

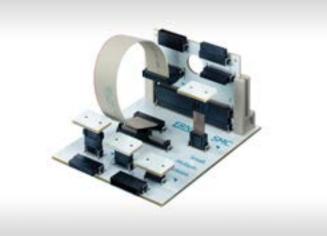


## SMC

### 1.27 mm Connectors







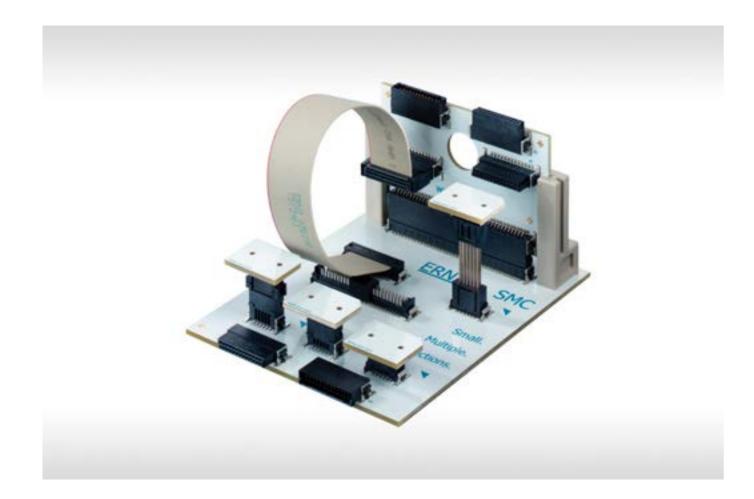
# **SMC - SMALL GRID, BIG POSSIBILITIES**

Limited space and high performance demands are characteristics of many modern electronic systems, all of which the connectors must accommodate. There is a corresponding demand for compact, secure, and reliable connectors, with high signal integrity and a relatively high current-carrying capacity.

The comprehensive SMC range helps meet these requirements. The high-performance SMT connectors come in a number of different designs, heights, and contact densities in a 1.27 mm grid.

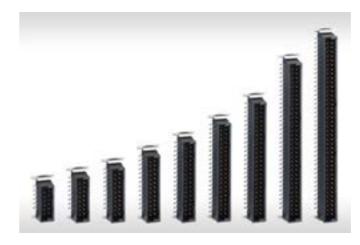
The basic design criteria for the SMC series include double-sided spring contacts for toprate contact properties and maximum contact reliability, a high-temperature resistant insulator with polarization and insertion chamfers, and a very high mating reliability.

The contact design exhibits a virtually continuous impedance profile and enables secure data transmission rates of up to 3 Gbit/s (differential) if the system is suitably designed.



## **FEATURES**

Pitch	1.27 mm	
No. of Pins	12, 16, 20, 26, 32, 40, 50, 68, 80	
Termination technology	SMT, individual variants in pressfit technology	
	Data rate up to 3 Gbit/s	
	Current rating up to 1.7 A per contact	
	Board-to-Board connections:	
	- stacked (Mezzanine)	
Applications	- orthogonal	
	- coplanar	
	Wire-to-Board connections (ribbon cable):	
	- pluggable	
	- permanent	
	Male connectors, vertical and right angle	
	Female connectors, vertical and right angle	
Variants	Board-to-Board adapter	
variants	Board-on IDC	
	Cable assembly:	
	- Female connectors IDC, right angle	
	Lockable connectors	
Special versions	Pressfit male connectors	
Special versions	Reduced locating pegs / without pegs	
	First mate/early break contacts	





SMC CONNECTORS 2 SMC CONNECTORS 3

## **CAPABILITIES**



Stacked boards (Mezzanine)



Board-to-Board adapter: enhanced board-to-Board heights



Extender card (coplanar)



Orthogonal boards



Wire-to-Board (pluggable)



Wire-to-Board (permanent): Board-on IDC

## **ADVANTAGES**

#### **High Reliable Contact Design**

- reliable, dual-beam female contact
- twisted contact tulip (90°)
- rolled, homogeneous surface, provides for more secure contact mating
- wide contact surfaces between the mated pairs
- extremely low surface roughness significantly reduces abrasion
- low contact resistance



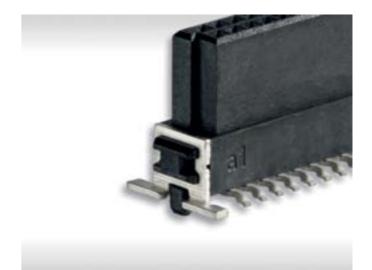
#### **Polarization / Mating Face**

- mating face polarization guards against mismating and incorrect connection
- more secure mating due to insertion chamfers in the capture range
- distinctive guide elements for precise insertion



