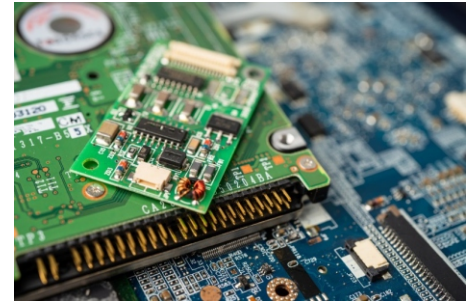


# Components for the most demanding applications



Zahl	Zug-Nr.	Über	Ziel	Intervall	Geht	Wartung
1328	1328	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1329	1329	Bonn - Köln (Hbf)	Mannheim	15		
1330	1330	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1331	1331	Bonn - Köln (Hbf)	Mannheim	15		
1332	1332	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1333	1333	Bonn - Köln (Hbf)	Mannheim	15		
1334	1334	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1335	1335	Bonn - Köln (Hbf)	Mannheim	15		
1336	1336	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1337	1337	Bonn - Köln (Hbf)	Mannheim	15		
1338	1338	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1339	1339	Bonn - Köln (Hbf)	Mannheim	15		
1340	1340	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1341	1341	Bonn - Köln (Hbf)	Mannheim	15		
1342	1342	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1343	1343	Bonn - Köln (Hbf)	Mannheim	15		
1344	1344	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1345	1345	Bonn - Köln (Hbf)	Mannheim	15		
1346	1346	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1347	1347	Bonn - Köln (Hbf)	Mannheim	15		
1348	1348	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1349	1349	Bonn - Köln (Hbf)	Mannheim	15		
1350	1350	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1351	1351	Bonn - Köln (Hbf)	Mannheim	15		
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1353	1353	Bonn - Köln (Hbf)	Mannheim	15		
1354	1354	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
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1360	1360	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1361	1361	Bonn - Köln (Hbf)	Mannheim	15		
1362	1362	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1363	1363	Bonn - Köln (Hbf)	Mannheim	15		
1364	1364	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1365	1365	Bonn - Köln (Hbf)	Mannheim	15		
1366	1366	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		
1367	1367	Bonn - Köln (Hbf)	Mannheim	15		
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1369	1369	Bonn - Köln (Hbf)	Mannheim	15		
1370	1370	Köln (Hbf) - Bonn	Frankfurt (Hbf)	15		



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You can find many of our products on our e-shop: [www.atd-shop.com](http://www.atd-shop.com)

**atd-shop is linked to company system  
and shows the actual stock status.**

Vážení zákazníci / partneři,  
s radostí ale i s pokorou bych se rád pochlubil, že jsme letos oslavili 30 let od založení naší firmy.

Výročí firmy je pěkná věc, ale je potřeba se dívat stále vpřed a být připraven na přicházející výzvy. Prožili jsme covidové období plné zákazů a omezení, období nedostatku elektronických součástek a nyní se nám za humny spláčil krvelačný ruský medvěd.

Toto turbulentní období jsme zvládli díky individuálnímu přístupu ke každému Vašemu požadavku a také díky novému skladu. Velmi se osvědčili rámcové objednávky a postupné dodávky zboží dle požadavků. Také se nám pomalu vrací vynaložená práce na atd-shopu. Stále k nám přicházejí noví zákazníci z celého světa.

Díky odborným znalostem Vám můžeme nabídnout technickou podporu, navrhnout ekvivalenty a řešení. Sortiment také přizpůsobujeme požadavkům Vašich aplikací. Proto velkou část našich produktů tvoří zákaznické typy a produkty. Rozšiřujeme nabídku absorberů, tepelně vodivých materiálů, SMD DC/DC měničů, UV laků, pojistek, LED displejů, integrovaných obvodů, pamětí, výkonových tlumivek, pig-tailů ...

Mnoho novinek představujeme na našich internetových stránkách, při osobních návštěvách a také je postupně nabízíme na e-shopu.

Jsmo poměrně malá firma, přesto se nebojíme nových výzev a těšíme se na Vaše současné i budoucí požadavky.

Doufám, že budete s našimi službami i nadále spokojeni.

Za tým ATD,

Ing. Petr Jankovec - generální ředitel

Dear customers / partners,  
I would like to proudly but humbly boast that this year we have celebrated 30 years since the foundation of company.

A company's anniversary is a nice thing, but we need to keep looking forward and be ready for the challenges ahead. We have lived through a covid period full of bans and restrictions, a period of shortages of electronic components and now a bloodthirsty Russian bear stomps behind us.

We managed this turbulent period thanks to an individual approach to each of your requests and also thanks to the new warehouse. Framework orders and gradual deliveries of goods according to requirements have proven very effective. Also, the work spent on atd-shop is slowly coming back to us. New customers from all over the world come to us regularly.

Thanks to our expertise, we can offer you technical support, propose equivalents and solutions. We also adapt product range to the requirements of your applications. Therefore, a large part of our products are customized types and products. We are expanding the offer of absorbers, thermally conductive materials, SMD DC/DC converters, UV varnishes, fuses, LED displays, integrated circuits, memories, power chokes, pig-tails...

We present the news on website, during customer visits and gradually offer them via the e-shop as well. Being relatively small company we are not afraid of new challenges and are willing to respond to your current as well as future demands.

I hope you continue to be satisfied with our services.

On behalf of ATD team,

Ing. Petr Jankovec - general manager



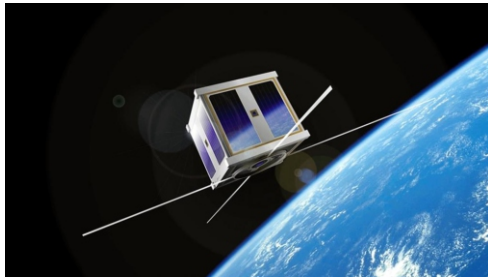


We produce according to **customer's requirement**.  
Send us your drawing or dimensions and we will produce the desired header.



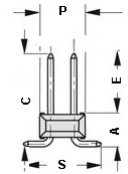
The "COSMIC" connectors used are based on standard series:  
SM C02 1271 XX BD and SM C02 4835 XX BD

## Schmid-M connectors point higher



**SM C02 1271 08 BD; E=9,0;  
without 2nd.pins; With Cap REEL**

SMD rail, pitch RM1,27, pin length E=9,0mm  
unset second row. Connectors are supplied  
on a reel with mounting cap.



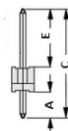
**Give us type of header, number of pins  
and dimensions you need  
and we will prepare a quotation for you.**

### Header Single Row, Single Insulator, Straight

SM C02 1170 XX AS - 1,27mm

SM C02 6100 XX AS - 2,00mm

SM C02 2100 XX AS - 2,54mm

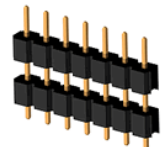
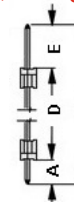


### Header Single Row, Dual Insulators, Straight

SM C02 1170 XX ES - 1,27mm

SM C02 6100 XX ES - 2,00mm

SM C02 2100 XX ES - 2,54mm



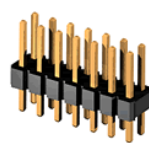
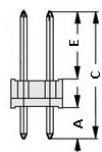
### Header Dual Rows, Single Insulator, Straight

SM C02 1801 XX BS - 1,00mm

SM C02 1271 XX BS - 1,27mm

SM C02 6100 XX BS - 2,00mm

SM C02 2100 XX BS - 2,54mm



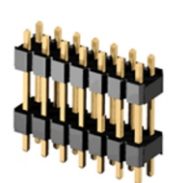
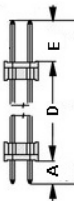
### Header Dual Rows, Dual Insulators, Straight

SM C02 1804 XX FS - 1,00mm

SM C02 1274 XX FS - 1,27mm

SM C02 6200 XX FS - 2,00mm

SM C02 2200 XX FS - 2,54mm

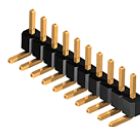
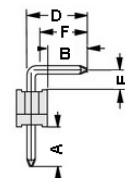


### Header Single Row, Single Insulator Right Angle

SM C02 1170 XX AR - 1,27mm

SM C02 6100 XX AR - 2,00mm

SM C02 2100 XX AR - 2,54mm

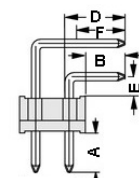


### Header Dual Rows, Single Insulator Right Angle

SM C02 1174 XX BR - 1,27mm

SM C02 6200 XX BR - 2,00mm

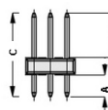
SM C02 2200 XX BR - 2,54mm



### Header Triple Rows, Single Insulator, Straight

SM C02 6230 XX CS - 2,00mm

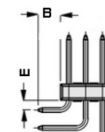
SM C02 1896 XX CS - 2,54mm



### Header Triple Rows, Single Insulator, Right Angle

SM C02 6230 XX CR - 2,00mm

SM C02 1896 XX CR - 2,54mm

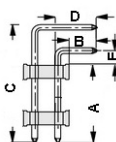


### Header Dual Rows, Dual Insulators Right Angle

SM C02 1280 XX FR - 1,27mm

SM C02 6200 XX FR - 2,00mm

SM C02 2200 XX FR - 2,54mm

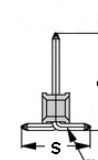


### Header Single Row and Insulators SMT

SM C02 1170 XX AZ - 1,27mm

SM C02 6100 XX AZ - 2,00mm

SM C02 2100 XX AZ - 2,54mm





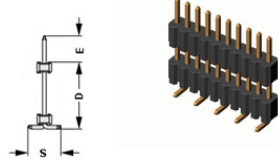
# PIN Header



www.atd-shop.com

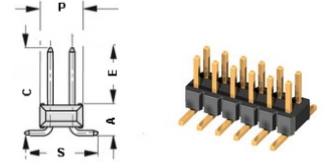
## Header Single Row; Dual Insulators SMT

- SM C02 1170 XX EZ - 1,27mm
- SM C02 6100 XX EZ - 2,00mm
- SM C02 2100 XX EZ - 2,54mm



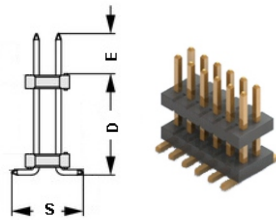
## Header Dual Rows; Single Insulator SMT

- SM C02 1801 XX BD - 1,00mm
- SM C02 1271 XX BD - 1,27mm
- SM C02 6200 XX BD - 2,00mm
- SM C02 2200 XX BD - 2,54mm



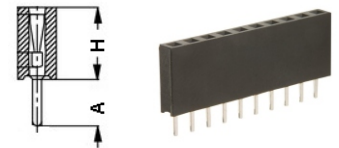
## Header Dual Rows and Insulator SMT

- SM C02 1804 XX FD - 1,00mm
- SM C02 1274 XX FD - 1,27mm
- SM C02 6200 XX FD - 2,00mm
- SM C02 2200 XX FD - 2,54mm



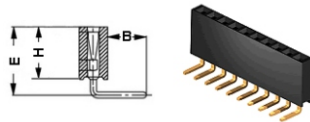
## Female Header Single Row; Straight

- SM C02 4832 XX S - 1,27mm
- SM C02 6801 XX S - 2,00mm
- SM C02 2826 XX S - 2,54mm



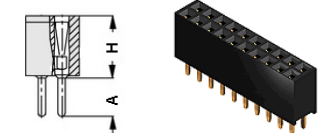
## Female Header Single Row; Right Angle

- SM C02 4832 XX R - 1,27mm
- SM C02 6801 XX R - 2,00mm
- SM C02 2826 XX R - 2,54mm



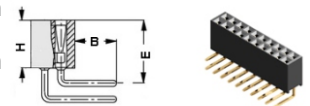
## Female Header Dual Rows; Straight

- SM C02 4828 XX BS - 1,27mm
- SM C02 6801 XX BS - 2,00mm
- SM C02 2826 XX BS - 2,54mm



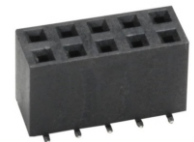
## Female Header Dual Rows; Right Angle

- SM C02 4828 XX BR - 1,27mm
- SM C02 6801 XX BR - 2,00mm
- SM C02 2826 XX BR - 2,54mm



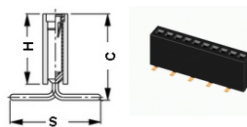
## Female Header 2 Rows SMT

- SM C02 5910 XX BD - 0,8x1,2mm
- SM C02 5983 XX BD - 0,8x1,5mm
- SM C02 5812 XX BD - 1,0mm
- SM C02 4828 XX BD H - 1,27mm
- SM C02 4830 XX BD - 1,27x2,54mm
- SM C02 6804 XX BD - 2,00mm
- SM C02 6802 XX BD H - 2,00mm

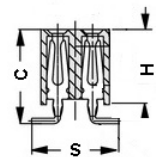


## Female Header Single Row SMT

- SM C02 4832 XX A SMT - 1,27mm
- SM C02 6801 XX A Z SMT - 2,00mm
- SM C02 2823 XX A SMT - 2,54mm  
standard: H=5,0mm
- SM C02 2826 XX A SMT - 2,54mm  
standard: H=8,4mm



- SM C02 2818 XX BD H - 2,54mm  
H=7,10mm other H=3,56; 5,0mm; 6,4mm; 8,4mm; 9,4mm



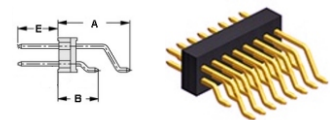
## Female Header Side Entry Dual Rows

- SM C02 8178 XX B Z - 2,00mm
- SM C02 2813 XX B Z - 2,54mm



## Header Dual Rows; Single Insulator SMT Dual Rows

- SM C02 2127 XX BH - 1,27mm
- SM C02 2154 XX BH - 2,00mm
- SM C02 2105 XX BH - 2,54mm



## Socket Machined Pin

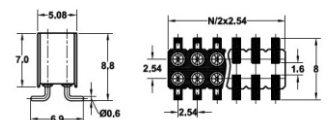
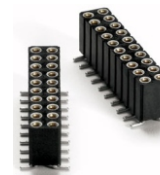
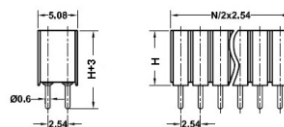
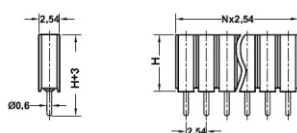
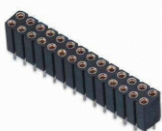
SM C07 0109 XX Black  
Standard height insulator H=7

SM C07 0109 XX H=Y  
Customer height insulator Y:3 - 9

SM C07 0109 XX D  
Standard height insulator H:7

SM C07 0109 XX D H=Y  
Customer height insulator Y:3-9

SM C07 0109 XX SMT D  
Standard height insulator H:7



## Box Header



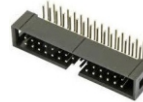
### Box Header Straight

- SM C02 3506 XX S**  
(Pitch: 1,27x1,27mm)
- SM C02 3503 XX S**  
(Pitch: 1,27x2,54mm)
- SM C02 9510 XX S**  
(Pitch: 2,00mm)
- SM C02 3510 XX S**  
(Pitch: 2,54mm)



### Box Header Right Angle

- SM C02 3506 XX R**  
(Pitch: 1,27x1,27mm)
- SM C02 3503 XX R**  
(Pitch: 1,27x2,54mm)
- SM C02 9510 XX R**  
(Pitch: 2,00mm)
- SM C02 3510 XX R**  
(Pitch: 2,54mm)



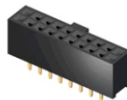
### Box Header SMT

- SM C02 3506 XX D**  
(Pitch: 1,27x1,27mm)
- SM C02 3503 XX D**  
(Pitch: 1,27x2,54mm)
- SM C02 9510 XX D**  
(Pitch: 2,00mm)
- SM C02 3510 XX D**  
(Pitch: 2,54mm)



### Female Straight with Bump

- SM C02 6806 XX**  
(Pitch: 2,00mm)  
H=4,0mm
- SM C02 6807 XX S**  
(Pitch: 2,00mm)
- SM C02 2811 XX**  
(Pitch: 2,54mm)
- SM C02 2817 XX S**  
(Pitch: 2,54mm)



### DIP Plug IDC

- SM C02 3006 XX**  
(Pitch: 1,27x1,27mm)
- SM C02 3100 XX A**  
(Pitch: 2,54mm)
- SM C02 3100 XX B**  
(Pitch: 2,54mm)



### IDC Socket with Strain Relief

- SM C02 3007 XX C**  
(Pitch: 1,27x1,27mm)
- SM C02 3009 XX C**  
(Pitch: 1,27x2,54mm)
- SM C02 9200 XX C**  
(Pitch: 2,00mm)
- SM C02 3001 XX C**  
(Pitch: 2,54mm)



## Micro-Match board-cable connectors

www.atd-shop.com/qx22P-en/micro-match-connectors

- SM C02 3128 XX YF   SM C02 3129 XX YF   SM C02 3130 XX Y   SM C02 3135 XX Y   SM C02 3131 XX YF   SM C02 3133 XX   SM C02 3132 XX Y



## RJ Connectors

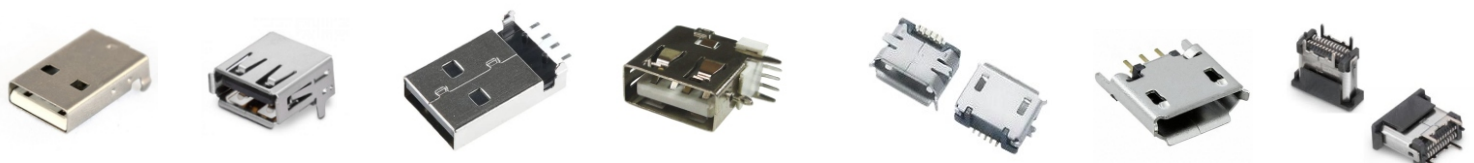
We offer RJ45 connectors from the following manufacturers: Schmid-M, Molex, TE Connectivity, WE, Pulse...  
Tell us which connectors you are buying and we will be happy to prepare an offer.

