# Section 6

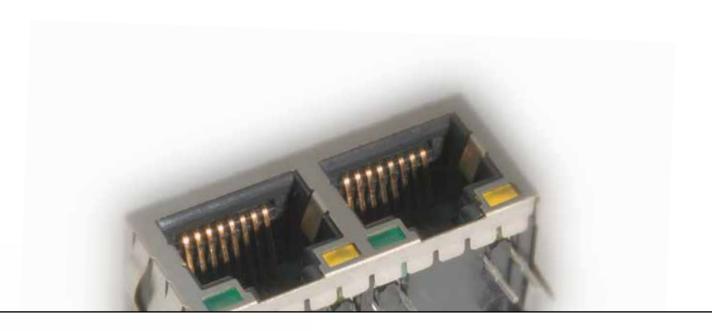
# RJ45 Modular Jack with Magnetic Filter.

The CONEC RJ45 Magnetic Filtered Modular Jack has been especially developed for 10Base-T and 100Base-Tx LAN Ethernet applications. The requirements for signal transfer over Ethernet are specified in the IEEE 802.3u standard. This series offers ideal protection against electromagnetic interference and common mode interference in Ethernet applications. Furthermore, the RJ45 MM jack offers space saving advantages because the passive components for IC adaptation are implemented.

The areas of application for this connector include networking cards, hubs, motherboards, bridges, routers, switches and point-to-point connections for telecommunications and industry.

This series is available in single and multiple ports (2, 4, 6, 8) designs with straight solder pins for through hole mounting SMT versions are also available.



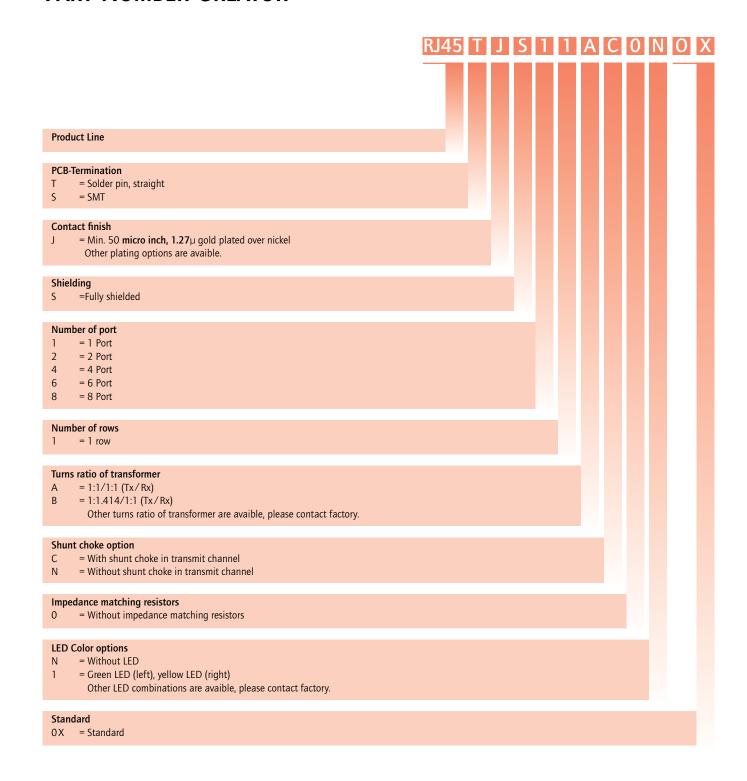


### Special features:

- Conformant with IEEE 802.3 and the ANSI X3.263 standard
- Including the required measurements for min.350  $\mu H$  OCL with 8 mA DC biasing current and 1500  $V_{ms}$  isolation voltage
- Offers outstanding EMC characteristics and suppresses common mode interference
- Perfect, reliable filter performance
- Helps the system achieve requirements for low emissions
- Telcordia test report available (on request)

The CONEC RJ45 Magnetic Modular Jack series is UL/cUL (E 202784) tested.

## PART NUMBER CREATOR



# TECHNICAL DATA

Specifications			
Housing, solder pin, straight	Polyester glass fille	ed, black, UL94 V-O	
Housing, SMT-Termination	Nylon 46 glass fill	ed, black, UL94 V-O	
Shielding	.008"/0.20 mm th	nick copper alloy	
Contact material	.014"/0.35 mm th	ick copper alloy	
Mating area plating	50μ"/1.27 μm go	ld min. over 30µ"/0.76 µm min. nickel	
Solder tails plating	Tin plated		
OCL (Open Circuit Inductance)	Min. 350 μH at 8r	nA DC bias	
Leakage inductance	Max. 0.35 μH		
Inter-winding capacitance	Max. 25 pF		
DC-Resistance	Max. 1.0 Ω		
Turns ratio	1:1/1:1 ± 3% or T	$x/Rx = 1:1.414/1:1 \pm 3\%$	
Rise time and fall time	3.0 ns (typical)		
Mating force	Max. 22 N		
Retention force	Min. 89 N		
Mating cycles	Min. 1 000		
Contact resistance	Max. 20 mΩ		
Insulation resistance	Min. 1000 mΩ		
Dielectric with standing voltage	1 500V ms (Signal to Shield)		
Current rating	Max. 0,05A		
Spezification at 25°C (Operating temperature -40°C to +85°C)	0.1.100 MUZ	10 dD	
Insertion loss	0.1-100 MHZ	1.0 dB max	
Return loss	0.1-30 MHZ 60 MHZ 80 MHZ	20.0 dB Type 15.0 dB Type 12.0 dB Type	
Next near and cross talk	0.1-30 MHZ 60 MHZ 100 MHZ	50.0 dB Type 45.0 dB Type 40.0 dB Type	
Differential to common mode rejection	60 MHZ	40.0 dB Type	
-	100 MHZ	35.0 dB Type	
Common mode rejection ration	60 MHZ	35.0 dB Type	
·	100 MHZ	30.0 dB Type	
Hi-Pot	1500 Vrms	60 sec.	
C. I. U.S.			
Standard-LED			
Color	Green	Yellow	
Wave length	565 nm	585 nm	
Forward voltage with I <sub>F</sub> =20 mA	2.6 V (max)	2.6 V (max)	
	2.1 V (Type)	2.0 V (Type)	
Reserve voltage with I <sub>R</sub> =10 µA	5.0 V (Type)	5.0 V (Type)	
Luminous intensity with I <sub>F</sub> =20 mA	15 mcd (min)	20 mcd (min)	
	2F 1/T \	20 mad (Tima)	

Solder parameter	Preheating		Solder terminal dipping parameters	
Soluei parametei	max. Temperature	Duration	max. Solder bath temperature	max. Terminal Immersion Time
Recommended wave-solder parameters	150°C	180s	265°C	8s

30 mcd (Type)

25 mcd (Type)

Technical specifications are subject to change without notice.