#### **Robust Solder Clips**

- outstanding retention forces on the circuit board
- soldering brackets absorb mechanical stress and are able to withstand high shock and vibration loads
- documented shear and tear-off forces build trust in surface-mounted connectors (e.g., shear force: min. 1000 N; tear-off force: min. 100 N)



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## **ADVANTAGES**

#### **Interlocking Snap-In**

- lockable printed circuit board (PCB) and cable connectors
- secured against heavy vibration and shock loads
- snap-in: locking when mating; can only be released with tools
- cable connector: integrated locking lever; can be manually released without tools
- protection against accidental release of Wire-to-Board connections
- cable guide provides for strain relief



#### **Snap-In B-to-B Adapter**

- single-sided locking of Board-to-Board adapters on low-profile female connectors
- enables the mating and release of two boards always on one specified side



#### **Locating Pegs**

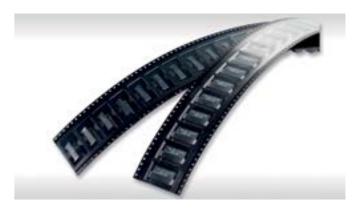
- geometrically heterogeneous locating pegs for precise positioning on the circuit board
- enables excellent compensation of PCB holes for both positive and negative tolerances



## **PROCESSING**

#### **Tape and Reel Packaging**

- transport safe packaging
- automatic assembly



## **Automatic Assembly and Reflow Soldering**

• for efficient processing on modern assembly lines



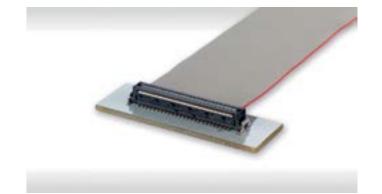
#### **Backside Reflow Soldering**

• capable of two sided reflow soldering



## Permanent Wire-to-Board Connection (Board-on IDC)

• automated and cost-efficient assembly of ribbon cables



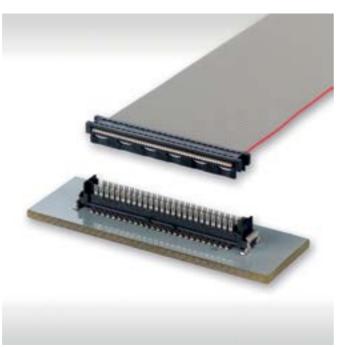
SMC CONNECTORS 6 SMC CONNECTORS

## **BOARD-ON IDC**

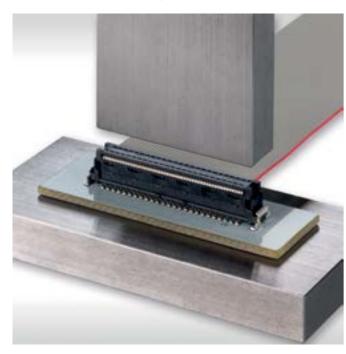
#### **Automated Assembly**



Feeding of the Ribbon Cable and Cable Guide



**Press-in without Special Tool** 

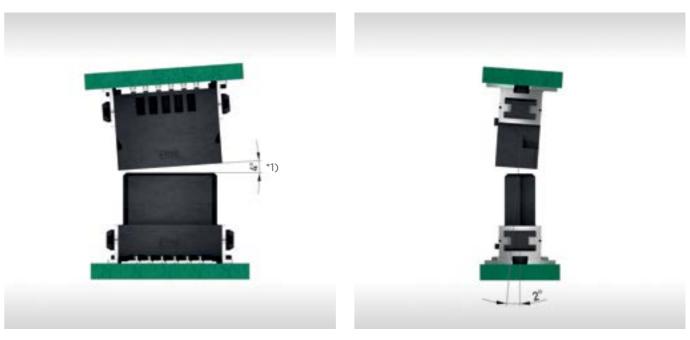


**Processed Connection** 



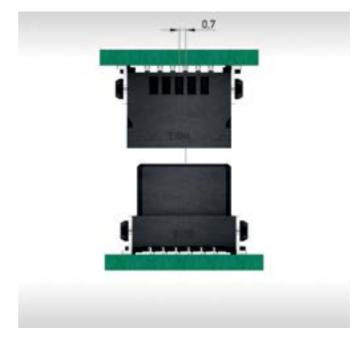
## **MATING CONDITIONS**

#### Allowed Inclination for a more Secure Self-Centering



<sup>\*1)</sup> depends on no. of pins and misalignment tolerance

### **Allowed Misalignment Tolerances for a more Secure Self-Centering**





## **BOARD-TO-BOARD HEIGHT**

#### **Stacked Boards / Mezzanine**



Board-to-Board Height	Male Stacking Height	Female Stacking Height
8.00 - 9.50 mm	1.75 mm	6.25 mm
9.50 - 11.00 mm	3.25 mm	6.25 mm
10.80 - 12.30 mm	1.75 mm	9.05 mm
12.30 - 13.80 mm	3.25 mm	9.05 mm
13.90 - 15.40 mm	4.85 mm	9.05 mm
15.40 - 16.90 mm	1.75 mm	13.65 mm
16.90 - 18.40 mm	3.25 mm	13.65 mm