- SM C04 0060 XX 0060   SM C04 0060 88 DA   SM C04 0060 88 HA   SM C04 0060 88 AA   SM C04 0060 88 HN   SM C04 5A15AEG2   SM C04 2A17JHG2  
The most popular types with transformer



## USB Connectors

- SM C04 8446 04 A   SM C04 8317 04   SM C04 8335 04 A   SM C04 8323 04 AFV   SM C04 8367 05 B   SM C04 8362 05 BF   SM C04 1024 03 FAR  
USB A, SMT Angle   USB A, THT   USB A, SMD, black   USB A, vertical   Micro USB B, SMT   Micro USB B, vertical   USB-C 3.1, SMT



www.atd-shop.com/qx24-en/connectors-for-data-transmission

# Circular Connectors



www.atd-shop.com

## M8 & M12

Female Straight  
(Cable length 2m or 5m, PVC or PUR)

Female Angled

Male Straight

Male Angled



SM C10 BF12-S44N0-02  
SM C10 BF12-S55N0-02  
SM C10 BF12-S88N0-02  
SM C10 BF12-S12N0-02

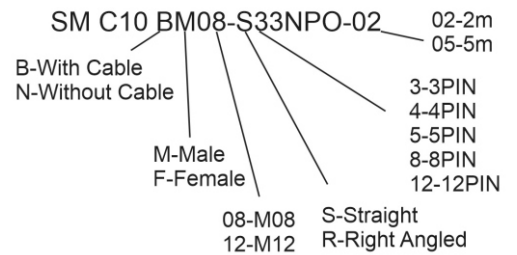
SM C10 BF12-R44N0-02  
SM C10 BF12-R55N0-02  
SM C10 BF12-R88N0-02  
SM C10 BF12-R12N0-02

SM C10 BM12-S44N0-02  
SM C10 BM12-S55N0-02  
SM C10 BM12-S12N0-02

SM C10 BM12-R44N0-02  
SM C10 BM12-R55N0-02

SM C10 NM12-S4IP0-BLK

## Part Numbering System



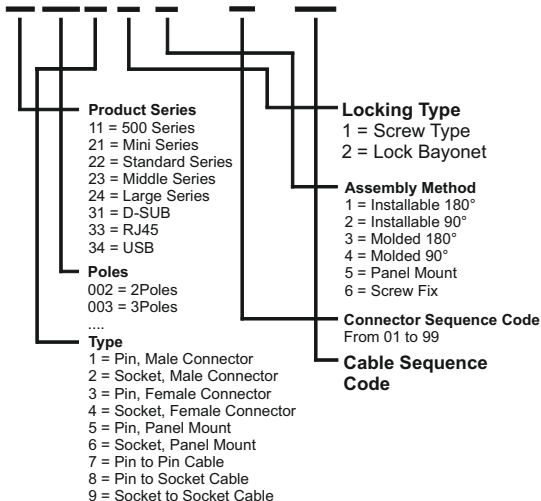
99-3732-201-04    99-3731-202-04    99-3442-458-05    99-0413-10-05



## CHOGORI®

### Circular connectors

CHO 22 002 1 1 1 - 01 - 001



CHO21005221-01 Mini female 5pin    CHO21005525-03 Mini male 5pin    CHO24309535-01 Large 3+9    CHO 24309231-02 Large 3+9



CHO22004635-03 Standard female 4pin    CHO2204131-01 Standard male 4pin    CHO33000000-04 RJ45 IP68 bayonet    CHO33000000-10 RJ45 IP68 screw



CHO 34000000-03 USB    CHO 33000000-04    CHO33000000-03    CHO 34000000-01



## AUDIO Connectors

SM C08 GCD002  
d-6,3mm  
L1-31mm; L-95mm

SM C08 GCD046  
d-6,3mm  
L1-31mm; L-83mm

SM C08 GCD202  
M8; h-34,5mm

SM C08 GCE103-4P

SM C08 GCE018-4P

Lumberg DIN 0123 05  
Lumberg DIN 0107 05



www.atd-elektronik.cz/chogori.html



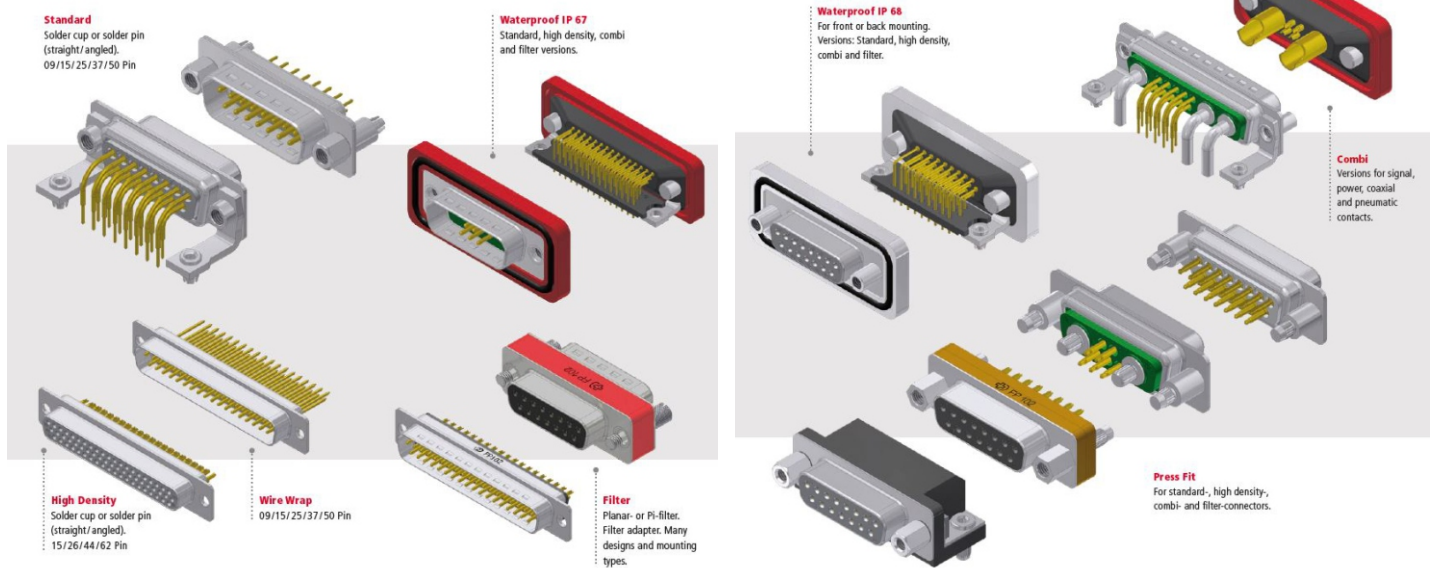


D-Sub Connectors  
D-Sub Hoods  
I/O Connectors  
Bus Connectors

Deltron offers a wide range of different connectors, electronic- and electromechanical components.



## D-Sub Connectors



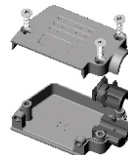
### Series DMVZK-SL

Shell Sizes: 9 & 15  
Standard material: Zink  
Termination: Shield clamp



### Series DSZK-SL

Shell Sizes: 9 & 15  
Standard material: Zink  
Termination: Shield clamp



### Series DSK-SL

Shell Sizes: 9, 15, 25 & 37  
Standard material: Polycarbonate  
Termination: Shield crimp



### Series DTK/DSK-SL

Shell Sizes: 9, 15, 25 & 37  
Standard material: Polycarbonate



### Series DTPMK

Shell Sizes: 9, 15, 25 & 37  
Metallized ABS-plastic  
Termination: Shield clamp



### Series DVPMK

Shell Sizes: 9, 15, 25 & 37  
Metallized ABS-plastic  
Termination: Shield clamp



### Series DTZK

Shell Sizes: 9, 15, 25 & 37  
Standard material: Zink  
Termination: Shield clamp



### Series DVZK

Shell Sizes: 9, 15, 25, 37 & 50  
Standard material: Zink  
Termination: Shield clamp



### Series DSZK

Shell Sizes: 9 & 15  
Standard material: Zink  
Termination: Shield clamp



# Push-pull Connectors



www.atd-shop.com



## Series K - Outdoor



### MAIN FEATURES:

1. Security of the push –pull self-latching system
2. Multipole types 2 to 30 contacts
3. Solder or PCB contacts (straight or elbow)
4. High Packing density for space saving
5. Multiple key options to avoid cross mating of similar connectors
6. Keying system (G key standard) for connector alignment
7. 360° screening for full EMC shielding

#### T1 Plug staight

Series: 00B, 0B, 1B,2B,3B



#### T2 Plug fixed

00B, 0B, 1B,2B,3B



#### T3 Plug elbow 90°

00B, 0B, 1B, 2B, 3B



#### T4 Plug Lanyard

0B, 1B, 2B, 3B



#### T6 Plug sealed

0B, 1B, 2B, 3B



#### T9 Plug nut fixing

0B, 1B, 2B



#### Z1 Socket front panel

Series: 00B, 0B, 1B,2B,3B



#### Z2 Socket

0B, 1B,2B,3B



#### Z3 Socket back panel

00B, 0B, 1B, 2B, 3B



#### Z4 Socket free

00B, 0B, 1B, 2B, 3B



#### Z6 Socket

0B, 1B, 2B



#### Z12 Socket

0B, 1B,



## Series T MIL -DTL-26482



## Series Triaxial



## Series B



## Series P



## M series connectors

are lightweight triple-start ratchet coupling type connectors designed for avionics, aerospace, military, security, motorsport and heavy duty applications.



- Various sizes & configurations providing maximum rated current ranging from 140A to 430A
- 360° screening for full EMC shielding
- Wide temperature range -55°C to 200°C
- High shock and vibration resistance
- Sealed to IP68 mated; IP68 unmated as options
- Tested to MIL Standards (MIL-STD-810F)

- Broad range of lightweight aluminium shell models
- Oil and fuel resistant
- Scoop proof & IP2X finger protection
- Threaded option for MIL-DTL-38999M backshell

## Colibri®

High Speed up to 25+ Gbps



Colibri® is a shielded, two-row SMT connector system with a pitch of 0.5 mm, which is especially suitable for applications with high data transmission rates. The product is available in different speeds, starting at 10 Gbps through 16 Gbps and up to 25 Gbps in the highest configuration. In addition to the available pin counts of 40, 80, 120 and 160, the versions with 220 and 440 contacts are primarily used for the now widespread COM Express® applications.

### Part Number Key

<b>Type</b> 401 Plug 402 Receptacle	<b>b-t-b distance</b> 51 Plug 5 mm 51 Receptacle 55 Plug 8 mm	<b>Pick &amp; place cap</b> 0 without pick & place cap 5 with pick & place cap (Plug only)	<b>Optional tray packaging</b> 220p and 440p only
---	--	--	--

**Coating**  
51 Standard version  
52 Heavy Au

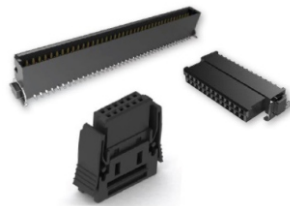
**Pins**  
1 220p  
3 160p  
4 120p  
5 440p  
6 80p  
7 40p

**Variant**  
1 Standard version  
3 16+ plug only  
4 25+ plug only

**VP1**

		Plug		Receptacle	
Pins	Data transfer rate		Part number		Part number
40	10+		401-51701-51		402-51701-51
	16+		401-51703-51		
80	10+		401-51601-51		402-51701-51
	16+		401-51603-51		
120	10+		401-51401-51		402-51701-51
	16+		401-51403-51		
160	10+		401-51301-51		402-51701-51
	16+		401-51303-51		
220	10+		401-51101-51		402-51101-51
	16+		401-51103-51		
	25+		401-51104-51		

## One27



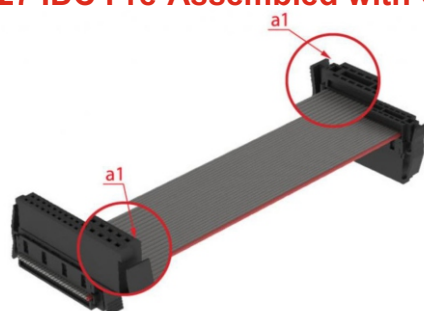
The One27® range offers a high level of flexibility and at the same time reliable connectors for a number of board-to-board applications. The product family is based on a pitch of 1.27 mm, offers both straight and angled types as well as connections with ribbon cable, and is available in pin counts from 12 to 80 pins. Number of pins: 12, 16, 20, 26, 32, 40, 50, 68 and 80.

	Female		Male	
Pairing	low	Part number	low	Part number
A	low	414-520NN-51	low	413-520NN-51
B	low	414-520NN-51	mid	413-530NN-51
C	low	414-520NN-51	high	403-540NN-51
D	mid	414-530NN-51	low	413-520NN-51
E	mid	414-530NN-51	mid	413-530NN-51
F	mid	414-530NN-51	high	403-540NN-51
G	high	404-540NN-51	low	413-520NN-51
H	high	404-540NN-51	mid	413-530NN-51
I	high	404-540NN-51	high	403-540NN-51

	Female		Male	
Pairing 90°	low	Part number	90°	Part number
A	low	414-520NN-51	90°	403-510NN-51
B	90°	404-510NN-51	low	413-520NN-51
C	mid	414-530NN-51	90°	403-510NN-51
D	90°	404-510NN-51	mid	413-530NN-51
E	90°	404-510NN-51	high	403-540NN-51
F	high	404-540NN-51	90°	403-510NN-51

Pairing horizontal	Part number	Part number
<b>Horizontal</b> 15.65 - 17.15 mm	90°  404-510NN-51	90°  403-510NN-51

## One27 IDC Pre-Assembled with Cable



### Part Number Key for Cable Assembly

<b>Cable type</b> 61 PVC 62 High temperature 66 Halogen-free	<b>Cable length in mm</b> from 30 to 999 mm i.e. 080 = 80 mm 660 = 660 mm
---	--

4 0 4 - **XX** **NN** - **LLL** - **CCC** - 1

**12, 16, 20, 26, 32, 40, 50, 68, 80**  
Pins

See next page



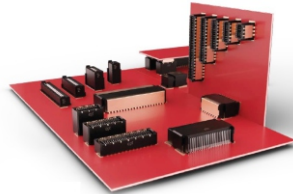
# Zero8 and EC.8



www.atd-shop.com

## Zero8

- up to 16 Gbps
- 12, 20, 32, 52 and 80 contacts
- 1.7 A current carrying capacity
- 500 mating cycles
- Maximized contact reliability
- Optimized mating protection
- Packaged in tape & reel
- Board-to-Board from 6 to 21 mm
- Parallel and right-angled connections
- Shielded and unshielded versions



### Part Number Key

<b>Type</b>	<b>Profile</b>	<b>Shielding</b>
405 Plug	51 Angled	0 unshielded for A01
406 Socket	52 Low	1 shielded
	53 Mid	2 unshielded
	54 High	
	55 X-High Plug only	

**XXX - XX XNN - 5 1**

12, 20, 32, 52, 80 Pins

Pairing	Plug straight			Socket straight		
	Profile	Part number	Part number	Profile	Part number	Part number
A	Low	405-52XNN-51	405-52XNN-51	Low	406-52XNN-51	406-52XNN-51
B	Mid	405-53XNN-51	405-53XNN-51	Low	406-52XNN-51	406-52XNN-51
C	Low	405-52XNN-51	405-52XNN-51	Mid	406-53XNN-51	406-53XNN-51
D	Mid	405-53XNN-51	405-53XNN-51	Mid	406-53XNN-51	406-53XNN-51
E	High	405-54XNN-51	405-54XNN-51	Low	406-52XNN-51	406-52XNN-51
E	Low	405-52XNN-51	405-52XNN-51	High	406-54XNN-51	406-54XNN-51
F	X-High	405-55XNN-51	405-55XNN-51	Low	406-52XNN-51	406-52XNN-51
F	Mid	405-53XNN-51	405-53XNN-51	High	406-54XNN-51	406-54XNN-51
G	High	405-54XNN-51	405-54XNN-51	Mid	406-53XNN-51	406-53XNN-51
H	X-High	405-55XNN-51	405-55XNN-51	Mid	406-53XNN-51	406-53XNN-51
I	High	405-54XNN-51	405-54XNN-51	High	406-54XNN-51	406-54XNN-51
J	X-High	405-55XNN-51	405-55XNN-51	High	406-54XNN-51	406-54XNN-51

Pairing	Unshielded					
	Profile	Plug straight		Socket angled		Part number
Part number		Part number	Angle	Part number	Part number	
A	Low	405-52XNN-51	405-52XNN-51	90°	406-51XNN-51	406-51XNN-51
C	Mid	405-53XNN-51	405-53XNN-51	90°	406-51XNN-51	406-51XNN-51
E	High	405-54XNN-51	405-54XNN-51	90°	406-51XNN-51	406-51XNN-51
G	X-High	405-55XNN-51	405-55XNN-51	90°	406-51XNN-51	406-51XNN-51
Pairing	Shielded					
	Profile	Plug straight		Socket angled		Part number
Part number		Part number	Angle	Part number	Part number	
B	Low	405-521NN-51	405-521NN-51	90°	406-511NN-51	406-511NN-51
D	Mid	405-531NN-51	405-531NN-51	90°	406-511NN-51	406-511NN-51
F	High	405-541NN-51	405-541NN-51	90°	406-511NN-51	406-511NN-51
H	X-High	405-551NN-51	405-551NN-51	90°	406-511NN-51	406-511NN-51
Pairing	Plug angled unshielded			Socket angled unshielded		
	Profile	Part number	Part number	Angle	Part number	Part number
I	90°	405-51XNN-51	405-51XNN-51	90°	406-51XNN-51	406-51XNN-51
Pairing	Plug angled shielded			Socket angled shielded		
	Profile	Part number	Part number	Angle	Part number	Part number
J	90°	405-511NN-51	405-511NN-51	90°	406-511NN-51	406-511NN-51

## EC.8 - 0.8 mm SMT Edge Card Connector



- edge card connector
- 20 to 200 pins
- 28 Gbps transfer rate
- 3.2 A operational current
- 500 mating cycles
- packed in Tape & Reel, Tray
- 1.60 mm edge card thickness

### Edge Card Connector (without key)



#### Edge Card Connector - Performance Level I

Number of pins	Part number	PU (Tape & Reel)
20	408-52020-000-11	250
40	408-52040-000-11	
60	408-52060-000-11	

### Edge Card Connector (with key)



#### Edge Card Connector - Performance Level I

Number of pins	Part number	PU (Tape & Reel)
60	408-52060-100-11	250
80	408-52080-100-11	
100	408-52100-100-11	
120	408-52120-100-11	
140	408-52140-100-11	

Number of pins	Part number	PU (Tray)
160	408-52160-100-12	90
180	408-52180-100-12	
200	408-52200-100-12	
	408-52200-103-12 <small>(strengthened element along insulator)</small>	

www.atd-elektronik.cz/ept.html

## Connectors DIN 41612/IEC 60603-2

With 1000+ employees and a global network of own production facilities EPT as a family owned company offers you highest quality standards and reliability for your BtB project - all from one source.