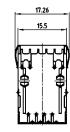
## 1 Port – Solder pin straight – Shielded

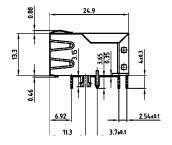


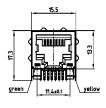
#### **DESCRIPTION**

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1/1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING







RJ45 Magnetic modular Jack - 1 Port				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS11ACONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS11AC010X
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS11ANONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS11AN010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS11BCONOX
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS11BC010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS11BNONOX
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS11BN010X

## 1 Port – SMT-Termination – Shielded

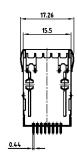


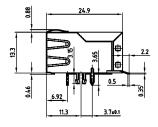
RoHS compliant - UL / cUL listed, File No.: E202784

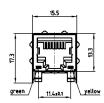
#### **DESCRIPTION**

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1/1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING







RJ45 Magnetic modular Jack – 1 Port					
Design	Turns ratio	Shunt choke	LED	Part Number	
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS11ACONOX	
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS11AC010X	
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS11ANONOX	
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS11AN010X	
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS11BCONOX	
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS11BC010X	
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS11BNONOX	
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS11BN010X	

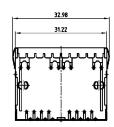
## 2 Port - Solder pin, straight - Shielded

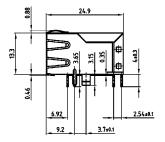


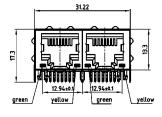
#### DESCRIPTION.

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1/1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING







RJ45 Magnetic modular Jack - 2 Port				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS21ACONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS21AC010X
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS21ANONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS21AN010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS21BC0N0X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS21BC010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS21BN0N0X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS21BN010X

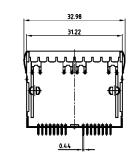
## 2 Port - SMT-Termination - Shielded

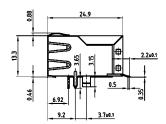


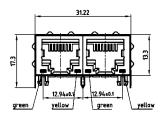
#### **DESCRIPTION**

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx / Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING







RJ45 Magnetic modular Jack – 2 Port					
Design	Turns ratio	Shunt choke	LED	Part Number	
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS21ACONOX	
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS21AC010X	
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS21ANONOX	
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS21AN010X	
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS21BCONOX	
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS21BC010X	
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS21BN0N0X	
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS21BN010X	

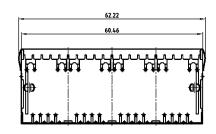
4 Port - Solder pin, straight - Shielded

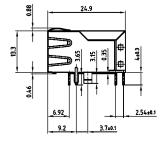


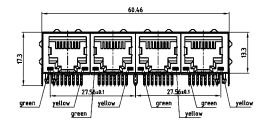
#### DESCRIPTION.

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1/1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING

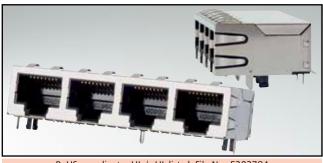






RJ45 Magnetic modular Jack – 4 Port				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS41ACONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS41AC010X
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS41ANONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS41AN010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS41BCONOX
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS41BC010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS41BN0N0X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS41BN010X

## 4 Port - SMT-Termination - Shielded

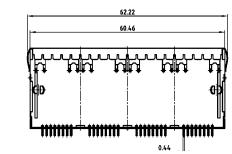


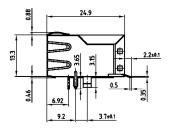
RoHS compliant – UL / cUL listed, File No.: E202784

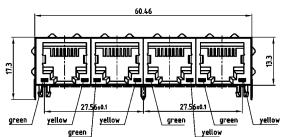
#### **DESCRIPTION**

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx / Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING.







RJ45 Magnetic modular Jack – 4 Port					
Design	Turns ratio	Shunt choke	LED	Part Number	
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS41ACONOX	
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS41AC010X	
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS41ANONOX	
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS41AN010X	
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS41BCONOX	
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS41BC010X	
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS41BNONOX	
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS41BN010X	

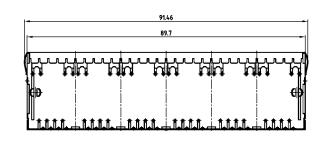
6 Port - Solder pin, straight - Shielded

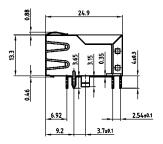


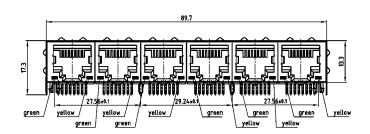
#### DESCRIPTION.

