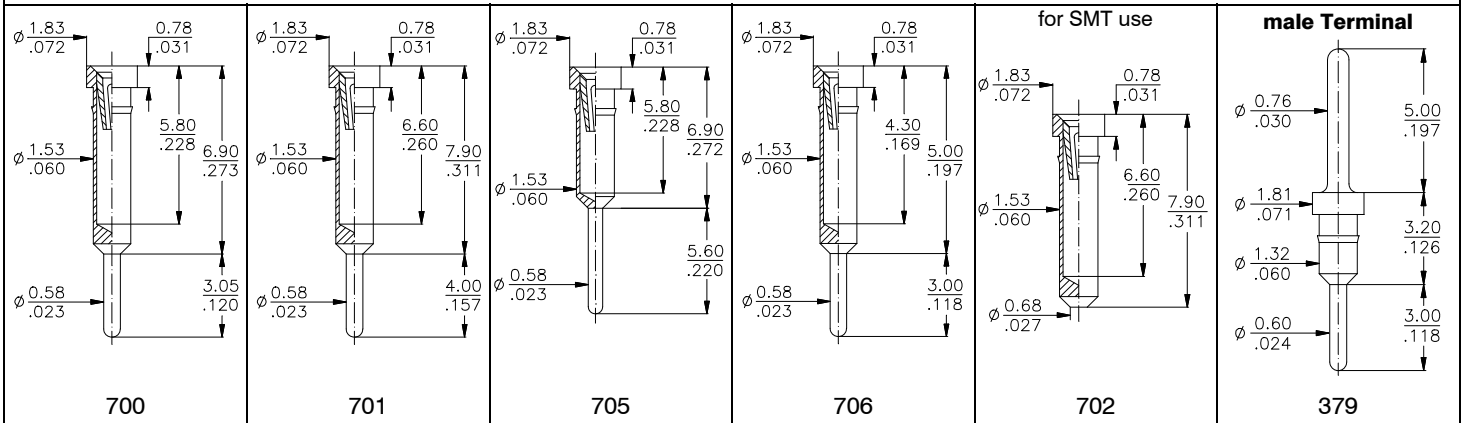


Raised Terminals

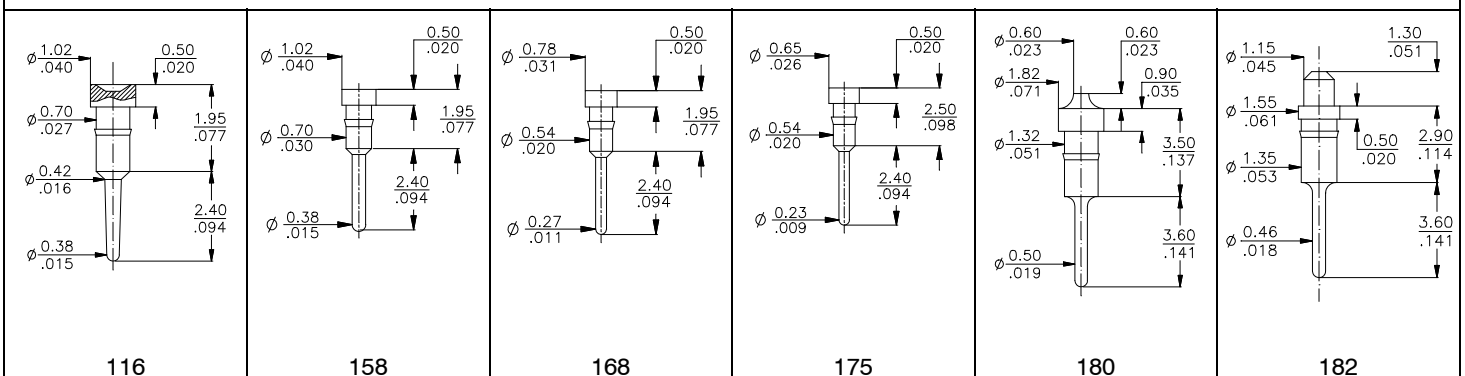


„Jumbo“ Contact & Male Terminals

(Contact accepts 0,64mm/.025" sq. & 0,90mm/.036" dia. Pins)