18.50 - 20.00 mm	4.85 mm	13.65 mm



Board-to-Board Height	<b>Board-to-Board Adapter</b>	Female Stacking Height
20 mm	20 mm	2 x 6.25 mm
22 mm	22 mm	2 x 6.25 mm
24 mm	24 mm	2 x 6.25 mm
26 mm	26 mm	2 x 6.25 mm
28 mm	28 mm	2 x 6.25 mm
30 mm	30 mm	2 x 6.25 mm
32 mm	32 mm	2 x 6.25 mm
34 mm	34 mm	2 x 6.25 mm
36 mm	36 mm	2 x 6.25 mm
38 mm	38 mm	2 x 6.25 mm
40 mm	38 mm (wipe length)	2 x 6.25 mm

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# ELECTRICAL AND MECHANICAL CHARACTERISTICS

#### **Technical Data**

Description	Standard	PCB Connectors, Cable Assemblies, B-to-B Adapter	Board-on IDC (Ribbon Cable AWG 30, 250 mm)	
Climate category	DIN EN 60068-1 test b	55 / 150 / 56	55 / 125 / 56	
<del>-</del> .		-55 / 125 °C (PCB Connectors)	55 /105 00 (TD5 0 0 11 )	
Temperature range		-55 / 125 °C (TPE-S Cable)	-55 / 125 °C (TPE-S Cable)	
Current rating per contact	IEC60512 test 5b		C ambient temperature: vith optimized layout)	
Air- and creepage distance			ract min. 0.4 mm	
Operating voltage	IEC 60664	The permissible operating voltages depend on the customer application and on the applicable or specified safety requirements. Insulation of dination according to IEC 60664-1 has to be regarded for the complete electrical device. Therefore, the maximum creepage and clearance of tances of the mated connectors are specified for consideration as a of the whole current path. In practice, reductions in creepage or clearance distances may occur due to the conductive pattern of the print board or the wiring used, and have to be taken into account separate As a result the creepage and clearance distances for the application be reduced compared to those of the connector.		
Dielectric strength	IEC 60512 test 4a	contact - co	ntact 500 V <sub>rms</sub>	
Contact resistance	IEC 60512 test 2a	< 25 m $\Omega$ < 35 m $\Omega$ (Board-to-Board Height 18.50 - 20.00 mm) < 10 m $\Omega$ (cable assemblies)	< 10 mΩ	
Insulation resistance	IEC 60512 test 3a	> 10 <sup>4</sup> MΩ		
Vibration, sine	IEC 60512 test 6d	10 - 2000 Hz 20 g		
Contact disturbance (while vibration test)	IEC 60512 test 2e	< 1 µs		
Shock halfsine	IEC 60512 test 6c	50 g 11 ms		
Contact disturbance (while shock test)	IEC 60512 test 2e	< 1 µs		
Mechanical operation	IEC 60512 test 9a	500 ma	ting cycles	
Insertion and withdrawal force max.	IEC 60512 test 13b	0.5 N per contact		
Gauge retention force	IEC 60512 test 16e	> 0.1 N		
<b>Processing Conditions</b>				
Hand soldering temperature max.	IEC 60068-2-20	3.5 s at 350 °C		
Dip soldering temperature max.	IEC 60068-2-20	10 s at 260 °C		
Reflow soldering temperature max.	JEDEC J-STD-020	20 - 40 s at 260 °C		
Coplanarity		< 0	.1 mm	