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx / Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING

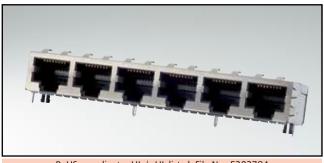






RJ45 Magnetic modular Jack – 6 Port				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS61ACONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS61AC010X
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS61ANONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS61AN010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS61BCONOX
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS61BC010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS61BN0N0X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS61BN010X

## 6 Port - SMT-Termination - Shielded

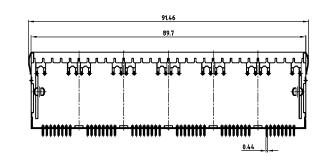


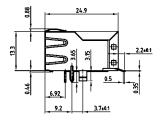
RoHS compliant - UL / cUL listed, File No.: E202784

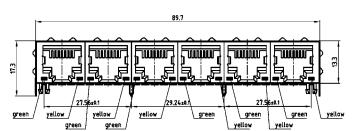
#### **DESCRIPTION**

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx / Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING







RJ45 Magnetic modular Jack – 6 Port				
Design	Turns ratio	Shunt choke	LED	Part Number
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS61ACONOX
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS61AC010X
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS61ANONOX
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS61AN010X
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS61BCONOX
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS61BC010X
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS61BNONOX
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS61BN010X

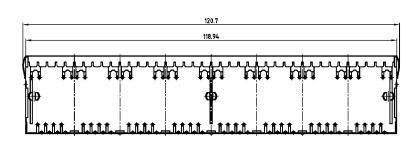
8 Port - Solder pin, straight - Shielded

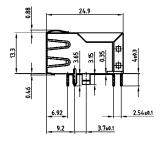


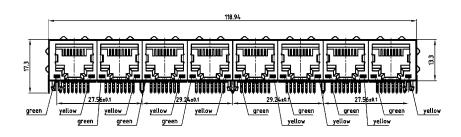
#### **DESCRIPTION**

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx / Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING.

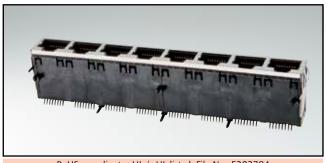






RJ45 Magnetic modular Jack – 8 Port				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS81ACONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS81AC010X
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS81ANONOX
Solder pin, straight	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS81AN010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS81 BCONOX
Solder pin, straight	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS81BC010X
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS81 BNONOX
Solder pin, straight	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS81BN010X

## 8 Port - SMT-Termination - Shielded

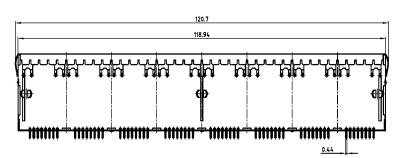


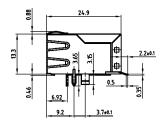
RoHS compliant - UL / cUL listed, File No.: E202784

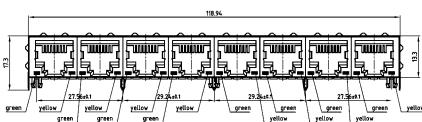
#### **DESCRIPTION**

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1/1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx / Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

PRODUCT DRAWING



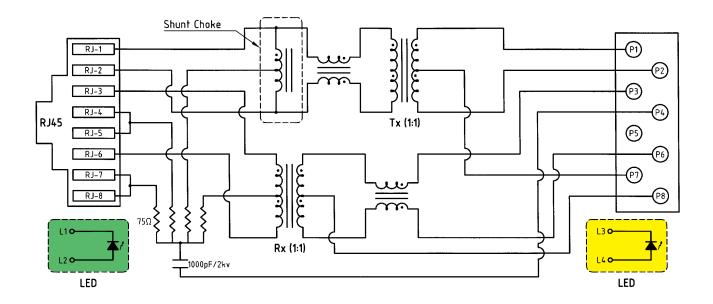




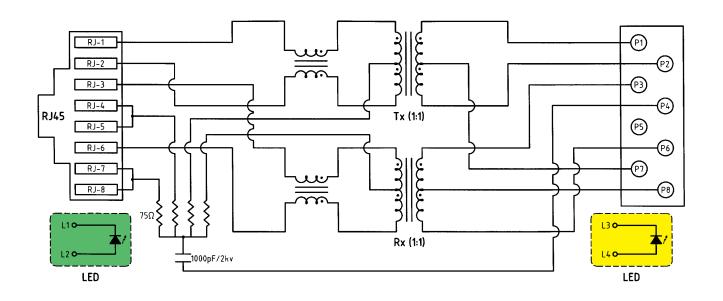
RJ45 Magnetic modular Jack – 8 Port				
Design	Turns ratio	Shunt choke	LED	Part Number
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS81ACONOX
SMT-Termination	1:1/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS81AC010X
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS81ANONOX
SMT-Termination	1:1/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS81AN010X
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS81 BCONOX
SMT-Termination	1:1414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS81BC010X
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Without LED	RJ45SJS81 BNONOX
SMT-Termination	1:1414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS81 BN010X

## **SCHEMATICS**

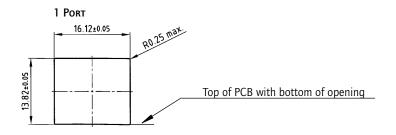
Schematic of magnetic Circuit with Tx/Rx = 1:1/1:1 or Tx/Rx = 1:1.414/1:1 - Turns Ratio, additional shount Chok,  $4x0,75\Omega$  Terminal Resistors - 1000pF/2kv Capacitor and LEDs (Optional)

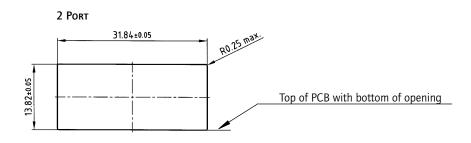


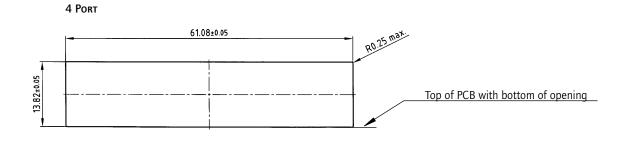
Schematic of magnetic Circuit with Tx/Rx = 1:1/1:1 or Tx/Rx = 1:1.414/1:1 - Turns Ratio, additional  $4x0,75\Omega$  Terminal Resistors - 1000pF/2kv Capacitor and LEDs (Optional).