Solder Adapter Terminals



Board to Board Terminals

<p>Terminal 037 dimensions: ϕ 0.64 / .025, 4.22 / .166, ϕ 1.83 / .072, 3.93 / .154, ϕ 1.35 / .053, 3.96 / .156, ϕ 0.46 / .018.</p>	<p>Terminal 056 dimensions: ϕ 0.65 / .025, 4.68 / .184, ϕ 1.52 / .060, 14.82 / .583, ϕ 1.83 / .072, 1.35 / .053, 3.40 / .134, ϕ 0.46 / .018.</p>	<p>Terminal 057 dimensions: ϕ 0.65 / .025, 4.10 / .161, ϕ 1.83 / .072, 3.90 / .153, ϕ 1.35 / .053, 7.19 / .283, ϕ 0.50 / .019.</p>	<p>Terminal 058 dimensions: ϕ 0.46 / .018, 3.56 / .140, ϕ 1.52 / .060, 8.89 / .350, ϕ 1.83 / .072, 1.35 / .053, 3.40 / .134, ϕ 0.46 / .018.</p>	<p>Terminal 059 dimensions: ϕ 0.46 / .018, 3.56 / .140, ϕ 1.52 / .060, 11.61 / .457, ϕ 1.83 / .053, 1.35 / .072, 3.40 / .134, ϕ 0.46 / .018.</p>	
<p>Terminal 077 dimensions: ϕ 0.46 / .018, 4.22 / .166, ϕ 1.83 / .072, 3.68 / .144, ϕ 1.35 / .053, 3.96 / .156, ϕ 0.46 / .018.</p>	<p>Terminal 078 dimensions: ϕ 0.64 / .025, 12.95 / .509, ϕ 1.83 / .072, 3.94 / .155, ϕ 1.35 / .053, 3.96 / .155, ϕ 0.46 / .018.</p>	<p>Terminal 220 dimensions: ϕ 0.46 / .018, 4.22 / .166, ϕ 1.83 / .072, 3.34 / .131, ϕ 1.35 / .053, 5.80 / .228, ϕ 0.64 / .025.</p>	<p>Terminal 372 dimensions: ϕ 0.51 / .020, 4.22 / .166, ϕ 1.60 / .062, 3.93 / .154, ϕ 1.35 / .053, 3.96 / .156, ϕ 0.46 / .018.</p>	<p>Terminal 377 dimensions: ϕ 0.46 / .018, 3.17 / .124, ϕ 1.82 / .072, 0.30 / .012, 7.33 / .288, ϕ 0.46 / .018, 2.52 / .099.</p>	
<p>Terminal 542 dimensions: ϕ 0.46 / .018, 2.95 / .116, ϕ 1.48 / .058, 19.05 / .750, ϕ 1.83 / .072, 1.35 / .053, 3.40 / .133, ϕ 0.46 / .018.</p>	<p>Terminal 544 dimensions: ϕ 0.46 / .018, 3.56 / .140, ϕ 1.18 / .046, 10.50 / .413, ϕ 1.83 / .072, 1.35 / .053, 3.40 / .133, ϕ 0.46 / .018.</p>	<p>Terminal 562 dimensions: ϕ 0.46 / .018, 3.56 / .140, ϕ 1.48 / .058, 14.82 / .583, ϕ 1.83 / .072, 1.35 / .053, 3.40 / .133, ϕ 0.46 / .018.</p>	<p>Terminal 583 dimensions: ϕ 0.46 / .018, 3.56 / .140, ϕ 1.20 / .047, 5.70 / .224, ϕ 1.83 / .053, 1.35 / .072, 2.40 / .094, ϕ 0.46 / .018.</p>	<p>Terminal 770 dimensions: ϕ 0.46 / .018, 3.60 / .141, ϕ 1.80 / .070, 3.50 / .138, ϕ 1.35 / .053, 2.90 / .114, ϕ 0.46 / .018.</p>	<p>for pitch 1,27mm/.050"</p> <p>Terminal 774 dimensions: ϕ 0.44 / .017, 2.40 / .094, ϕ 1.00 / .039, 6.05 / .238, ϕ 0.85 / .033, 2.85 / .112, ϕ 0.44 / .017.</p>

Header Terminals

<p>Terminal 036 dimensions: ϕ 0.96 / .038, 3.81 / .150, 3.99 / .157, 12.47 / .491, ϕ 1.60 / .063, 6.58 / .259, ϕ 2.00 / .079, 3.96 / .156, ϕ 1.35 / .053, 3.96 / .156, ϕ 0.46 / .018.</p>	<p>Terminal 353 dimensions: ϕ 0.90 / .035, 2.55 / .100, 4.00 / .157, 3.45 / .135, ϕ 1.80 / .070, 3.15 / .124, ϕ 1.35 / .053, ϕ 0.50 / .019.</p>	<p>Terminal 038 (Wire Wrap) dimensions: ϕ 0.90 / .035, 2.50 / .098, 3.50 / .137, 2.90 / .114, ϕ 1.83 / .072, 12.62 / .496, ϕ 1.35 / .053, ϕ 0.64 / .025.</p>			
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General Specifications for Precision Pin Sockets