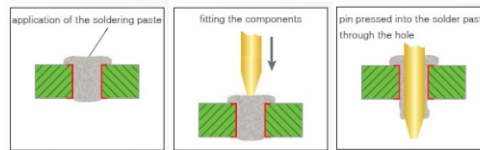
Signal Connectors up to 1,5 A : Type B, Type C, Type M, Type Q, Type R  
 Power Connectors up to 5,6 A : Type D, Type E, Type F, Type G  
 Signal Connectors up to 15 A : Type H11, Type H15, Type H7/F24



### DIN 41612 THTR

High Temp Connectors allow

One Step Reflow Solder Process



Type	max. no. of contacts	Termination	Type	max. no. of contacts	Termination
<b>B</b>	B, B/2, B/3 Male	64 / 32 / 20	<b>E</b>	E Male	48
	B, B/2, B/3 Female	64 / 32 / 20		E Female	48
	B IDC	64		F Male	48
<b>C</b>	C, C/2, C/3 Male	96 / 48 / 30	<b>F</b>	F, F low profile Female	48
	C, C/2, C/3 Female	96 / 48 / 30		G Male	64
	C IDC	96	G, G low profile Female	64	
<b>M</b>	M Male	78	<b>H</b>	H11 Male	11
	M, M/2, M/3 Female	78 / 30 / 12		H11, H11 low profile Female	11
<b>Q</b>	Q, Q/2 Male	64 / 32	<b>H</b>	H15 Male	15
<b>R</b>	R, R/2, R/3 Male	96 / 48 / 30		H15, H15 low profile Female	15
	R, R/2, R/3 Female	96 / 48 / 30	H7/F24 Male	7+24	
<b>D</b>	D Male	32	<b>VMEx</b>	VME64x Female	160
	D Female	32	<b>Schalter</b>	Switching connector	96

## Connectors DIN 41612/IEC 60603-2 and much more on atd-shop

You can find out immediately in our e-shop:

- The real-time available / reserved quantity of the stock.
- Price / quantity breaks
- Technical details / drawing
- Related commodity

www.atd-shop.com/qx221/konektory-deska-deska

### DIN connector: 103-80004



EPT: DIN connector: 103-80004 DIN 41612 C/3 Male 90° Solder RM2.54mm: 30pin, Termination length L=3,00mm SPQ :54pcs - ERNI 424189 - Harting 09251306921

Price (net of VAT) / ks		1,2960 EUR
<b>QUANTITY RABATS</b>		
1 - 99 ks	1,2960 EUR net of VAT/ks	54
100 - 499 ks	1,1300 EUR net of VAT/ks	
500 - 999 ks	1,0440 EUR net of VAT/ks	
More than 999 ks	0,9440 EUR net of VAT/ks	

Description	Related commodity	Appendices
-------------	-------------------	------------

EPT: DIN connector: 103-80004 - ERNI 424189 - Harting 09251306921; DIN 41612 C/3/IEC60603-2; Performance level II (400 mating cycles); Female contacts double sided

Store name	Availability	Of which reserved	Price (net of VAT)
ATD hlavní sklad	1 956	1 690	1,2960 EUR

## Connectors DIN 41612/IEC 60603-2 Press-fit Technology with Tcom press®

As „One-Stop-Supplier“ EPT offers you long time experience in pressfit technology of more than 25 years. ept’s comprehensive knowledge and experience offer a great foundation for the development of cost-optimized connector products - from development including the building of prototypes, over manufacturing of equipment and tools, up to serial production.



## Press-fit Machines and Tools

As a perfect addition ept offers competent support for the processing of press-fit connectors on PCB. In addition to a wide spectrum of press-fit machines and tools we offer the development and execution of customized machines and equipment.



## HM 2.0 - IEC 61076-4-101

High Contact Density The hm 2.0 series of hard metric connectors was developed in accordance with the international IEC 61076-4-101 standard. These shielded connectors have a pitch of 2 mm and are suitable for applications that require high contact density and reliability.

typ A

typ B25

typ B22

typ N

typ AB25





## RF Connectors, Cables, Antennas



Our company has over 30 years of experience in the sale of high-frequency connectors. If you have problems with the delivery of a specific type, we will be happy to offer you an equivalent type.



All these connectors can be found in our [www.atd-shop.cz](http://www.atd-shop.cz)

SMA-5113 SMA-5102 SMA-5202 SMA-1249 SMA-5201 SMA-5203 SMA-5204 SMA-52058 SMA-5205

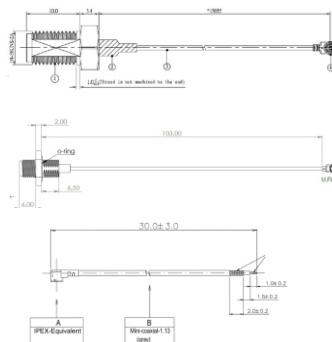


SMB-5206 SMB-5102 SMB-5204 SMB75-5201 SMB-5205 MCX-5111 MCX-5203 MCX-5205 MCX-5206



## We have the best prices for pigtails

Write us what type you need - connector type and cable type and length - and we will prepare a non-binding offer.



Coaxial Connector: SMA-5202J-TGG

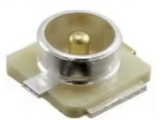
Schmid-M: SMA-5202J; TGG RF Coaxial Connector SMA Female/Jack PCB Mount - Rosenberger 32K201-400L5 - ...



Availability: 5 701 ks  
Of which reserved: 200 ks  
(Reservation can be cancelled upon agreement)  
**1,0650 EUR** net of VAT / ks

RF connector U.FL: Schmid-M: U.FL-5101\_PGB

Schmid-M: RF connector U.FL: Schmid-M: U.FL-5101 PCB Serie U.FL (UMCC) Connector Receptacle, Male Pin ...



Availability: 25 000 ks  
Of which reserved: 25 000 ks  
(Reservation can be cancelled upon agreement)  
**0,2391 EUR** net of VAT

Cable Assemblies: Connector UFL + Cable 1.13 mm

Schmid-M: Cable Assemblies: Connector UFL + Cable 1.13 mm - Cable Length 30mm+3mm strip end 1+1,5+22mm



Availability: 18 000 ks  
Of which reserved: 18 000 ks  
(Reservation can be cancelled upon agreement)  
**0,6300 EUR** net of VAT / ks

# Terminal block



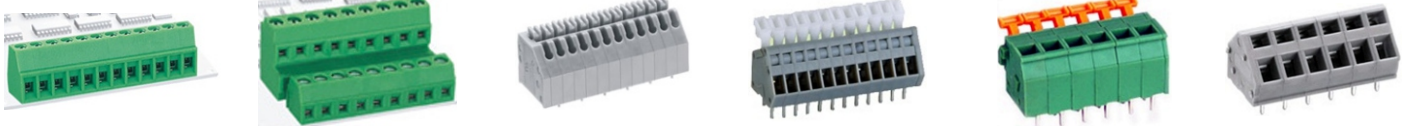
www.atd-shop.com



## PCB Terminal Block

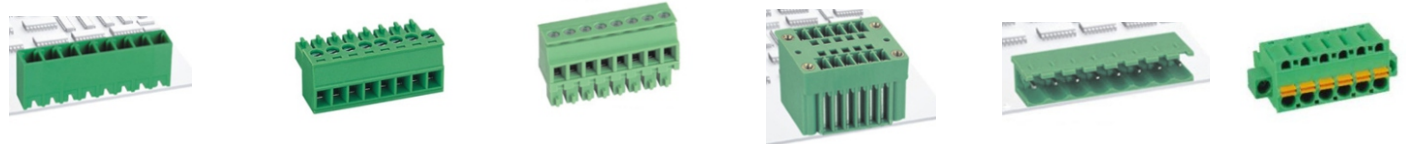
Pitch: YY: 25=2,50 mm; 35=3,50 mm; 38=3,81 mm; 39=3,96 mm  
50=5,00 mm; 58=5,08 mm; 75=7,50 mm; 76=7,62 mm

SM C09 1507 XX SS4    SM C09 135381 XX SS4-B    SM C09 3252 XX SC1Y    SM C09 3258 XX SC1    SM C09 35012 XX SC4    SM C09 35014 XX VC1

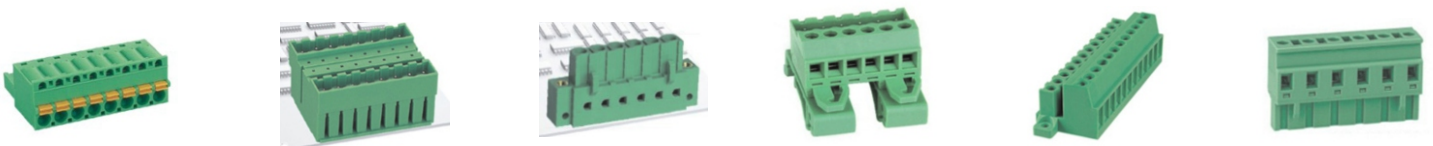


## Pluggable Terminal Block

SM C09 0YY3 SOC    SM C09 0YY2 ROC    SM C09 0YY5 YOC    SM C09 0YY8 SSC    SM C09 0YY2 RNC    SM C09 0YY1 CSC

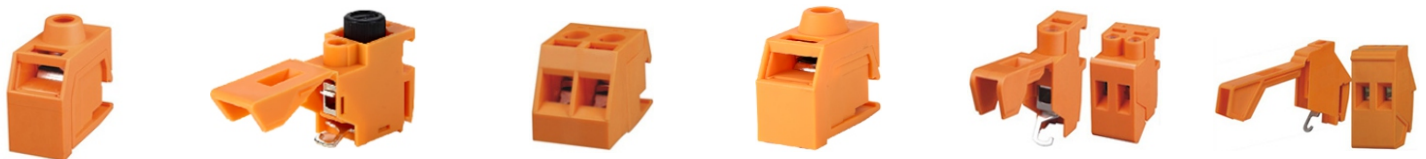


SM C09 0YY1COC    SM C09 0YY8 SOC    SM C09 0YY9 SSC    SM C09 0YY14 YOC    SM C09 0YY13 WSC    SM C09 0YYP SOC



## Transformer Terminal Block

SM C09 71918 01    SM C09 71215 01    SM C09 77512 XX    SM C09 71917 01    SM C09 77510 XX    SM C09 77514 XX  
Pitch: 13,00mm    Pitch: 12,50mm    Pitch: 7,50mm    Pitch: 19,00mm    Pitch: 7,5mm    Pitch: 7,50mm  
750V/57A 4,0-10,00mm<sup>2</sup>    250V/24A 0,50-4,00mm<sup>2</sup>    250V/24A 0,50-2,50mm<sup>2</sup>    750V/57A 4,00-10,00mm<sup>2</sup>    2750V/32A 0,50-4,00mm<sup>2</sup>    450V/32A 0,50-4,00mm<sup>2</sup>



## DIN Rail Terminal Block and other

SM C09 WS-DB    SM C09 WS    SM C09 WS-TW-PE    SM C09 WS-SD    SM C09 UK-PE    SM C09 UK-TW  
Wire Size: 4mm<sup>2</sup>    Wire Size: 1.5 / 2.5 / 4 /    Wire Size: 1.5 / 2.5 / 4 /    Wire Size: 1.5 / 2.5 / 4 /    Wire Size: 1.5 / 2.5 / 4 / 6    Wire Size:  
800V/6.3A    6 / 10 / 16 mm<sup>2</sup>    6 / 10 / 16 mm<sup>2</sup>    6 / 10 / 16 mm<sup>2</sup>    10 / 16 / 35 / 50 / 95mm<sup>2</sup>    2.5 / 4 / 6mm<sup>2</sup>

Single Entry



SM C09 711512 XX Cer    SM C09 71020 03 1    SM C09 71023 02    SM C09 710210 XX    SM C09 710425 XX  
Pitch: 11,50mm    Pitch: 10,00mm    Pitch: 10,00mm    Pitch: 8,00; 10,00; 12,00mm    Current: 25A; Wire Size: 2,5mm<sup>2</sup>  
450V/24A 4,00mm<sup>2</sup>    300V/15A 0,50-4,00mm<sup>2</sup>    300V/10A 4,00mm<sup>2</sup>    13,50; 14,50; 16,50mm    3P/4P/5P/6P/8P/10P/12P





### Press-Fit Elements

 <b>PRESS-FIT RA-FPU</b> 1. 08. 2018 PCB Connection for fixing cable lugs d-5,2mm-10,2mm	 <b>PRESS-FIT IT-FP</b> 31. 07. 2018 The cable and fuse can be fixed on PCB.
 <b>PRESS-FIT RA-FPB</b> PCB Connection for fixing cable lugs M3-M10, d-3,2mm-10,2mm	 <b>PRESS-FIT IT-C2</b> 31. 07. 2018 The cable and fuse can be fixed on PCB.
 <b>PRESS-FIT RA-TRB</b> 1. 08. 2018 PCB Connection for fixing cable lugs M3-M10, d-3,2mm-10,2mm	 <b>PRESS-FIT IT-C</b> 31. 07. 2018 The cable and fuse can be fixed on PCB.
 <b>PRESS-FIT RA-TRA</b> 1. 08. 2018 PCB Connection for fixing cable lugs M3-M8, d-3,2mm-8,2mm	 <b>PRESS-FIT IT-TRB</b> 31. 07. 2018 The cable and fuse can be fixed on PCB.
 <b>PRESS-FIT ET-FP</b> 31. 07. 2018 The cable and fuse can be fixed on PCB.	 <b>PRESS-FIT IT-TRT</b> 31. 07. 2018 The cable and fuse can be fixed on PCB.

### SMD Elements

 <b>Surface-Mount Device SMD-RAP</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.	 <b>Surface-Mount Device SMD-FT</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.
 <b>Surface-Mount Device SMD-RA</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.	 <b>Surface-Mount Device SMD-IBTP</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.
 <b>Surface-Mount Device SMD-FTT</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.	 <b>Surface-Mount Device SMD-IBT</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.
 <b>Surface-Mount Device SMD-ITT</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.	 <b>Surface-Mount Device SMD-ETP</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.
 <b>Surface-Mount Device SMD-FTP</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.	 <b>Surface-Mount Device SMD-ET</b> 3. 08. 2018 For soldering in SMT, Blistered for fully automated assembly.

### Two Part Power Elements

 <b>PRESS-FIT TWO PART-TP-SERE</b> Two-Part, Male Thread.	 <b>PRESS-FIT TWO PART-TP-SERI</b> Two-Part, Female Thread.
 <b>PRESS-FIT TWO PART-TP-SESH</b> Two-Part, Female Through-Hole.	 <b>PRESS-FIT TWO PART-TP-GECC</b> Two-Part, Base-Part, Two-Row-Pin population.
 <b>PRESS-FIT TWO PART-TP-SESI</b> Two-Part, Male Thread.	 <b>PRESS-FIT TWO PART-TP-GET</b> Two-Part, Base-Part, Two-Row-Pin population.

### THR Elements

 <b>PRESS-FIT TWO PART-TP-SERH</b> Two-Part, Female Thread.	 <b>THROUGH-HOLE REFLOW THR-EH</b> Solderable high current Wire-to-Board connections with a focus on automated assembly.
 <b>PRESS-FIT TWO PART-TP-SESE</b> Two-Part, Female Thread.	 <b>THROUGH-HOLE REFLOW THR-IBT</b> Solderable high current Wire-to-Board connections with a focus on automated assembly.
	 <b>THROUGH-HOLE REFLOW THR-IHT</b> Solderable high current Wire-to-Board connections with a focus on automated assembly.

www.atd-shop.com/qx232-en/fastons-cable-eye-and-power-elements

### Spacer

Brass, Stainless Steel, Plastic, SMD

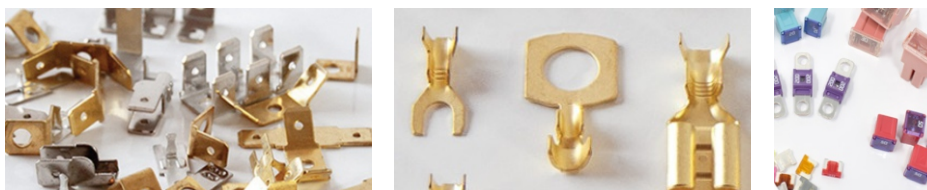
SW4, SW4,7 ,SW5, SW5,5, SW6, SW7, SW8, SW10, SW13 M2, M2,5, M3, M4, M5, M6, M8, UNC4-40



### Crimp Contacts



Receptacles 2.8 mm	Receptacles 4.8 mm	Receptacles 6.3 mm	Receptacles 9.5 mm	S-LOCK 6.35	S-CON 5.08

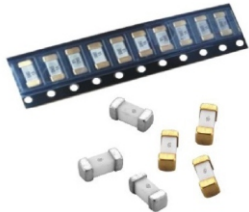


best prices



## Fuses

SMD, Photovoltaics, DC voltage.....



- Wide range of voltage rating (125V /250V /300V)
- Wide range of current rating (50 mA-15A)
- Excellent environmental integrity
- Operating temperature range -55°C to+ 120°C

Littelfuse, ESKA, Schurter, Panasonic, Siba, Schmid-M, Vogt....

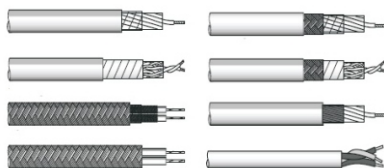
Series slow-blow square Surface Mount fuses are ceramic tube/ end cap constructions, RoHS compliant, Halogen Free and lead-free, with U.S. (UL/CSA) safety agency approvals. Provide board level primary and secondary circuit protection in a wide variety of applications, end caps are available in copper or silver plated.