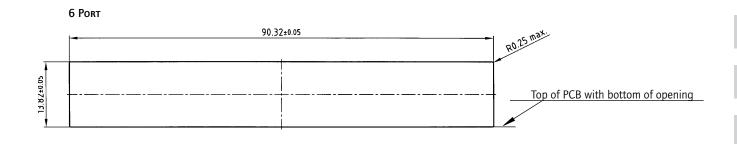


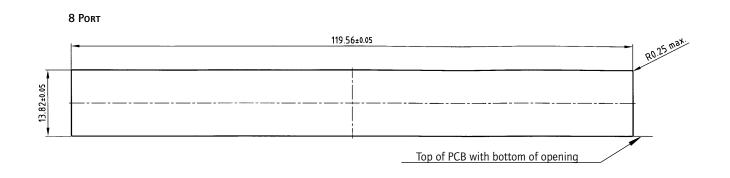
# RECOMMENDED PANEL CUT-OUT





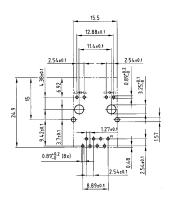




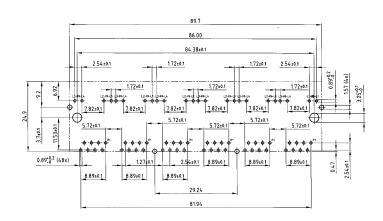


# PCB LAYOUT FOR SOLDER PIN STRAIGHT

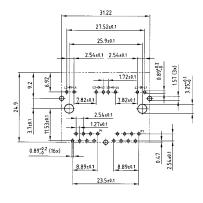
#### 1 Port



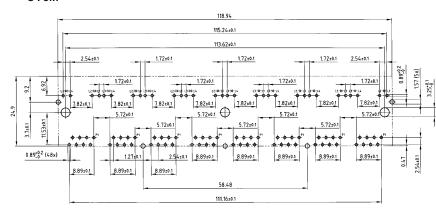
#### 6 Port



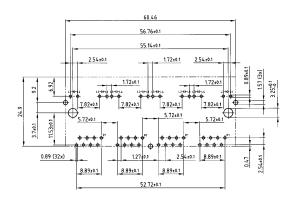
#### 2 Port



#### 8 Port

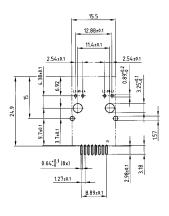


#### 4 Port

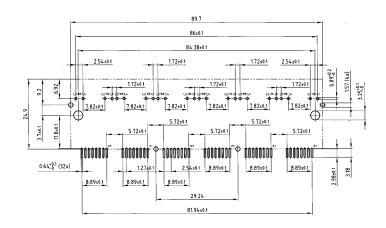


## **PCB LAYOUT FOR SMT-TERMINATION**

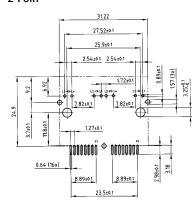
#### 1 Port



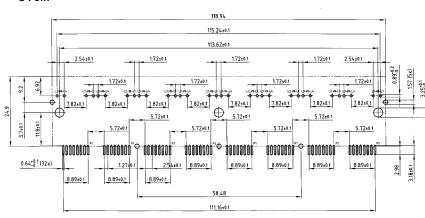
#### 6 Port



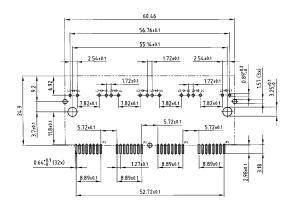
#### 2 Port



#### 8 Port



#### 4 Port



# Section 11

# RJ45-IP67 Industrial Ethernet Connector System

The RJ45 connector is the most used interface in data communications. CONEC has, based on this connector interface, designed a rugged versatile connector system for Cat. 5e and Cat. 6A, that ensures reliable protection and the convenience of easily mating under the most difficult and harsh environments.

The housing with bayonet couplingmechanism is in compliance with IEC 61076-3-106 and provide increased protection for the connector system against contamination and moisture (IP67 rating). Furthermore, there are also increased demands for mechanical stability, temperature resistance, vibration immunity and protection against EMI and UV radiation. This program is supplemented by preassembled patch cables with IP67 rating in various lengths and designs.

The zinc die-cast version provides an excellent protection against harsh environment.





## **Example applications:**

- CNC machines
- Communications equipment
- Mass transportation
- Industrial process control
- Diagnostic and instrument
- Printers, displays
- Factory automation
- Outdoor telecommunications systems



# TECHNICAL DATA

Mechanical and electrical characteristics	
Interface connector	RJ45 Cat. 5e per EIA/TIA-568-B2 / RJ45 Cat. 6A per EIA/TIA-568-B2 (channel)
Lock mechanism	Bayonet socket connector per IEC 61076-3-106
IP Degree of protection	IP67
Temperature range	-40°C to +85°C
Strength of current	1.2 A max. to 25°C
Voltage	100 VDC
Contact resistance	20 mΩ max.
Insulation resistance	500 MΩ
Electric strength contact to contact	1000 VDC/60 sec.
Electric strength contact to metal Housing	1500 VDC/60 sec.
Materials	
Housing	PBT (black) or ABS Metallized (nickel plated), flame protection per UL 94-V0, zinc die-cast (nickel plated)
Fastening nut	Brass nickel plated
Housing sealing	Silicone
RJ45 Socket metal housing	Copper alloy, nickel plated
RJ45 Socket and plug connector plastic housing	PBT (black), flame protection per UL 94-V0
RJ45 Socket and plug contacts	Phosphor bronze, gold plated
Connector housing	PBT (black) or ABS Metallized (nickel plated), flame protection peer UL 94-VO, zinc die-cast (nickel plated)
Socket coupling ring	PBT (black) or ABS Metallized (nickel plated), flame protection per UL 94-V0, zinc die-cast (nickel plated)
Cable termination	PBT (black) flame protection per UL 94-V0, or brass nickel plated
Cable seal	NBR
Interface seal	Silicone
RJ45 plug connector metal housing	Copper alloy, nickel plated
Protection cap	PBT (black) or ABS Metallized (nickel plated), flame protection per UL 94-VO, zinc die-cast (nickel plated)
Seal	Silicone
Protection cap	PE PE
полесион сар	