# **ELECTRICAL AND MECHANICAL CHARACTERISTICS**

#### **Technical Data**

Standard	PCB Connectors, Cable Assemblies, B-to-B Adapter	Board-on IDC (Ribbon Cable AWG 30, 250 mm)	
		LCP	
IEC 112		175	
	1	UL 94 V-0	
		E83005	
•			
		Cu alloy	
	gold plating	-	
		Sn	
'			
	no flame-retardant additives,	no flame-retardant additives, no toxic additives allow easy recycling	
		E84703	
		Standard Assemblies, B-to-B Adapter  IEC 112  gold plating	

Partial LV214 testing for selected SMC configurations done. If you want to know more, please contact TE/ERNI. In general, testings are done according to connector standards. No liability for usage of connectors in the application.

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# **ELECTRICAL AND MECHANICAL CABLE CHARACTERISTICS**

#### **Technical Data Flat Ribbon Cables**

Description	Standard cable (PVC)	High Temperature Cable (TPE-S)	Halogen-free Cable (Polyolefin TPE-O)	
Cross section	AWG-30/ 7/ 0.06 mm <sup>2</sup>			
Conductor	stra	stranded Cu wire, tinned, 7x0.102 / 0.06 mm²		
Coded wire		available		
Insulation	PVC gray (similar to RAL 78032)	TPE-S gray (similar to RAL 78032)	TPE-O gray (similar to RAL 78032)	
Insulation thickness		min. 0.1mm		
Shore hardness	94 ±2 (Shore A)	52 ±3 (Shore D)	94 ±2 (Shore A) resp.	
	94 ±2 (SHOTE A)	32 ±3 (3Hore D)	50 ±3 (Shore D)	
Technical Data				
Tomporature range	-20/105 °C (fixed)	-60/125 °C (fixed)	-40/105 °C (fixed)	
Temperature range	-10/105 °C (mobile)	-40/125 °C (mobile)	-20/105 °C (mobile)	
Dielectric strength	1500 V <sub>rms</sub>	1000 V <sub>rms</sub>	1200 V <sub>rms</sub>	
Conductor resistance	≤ 350 Ω/km at 20 °C			
Insulation resistance	≥ 20 MΩ x km at 20 °C			
Impedance	125 Ω (wire-wire)	136 Ω (wire-wire)	110 Ω (wire-wire)	
Impedance	80 Ω (Ground-Signal-Ground)	136 22 (wire-wire)	75 $\Omega$ (Ground-Signal-Ground)	
Bending cycles (typical)	min. 1 million at 20 x cable diameter			
RoHS	compliant			
Flame rating	UL 94 VW-1	IEC 60332-1-2	UL 1581 (Horizontal Flame Test)	



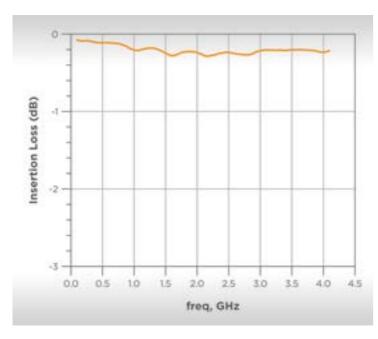
## **HIGH FREQUENCY CHARACTERISTICS**

#### **High-Speed Data Transmission**

SMC connectors as solution for unshielded high-speed applications. The practically continuous impedance profile allows for more secure data transmission rates of up to 3 Gbit/s (differential) if the system is suitably designed.

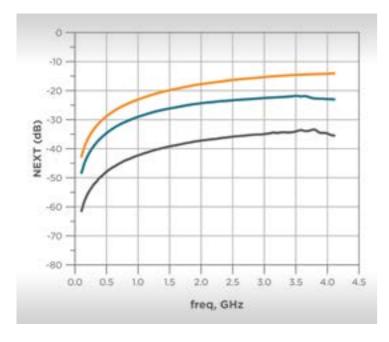
- de-embedded measurement results for the micro backplane/daughter card application
- 50-pin SMC, angled female connector, straight male connector (low profile)
- · differential signal transmission

#### **Insertion Loss**





#### **Near End Crosstalk (Next)**





Agressor / Victim
 A2_3 / B2_3
A2_3 / A4_5
A2_3 / B4_5 (shown above)