How to order: SM FUSE XXX YYYY  
 XXX: SET / SST / STE  
 YYYY : Current in mA

Ampere Rating	% of current Rating	Blowing Time
0.05A-15A	100%	>4hours
0.05A-15A	200%	<120sec



## Cables



XtraBASIC-Litze UL/CSA/HAR/MTW  
 Style 1015-600V/10269-1000V - 105°C AWM TEW



Wall thickness: 0,76 mm  
 Temperature range static: -40 to 105 °C  
 Temperature range moved: -10 to 105 °C  
 static bending radius: 6,0 x outer diameter  
 Bending radius dynamic: 10,0 x outer diameter

M-FLEX - OZ	0,50-2,50	2-7	-5°C - +70°C	300/500V
M-FLEX - JZ	0,50-6,00	3-40	-5°C - +70°C	300/500V
M-FLEX - OB/JB	0,50-2,50	2-5	-5°C - +70°C	300/500V
H03VV...-F	0,50-2,50	2-5	-5°C - +70°C	300/500V
H05VV5-F	0,75-2,50	3-18	-5°C - +70°C	300/500V
H05BQ-F	0,75; 1,00	2-5	-35°C - +80°C	300/500-2000V
H07BQ-F	1,50; 2,50	2-5	-35°C - +80°C	450/750-2000V
SIHF	0,50-2,50	2-5	-60°C - +180°C	300/500V
H05RR(N)-F	0,75-1,50	2-5	-30°C - +60°C	300/500-2000V
H07RN-F	1,00-10,00	2-5	-30°C - +60°C	300/500-2000V
Power-PUR	0,10; 0,15	2-12	-40°C - +90°C	max.300V
LIHH	0,14-0,50	2-61	-15°C - +80°C	250V
LIHCH	0,14-0,75	1-50	-15°C - +80°C	250V
1000°C	0,50-4,00	3	do cca 1000°C	300/500V
J/K/L 350°C/450°C	0,22; 0,50	2	-60°C - +350 / 450°C	
J/K/L 1000°C	0,50; 0,80	2	-60 - +1000°C	

XtraHEAT SIF/VDE - UL/cUL Style 3672



Wall thickness: 0,60 mm  
 Temperature range static: -40 to 180 °C  
 Temperature range moved: -40 to 180 °C  
 static bending radius: 5,0 x outer diameter

XtraPOWER UL/SJT - HAR/H05V2V2-F



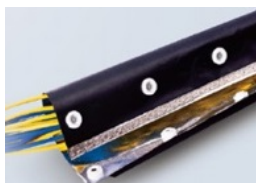
Wall thickness:0,80 mm  
 Temperature range static:-20 to 105 °C  
 static bending radius: 10,0 x outer diameter

## Cable harness protector

KF--GJH-M  
 Stainless Steel - Two Male Fitting - 1/2" ~ 2"



MX-FAB



MX-TEB



MX-MP



MX-CBP

Part No.	Width (mm)	Applicable Range (mm)	Packing (M/R)	Picture
MX-CBP-006	6	3-9	500	
MX-CBP-008	8	5-12	300	
MX-CBP-010	10	7-15	300	
MX-CBP-012	12	8-18	300	
MX-CBP-014	14	10-20	300	
MX-CBP-016	16	12-22	300	
MX-CBP-019	19	14-25	300	
MX-CBP-025	25	18-30	200	
MX-CBP-028	28	20-35	200	
MX-CBP-032	32	25-40	200	

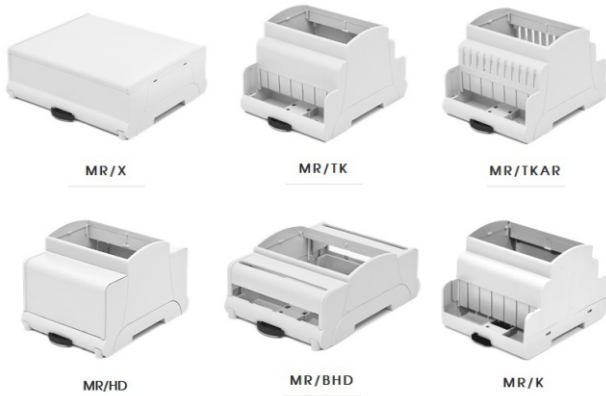
# Plastic boxes & Piezo components



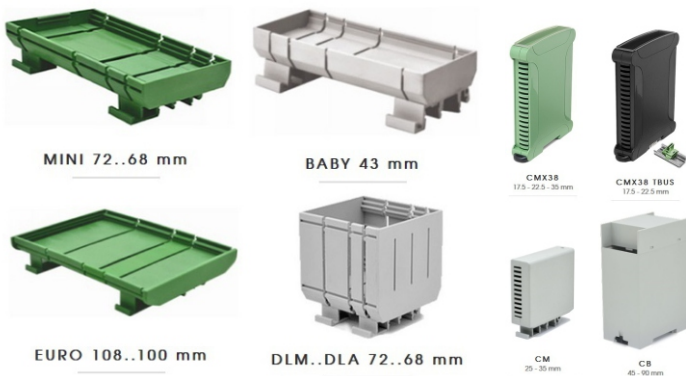
www.atd-shop.com

## Plastic boxes

MODULAR instrument boxes  
H=35, 48, 53 and 68mm , 1, 2, 3, 6, 9 unit



PCB Support  
mini 72..68mm, baby 43mm,  
Euro 108..100. DLM..DLA 72..68mm



DIN rail vertical  
17,5...90mm

Building Automation - DOMOTICS  
H=18, 25, 35, 38,53 and 90mm  
Dimension 44x44, 76x76, 112x76, and more



## In Stock

STC 130 128x81x16mm    STC90 92x81x25mm    MR3/CB 52,5x90x55,8mm    CM36/30V



## Piezo Buzzer

SM 7525 SMT 7,5x7,5x2,5mm,3,6V    SM SP KPB 1220 d12h8mm 90dB 1,5V    SM SBPT1707 d16,8 80dB 30V    SM SBPT4414WE d44mm 82dB 12V    SMA-13-P7,5 1,5~24VDC 75dB    SMA-24L P15 1,5~15V 92dB    SAP-1302-A-W



## Piezo Elements

ST-15T-6.5A1 15mm 6,5kHz 30V    ST-27T-4.4A1 27mm 4,4kHz 30V



## Speaker

Speaker SBF36-5T d36mm 91dB 80hm    TE-300\_1 91dB, 150W



## Microphone

SM M9745    SM M 4013-3P    SM M9767P    SM M4015WW



## Receiver

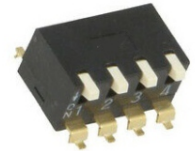
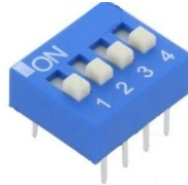
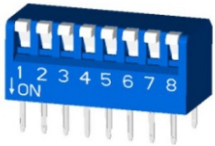
SM RECEIVER R-02    SM RECEIVER R-14



www.atd-shop.com/qx/1-en/electromechanical-components

## DIP Switches

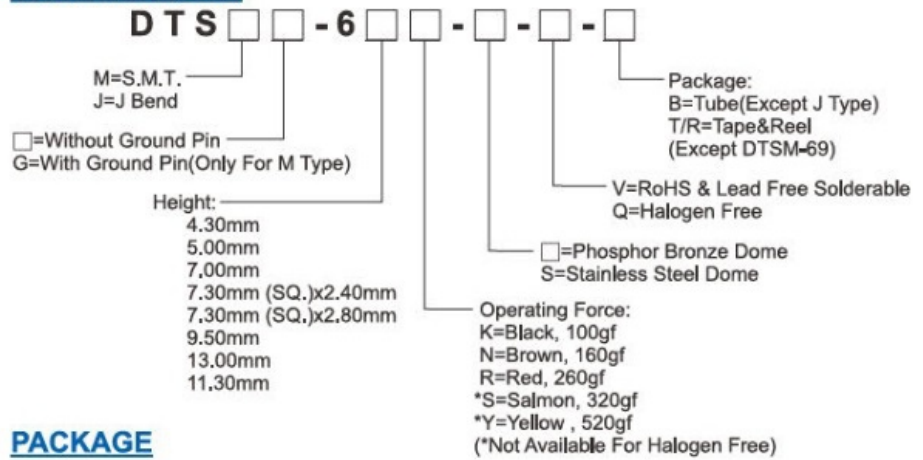
SM DS DP XX    APEM NDS-XXV    DIP DS1040-XX-B-N    SM DS DA5 XXP-HK2-T    SM DS PV XX SMD-R



## TACT Switches



### HOW TO ORDER



### SPECIFICATION

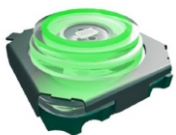
Contact Rating	50mA, 12V DC	
Contact Resistance	100mΩ max.	
Insulation Resistance	100MΩ min, 500V DC	
Dielectric Strength	250V AC/1 minute	
Operating Force	100±50gf, Black(K)	
	160±50gf, Brown(N)	
	260±50gf, Red(R)	
	320±80gf, Salmon(S)	
	520±130gf, Yellow(Y)	
Travel	0,25mm	
Operating Life	<b>Phosphor Bronze Dome</b> 50,000 cycles for 520/320gf 100,000 cycles for 260gf 200,000 cycles for 160/100gf	
	<b>Stainless Steel Dome</b> 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160/100gf	
	Operating Temp.	-25°C ~ +70°C
	Storage Temp.	-30°C ~ +80°C

### PACKAGE

<Tube>  
77 pcs

<Tape & Reel>  
DTSM(G)(J)-61 / DTSMG-62:1000 pcs  
DTS(M)(J)-62:900 pcs    DTSM(G)(T)-63, 64:700 pcs    DTSJ-65:400 pcs  
DTSM(G)-65:380 pcs    DTSM-68:300 pcs    DTSM-66:200 pcs

3006.21xx  
H=3,95



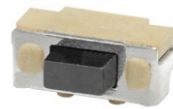
STP-1250SW  
H=4,3, 5,0mm



DTSM-6H  
H=4,3~11,3mm



SM TS 03 LAB



DTS6-H  
H=4,3~19mm



SM KSM632B



## Slide Switch

SK-14D02-G2    SBSK-13D07



## Toggle Switches

APEM 5536A    SM-SMTS-202-2C4



## Pushbutton switches

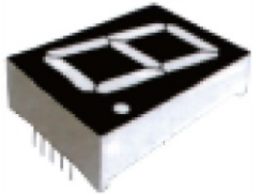
SM PB PX16B-3V    SM PBPX16 W





### 7-Segment Display - THT

For example: 1,0" Single Digit THT Display



Part Number		Color
Common Anode	Common Cathode	
PA11007-IW	PA11007-LW	White
PA11007-IB	PA11007-LB	Blue
PA11007-IG	PA11007-LG	Pure Green
PA11007-IYG	PA11007-LYG	Yellow Green
PA11007-IY	PA11007-LY	Yellow
PA11007-IO	PA11007-LO	Orange
PA11007-IR	PA11007-LR	Red
PA11007-IRA	PA11007-LRA	Super Bright Red

Through-hole Display Single

Size: 0,28" , 0,30" , 0,36" , 0,39" , 0,60" , 0,80" , 1,0" , 1,2" , 1,5" , 1,8" , 2,3" , 3,0" , 4,0" , 5,0"

Through-hole Display Dual

Size: 0,30" , 0,36" , 0,40" , 0,50" , 0,53" , 0,56" , 0,8"

Through-hole Display Tripple

Size: 0,36" , 0,39" , 0,40" , 0,50" , 0,56" , 0,80"

Through-hole Display Quadruple

Size: 0,28" , 0,33" , 0,36" , 0,39" , 0,40" , 0,56" , 0,80"

### Dot Matrix Display

Size: 0,7" 5x7dot, 1,25" 5x7dot, 1,54" 5x7dot, 1,48" 8x8dot, 1,25" 8x8dot, 1,5" 8x8dot, 2,0" 5x7dot, 2,38" 5x8dot, 2,37" 8x8dot, 4,2" 5x7dot

For example: Dot Matrix Size 0,70" 5x7dot



Part Number		Color
Anode Column,Cathode Row	Anode Row,Cathode Column	
PA350701-AW	PA350701-BW	White
PA350701-AB	PA350701-BB	Blue
PA350701-AG	PA350701-BG	Pure Green
PA350701-AYG	PA350701-BYG	Yellow Green
PA350701-AY	PA350701-BY	Yellow
PA350701-AO	PA350701-BO	Orange
PA350701-AR	PA350701-BR	Red
PA350701-ARA	PA350701-BRA	Super Bright Red

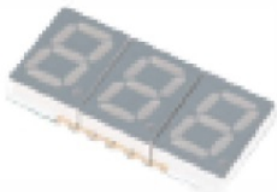
Dot Matrix Size 2,37" 8x8dot



Part Number		Color
Anode Column,Cathode Row	Anode Row,Cathode Column	
PA642374-AW	PA642374-BW	White
PA642374-AB	PA642374-BB	Blue
PA642374-AG	PA642374-BG	Pure Green
PA642374-AYG	PA642374-BYG	Yellow Green
PA642374-AY	PA642374-BY	Yellow
PA642374-AO	PA642374-BO	Orange
PA642374-AR	PA642374-BR	Red
PA642374-ARA	PA642374-BRA	Super Bright Red

### 7-Segment Display - SMD

For example: 0,39" Three Digits SMD Display



Part Number		Color
Common Anode	Common Cathode	
PA3039A-IW	PA3039A-LW	White
PA3039A-IB	PA3039A-LB	Blue
PA3039A-IG	PA3039A-LG	Pure Green
PA3039A-IYG	PA3039A-LYG	Yellow Green
PA3039A-IY	PA3039A-LY	Yellow
PA3039A-IO	PA3039A-LO	Orange
PA3039A-IR	PA3039A-LR	Red

SMD Display Single

Size: 0,28" , 0,39" , 0,51"

SMD Display Dual

Size: 0,28" , 0,39" , 0,51" , 0,56"

SMD Display Tripple

Size: 0,28" , 0,39" , 0,51" , 0,56"

SMD Display Quadruple

Size: 0,28" , 0,39" , 0,51" , 0,56"

### LED



Through-hole LED series



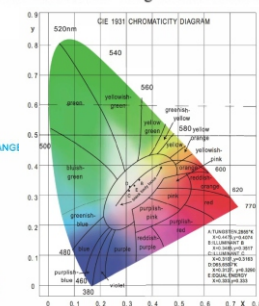
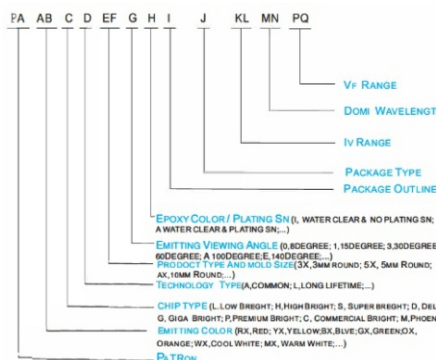
Super Flux LED series



SMD LED series



High Power LED series



### Special LED Series

Current Regulative LED, CRD and Voltage Detector LED, Violet LED, Infrared Emitting Color LED, High CRI LED..

### Through-hole LED Series

4.8mm 3-chip Straw Type, Round Type, Rectangular Type..

### Oval LED Series

Type 5.0x4.1m, Type 5.1x4.3mm, 546 Oval Type

### Bi-color & Full Color LED Series

Round Bi-color Type, Round Full color Type, Mono-color Flashing Color, Round Intelligent Color RGB LED

### Surface Mount LED Series

0402, 0603, 0805, 1206, 0602, 0802, 1204, 3224, 2016, 2835, 3014, 3020, 5630, 7020, 3528 3-chip PLCC4, 3528, 5050..

### Super Flux LED Series

chip Super Flux, Flat Super Flux, Concave Super Flux

# MEMORIES



www.atd-shop.com

## Industrial DRAM Module



DDR DRIM    DDR5 SO-DIMM    DDR4 DIMM    DDR4 VLP DIMM



DDR4 SO-DIMM    DDR4 VLP    DDR3 DIMM    DDR3 VLP DIMM    DDR3 SO-DIMM    DDR2 DIMM    DDRSO-DIMM    DDR1 DIMM



Cervoz Industrial DRAM Module product line consists of DIMM, SO-DIMM, VLP-DIMM, and VLP SO-DIMM form factors. The line includes three series: Standard (unbuffered) Series, Wide Temperature Series, and Server.

## Industrial SSD

2,5" SATA SSD

Titan Series TLC

U.3 SSD

2,5" SATA SSD

U.3 SSD



	Titan Series (TLC)	Momentum Series (MLC)	Balance Series (RO-MLC)	Supreme Series (SLC)
Model No.	T380 Family	T380 Family	T380 Family	T380 Family
Interface Compliance	SATA II 6.0Gb/s	SATA II 6.0Gb/s	SATA II 6.0Gb/s	SATA II 6.0Gb/s
Density	64G-2TB	256G-2TB	128G-2TB	128G-2TB
Sequential Read	up to 500MB/s	up to 500MB/s	up to 500MB/s	up to 500MB/s
Sequential Write	up to 500MB/s	up to 500MB/s	up to 500MB/s	up to 500MB/s

T380 Family Standard Temp. (0°C ~ 70°C) Model No.	T380 Family Wide Temp. (-40°C ~ 85°C) Model No.	Capacity
CIS-2ST380MLF064GS	CIS-2ST380MLF064GW	64GB
CIS-2ST380MMF128GS	CIS-2ST380MMF128GW	128GB
CIS-2ST380MMF256GS	CIS-2ST380MMF256GW	256GB
CIS-2ST380MOF512GS	CIS-2ST380MOF512GW	512GB
CIS-2ST380MOF001TS	CIS-2ST380MOF001TW	1TB
CIS-2ST380MOF002TS	CIS-2ST380MOF002TW	2TB

T443 Family Standard Temp. (0°C ~ 70°C) Model No.	Capacity
CIS-U3T443ONU1920S	1920GB
CIS-U3T443ONU3840S	3840GB
CIS-U3T4430OU7680S	7680GB

## Industrial Embedded Module

mSATA Titan Series T380 Family

mSATA

Half Size mSATA

Half Slim

M.2 2230



T380 Family Standard Temp. (0°C ~ 70°C) Model No.	T380 Family Wide Temp. (-40°C ~ 85°C) Model No.	Capacity
CIE-MST380MLF064GS	CIE-MST380MLF064GW	64GB
CIE-MST380MMF128GS	CIE-MST380MMF128GW	128GB
CIE-MST380MMF256GS	CIE-MST380MMF256GW	256GB
CIE-MST380MOF512GS	CIE-MST380MOF512GW	512GB
CIE-MST380MOF001TS	CIE-MST380MOF001TW	1TB
CIE-MST380MOF002TS	CIE-MST380MOF002TW	2TB

M.2 2242

M.2 2280

SATA Disk 7pin

SATA Disk Left

SATA Disk 7pin

PATA Disk 40pin

PATA Disk

PATA Horizontal



## Compact Flash Card

Compact Flash Card - Supreme Series

CFast Card - Momentum Series

Compact Flash Card

CFast Card



S141 Family Standard Temp. (0°C ~ 70°C) Model No.	S141 Family Wide Temp. (-40°C ~ 85°C) Model No.	Capacity
CIM-CFS141TDT256MS	CIM-CFS141TDT256MW	256MB
CIM-CFS141TDT512MS	CIM-CFS141TDT512MW	512MB
CIM-CFS141TETS12MS	CIM-CFS141TETS12MW	512MB
CIM-CFS141TFT001GS	CIM-CFS141TFT001GW	1GB
CIM-CFS141TFT002GS	CIM-CFS141TFT002GW	2GB
CIM-CFS141THT004GS	CIM-CFS141THT004GW	4GB
CIM-CFS141THT008GS	CIM-CFS141THT008GW	8GB
CIM-CFS141THT016GS	CIM-CFS141THT016GW	16GB

R350 Family Standard Temp. (0°C ~ 70°C) Model No.	R350 Family Wide Temp. (-40°C ~ 85°C) Model No.	Capacity
CIM-CAR350TKD016GS	CIM-CAR350TKD016GW	16GB
CIM-CAR350TKD032GS	CIM-CAR350TKD032GW	32GB
CIM-CAR350TLD064GS	CIM-CAR350TLD064GW	64GB

## Modular Expansion Card

Wi-Fi Solution

Ethernet Solution

Serial Solution

USB Solution

Display Solution

SATA Solution

CAN Bus Solution



www.atd-elektronik.cz/cervos.html



Let us know what type you are buying and we will be happy to offer you a replacement.