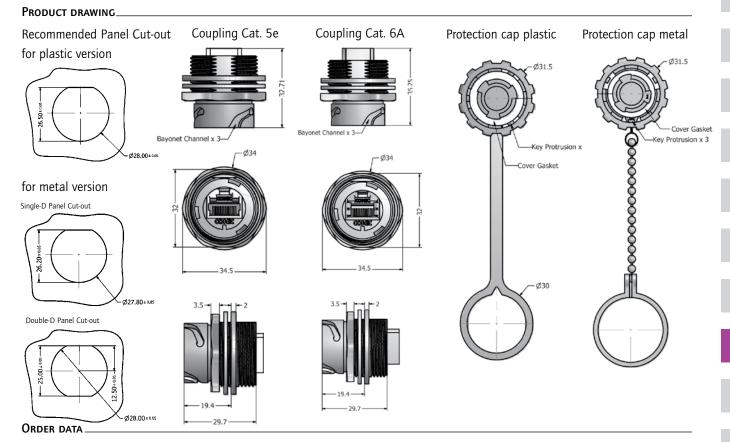
 $\label{thm:continuous} \mbox{Technical specifications are subject to change without notice.}$ 

Inline coupling Cat. 5e and Cat. 6A - Bayonet locking - Plastic or Zinc die-cast



#### DESCRIPTION.

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Designs:
  - Black plastic or metallized,
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e Inline coupling unshielded or shielded
   RJ45 Cat. 6A Inline coupling shielded
- Plastic housing: blue, green, yellow, red and white on request
- Available as a set with protection cap



Туре	Material	Surface	RJ45 Cat.5e design	Protection cap	Part Number
Receptacle Cat. 5e	Plastic	black	Inline coupling shielded		17-10009
Receptacle Cat. 5e	Plastic	black	Inline coupling unshielded		17-10019
Receptacle Cat. 5e	Plastic	metallized	Inline coupling shielded		17-10012
Receptacle Cat. 5e	Plastic	black	Inline coupling shielded	with protection cap	17-10000
Receptacle Cat. 5e	Plastic	black	Inline coupling unshielded	with protection cap	17-10020
Receptacle Cat. 5e	Plastic	metallized	Inline coupling shielded	with protection cap	17-10011
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling shielded		17-101754
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling unshielded		17-101764
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-101814
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling unshielded	with protection cap	17-101824
Receptacle Cat. 6A	Plastic	black	Inline coupling shielded		17-150004
Receptacle Cat. 6A	Plastic	black	Inline coupling shielded	with protection cap	17-150014
Receptacle Cat. 6A	Plastic	metallized	Inline coupling shielded		17-150124
Receptacle Cat. 6A	Plastic	metallized	Inline coupling shielded	with protection cap	17-150134
Receptacle Cat. 6A	Zinc die-cast	nickel plated	Inline coupling shielded		17-150174
Receptacle Cat. 6A	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-150184

Inline coupling Cat. 5e and 6A - Square flange - Bayonet locking - Zinc die-cast



#### DESCRIPTION.

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e Inline coupling unshielded or shielded RJ45 Cat. 6A Inline coupling shielded
- Available as a set with protection cap
- Accessories:

Gasket and mounting hardware can be ordered separately

Mounting hardware includes 4x (screw M3 + nut + flat washer + spring washer)

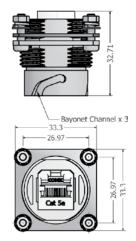
#### PRODUCT DRAWING.

### Recommended Panel Cut-out

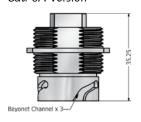
Double-D Panel Cut-out

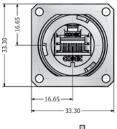
Ø3.25 :0.10 (x4)

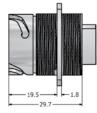




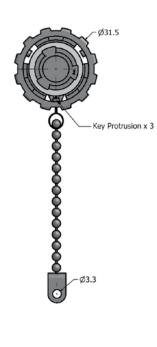
Cat. 6A Version







Protection cap metal



#### ORDER DATA

Round Panel Cut-out

Туре	Material	Surface	RJ45 design	Protection cap	Part Number
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling unshielded		17-110224
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling unshielded	with protection cap	17-110244
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling shielded		17-110214
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-110234
Receptacle Cat 6A without accessories	Zinc die-cast	nickel plated	Inline coupling shielded		17-150214
Receptacle Cat 6A with accessories	Zinc die-cast	nickel plated	Inline coupling shielded		17-160004
Receptacle Cat 6A with accessories	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-160014
Panel gasket	Silicone				17-103540
Mounting hardware	Stainless steel				17-103530

Inline coupling Cat. 5e - both sides Bayonet locking - Plastic



#### DESCRIPTION.

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- RJ45 Cat. 5e Inline coupling unshielded or shielded
- IP67 Protection in mated condition
- Available as a set with protection cap

# PRODUCT DRAWING. Recommended Panel Cut-out Protection cap plastic Shielded or Unshielded Cat. 5e RJ45 Inline Couple

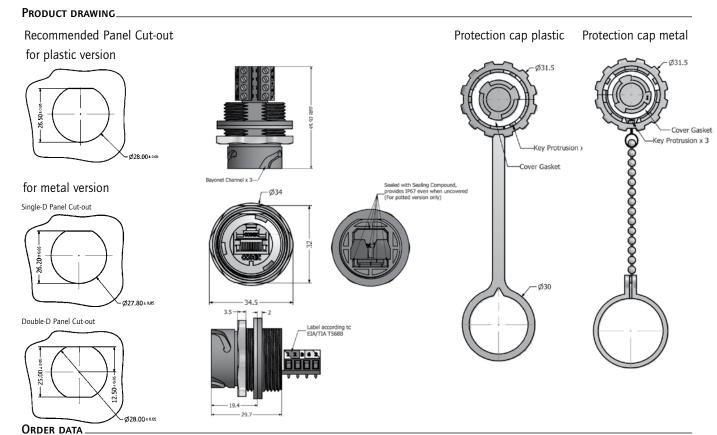
Туре	Material	Surface	RJ45 Cat.5e design	Protection cap	Part Number
Receptacle	Plastic	black	Inline coupling shielded		17-110004
Receptacle	Plastic	black	Inline coupling unshielded		17-110014
Receptacle	Plastic	black	Inline coupling shielded	with protection cap	17-110024
Receptacle	Plastic	black	Inline coupling unshielded	with protection cap	17-110034