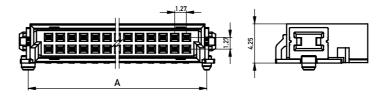
## **RIGHT ANGLE MALE**

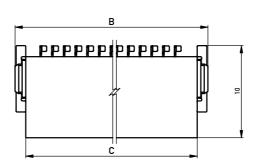
#### **Product Specification**

- Surface mount technology (SMT) termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- · automated board assembly
- for available part numbers please refer to our website

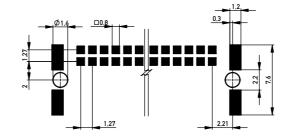


#### **Dimensional Drawings**





#### **Recommended Layout**



No. of Contacts	Α	В	С
12	10.77	12.70	10.35
16	13.31	15.24	12.91
20	15.85	17.78	15.45
26	19.66	21.59	19.26
32	23.47	25.40	23.07
40	28.55	30.48	28.15
50	34.90	36.83	34.50
68	46.33	48.26	45.93
80	53.95	55.88	53.55

All dimensions in mm.

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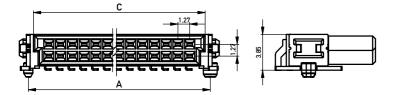
## **RIGHT ANGLE FEMALE**

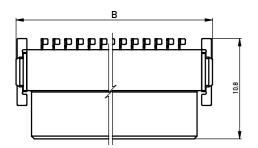
#### **Product Specification**

- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- automated board assembly
- for available part numbers please refer to our website

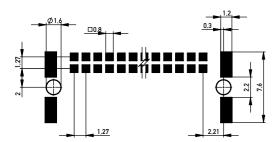


#### **Dimensional Drawings**





#### **Recommended Layout**



Α	В	С
10.77	12.70	9.37
13.31	15.24	11.91
15.85	17.78	14.45
19.66	21.59	18.26
23.47	25.40	22.07
28.55	30.48	27.15
34.90	36.83	33.50
46.33	48.26	44.93
53.95	55.88	52.55
	10.77 13.31 15.85 19.66 23.47 28.55 34.90 46.33	10.77 12.70 13.31 15.24 15.85 17.78 19.66 21.59 23.47 25.40 28.55 30.48 34.90 36.83 46.33 48.26

All dimensions in mm.

## **VERTICAL MALE**

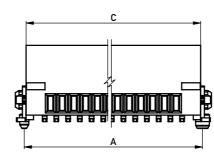
#### **Product Specification**

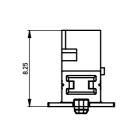
- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- automated board assembly
- 3 stacking heights (1.75, 3.25, 4.85 mm)
- for available part numbers please refer to our website



#### **Dimensional Drawings**

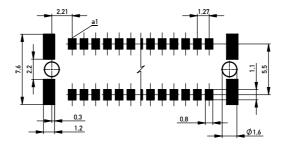
Unmated Stacking Height 3.25 mm





	7.27
В	<u> </u>

#### **Recommended Layout**



No. of Contacts	Α	В	С
12	10.77	12.70	10.37
16	13.31	15.24	12.91
20	15.85	17.78	15.45
26	19.66	21.59	19.26
32	23.47	25.40	23.07
40	28.55	30.48	28.15
50	34.90	36.83	34.50
68	46.33	48.26	45.93
80	53.95	55.88	53.55

All dimensions in mm.

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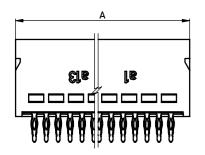
## **VERTICAL MALE PRESSFIT**

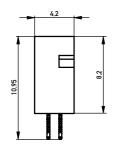
#### **Product Specification**

- pressfit termination
- dual row connector
- data rates up to 3 Gbit/s
- black insulation body for fast and reliable visual recognition
- virtually automated board assembly
- stacking height 3.25 mm
- press-in tools and toggle presses available from ERNI
- for available part numbers please refer to our website



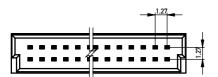
#### **Dimensional Drawings**



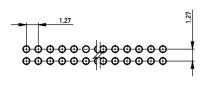


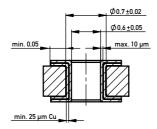
No. of	
Contacts	Α
12	10.35
26	19.24
50	34.48
68	45.91
80	53.53

All dimensions in mm.