### Custom wire wound parts

Please provide us your part number or specification (winding prescription, coil and core shape, etc.). We have experienced technical team, sufficient database of materials and equipment to build winding parts, planar transformers according to your requirements. Our goal is to produce quality components in a reasonable price and within acceptable delivery time. We believe this is very important in electronic rapidly changing industry.

Please feel free to send us your non binding inquiry.

SMD Bead			
Products classification	Photo	P/N	Series
Ni-Zn Ferrite Bead (high current)		SSMB	323023I
			403022I
			403025
			853025
			784730
NEW Metal Alloy Bead (Giga frequency)		SMBP	403025
NEW Mn-Zn Ferrite Bead (high current)		SMBM	403022I
			403025
			853025
			784730
Ni-Zn Ferrite Bead Array		SSMA	455625
			855625
			908545
Multilayer Chip Bead		SCB	1005(0402)
			1608(0603)
			2012(0805)
			3215(1206)
			3225(1210)
SMD Wide Band Choke		SR5H	55
			85

Common mode choke			
Products classification	Photo	P/N	Series
Common mode choke		SPWC	0603
			0805
			1206
			1210
			1812
SMD BALUN X'FMR		SPWB	2012
NEW Common mode choke		SACM	3225
			4532
			9152L
High current CMC for Power Line		SSCM	0706V
			0907V
			1211V

SMD Power Coil			
Products classification	Photo	P/N	Series
Shielded SMD Power Coil		SPRH	0703
			0704
			1205
			1207
			1209
Shielded SMD Power Coil		SSB	0703
			0705
			1207
			1003



## Capacitors



### Aluminium Electrolyt.

- screw, PCB mounting
- 4 - 500VDC
- axial, radial

### Film

- MKP, MKT, MFP
- EMI supp.
- motor run
- power factor corr.
- 63 - 3000 VDC

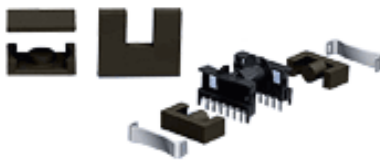
### Power

- for AC / DC applications
- up to 6600VDC
- up to 3400VAC
- AC: 0.1-600 $\mu$ F
- DC: 5-30000 $\mu$ F

### Multilayer

- SMD, PCB mounting
- 16-500VDC
- 0.3pF-1 $\mu$ F
- EMI supp. up to the Ghz

## Ferrites



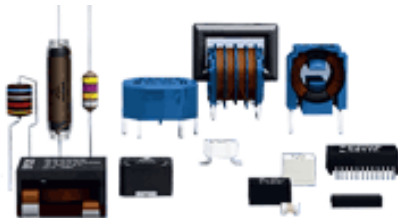
### Ferrite materials

- inductors for resonant circuits and filters
- broadband transformers and EMC applications
- power transformers and chokes
- inductive proximity switches
- EMI supp. up to the Ghz

### Ferrites&accessories

- SMD, PCB mounting
- E, EELP, EILP, ER planar cores
- EQ/I, ER, PQ, ETD, EFD, EV, U/I cores
- toroids
- double-aperture cores
- EMI supp. up to the Ghz

## SMT Inductors & Chokes



### SMT

- SMD mounting
- inductance 0.01-1000 $\mu$ H
- EMC shielding
- filtering of supply voltages

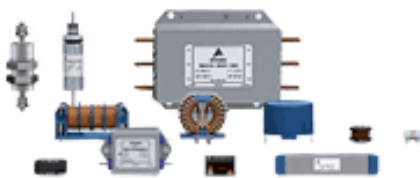
### SMT Power

- SMD mounting
- low profile
- inductance 0.5-1000 $\mu$ H
- EMC shielding
- coupling

### Chokes

- SMD, PCB mounting
- low profile
- inductance 0.5-1000 $\mu$ H
- EMC shielding
- coupling

## EMC filters



### Feedthrough comp.

- 0.00125-4.7 $\mu$ F
- broadband interference suppression

### Filters

- 2-line, 3-line, 4-line
- output filters
- PCB, screw terminal
- customized
- 63 - 3000 VDC

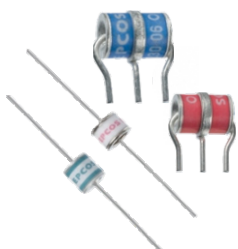
### Shielded rooms

- for power lines
- for communication lines
- customized

### Services

- EMC laboratory EPCOS
- for customized design

## Arresters



### Surge arresters

- 2-electrode, 3-electrode
- AC power line protection
- SMD, PCB mounting
- screw terminal mounting
- protection class to EN 61643-11
- DSL modem, WLAN routers...

### Switching spark gaps

- SMD, PCB mounting
- E, EELP, EILP, ER planar cores
- EQ/I, ER, PQ, ETD, EFD, EV, U/I cores
- toroids
- double-aperture cores
- EMI supp. up to the Ghz

# Thermal Interface Materials



www.atd-shop.com

## ATD offers cutting of materials on own CNC cutting plotter

LCUT 1070



Cutting knife system: one vibrating knife holder  
 Cutting area: 1000 mm length x 700 mm width  
 Max. 5~10mm, depending on the type of material to be cut  
 Cutting speed: 100-1400mm/s  
 Setting accuracy/resolution: 0.05mm



**Made in  
the Czech Republic**

### Ttape 1000A

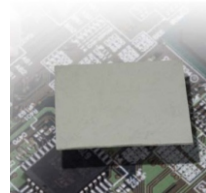
Thermally Conductive Adhesive Tape



Thermal Conductivity - 0,70W/mK  
 Operating Temperature -40 ~ +125°C  
 Thickness: 0,05mm  
 AC Voltage Breakdown: 2,35 Kvac  
 Color: White

### CoolZorb - Ultra

Hybrid Thermal/EMI Absorber



Thermal Conductivity - 11,5W/mK  
 Hardness 30 seconds - 31 Shore 00  
 Operating Temperature -40 ~ +125°C  
 Thickness: 0,5-4 mm  
 AC Voltage Breakdown: 1,34 Kvac  
 Good EMI particularly over 25GHz  
 Color: Dark gray

### Tgrease 300X

Thermal Grease



Thermal Conductivity - 3,0W/mK  
 Density 2,7g/cc  
 Operating Temperature -40 ~ +150°C  
 Thermal Resistance  
 10 psi & 50°C 0.20°C-cm2/W  
 50 psi & 50°C 0.12°C-cm2/W  
 Color: Grey

### Tflex CR350S

ultra-soft, two-part dispensable gap filler

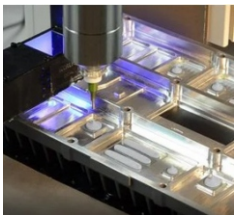


Thermal Conductivity - 3,6W/mK  
 Hardness 50 Shore 00  
 Operating Temperature -55 ~ +200°C  
 Minimum bondline thickness: 85µm  
 Easily reworkable  
 Density: 3.16 g/cc

### Tgrease 300X

Best-in-class thermal resistance

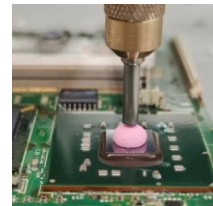
Low thermal resistance <0.06°C-cm2/W in constant pressure applications



Thermal Conductivity - 6,4W/mK  
 Operating Temperature -40 ~ +125°C  
 Minimum bondline thickness: 20µm  
 Available in cans, pails, cartridges  
 and syringes  
 Easily reworkable  
 Density: 2,63 g/cc

### Tputty 910

A one-part liquid dispensable gap filler with impressive thermal conductivity

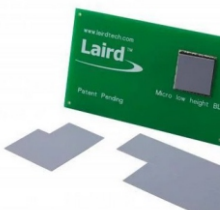


Thermal Conductivity - 9,1W/mK  
 Operating Temperature -40 ~ +180°C  
 Minimum bondline thickness: 180µm  
 Available in syringes, cartridges and 1 gal-pail  
 Easily reworkable  
 Density: 3.16 g/cc

### Tflex UT 20000

Ultra-Thin Thermal Gap filler

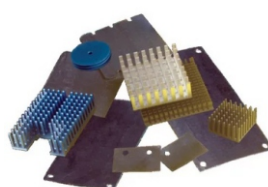
Thermal Conductivity - 3,0W/mK  
 Thickness: 200 µm - 1000 µm



### Tgon800

Flexible Graphite

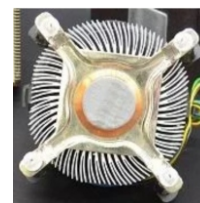
Thermal Conductivity - 5,0W/mK  
 Thickness: 0,13 ~ 0,51mm



### Tflex Hp34

Thermal Gap Filler

Thermal Conductivity - 34,0W/mK  
 Thickness: 1 ~ 5mm



### Tpcm 7000

Thermal Phase Change Material

Thermal Conductivity - 7,5W/mK  
 Thickness: 0,13 ~ 0,4mm



# Thermoelectric Modules



## Laird™ THERMAL SYSTEMS High Performance Cooling Solutions

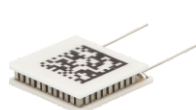
### Thermoelectric Coolers - New „X” generation Series



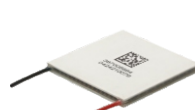
**HiTemp ETX Series**  
capacity 7-320W  
15\*18mm - 52-56mm  
 $\Delta T = 83,2^{\circ}\text{C}$  max.  
higher thermal insulating barrier



**Multistage MS Series**  
capacity 0,3-2W  
3,9\*3,9mm - 30-30mm  
 $\Delta T = 129^{\circ}\text{C}$  max.  
ideal to cool CMOS sensors head-up display



**OptoTEC™ OTX/HTX Series**  
capacity 0,4-9,7W  
3,3\*4,9mm - 12\*13mm  
 $\Delta T = 82^{\circ}\text{C}$  max.  
LIDAR Sensor Laser/Optic Machine Vision



**PowerCycling PCX Series**  
capacity 13-215W  
15\*15mm - 40\*40mm  
 $\Delta T = 74^{\circ}\text{C}$  max.  
high thermal cycling capability  
Precise temperature control

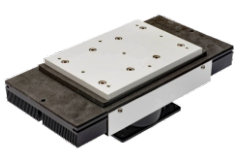


**UltraTEC™ UTX Series**  
capacity 68-298W  
24\*26mm - 52-56mm  
 $\Delta T = 72^{\circ}\text{C}$  max.  
Spot colling Laser & Optic  
Precise Thermal Management



**Annular Series**  
capacity 3,5-70,3W  
14x14 - 40x40mm  
 $\Delta T = 70,5^{\circ}\text{C}$  max.  
Reagent Storage & Machine Vision

### Thermoelectric Cooler Assemblies



**Peltier Plate Assemblies**  
capacity 11-283W  
56\*60\*44mm ~  
135-400\*180mm  
 $\Delta T = 70^{\circ}\text{C}$  max.  
Medical, Analytical Instrumentation  
HPLC, Colling of Cetrifuges



**Cascade Series**  
capacity 31-58W  
91\*160\*122mm ~  
91\*230\*122mm  
 $\Delta T = 69^{\circ}\text{C}$  max.  
CMOS and Imaging Sensors  
Heads-Up display



**SuperCool Series**  
capacity 110-407W  
156\*230\*150mm  
~ 330\*173\*197\*122mm  
 $\Delta T = 40^{\circ}\text{C}$  max.  
Air-to-Air, Air-to-liquid,  
Cooling Incubator Chamber



**Outdoor Cooler Series**  
capacity 100-480W  
180\*300\*122mm ~  
225\*330\*330mm  
 $\Delta T = 45^{\circ}\text{C}$  max.  
Cell Phones Base Stanions  
and Towers Cooling

### Liquid Cooling Systems

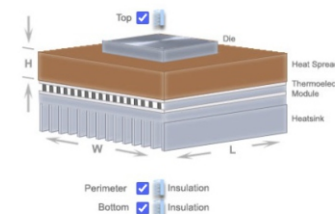
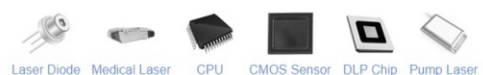
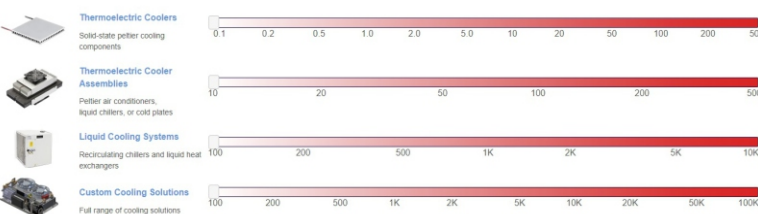


**Nextreme™ Series**  
Capacity 0,4-5KW, Flow Rate 1-15L/min.  
403\*274\*400mm-590\*630\*910mm  
100-230VAC,

### Thermal Wizard <https://lairdthermal.com/thermal-wizard/qc-cooling-selector-home>

CHOOSE AN EXAMPLE OR COMPLETE THE REQUIREMENTS...

Know your Cooling Requirement (Qc)?  
Move a slider to the desired Qc and click SEARCH



CHOOSE AN EXAMPLE OR COMPLETE THE REQUIREMENTS...

PCR Block  
 Thermoelectric Module  
 HeatSink

**DIMENSIONS**

Length  mm    Width  mm    Height  mm

**TEMPERATURES**

Ambient Temperature ( $T_{amb}$ )  °C    Elongation Temperature ( $T_{el}$ )  °C    Denaturation Temperature ( $T_{den}$ )  °C    Annealing Temperature ( $T_{ann}$ )  °C

**DIMENSIONS**

Length  mm    Width  mm    Height  mm    Insulation Thickness  mm

**TEMPERATURE**

Internal  °C    Ambient  °C

**INSULATION TYPE**

Foam Insulation    Thermal Conductivity:  W/m\*K



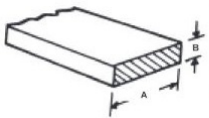
## Electrically Conductive Elastomers (ECE) Sub-Groups

### Extruded EMI Shielding Gaskets Series

ElectroSeal™ ECE072 - Gray - a Nickel/Graphite filled silicone elastomer  
 ElectroSeal™ ECE085 - Tan - a Silver/Glass filled silicone elastomer  
 ElectroSeal™ ECE089 - Blue - a Silver/Aluminum filled fluorosilicone elastomer  
 ElectroSeal™ ECE093 - Black - a Nickel/Graphite filled silicone elastomer.  
 more types of material available

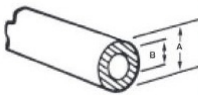


### Rectangular Strips



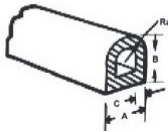
MIL-DTL-85328 PART NUMBER	PART NUMBER	NOMINAL DIMENSIONS	
		A	B
M83528/002X006	8861-0175	0.252 (6,4)	0.031 (0,8)
M83528/009X008	8861-0135	0.500 (12,7)	0.125 (3,2)
M83528/009X011	8861-0192	1.00 (25,4)	0.126 (3,2)

### O-Strip Tubing

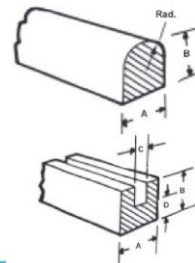


MIL-DTL-85328 PART NUMBER	PART NUMBER	NOMINAL DIMENSIONS	
		A	B
	8864-0060	0.085 (2,2)	0.040 (1,0)
M83528/011X007	8864-0095	0.103 (2,6)	0.040 (1,0)
M83528/011X001	8864-0100	0.125 (3,2)	0.045 (1,1)
M83528/011X002	8864-0105	0.156 (4,0)	0.050 (1,3)
M83528/011X008	8864-0143	0.177 (4,5)	0.079 (2,0)
M83528/011X003	8864-0110	0.250 (6,4)	0.125 (3,2)
M83528/011X004	8864-0120	0.312 (7,9)	0.192 (4,9)
M83528/011X005	8864-0125	0.375 (9,5)	0.250 (6,4)

### Hollow D-Strips



MIL-DTL-85328 PART NUMBER	PART NUMBER	DIMENSIONS		
		A	B	RAD
	8866-0130	0.100 (2,5)	0.094 (2,4)	0.050 (1,3)
M83528/007X001	8866-0100	0.156 (4,0)	0.156 (4,0)	0.078 (2,0)
M83528/007X007	8866-0110	0.250 (6,4)	0.250 (6,4)	0.125 (3,2)
M83528/007X004	8866-0166	0.374 (9,5)	0.252 (6,4)	0.187 (4,8)
	8866-0126	0.480 (12,2)	0.335 (8,5)	0.240 (6,1)
M83528/007X006	8866-0155	0.625 (15,9)	0.400 (10,2)	0.312 (7,9)



### D-Strips

MIL-DTL-85328 PART NUMBER	PART NUMBER	DIMENSIONS		
		A	B	RAD
M83528/003X001	8865-0105	0.062 (1,6)	0.068 (1,7)	0.031 (0,8)
M83528/003X007	8865-0130	0.122 (3,1)	0.135 (3,4)	0.061 (1,5)
M83528/003X012	8865-0145	0.250 (6,4)	0.250 (6,4)	0.125 (3,2)

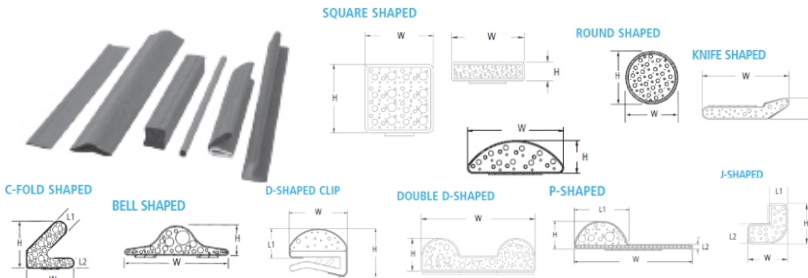
### Channel Strips

MIL-DTL-85328 PART NUMBER	PART NUMBER	DIMENSIONS			
		A	B	C	D
M83528/010X002	8868-0105	0.126 (3,2)	0.110 (2,8)	0.025 (0,6)	0.050 (1,3)
M83528/010X004	8868-0115	0.156 (4,0)	0.156 (4,0)	0.062 (1,6)	0.047 (1,2)
M83528/010X005	8868-0081	0.189 (4,8)	0.189 (4,8)	0.063 (1,6)	0.063 (1,6)
	8868-0085	0.252 (6,4)	0.252 (6,4)	0.126 (3,2)	0.063 (1,6)

### O-Strips

MIL-DTL-85328 PART NUMBER	PART NUMBER	RECOMMENDED GROOVE DIMENSIONS (±0.002)		
		A	WIDTH	HEIGHT
	8863-0184	0.032 (0,8)	0.036 (0,9)	0.026 (0,7)
M83528/001X003	8863-0110	0.062 (1,6)	0.066 (1,7)	0.050 (1,3)
M83528/001X009	8863-0145	0.125 (3,2)	0.133 (3,4)	0.100 (2,5)
M83528/001X013	8863-0202	0.374 (9,5)	0.400 (10,2)	0.300 (7,6)