Screw connection Cat. 5e - Bayonet locking - Plastic or zinc die-cast



#### **DESCRIPTION**

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized plastic
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e with 4x2 screw terminations shielded
- Cable cross-section AWG 16-28
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request



Туре	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number
Receptacle	Plastic	black	Terminal block shielded			17-110054
Receptacle	Plastic	black	Terminal block shielded	Sealing compound		17-110114
Receptacle	Plastic	black	Terminal block shielded		with protection cap	17-110594
Receptacle	Plastic	black	Terminal block shielded	Sealing compound	with protection cap	17-110654
Receptacle	Plastic	metallized	Terminal block shielded			17-110174
Receptacle	Plastic	metallized	Terminal block shielded	Sealing compound		17-110184
Receptacle	Plastic	metallized	Terminal block shielded		with protection cap	17-110714
Receptacle	Plastic	metallized	Terminal block shielded	Sealing compound	with protection cap	17-110724
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded			17-110194
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound		17-110204
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded		with protection cap	17-110734
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound	with protection cap	17-110744

Screw connection Cat. 5e - Square flange - Bayonet locking - Zinc die-cast



#### DESCRIPTION.

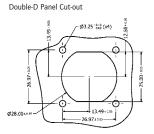
- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e with 4x2 screw terminations shielded
- Cable cross-section AWG 16-28
- Available as a set with protection cap
- Accessories:

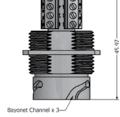
Gasket and mounting hardware can be ordered separately

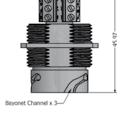
Mounting hardware includes 4x (screw M3 + nut + flat washer + spring washer)

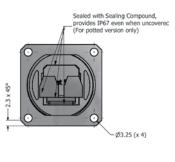
## Recommended Panel Cut-out

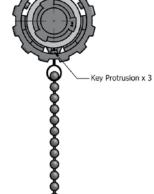
PRODUCT DRAWING



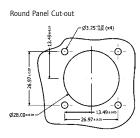


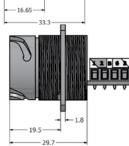






Protection cap metal





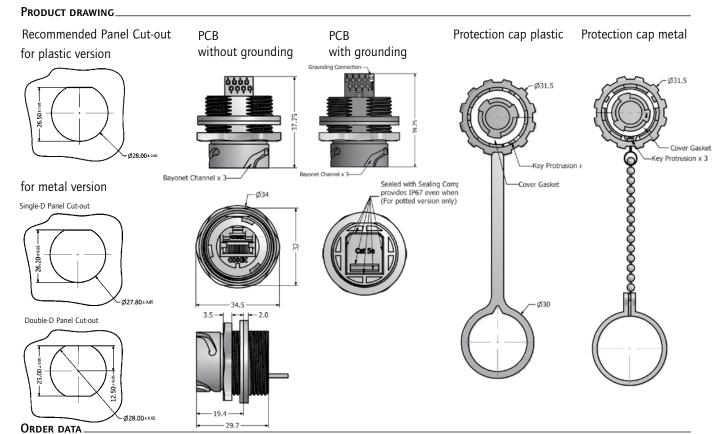
Туре	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number
Receptacle Cat 5e without accessories	Zinc die-cast	nickel plated	Terminal block shielded			17-111074
Receptacle Cat 5e without accessories	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound		17-111084
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded			17-111134
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound		17-111144
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded		with protection cap	17-111194
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound	with protection cap	17-111204
Panel gasket	Silicone					17-103540
Mounting hardware	Stainless steel					17-103530

Solder termination (PCB) Cat. 5e - Bayonet locking - Plastic or zinc die-cast



#### DESCRIPTION.

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized plastic
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e solder termination shielded with or without grounding
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request



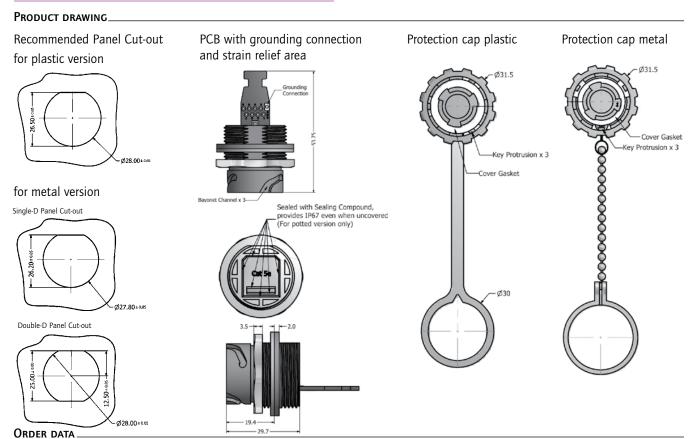
Туре	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number PCB with grounding	Part Number PCB without grounding
Receptacle	Plastic	black	Solder termination shielded			17-110264	17-10017
Receptacle	Plastic	black	Solder termination shielded	Sealing compound		17-110324	17-10035
Receptacle	Plastic	black	Solder termination shielded		with protection cap	17-110754	17-10023
Receptacle	Plastic	black	Solder termination shielded	Sealing compound	with protection cap	17-110814	17-10039
Receptacle	Plastic	metallized	Solder termination shielded			17-110384	17-10018
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound		17-110394	17-10036
Receptacle	Plastic	metallized	Solder termination shielded		with protection cap	17-110874	17-10024
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound	with protection cap	17-110884	17-10040
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded			17-110404	17-101784
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound		17-110414	17-102184
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded		with protection cap	17-110894	17-101844
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound	with protection cap	17-110904	17-102204