#### **Recommended Layout | Hole Design**





## **VERTICAL FEMALE**

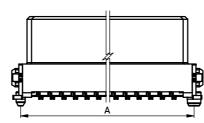
#### **Product Specification**

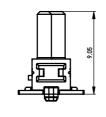
- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- automated board assembly
- 3 stacking heights (6.25, 9.05, 13.65 mm)
- for available part numbers please refer to our website



#### **Dimensional Drawings**

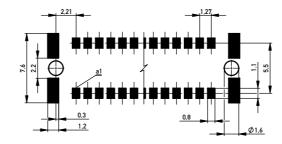
Unmated Stacking Height 9.05 mm





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		7,2
ľ	c	]'_
L	В	

#### **Recommended Layout**



No. of Contacts	Α	В	С
12	10.77	12.70	9.37
16	13.31	15.24	11.91
20	15.85	17.78	14.45
26	19.66	21.60	18.26
32	23.47	25.40	22.07
40	28.55	30.48	27.15
50	34.90	36.80	33.50
68	46.33	48.20	44.93
80	53.95	55.80	52.55

All dimensions in mm.

SMC CONNECTORS SMC CONNECTORS

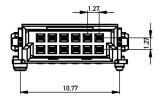
## RIGHT ANGLE MALE WITH LOCKING SYSTEM

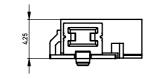
#### **Product Specification**

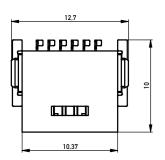
- two types of interlocking:
- positive lock (blue colored): unlockable i.e. by tool, tip of pen
- friction lock (black colored):
   unlockable without any tool
- SMT termination
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- automated board assembly
- for available part numbers please refer to our website



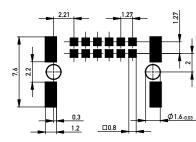
#### **Dimensional Drawings**







#### **Recommended Layout**



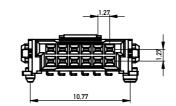
## RIGHT ANGLE FEMALE WITH LOCKING SYSTEM

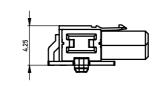
#### **Product Specification**

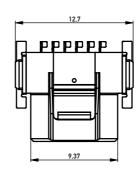
- two types of interlocking:
- positive lock (blue colored): unlockable i.e. by tool, tip of pen
- friction lock (black colored): unlockable without any tool
- SMT termination
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- automated board assembly
- for available part numbers please refer to our website



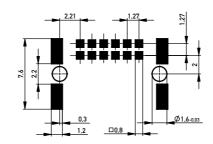
#### **Dimensional Drawings**







#### **Recommended Layout**



SMC CONNECTORS 20 SMC CONNECTORS

## **BOARD-TO-BOARD ADAPTER**

#### **Product Specification**

- Board-to-Board adapter for parallel PCB distances of 20-40 mm
- moulded (hotmelt) versions for improved environmental resistance and finger safe protection
- single-sided locking of Board-to-Board adapters on low-profile female connectors
- enables the mating and release of two boards always on one specified side
- for available part numbers please refer to our website



No. of

**Contacts** 

12 26

50

68

80

All dimensions in mm.

Α 10.37

19.26

34.50

45.93

53.55

#### **Dimensional Drawings**

**B-to-B Adapter** 

(Board-Distance)

20 22

24

26

28

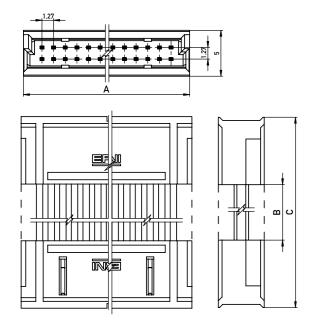
30

32

34

36

38



В

3.5

5.5

7.5

9.5

11.5

13.5

15.5

17.5

19.5

21.5

С

18.2

20.2

22.2

24.2

26.2

28.2

30.2

32.2

34.2

36.2



	a1
	single sided
ı —	single sided locking

## **BOARD-ON IDC**

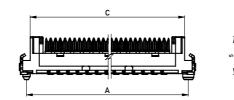
#### **Product Specification**

- permanent wire-to-board connection
- SMT and IDC termination
- · dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- flat ribbon cables AWG 30
- easy assembly with standard toggle press
- for available part numbers please refer to our website



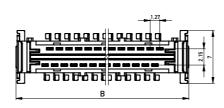
#### **Dimensional Drawings Recommended Layout**

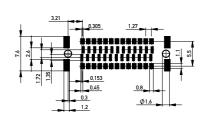
**Board-on Connectors** 



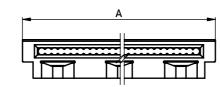
No. of Contacts	Α	В	С	
12	12.77	14.70	11.78	
26	21.66	23.59	20.67	
50	36.90	38.83	35.91	

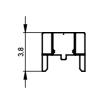
All dimensions in mm.