## EMI Gasket - Fabric-over-Foam



### Part Number Example:

Digits: 12 3 4    5 6    7 8 9    10 11 12 13 14

4 6 9 3 - PA - 5 1 H - 0 1 2 0 0

Profile Shape & Size: 4693  
 Attachment & Part Specific Details: PA  
 Core Materials: 5 (Soft Urethane), 6 (High Temp), 7 (Low Compression Set / Force), 8 (No Foam), 9 (Sculpted Foam / "C" Shapes)  
 Flame Rating: 1 (UL VO)  
 Fabric Cover: 0 (Not Rated), 1 (Ni/Cu Ripstop), 2 (Ni/Cu Knit Mesh), 3 (Ni/Cu Taffeta), 4 (Black Ni/Cu Taffeta)  
 Part Length: 01200

## EMI Gasket - EMC FINGERSTOCK

- sticky fingers
- clip-on
- fingerstock slotted
- EMC fingerstock Twist
- EMC spring riveting



## EMC TAPE



## EMI Taffeta Fabric

Nickel Taffeta Fabric High Resistance  
3035-410

Substrate: Polyester Taffeta  
 Metal: Nickel  
 Thickness: 0,1mm  
 Temperature: 155°C



Ripstop Fabric EcoTouch™ Conductive  
3050-113

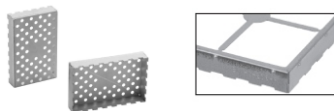
Substrate: Nylon Ripstop  
 Metal: Cu  
 Thickness: 0,127mm  
 Temperature: 200°C



	Thickness (mm) <sup>1</sup>	Color	Peel (N/25mm)
96249	0.053	Black <sup>4</sup>	>8
96249J	0.10	Black	>8
86748	0.06	Grey	>11
86750	0.075	Grey	>9
86285	0.12	Black	>10
86250	0.08	Black	>12
85785	0.12	Grey	>11
86205	0.13	Black	>11
81720	0.027	Grey	>8
87580	0.13	Grey	>8

## Board Level Shields

news  
BMI-S-608



Remove complexity from the thermal transfer chain



STANDARD ONE-PIECE BOARD LEVEL SHIELDS

PART NUMBER	MAXIMUM OVERALL LENGTH in (mm)	MAXIMUM OVERALL WIDTH in (mm)	MAXIMUM OVERALL HEIGHT in (mm)	PARTS PER REEL
BMI-S-101	.538 (13,66)	.476 (12,10)	.100 (2,54)	1000
BMI-S-102	.650 (16,50)	.650 (16,50)	.142 (3,60)	700
BMI-S-103	1.032 (26,21)	1.032 (26,21)	.200 (5,08)	300
BMI-S-104	1.260 (32,00)	1.260 (32,00)	.236 (6,00)	225
BMI-S-105	1.500 (38,10)	1.000 (25,40)	.236 (6,00)	250
BMI-S-106	1.450 (36,83)	1.326 (33,68)	.200 (5,08)	300
BMI-S-107	1.747 (44,37)	1.747 (44,37)	.384 (9,75)	120
BMI-S-111	1.032 (26,21)	1.032 (26,21)	.079 (2,00)	625

STANDARD TWO-PIECE BOARD LEVEL SHIELDS

PART NUMBER	OVERALL LENGTH in (mm)	OVERALL WIDTH in (mm)	OVERALL HEIGHT in (mm)	PARTS PER REEL
BMI-S-201-F	.538 (13,66)	.476 (12,10)	.100 (2,54)	1000
BMI-S-202-F	.650 (16,50)	.650 (16,50)	.142 (3,60)	700
BMI-S-203-F	1.032 (26,21)	1.032 (26,21)	.200 (5,08)	300
BMI-S-204-F	1.260 (32,00)	1.260 (32,00)	.236 (6,00)	225
BMI-S-205-F	1.500 (38,10)	1.000 (25,40)	.236 (6,00)	250
BMI-S-206-F	1.450 (36,83)	1.326 (33,68)	.200 (5,08)	300
BMI-S-207-F	1.747 (44,37)	1.747 (44,37)	.384 (9,75)	120
BMI-S-209-F	1.156 (29,36)	0.728 (18,50)	.275 (7,00)	400
BMI-S-210-F	1.732 (44,02)	1.201 (30,50)	.118 (3,00)	370
BMI-S-230-F	1.500 (38,10)	2.000 (50,80)	.200 (5,08)	250
BMI-S-230-F-R	1.500 (38,10)	2.000 (50,80)	.200 (5,08)	250
BMI-S-305	1.500 (38,10)	1.000 (25,40)	.236 (6,00)	250

## Microwave Absorbers

news  
Robzorb™ GDS  
Dispensable Absorber Robzorb™ GDS  
- targeting 18 to 35 GHz range  
- Operating Temperature -50 ~125°C

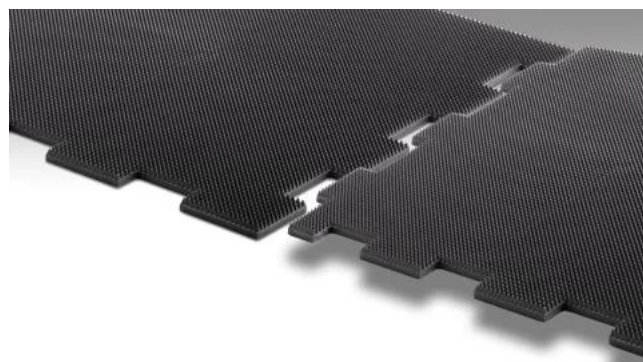


NEAR FIELD NOISE SUPPRESSION	CAVITY RESONANCE					FREE SPACE				TRANSMISSION LOAD/TERMINATION	
						ISOLATION	REFLECTION REDUCTION		>18 GHz		
							NARROW BAND	BROADBAND			
10 MHz-3 GHz	800 MHz-6 GHz	6-18 GHz	18-35 GHz	35-100 GHz	>1 GHz	700 MHz-40 GHz	600 MHz-2 GHz	2-18 GHz	>18 GHz	1-18 GHz	18-35 GHz
NS1000 NS1000 C/F/H NS1000Q NS1000HTRC RF-LB	MCS Softzorb™ MCS RF-LW	BSR LS QR-13AF Thermo-plastic MF	GDS (FR) 5GMeF1 LS QR-13AF Thermo-plastic MF Softzorb™ GDS	MMI JCS-Next 5GHIF1 JCP-PBT 252 JCP-PA JCP-PP	LS QR-13AF JCS-Next JCP-PA JCP-PP JCP-PBT 252	SF	AN	AN FGM HR	HR JCP-PA JCP-PP (Rezorb™ 60-90 GHz) CV	MF500F CR/CRS/ CFS BSR	BSR Thermo-plastic MF

## Dielectric silicone Absorber ReZorb S

with no magnetic properties, ReZorb™ S becomes the smart choice in datacom/telecom, industrial, automotive, and military and aerospace applications because of the need to eliminate unwanted reflection and achieve optimum functionality.

- targeting 60 to 90 GHz range
- standard thickness 4,7mm
- Operating Temperature -70 ~177°C
- shock and tear resistant



www.atd-shop.com/qx61T-en/absorbers

## DC/DC Unregulated SMD Package (0,2W~2W)

**PN1-XXSXXANT SMD -50°C ~ +115°C**



Dimension: 12,7x11x7,13mm  
 Input: 3,3V, 5V, 12V, 15V, 24V  
 Output: 3,3V, 5V, 9V, 12V, 15V, 24V  
 Isolating Voltage 1500V  
 High efficiency up to 88%  
 Power 1W

**PPAT SMD -40°C ~ +105°C**



Dimension: 16,24x11,7x7mm  
 Input: 3,3V, 5V, 12V, 15V  
 Output: ±3.3V, ±5V, ±9V, ±12V, ±15V/  
 3.3V, 5V, 9V, 12V, 15V  
 Isolating Voltage 3000V  
 High efficiency up to 80%  
 Power 0,2W, 0,5W, 1W, 2W

# Patron

Passive Elektronik

## DC/DC Converters Unregulated SIP & DIP Package (0,1W~3W)

**PPJ (2W)**  
 1W, 2W  
 SIP 19,5x9,8x12,5mm  
 6KVDC

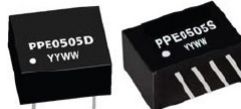
**PPH (3W)**  
 2W, 3W  
 SIL 19,5x7,5x10mm  
 DIP 19,5x9,8x7,7mm

**PPE (1W)**  
 1W,  
 SIL 11,48x6x10mm  
 DIP 11,5x9,8x6,8mm

**PPG (3W)**  
 2W, 3W  
 SIL 19,5x6x10mm

## Non-Isolated (0,5~2,0A)

**PP78xx-1 (0,5, 1,5, 2)**



## AC/DC On-board regulated (1W~30W)



**PP03AL**  
 3W, SIL, 3KVAC

**PP05AL**  
 5W, SIL, 3KVAC

**PP01(02)AZ**  
 1W, 2W, 27,9x20x15mm

**PP03AC**  
 3W, 37x18,5x16,5mm

**PP10AC**  
 10W, 50,8x25,4x16

**PP25AU**  
 25~30W, 70x48x23,5mm



## AC/DC Converters DIN-Rail (15W~360W)

**PPR/DG-15-XS**  
 15W, 103,7x97,5x32mm

**PDP 15W**  
 15W, 17,5mm

**PDP 60W**  
 60W, 32mm

**PPR-U120-XS**  
 120W, 240W

**PDP 360**  
 360W, 60mm

**PAN-20-12**



## AC/DC Converters Metal Enclosure (25W~1200W)

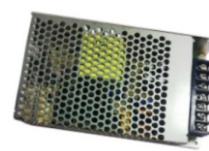
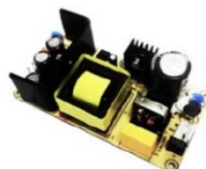
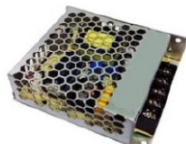
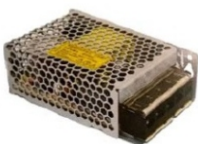
**PPC/PD-25XS**  
 25W, 90,8x51x28,8mm

**TPC/LR-50-XS**  
 50W, 92,5x82x30mm

**PPC/PS-60-XS**  
 60W, 101,6x51x24mm

**PPC/LR-150-XS**  
 150W, 152,5x97x30mm

**PPC PDF-1200-XS**  
 1200w, 226x116,5x41mm

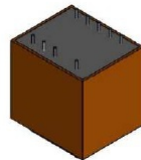




## PASSIVE PFC CHOKES

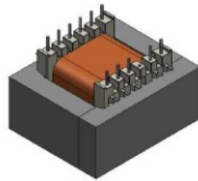
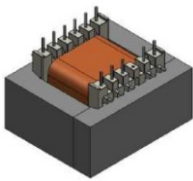


**NEW**



SIZE EI48-20,5  
Dimension 48x40x36,7

SIZE EI54-23  
54x45x41,3mm



SIZE EI30-23 • POTTED  
Typical use at ambient 70 °C

Reference	Inductance (mH)	Rated current (A <sub>RMS</sub> )	Sat. current (A <sub>pk</sub> )	Temperature class	Type
43110	1.0	5.2	10.4	T70 / B	2
43111	1.5	4.2	5.9	T70 / B	2
43112	2.0	3.6	5.1	T70 / B	2
43113	2.5	3.5	4.9	T70 / B	1
43114	3.0	3.2	4.5	T70 / B	1
43115	3.5	3.0	4.2	T70 / B	1
43116	4.0	2.9	4.1	T70 / B	1
43117	4.5	2.5	3.9	T70 / B	1
43118	5.0	2.3	3.8	T70 / B	1
43119	10.0	1.9	2.7	T70 / B	2
43120	15.0	1.5	2.2	T70 / B	1
43121	20.0	1.3	2.1	T70 / B	1

Operating temperature - 40 / + 120 °C  
Storage temperature - 40 / + 85 °C

SIZE EI30-23 OPEN  
Dimension 30x25x32mm

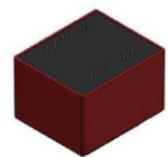
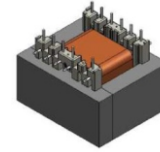
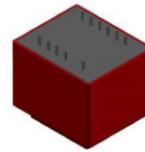
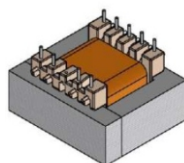
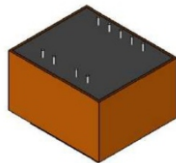
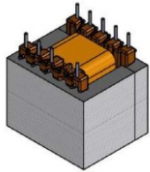
SIZE EI38-13.6  
40,6x34,9x28,1mm

SIZE EI38-13.6 OPEN  
38,4x32x26,4mm

SIZE EI42-20 POT.  
44,3x37,3x38mm

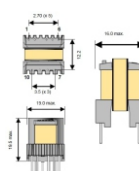
SIZE EI42-20 OPEN  
42x35x35,5mm

SIZE EI48-20,5  
50,8x42,6x38,4mm



## TRANSFORMER FOR TINY SWITCH

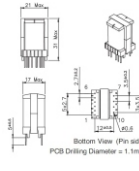
SIZE E16 - 5 or 12V, 1,5W, 3,1W, 6W, 9W, 12W



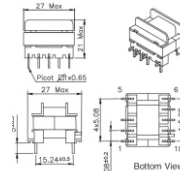
Primary / Secondary Insulation  $\geq$  4000V

- PD2 - creepage distances  $\geq$  6mm
- Ambient Temperature  $<$  85°C
- Construction conforms to the certified MYRRA class B UL Electrical Insulation
- Construction conforms to IEC60335-1,
- Exclusively uses UL94-V0 listed materials

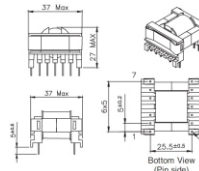
SIZE E19 - 5 ~ 30V



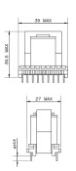
SIZE EF20 & E25



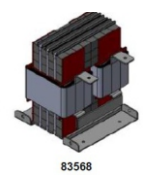
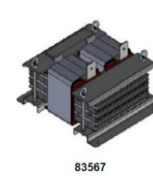
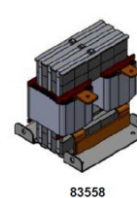
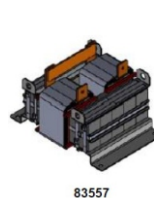
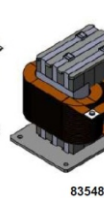
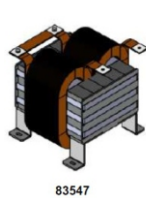
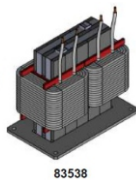
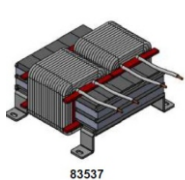
SIZE ETD29



SIZE ERL28



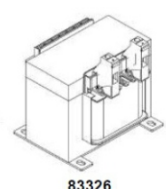
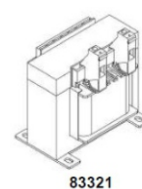
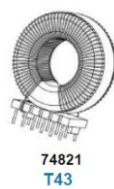
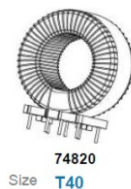
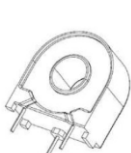
**POWER CHOKES** - Operating temperature: -40°C / +140°C - Exclusively uses Class H & UL94-V0 listed materials  
- Construction conforms to the certified Myrra class H - Electrical Insulation System E113497H1



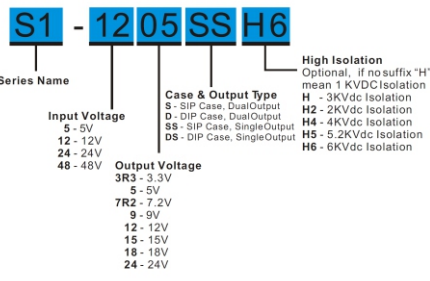
## TOROIDAL ACTIVE PFC

insulation 4000V - operating temperature: -40°C / +120°C - Exclusively uses UL94-V0 listed materials

## DC CHOKES

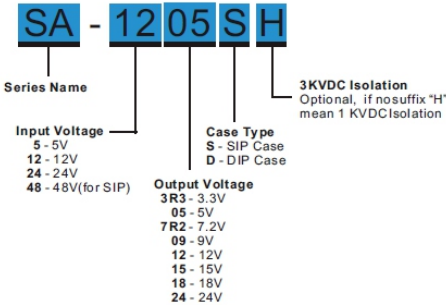


## Series S1- 0,5-2W Unregulated SIL/DIL Up to 6000VDC



Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
S1-3R33RSS	3.3	3.3	303	76
S1-3R305SS		5	200	78
S1-3R309SS		9	111	80
S1-3R312SS		12	83	77
S1-3R315SS		15	67	78

## Series SA - 0,25-1,50W Unregulated SIL4 Up to 3000VDC



Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency at FL (%)
SA-3R33R3S1	3.3	3.3	29.10	72
SA-3R305S1		5	200	77
SA-3R37R2S1		7.2	18.5	79
SA-3R309S1		9	111	75
SA-3R312S1		12	100	77
SA-3R318S1		15	67	79
SA-3R324S1		18	56	76
SA-3R324S1		24	50	79

## DC/DC Converters 0,25W ~ 600W

DC/DC converters 0,5W	DC/DC converters 1W SMT	DC/DC converters 1W DIL	DC/DC converters 1W SIL	DC/DC converters 2W SMT	DC/DC converters 2W SIL	DC/DC converters 6W
DC/DC converters 8W	DC/DC Converters 30W	DC/DC Converters 40W	SVRB24_LD-50W	SUMFS 50-66W	SLD50E 50W	SURF1D_QB-50WR3
SPV200-27	SYHD150	SYFD300W-400W	DC/DC Converters 66-119W	DC/DC Converters 120-600W	High Voltage DC/DC converters	Photovoltaic converters

# Battery and Filters



www.atd-shop.com

## Battery

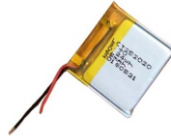
**BRC18650-4000mAh**  
Lithium battery 4000mAh  
diam. 18,5mm\* x 68mm