Mechanical data

Average forces for available clip types:	
Standard type	1.80N insertion / 0.90N extraction
Low force type	0.70N insertion / 0.25N extraction
Super low force type	0.40N insertion / 0.15N extraction
High force type	4.00N insertion / 2.50N extraction
„Jumbo“ contact	1.40N insertion / 0.25N extraction
<i>Other clips and forces available on request</i>	
Contact life	min. 100 cycles
Vibration as per EN60352-4	sinusoidal, 10 to 500 Hz, 10g, 1 octave/min, 10 cycles for each axis
Shock as per EN60352-4	half sine, 50g, 11ms, 3 shocks in 3 axes
Thermal shock as per IEC 60068-2-14	-55°C/+125°C, 5 cycles, 30 minutes
Solderability as per IEC 60068-2-58	245°C to 255°C 5 sec; Sn97Ag3 solder alloy
Dry heat steady state as per IEC 60068-2-2	260°C for 20 sec.
Cold steady state as per IEC 60068-2-1	-55°C, 2h
Damp heat cyclic as per IEC 60068-2-30	55°C, 90-100%rH, 24h
Moisture sensitivity Level (JEDEC J-STD-020C)	2 for PBT & Nylon 1 for all other materials
PCB holes for 2.54mm pitch standard connectors	1.00mm diameter
Coplanarity thru-hole	0.30mm
General tolerances	+/- 0.10mm

Operating temperature (standard)

-55°C to +125°C

Processing temperature

injection molded insulator (high temp)	+250°C +0/-5°C for 20~40 sec. (reflow solder)
injection molded insulator (PBT)	+250°C +0/-5°C for 10 sec. (wave solder only)
Epoxy FR4 (Standard)	+220°C min. for 10 sec.
Epoxy FR4 (hi temp)	+260°C min. for 60 sec.

Electrical data

Contact resistance at 1A	4,3 mΩ typ.
Current rating (except „Jumbo“ contact)	1A max.
„Jumbo“ contact	3A max.
Contact capacitance at 1MHz	2pF max.
Insulation resistance at 500V DC for std & hi-temp	5 × 10 ⁹ Ω min.
Insulation resistance at 500V DC for FR4 Epoxy	> 10 ⁴ MΩ
Breakdown voltage at 60 Hz	500 V AC min.
Contact resistance after 1000 ins./ext. cycles	≤ 7 mΩ

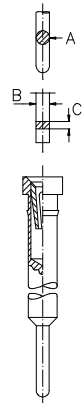
Material (RoHS compliant)

Standard temperature plastic: PBT UL 94 V-0	14, 15, 16, 23, 17, 19, 20, 24 25, 26, 27, 29
High-temp plastic: Nylon, PCT, SPS, PPS, LCP UL 94 V-0	5, 6, 7, 8, 9, 10, 11, 12, 13, 14 15, 16, 21, 22, 20, 25, 26, 27 28, 33, 34, 35, 36, 37, 38, 39 40, 41, 42, 43
Epoxy FR4: UL 94 V-0 & UL 94 V-1	32, 5, 6, 7, 18, 22, 24, 29
PBT, Nylon, PCT, SPS, PPS, LCP & Epoxy FR4	If necessary pls. contact E-tec for Material specification.
Terminal: CuZn	
Contact: BeCu	

Male pin dimensions for standard clip (except „Jumbo Contact“)

(DIN 41 870, IEC 191 for square IC-legs)

DIM	min.	max.
„A“ ∅	<u>0.42</u> .016"	<u>0.56</u> .022"
„B“ □	<u>0.36</u> .014"	<u>0.55</u> .023"
„C“ □	<u>0.20</u> .008"	<u>0.30</u> .014"



General information concerning the E-tec interconnect products

Plating:

- Standard tin plating:
min. 2.50µm Sn (*leadfree*) over Ni
- Standard gold plating:
flash, max. 0,10µm Au over Ni
- Higher gold platings are offered on request

Specifications:

The data contained in this catalog is of general nature and refers to standard products. For example a „Current rating“ at an ambient temperature of 25° C reflects the value per individual contact. Should you require any further data or test reports, you can obtain this information from your nearest E-tec sales office.

The E-tec connectors conform with signal integrity requirements at high data and frequency rates. However we cannot offer a general information about the max. frequency or data transmission rate. For such a statement, it would require more information about the chosen configuration and pin-out, the length of the cable and/or any other specific requirements regarding the application itself and its related signal integrity.

E-tec SMT connectors, male or female, are offered with a coplanarity of max. 0,10mm. They are adapted to all modern SMT soldering processes and they can be handled easily with all currently existing placing techniques. Customers may choose between various packaging options, such as tray, tube and tape & reel.

GENERAL POLICY

All information contained in this catalog, including illustrations, specifications and dimensions are accurate to the best of our knowledge, and reflect the status as at the date of publication. Due to technical progress, it is subject to change without notice. Application information is informational in nature and shall not be construed to warrant suitability of products for any particular purpose as performance may vary depending on the conditions to which a product is subjected. Unless otherwise confirmed at the time of order, all E-tec products are non cancellable and non returnable items (NCNR). E-tec products are warranted for 30 days and the warranty is limited strictly to replacement of products. This warranty does not cover any claims for natural wear and tear, nor for any compensations, such as loss of production, loss of use, loss of orders, loss of profit, nor any other direct or indirect damages.