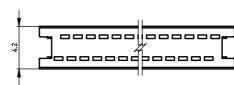
Board-on Cable Guide





No. of Contacts	Α	В	
12	10.78	6.98	
26	19.67	15.87	
50	34.91	31.11	

All dimensions in mm.



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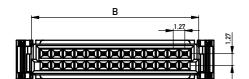
## **CABLE ASSEMBLIES**

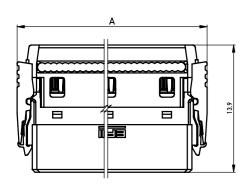
#### **Product Specification**

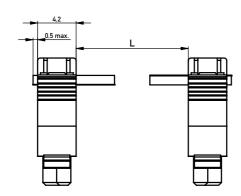
- cable assemblies with IDC female connectors
- ribbon cable AWG 30/7
- three different cable types
- for available part numbers please refer to our website

#### **Dimensional Drawings**









No. of Contacts	Α	В
12	12.69	9.37
16	15.23	11.91
20	17.77	14.45
26	21.58	18.26
32	25.39	22.07
40	32.53	27.15
50	38.88	33.50
68	50.31	44.93
80	57.93	52.55

All dimensions in mm.

## **CABLE ASSEMBLIES**

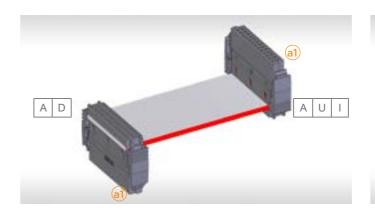
#### Configurations

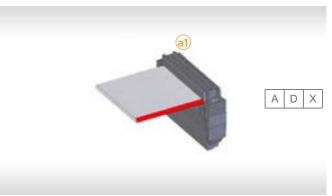
Standard
Connector #1 Connector #2

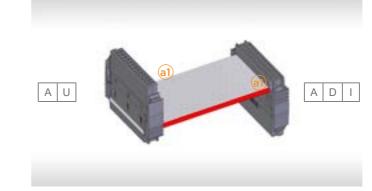
A U I

Crossed
Connector #2







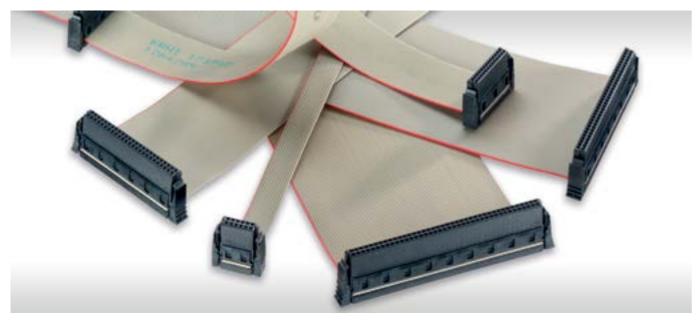




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## **CABLE ASSEMBLIES**

#### **Cable Types**



#### **Standard**

- standard ribbon cable with PVC insulation
- AWG 30/7
- excellent abrasion and cut resistance
- temperature range: -10 °C to +105 °C
- UL2678

#### **High Temperature**

- high temperature resistant ribbon cable with TPE-S insulation
- AWG 30/7
- excellent abrasion and cut resistance
- temperature range: -40 °C to +125 °C

#### **Halogen-free**

- halogen-free ribbon cable with TPE-O insulation
- AWG 30/7
- excellent abrasion and cut resistance
- oil-resistant (ASTM 2)
- temperature range: -20 °C to +105 °C
- UL22092