**PLCT103450**  
5AH 5V/2,1A max. Input: 5V/1A  
10.3 x 34.5 x 53mm



**PLCT 252020**  
Lithium battery 3,7V, 1800mAh  
2.5 x 20 x 23mm



**PLCT060002**  
Lithium battery 3,7V, 65mAh;  
dimensions 142\*75\*13,6mm



**SP-135x125-6V/2W**



## Solar Panel Power Bank

## Solar panel

www.atd-shop.com/qx80V/baterie

## Filtres IEC

### SM SE 8000 EMC/EMI Filter

SE 8000

SE 8000S

SE 8000S1



Filter	Rated Current(A)	Rated Voltage(V)	Leakege Current(mA)
SE8000-1-01	1	120/250	0,5
SE8000-3-01	3	120/250	0,5
SE8000-6-01	6	120/250	0,5
SE8000-10-01	10	120/250	0,5
SE8000S-1-01	1	120/250	0,5
SE8000S-3-01	3	120/250	0,5
SE8000S-6-01	6	120/250	0,5
SE8000S-10-01	10	120/250	0,5
SE8000S1-1-01	1	120/250	0,5
SE8000S1-3-01	3	120/250	0,5
SE8000S1-6-01	6	120/250	0,5
SE8000S1-10-01	10	120/250	0,5

### SM SE 8300/8400 EMC/EMI Filter With Fuse Holder and Switch

SE 8300  
Single fuse Holder

SE 8400  
Double fuse holder

SE8600



Filter	Rated Current(A)	Rated Voltage(V)	Leakege Current(mA)
SE8300-1-01	1	120/250	0,5
SE8300-3-01	3	120/250	0,5
SE8300-6-01	6	120/250	0,5
SE8300-10-01	10	120/250	0,5
SE8400-1-01	1	120/250	0,5
SE8400-3-01	3	120/250	0,5
SE8400-6-01	6	120/250	0,5
SE8400-10-01	10	120/250	0,5

### SM SE8600 EMC/EMI Filter With Mains Switch

Filter	Rated Current(A)	Rated Voltage(V)	Leakege Current(mA)
SE8600-1-01	1	120/250	0,5
SE8600-3-01	3	120/250	0,5
SE8600-6-01	6	120/250	0,5
SE8600-10-01	10	120/250	0,5

### SM 8100/8200 EMC/EMI Filter With Fuse Holder

SE 8100  
Single Fuse Holder

SE 8200  
Double Fuse Holder



Filter	Rated Current(A)	Rated Voltage(V)	Leakege Current(mA)
SE8100-1-01	1	120/250	0,5
SE8100-3-01	3	120/250	0,5
SE8100-6-01	6	120/250	0,5
SE8100-10-01	10	120/250	0,5
SE8200-1-01	1	120/250	0,5
SE8200-3-01	3	120/250	0,5
SE8200-6-01	6	120/250	0,5
SE8200-10-01	10	120/250	0,5

SE2202-10-03  
~Milflex X31-1

SE8600-10-01  
10A 250VAC

SE1000-1-02



## Power Cords for North America

**SCHURTER**  
**6010.5274**  
Plug Type A on C7  
SPT-2 2x18AWG  
black 2m

**SCHURTER**  
**6010.5274**  
Plug Type A on C7  
SPT-2 2x18AWG  
black 2m

**VOLEX**  
**NUSSB7SX10B**  
Plug Type A on C7  
SPT-2 2x18AWG  
black 1m



www.atd-shop.com/qx519-en/filters

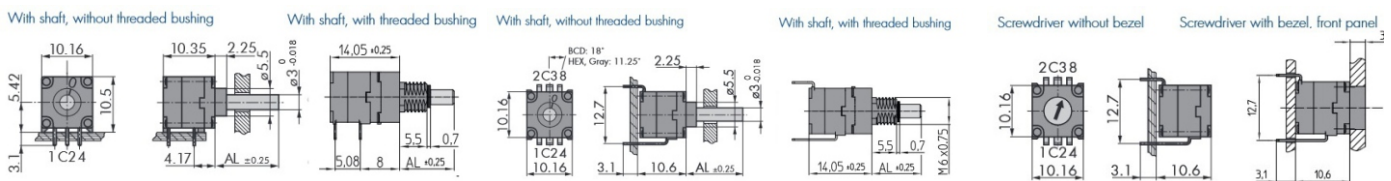


## Coded Switches

### CODED SWITCH 07 AND C07A



- 2 to 16 positions BCD, Hex or Gray coding
- Switching mode: Shorting or non-shorting
- For rugged environments
- Switching torque: Up to 3.5 Ncm
- Gold plated contacts
- THT vertical or horizontal
- IP68 front panel sealing (up to 5 bar)
- Operating temperature range: -40 to +85 °C
- Various options and customizations
- Vertical or horizontal mounting
- Bushing style
- BCD, Hex or Gray coding
- Shorting or non-shorting
- Number of positions
- Switching torque BCD: 2.2 or 3.5 Ncm
- Switching torque Hex and Gray: 3.2 or 3.5 Ncm
- With end stop or endless rotating
- Front panel sealing IP60 or IP68



**C08 THT or SMT | threaded or non-threaded | 16 positions**

Compact switch with Gray coding, up to 16 positions and a 2.5 Ncm switching torque



**C15 THT horizontal | non-threaded | 16 positions**

Coded switch with Gray coding, switching torque up to 3 Ncm, operating temperatur -40 to +85° C and available with or...



**C16 THT horizontal | threaded | 16 positions**

Coded switch with Gray coding, switching torque up to 3 Ncm, operating temperatur -30 to +60° C and available with or...



**07P2T push to turn | THT horizontal or vertical | 10 positions**

Coded switch with push to turn function, BD coding, IP68 sealing, push force up to 11 N and switching torque up to 7 Ncm



**X4 with FFC connector**

High performance, hall-sensed switch with FFC connector up to 20 Ncm switching torque, up to 1 Mio switching cycles and...



**08 coded switch | THT horizontal | BCD coding**

Coded switch with Gray coding with up to 16 positions and a 2.5 Ncm switching torque



**MR50 THT vertical | 10 positions | 1 pole | 1/4"-28 UNF**

Highly robust Ø 1/2" selector with 36° indexing angle, up to 6 Ncm switching torque and operating temperature from -45 to...

## Encoders



**E37 THT | threaded or non-threaded**

Incremental encoder with dual function, switching torque up to 4.5 Ncm, 16 or 32 detent positions and a rotational life up...



**E33 Interface Solution | with Micro-MaTch, FFC or ribbon cable**

Encoder with integrated PCB (with and without debouncing function) and various mechanical interface options



**E33 THT or SMT | threaded or non-threaded**

Encoder with or without push function, switching torque up to 4.5 Ncm, 16 or 32 detent positions and a rotational life up to...



**E33 THT horizontal | threaded | up to 3 Ncm**

Encoder with a fastening torque of nut M7 x 0.75, 32 detent positions, with or without push function, switching torque up to...



**E18 THT horizontal | threaded | push button**

Encoder with a fastening torque of nut M7 x 0.75, available with 16, 24 or 30 detent positions, switching torque up to 2.5...



**E33 SMT vertical | threaded | up to 4.5 Ncm**

Encoder with a fastening torque of nut M7 x 0.75, 16 detent positions, with or without push function, switching torque up to...



**E33 Interface Solution with FFC connector**

Encoder with integrated PCB and FFC connector

## Knobs



**Classic Collet | black | with line | matt or glossy | Ø 9 mm**

**Wing knob | black | with line | matt or glossy | Ø 10 mm**

**Classic Collet | gray | without line | matt or glossy | Ø 14.5 mm**

**Crank knob | black | glossy | Ø 19 mm**

**Wing knob | black | with line | matt or glossy | Ø 21 mm**

**Wing knob | gray | with line | matt or glossy | Ø 28 mm**

**Classic Collet | black | without line | matt or glossy | Ø 36 mm**

**Classic Collet | black | with line | glossy | Ø 45 mm**

**K1 Shape | silver or black**

**K1 Dimple | silver or black**

**K1 Medic | silver or black**

**K1 Robot | silver or black**

**K1 Space | silver or black**

**K1 Space | silver or black**

## Multi Rotary Switch



**01 with pins for PCB or soldering eyelets | 6, 10, 12 positions | M6, M8, M10**

Multi wafer compact selector with up to 12 positions, 25'000 switching cycles and with up to 6 Ncm switching torque

**04 with pins for PCB or soldering eyelets | 12, 24 positions | 1 - 4 wafers**

Very robust, multi wafer selector with up to 24 positions, switching torque up to 20 Ncm and a rotational life up to 25'000...

**08 THT horizontal | 1 - 4 wafers**

Multi wafer selector for PCB mounting, up to 12 positions, switching torque up to 9 Ncm and 25'000 switching cycles



**07R THT | horizontal or vertical | threaded or non-threaded**

Miniatur selector with shaft or screwdriver with bezel, PCB mounting and up to 3.5 Ncm switching torque

## Audio Solution



**X4 with Micro-MaTch socket**

High performance, hall-sensed switch with Micro-MaTch socket up to 20 Ncm switching torque, up to 1 Mio switching cycles and...

**X4 with Micro-MaTch socket or FFC connector**

High performance, hall-sensed switch for various coding, with mechanical and electrical interfaces, up to 20 Ncm switching...

**MR50 THT vertical | 12 positions | 2 poles | 1/4"-28 UNF**

Highly robust Ø 1/2" selector with 30° indexing angle, up to 6 Ncm switching torque and operating temperature from -45 to...

**07R THT vertical | non-threaded | without shaft**

Miniatur selector without shaft, PCB mounting and up to 3.5 Ncm switching torque

## Enclosures, Cases and Front Panel



**Flat front panels**

Flat front panels for subracks and enclosures | 1 to 9 U and 2 to 84 HP | solid or perforated

**FMC Mezzanine front panel**

FPGA mezzanine card (FMC) front panels (according to Vita 57.1) | filler panels available

**Customized front panels**

Front panel according to customer requirements | complete services from raw sheet metal to tested units

**EMC front panels**

EMC front panels with an immunity from interference and limited emission of interference | front anodized, | rear passivated...

**Front Panels for Plug-In-Units | IEC**

Front panels for plug-in-units according to IEC | with or without EMC protection | aluminum 2.5 mm | clear anodised

**Fan front panels**

Fan front panels with vertical / horizontal ventilation or for direct fan mounting.

**Front Panels for Plug-In-Units | IEEE**

EMC front panel for IEEE plug-in-units | 3 and 6 U | up to 14 HP



**Double LED arrays | bi-color | 20 mA**

**Double LED arrays | green / green | 2 or 10 mA**

**Double LED arrays | red / green | 2 or 10 mA**

**Single LED arrays | yellow | 2 or 10 mA**

**Single LED arrays | blue | 20 mA**



**Guardbox 33 easy - a simple but tough case in different sizes**

A robust small enclosure in different sizes and designs. It guarantees optimal, professional covering of your cards or...

**Stylebox 15 smart - for 19" plug-in or desktop application**

A desktop, plug-in or portable enclosure according to 19" standards with scalable EMC protection. It enables many...

**ID-Case 18 - sophisticated design with exceptional functionality**

Combines an exceptionally functional construction with a sophisticated design. Thanks to its unique construction concept...

**Shapebox 22 - plastic enclosure in customer defined shape**

Individual plastic enclosures that can be manufactured without expensive molding tools. Therefore, prototypes are available...

**BT Box 24 - a standard enclosure for many application**

A basic enclosure for a variety of applications and designed cost effective for higher volumes. The enclosure is made of...

**Guardbox 33 - a tough case in different sizes and outstanding protection options**

The aluminum case is available in different sizes and designs. A very robust construction allows installation of Eurocards...

**ELOS Box 54 - an extruded profile enclosure for two or three Eurocards**

The box is an embedded enclosure for 2 to 3 controller cards. It consists of an aluminum profile and it is especially...

**ID-Box 16 - versatile enclosure for high-quality electronic**

A versatile enclosure for high-quality electronic components. Since it is independent of standards, the ID-Box 16 can be...

**Compact Case 20 - practical enclosure in excellent design**

The Compact Case 20 combines flexibility, practicability and intelligent design. Available in four different sizes and three...



**Magic-Kit 11 - the cost-effective IEC solution**

Shielded subracks for IEC applications. EMC subrack made of sheet steel for extremely fast mounting and EMC without seals.

**Slimkit 10 FTTx - for fiber optic termination**

Cable end distributor 19", 1 U for splitting fiber optic cables. Front panel and design can be customized.

## ELMA ONLINE CONFIGURATOR - Anyone can be a designer

customer friendly 3D-configurator :

- Stylebox 15 e-Motion
- Guardbox 33
- Compact Case 20
- ID-Case 18
- EcoKit 11R
- Front Panel
- TechFrame 40
- and more to come



<https://elma.3d-configure.com/>

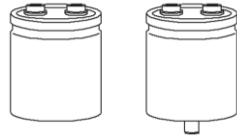


# Capacitors

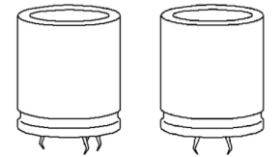


**Power Capacitors made in Europe!**

**Screw Terminal Series**



**Snap In Series**



Series	Capacitance Range [uF]	Voltage range [V]	Temperature range [°C]	Case DxH [mm]	Expected lifetime [hrs]	Applications
AR	100-470-000	40-450	-25°, +85°	35x56 76x147	5000	. High CV . Long Life
AY	100-1000000	40-500	-25°, +85°	51x105 90x222	10000	. Extra Long Life . High Temperature . High Ripple
AP	1000-15000	350-500	-25°, +85°	64x107 90x222	12000	. High Reliability . Compact Size
AS	150-330000	25-500	-40°, +85°	35x56 90x222	15000	. Heavy Transient . Industrial Application
AF	1000-15000	350-500	-25°, +85°	64x107 90x222	20000	. Wind and Solar Energy . Power Supplies
AZ	1000-15000	160-450	-25°, +85°	51x105 90x222	3000	. Energy Storage . Railways Applications
AI	100-10'000	350-450	-25°, +85°	64x107 90x222	5000	. Medical Applications . Frequency Converters

Series	Capacitance Range [uF]	Voltage range [V]	Temperature range [°C]	Case DxH [mm]	Expected lifetime [hrs]	Applications
ARC/S/K	100-3300	200	-25°, +85°	30x40 45x100	2000	. Solder Pin Mounting
AKS	100-47000	40-450	-25°, +85°	30x40 40x100	5000	. 2-4-5 Pin . Long Life
ACC ACS	150-33000	25-500	-25°, +85°	30x40 45x100	5000	. Extra Long Life . Low ESR . Compact Size
AMC	330-560	500	-40°, +105°	35x40 35x60	5000	. Large Size . Industrial Application
AZK	100-2200	200-450	-25°, +105°	30x40 40x100	3000	. Wind and Solar Energy . Power Supplies
AZC AZS	100-4700	200-450	-25°, +105°	30x40 40x100	3000	. Energy Storage . Railways Applications
ATK	100-2200	160-450	-40°, +85°	30x40 40x100	5000	. Medical Applications . Frequency Converters
ATC ATS	100-1500	200-450	-40°, +85°	30x40 40x100	5000	. Motor control

**Capacitors: SMD and THT version, Film, Aluminum Electrolytic, Ceramic, Tantalum, Audio, Super Capacitors, etc.**





# Conformal Coating

## Conformal Coating AVR80 BA - environmentally friendly

AVR80BA FAMILY  
 AVR80 BA DS.. : version ready to use  
 AVR80 BA GEL  
 AVR80 BA High viscosity  
 AVR80 BA BM (Black & Matt)  
 AVR80 BA G (Green)  
 AVR80 BA ST (whiteout the UV TRACER)

Many options to apply AVR80 BA :

- Dispensing machine
- Film coater
- Jetting
- Spray
- Spray gun
- Aerosol
- Dipping
- Brush
- Pen



Qualification :

- UL94 V0
- NF EN 61086-2
- IPC-CC-830
- MIL-I-46058C
- NF EN 45545, NF EN 16101, NF EN 16102
- IEC 60068-2-60
- (4 gas test/ 21d, 75% RH; 25°C; C12: 10ppm; No2: 200; H2S 10ppm; SO2 : 200 ppm)
- Thermal chock :
- 65°C +125°C, 100 cycles, (IPC CC 830)
- 40°C +105°C, 1500 cycles (IEC 60068-2-14)
- SIR test :
- 20°C-65°C, 95%RH, 7days (IPC CC 830)



## Conformal Coating Range

	AVR80 BA	UVP33/ UVP63	NVR95	SVR99	SVP52	High viscosity AVR80 BA GEL
<b>Nature</b>	Acrylic	Urethane	Rubber	Silicone	Silicone	Acrylic
<b>Type of coating</b>	Solvent	Solvent	Solvent	Solvent	Solvent	Solvent
<b>Repairability</b>	Yes	Yes (Locally)	Yes	Yes	Yes (Locally)	Yes
<b>Viscosity (cP) at 25°C</b>	250	230/100	210	155	65	Gel
<b>Dry residue %</b>	30	44/ 34	22	30	45	40
<b>Temperature range</b>	-65°C +150°C	-65°C +125°C	-65°C +150°C	-50°C +125°C	-60°C +200°C	-65°C +150°C
<b>Curing type</b>	RT / IR	RT / IR	RT / IR	RT / IR	RT / IR	RT / IR
<b>Tack free time (mn) RT</b>	20	20/40	10	20	30	30
<b>Dielectric strength (kV/mm)</b>	50	60	80	90	90	50
<b>Stripper</b>	SND/ ABclean	DVP	SND/ ABclean	SND/ ABclean	DVP	SND/ ABclean
<b>Thinner</b>	DVA BA	DVU	DVN	DVS	DVS	n.a
<b>Standards</b>	UL 94V0 /NF EN 61086 /NF EN 55545	UL (In progress)	UL (In progress)	UL 94V0	-	-
<b>Packaging</b>	Flacon 10mL, Stylo 10mL, Aerosol 400mL, 5L	5L	5L	Aerosol 400mL, 5L	5L	Syringe 30mL, 1L

### Abchimie 526 UV

temperature range -55°C to +150°C  
 Transparent coating with UV TRACER  
 UV Mercury or LED curable  
 No VOC  
 Dual cure  
 2 available viscosities :  
 55 cSt  
 140 cSt  
 UL94 V0

	526 UV	746E UV
SIR Test	+++	+
Thermal Shock	+	+++
Residual tack	+	+++
Smell	+	+++

### ABchimie 746E UV

temperature range -65°C to +150°C  
 Transparent coating with UV TRACER  
 UV Mercury or LED curable  
 No VOC  
 Dual cure  
 UL94 V0  
 UL746E  
 No residual tack  
 Soft material for thermal shock

# UV Resins and Glues

## Which application for UV resins and UV glues?

- Protection of electronic components
- Barriers to prevent capillarity rise of conformal coating
- Bonding of components
- Mechanical support (welds or legs of components)

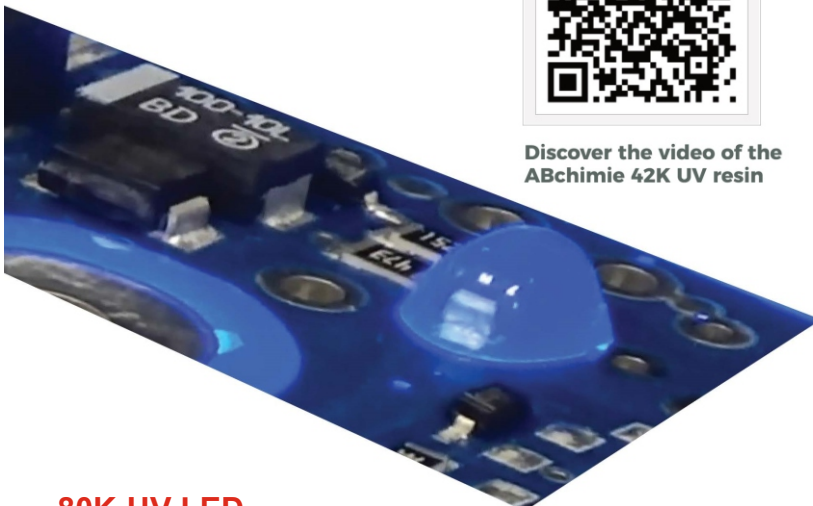
The main advantage of UV curing products is the speed of curing: only a few seconds under a mercury or LED lamps.  
Depending on your needs we will direct you to the most suitable solution



Discover the video of the ABchimie 42K UV resin



**Abchimie 9030 UV**  
UV Glue used for a customer working in lighting to glue lenses on LEDs



## 80K-UV LED

- Soft resin,
- Protection against humid thermal environments,
- Excellent adhesion on many substrates (PCB, plastics,...),
- No VOC,
- Curing until 5mm-thickness,
- Very fast curing under UV LED exposure
- LED lamp 395 nm
- UVA2 dose:3000mJ/cm2 for 1mm thickness
- High speed process,
- increase of the productivity,
- Flammability resistance
- approved UL 94V0 (QMJU2-E308681)

	GLUES							
	15K UV	42K UV	80K UV	6028 UV	9005 UV	9030 UV	9111 UV	UV PEELABLE
<b>Nature</b>	Acrylic							
<b>Color</b>	Transparent	Translucent	Transparent	Translucent	Transparent	Transparent	Transparent	Translucent
<b>Hardness (Shore)</b>	D40	D25	D15	D45	D20	D40	D45	A18
<b>Viscosity (cP), 25°C</b>	7,000	32,000	80,000	Thixotropic	40,000	20,000	10,000	Thixotropic
<b>Temperature range</b>	-50°C +150°C	-50°C +150°C	-50°C +150°C	-50°C +150°C	-50°C +130°C	-50°C +150°C	-50°C +150°C	-20°C +120°C
<b>Curing</b>	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED
<b>UVA dose mJ/cm2</b>	9000	2000	2500	5000	6000	3300	5000	2000
<b>Adhesion</b>	PCBA / Glass / Alu	PCBA / Glass / Alu	PCBA / Glass / Alu	-	Glass / Alu / PMMA / ABS	PET / Glass / Alu / PMMA / PC	Glass / Alu / PMMA / PC	N.A.
<b>Stripper</b>	-	DVP	DVP	DVP	DVP	DVP	DVP	Peelable
<b>Thickness maxi (mm)</b>	5	5	5	4	2	2	2	5
<b>UV resistance</b>	-	--	-	-	+	-	--	N.A.
<b>Standards</b>	-	UL94V0	UL94V0	-	-	-	-	-
<b>Packaging</b>	Syringe 30ml, 330g, 1kg, 5kg, 20kg							

## Cable Assemblies



SM C01 0805 40 L:120mm Shielded 0,5mm Type A-B



SM Cable RJ45 + SM C03 2003 08 HS Cable 300mm



SM Assembly Cable USB 2.0 A + 9 Pin Header



SMA-1.37-Cable-103mm-UFL



SM CAB DZD\_LITE-0XX



SM C01 KAB-PFL-XX-L

## Custom Flat Cable Assemblies

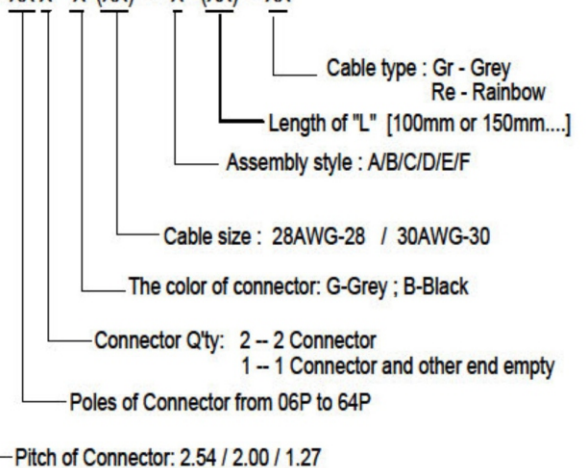
We can offer custom flat cables with connector pitch of RM1,27, RM2,0mm and RM2,54 according to customer requirements.

Customer can determine:

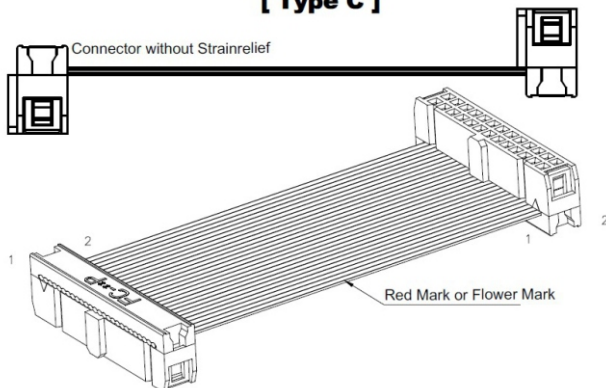
- Connector quantity
- number of poles,
- with (RC5B) strain relief
- without (RC5) strain relief
- cable length
- orientation of connectors (A, B, C, D, E, F).

How to Order:

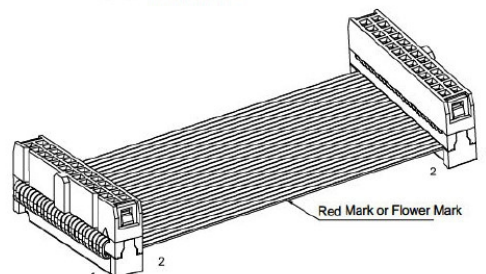
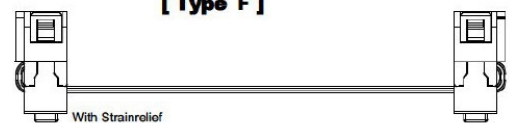
SM C01 RC5B - X.XX- XX X X (XX) - X - (XX) - XX



### [ Type C ]



### [ Type F ]





## Custom wire wound parts

SCCON-H-502-2, 5A	STI-5026z-220M	TH2P2x27mH	SWM15	UU 9.8-333-33mH	AUT20-682N	VY-U-19-58
SCCON-H-502-6, 12A	STI-6026-121M	TH2P2x47mH				
SCCON-H-502-3, 8A	STI-7232-151M	TH3P2x6,8mH				



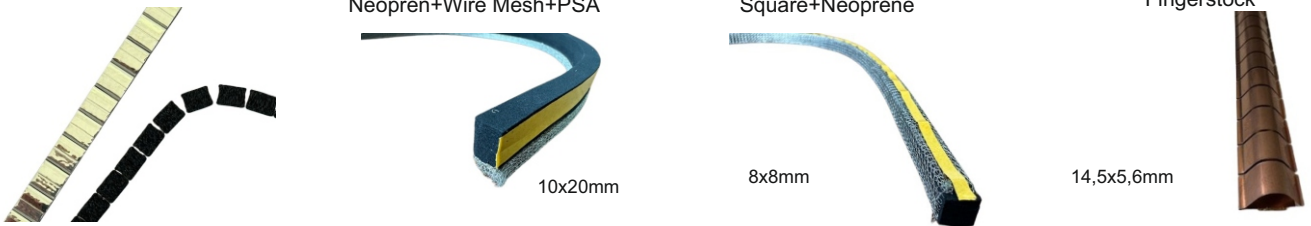
SM FILTER EE 11/6/3 140mH	ELG.RM6.FLY	SSC-SH-122	SM TRANS 749-27	SM TRA EL 10
SM FILTER EE 11/6/3 57mH	ELG.RM8.HABR	SCC-SH-103		
SM FILTER EE 11/6/3 10mH				



## Custom magnet

## Custom EMI Gasket

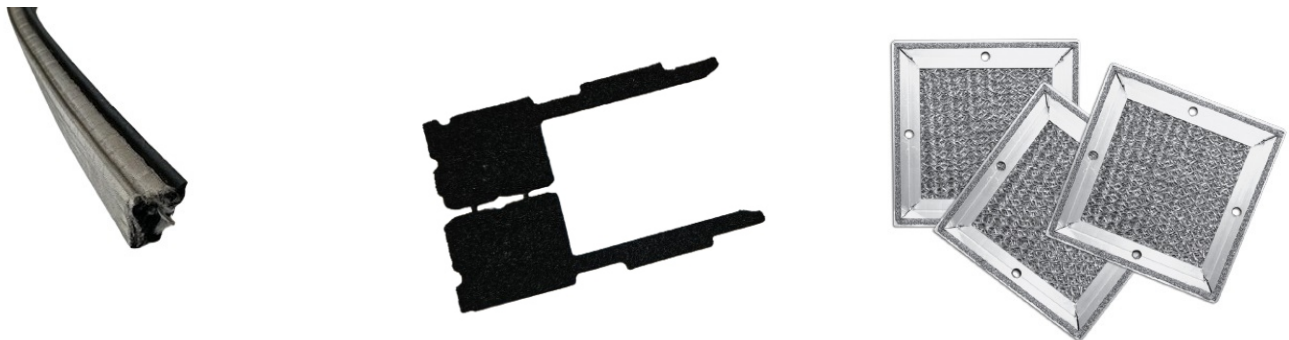
57SSM100070100PI00	EMC 95.64.127.NS.TC.PSA Neopren+Wire Mesh+PSA	EMC WM 0.80.0.80 Square+Neoprene	EMC CF 9005-02 Fingerstock
--------------------	--	-------------------------------------	-------------------------------



EMC 6585E  
rubber seal+fabric

Custom absorber  
cutouts

EMC AIR-Panel 209,5x387,3mm



## Custom DC/DC converters

- resources for railway applications and transport technology

SVRB4805D-40WG	SRW-25
40W, inp.36-75Vdc, out.5V	25W, EN 50155



## Custom connectors

- we can offer production of connectors that have been discontinued

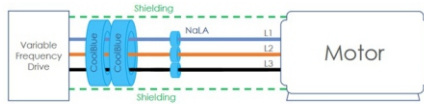
SM C DIN DFS 160W	SM M16 1002FFR01112
replacement for ERNI 064711	SM M16 1002MMZ01112
	SM M16 M16 CAP M



# Ferrites, Bobbins, Clamps



www.atd-shop.com



Types 30.000	Types 90.000	Nominal dim. [mm] do x di x h	Finished dim [mm] Do <sub>max</sub> x Di <sub>max</sub> x H <sub>max</sub>	Al [µH] @ 10kHz 30.000	Al [µH] @ 10kHz 90.000	Lfe [cm]	Afe [cm²]
M-306	M-606	16 x 11 x 5	18.4 x 8.6 x 7.0	5.9 - 11.8	18.4 - 36.8	4.2	0.1
M-307	M-607	20 x 15 x 5	22.4 x 12.6 x 7.5	4.5 - 9.1	14.1 - 28.3	5.5	0.1
M-308	M-608	25 x 20 x 5	27.7 x 17.1 x 7.5	3.5 - 7.0	11.0 - 21.9	7.0	0.1
M-309	M-609	30 x 25 x 5	32.7 x 22.0 x 7.5	2.8 - 5.7	9.1 - 18.0	8.6	0.1
M-310	M-610	40 x 35 x 5	42.5 x 31.8 x 7.5	2.1 - 4.2	6.3 - 12.5	11.8	0.1
M-333	M-633	50 x 45 x 5	52.2 x 41.8 x 7.5	1.6 - 3.3	4.6 - 9.1	14.9	0.1
M-334	M-634	60 x 55 x 5	62.0 x 51.6 x 7.5	1.3 - 2.8	4.3 - 8.6	17.7	0.1
M-335	M-635	70 x 65 x 5	72.0 x 61.4 x 7.5	1.1 - 2.3	3.6 - 7.3	20.9	0.1



POT FERRITE



RM FERRITE



EE FERRITE



ETD FERRITE



FEY FERRITE



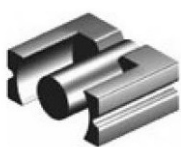
PEE FERRITE



TOROIDAL FERRITE



EF FERRITE



EC FERRITE



EFD10/EFD15



PEI FERRITE



PM FERRITE



F FBP Type Cores



UU FERRITE



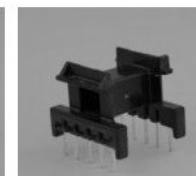
TH Bobbin BASE



TH Bobbin CASE



TH Bobbin EE



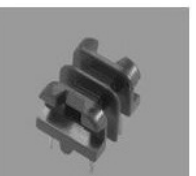
TH Bobbin EF



TH Bobbin POT



TH Bobbin PQ



TH Bobbin UU



TH Bobbin RM



TH Bobbin EVD



TH Bobbin ER



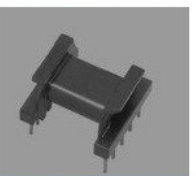
TH Bobbin ETD



TH Bobbin EFD



TH Bobbin EP

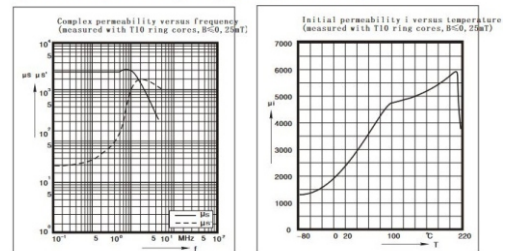


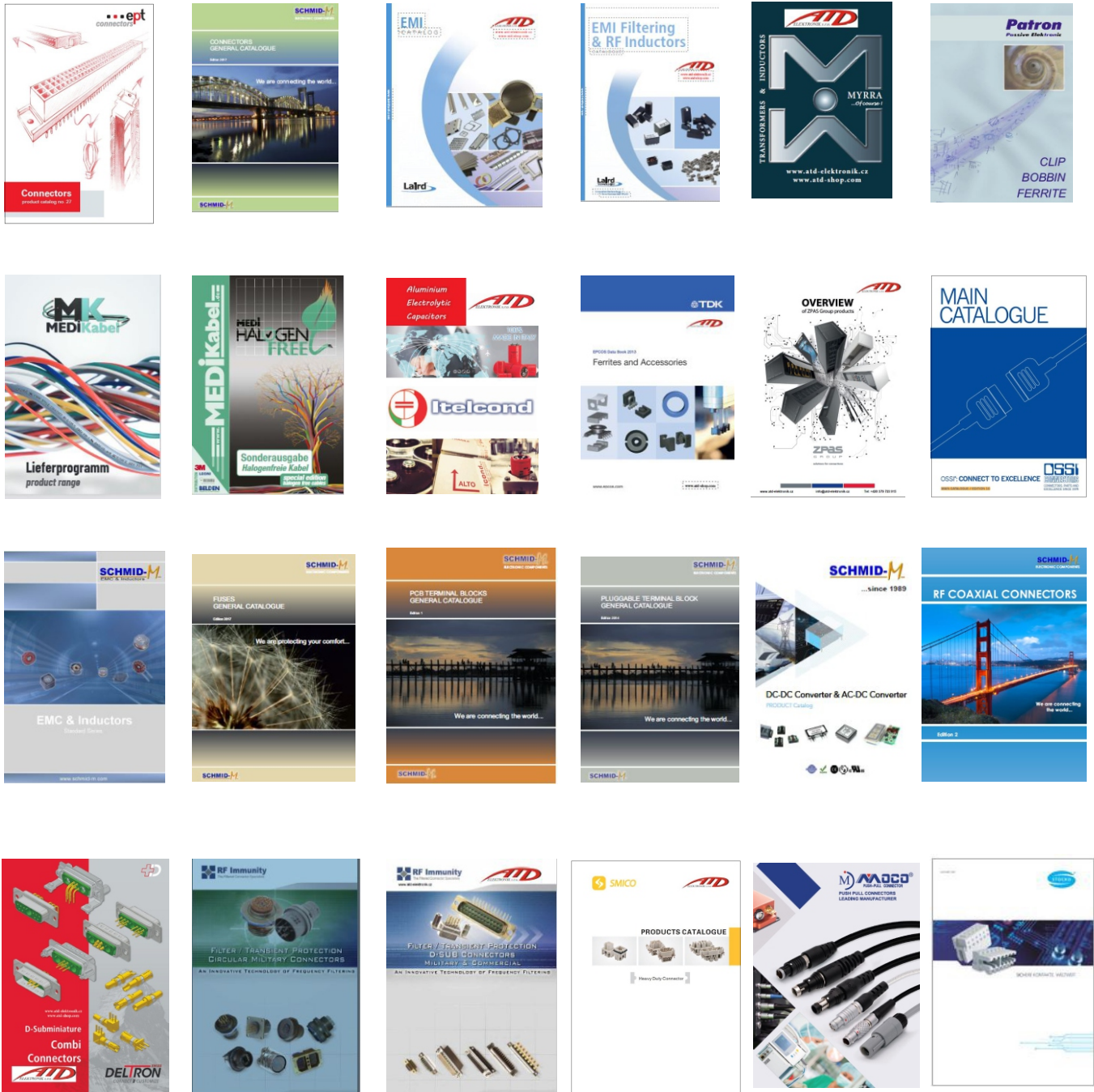
TH Bobbin EPC

## Mn-Zn SERIES MATERIAL CROSS REFERENCE LIST

	MTL	P2	P3	P4	P5	HQ2K	H3K	H5K	H6K	H7K	H10K	H12K	H15K
	µi	2500	2300	2200	1400	2000	3000	5000	6000	7000	10000	12000	15000
Ferroxcube(PHILIPS)	3C80 3C85	3F3 3C94	3C96	3F4/3F3.5	3C10 3H3	3E1 3E28	3E4 3C11	3E25	3E27 3E26	3E5 3E55	3E6	3E7	
MAGNETICS	P	R			G	F	J	J			W		H
SAMWHA	PL-5	PL-7	PL-9	PL-F1			SM-50		SM-70S	SM-100		SM-150	
AVX/TPC	B1	B2/F1	F2	F4			A4	A5	A3	A2			
THOMSON	B30	B51			T13		T6	T4					
EPCOS(SIEMENS)	N41 N27 N26	N67 N87	N97 N53	N49	N48	N41 N61	N30	T35	T37 T44	T38	T42	T46	

## CHARACTERISTICS CURVE P3





The catalogs can be downloaded at:  
[www.atd-elektronik.cz/katalogy.html](http://www.atd-elektronik.cz/katalogy.html)

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