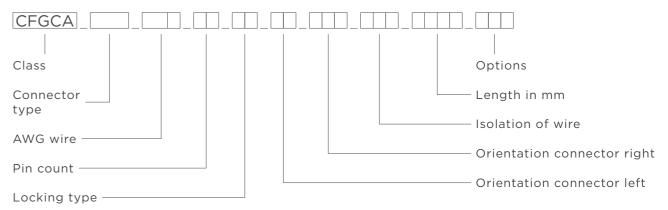






## **CABLE ASSEMBLIES**

#### **Ordering Information Standard Cable Assemblies**



#### **Example for a standard configuration:**

CFGCA SMC 30R 112 LL AU AUI PVC 01175 ANN

Ordering code field	Number of digits	Example configuration	Composition of the conf	riguration	
Class	5	CFGCA	ConFiGurable Cable Ass	sembly	
Connector type	3	SMC	SMC		
AWG wire	3	30R	1st and 2nd column:	30	
AWG WIFE	3	SUR	3rd column:	Ribbon Cable	
Pin count	2	12	12, 16, 20, 26, 32, 40, 50	0, 68, 80	
La alcia activa a	2		Locking Latches		
Locking type	2	LL	Secure Lock		
Orientation connector left	2		Angeled <b>U</b> p		
Orientation connector left	2	AU	Angeled Down		
	3	AUI	1st and 2nd column:	Angeled <b>U</b> p	
				Angeled Down	
Orientation connector right				Not ConneCted	
			3rd column:	I-connected (1:1)	
				X-connected (1:N)	
		PVC	<b>PVC</b> : -10 °C to +105 °C		
Isolation of wire	2 - 4		<b>TPE</b> : -40 °C to +125 °C		
			PO: -20 °C to +105 °C, halogen free		
Length in mm	4	0175	175 mm / 25 - 2500 mn	n possible	
			1st column:	Asymmetric	
				Symmetric	
Ontions	7		2nd and 3rd column:	custom PRint	
Options	3	ANN		<b>UL</b> Label	
				Print ad UL Label	
				No print No UL lab	

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### **CABLE ASSEMBLIES**

#### **Product Specific Technical Notes**

- intended use: the offered products, i.e. cable assemblies, are components used in devices for internal wiring in non-critical industrial applications
- not intended to be used in live-support applications, no safety-classified applications, not intended for automotive use, not intended for applications with danger to life and limb
- desired audience: (professional) company customers who assume the full responsibilty for their products including the ERNI cable assembly product under consideration
- customer has to carefully check the product's appropriateness for the desired use (application) with the help of its technical specifications and additionally verify that the operation of the product in said application is in agreement with all requirements that may be applicable under the scope of the actual application (applicable regulation, law, and whatever more)
- product solely ERNI-internally sampled and released customer FAI report will not be provided (also includes PPaPs, CofCs, acceptance test certificates and IMDS Data)
- ERNI may change suppliers or mix materials from various sources as long as the specification layed out here will be maintained (assumption of fit-form-function)
- outside these product offerings customer-specific assemblies to be inquired separately

SMC CONNECTORS

#### **Connect With Us**

We make it easy to connect with our experts and are ready to provide the support you need. Visit www.te.com/support to chat with a Product Information Specialist.

#### te.com

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#### CATALOG

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# ELECTRICAL AND MECHANICAL CABLE CHARACTERISTICS

#### **Technical Data Flat Ribbon Cables**

		Unit	Minimum	Typical	Maximum	Remark / Condition
RoHS compliance		-	-	yes	-	
WEEE (Waste of Electric and Electronic Equip- ment)		-	-	n/a	-	products out of scope
intended use, intended appli- cation		-	-	products suit- able for internal wiring only	-	i.e. restricted to wiring inside protective housings like cabinets, chassis cases or other units appropriate to provide pretection for the products against undesirable environmental impacts including mechanical damages.
part numbers of connectors used in assembly		-	-	refer drawing	-	also refer to output of ca- ble assembly configurator and configurator-generat- ed BOM
Workmanship accoding to UL		-	-	selectable	-	UL Listing E335534 applicable if configured
Workmanship IPC class (IPC/ WHMA-A-620)		Class	-	2	-	respective latest revision
Technical clean- liness / conduc- tive particles		um	-	-	400	
Customer draw- ing for product family		-	-	-	-	refer to separate document generated by cable assem- bly configurator
storage tempera- ture range		°C	-	1K4	-	acc. to IEC 60721-3-1
production testing	visual inspection	-	-	as per IPC/WH- MA-A-620	-	
	isolation test w/ test voltage	Vdc	250	-	-	each assembly is subject to an electrical test comprised of continuity (desired con- nects) and isolation hipot (desired non-connects)
	continuity test w/ test current	mA	400	-	-	each assembly is subject to an electrical test comprised of continuity (desired con- nects) and isolation hipot (desired non-connects)
marking of the product	#1 marking (product orien- tation)	n/a	-	refer drawing	-	Be particularly cautious while designing in and using assemblies that employ the 1:N connection scheme (X-connected, crossed connection)

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**Authorized Distributor** 

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