Solder termination (PCB) Cat. 5e - Bayonet locking - Plastic or zinc die-cast



#### **DESCRIPTION**

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized
  - zinc die-cast nickel plated
- RJ45 Cat. 5e solder termination with grounding connection shielded
- Strain relief version includes a cable tie
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request



Туре	Material	Surface	RJ45 Cat. 5e design	Sealing	Protection cap	Part Number
Receptacle	Plastic	black	Solder termination shielded			17-110424
Receptacle	Plastic	black	Solder termination shielded	Sealing compound		17-110484
Receptacle	Plastic	black	Solder termination shielded		with protection cap	17-110914
Receptacle	Plastic	black	Solder termination shielded	Sealing compound	with protection cap	17-110974
Receptacle	Plastic	metallized	Solder termination shielded			17-110544
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound		17-110554
Receptacle	Plastic	metallized	Solder termination shielded		with protection cap	17-111034
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound	with protection cap	17-111044
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded			17-110564
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound		17-110574
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded		with protection cap	17-111054
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound	with protection cap	17-111064

Solder termination (PCB) Cat. 5e - Square flange - Bayonet locking - Zinc die-cast



#### DESCRIPTION.

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e solder termination with grounding connection shielded
- Strain relief version includes a cable tie
- Available as a set with protection cap
- Accessories:

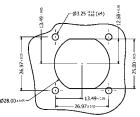
Gasket and mounting hardware can be ordered separately

Mounting hardware includes 4x (screw M3 + nut + flat washer + spring washer)

#### PRODUCT DRAWING

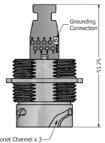
#### Recommended Panel Cut-out

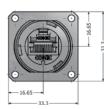
Double-D Panel Cut-out

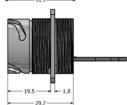


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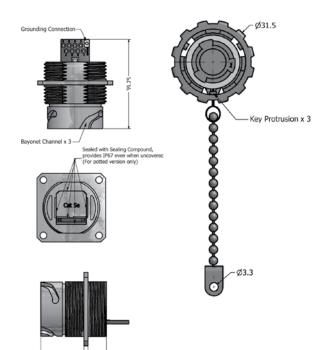
PCB with grounding connection and strain relief area







PCB with grounding connection Protection cap metal





ORDER DATA

Round Panel Cut-out

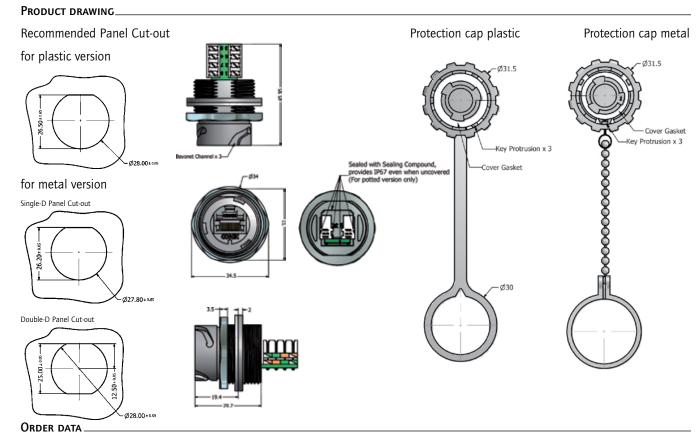
Туре	Material	Surface	RJ45 Cat.5e design	Sealing	Grounding connection	Protection cap	Part Number
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination		Grounding connection		17-111094
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding connection		17-111104
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding connection		17-111154
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding connection		17-111164
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding connection	with protection cap	17-111214
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding connection	with protection cap	17-111224
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination		Grounding/Strain relief		17-111114
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding/Strain relief		17-111124
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding/Strain relief		17-111174
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding/Strain relief		17-111184
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding/Strain relief	with protection cap	17-111234
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding/Strain relief	with protection cap	17-111244
Panel gasket	Silicone						17-103540
Mounting hardware	Stainless steel						17-103530

IDC Cat. 5e - Bayonet locking - Plastic or zinc die-cast



#### DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e IDC shielded
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request



Туре	Material	Surface	RJ45 Cat.5e design, shielded	Sealing	Protection cap	Part Number
Receptacle	Plastic	black	Socket connector IDC termination			17-10015
Receptacle	Plastic	black	Socket connector IDC termination	Sealing compound		17-10033
Receptacle	Plastic	black	Socket connector IDC termination		with protection cap	17-10021
Receptacle	Plastic	black	Socket connector IDC termination	Sealing compound	with protection cap	17-10037
Receptacle	Plastic	metallized	Socket connector IDC termination			17-10016
Receptacle	Plastic	metallized	Socket connector IDC termination	Sealing compound		17-10034
Receptacle	Plastic	metallized	Socket connector IDC termination		with protection cap	17-10022
Receptacle	Plastic	metallized	Socket connector IDC termination	Sealing compound	with protection cap	17-10038
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination			17-101774
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination	Sealing compound		17-102174
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination		with protection cap	17-101834
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination	Sealing compound	with protection cap	17-102194

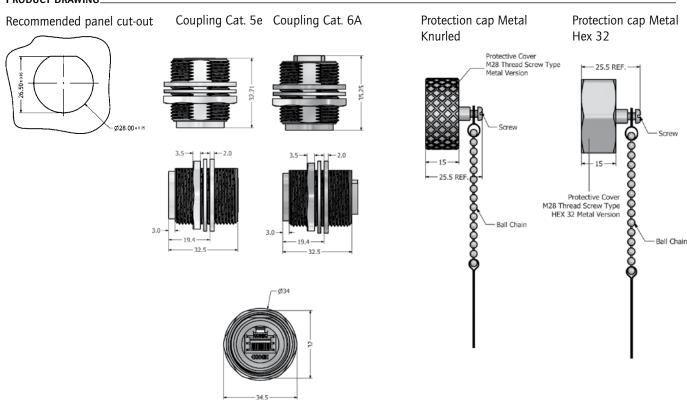
Inline coupling Cat. 5e and 6A - M28 thread - Metal



#### DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Metal design, M28 thread
- RJ45 Cat. 5e Inline coupling unshielded or shielded
   RJ45 Cat. 6A Inline coupling shielded
- Metal protection cap, M28 thread
- Available as a set with protection cap

#### PRODUCT DRAWING.



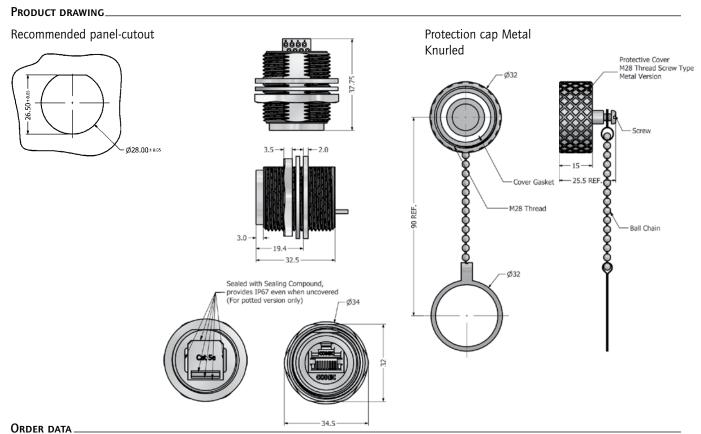
Туре	Material	Surface	Design	Protection cap	Part Number
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling shielded		17-100934
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling unshielded		17-101494
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling shielded	with knurled protection cap	17-101604
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling unshielded	with knurled protection cap	17-101614
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling shielded	with hex protection cap	17-101884
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling unshielded	with hex protection cap	17-101894
Receptacle Cat. 6A	Metal	nickel plated	Inline coupling shielded		17-150144
Receptacle Cat. 6A	Metal	nickel plated	Inline coupling shielded	with knurled protection cap	17-150154
Receptacle Cat. 6A	Metal	nickel plated	Inline coupling shielded	with hex protection cap	17-150164

Solder termination (PCB) Cat. 5e - M28 thread - Metal



#### DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Metal design, M28 thread
- RJ45 Cat. 5e Solder termination shielded
- Available as a set with protection cap



Туре	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number
Receptacle	Metal	nickel plated	Inline coupling shielded			17-101594
Receptacle	Metal	nickel plated	Inline coupling shielded	Sealing compound		17-101634
Receptacle	Metal	nickel plated	Inline coupling shielded		with knurled protection cap	17-101654
Installation housing	Metal	nickel plated	Inline coupling shielded	Sealing compound	with knurled protection cap	17-101674

# Standard version Cat. 5e and Cat. 6A - Bayonet locking - Plastic and Metal

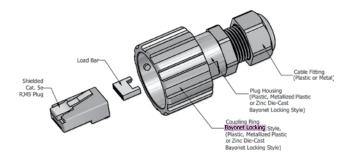


#### **DESCRIPTION**

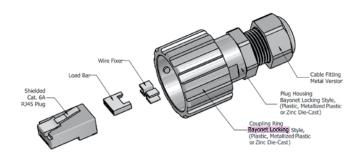
- RJ45 Cat. 5e and Cat. 6A plug connector shielded
- for use with solid or stranded, shielded or unshielded cable size AWG24
- Designs:
  - Black plastic
  - Metallized plastic
  - Zinc die-cast nickel plated

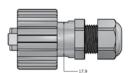
#### PRODUCT DRAWING.

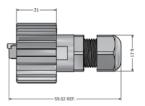
#### Standard version Cat. 5e



#### Standard version Cat. 6A









Туре	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 5e	Plastic	Plastic	Plastic	black	17-10001
Plug kit Cat. 5e	Plastic	Plastic	Metall	metallized/nickel plated	17-10013
Plug kit Cat. 5e	Zinc die-cast	Plastic	Metall	metallized/nickel plated	17-10044
Plug kit Cat. 5e	Zinc die-cast	Zinc die-cast	Metall	nickel plated	17-101794
Plug kit Cat. 6A	Plastic	Plastic	Metall	black/nickel plated	17-150234
Plug kit Cat. 6A	Plastic	Plastic	Metall	metallized/nickel plated	17-150244
Plug kit Cat. 6A	Zinc die-cast	Zinc die-cast	Metall	nickel plated	17-150284

## Screw version Cat. 5e - M28 thread - Metal

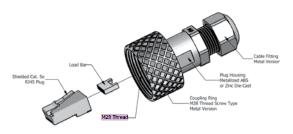


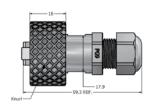
#### DESCRIPTION\_

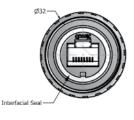
- RJ45 Cat. 5e plug connector shielded
- for use with solid or stranded cable size AWG24
- Designs:
  - Metallized plastic,
  - Metal

#### PRODUCT DRAWING\_

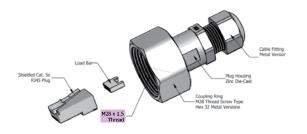
Version Cat. 5e Knurled

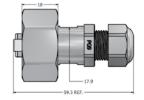


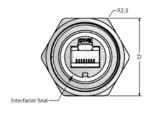




Version Cat. 5e Hex 32







ORDER DATA\_

Туре	Version	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 5e	Knurled	Metal	Plastic	Metal	metallized/nickel plated	17-100944
Plug kit Cat. 5e	Knurled	Metal	Zinc die-cast	Metal	nickel plated	17-103274
Plug kit Cat. 5e	Hex 32	Metal	Zinc die-cast	Metal	nickel plated	17-101864

## Strain Relief version IP20 Cat. 5e and Cat. 6A - M28 thread - Plastic and Metal

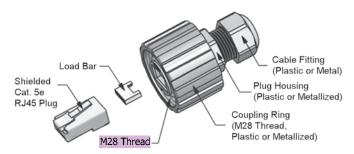


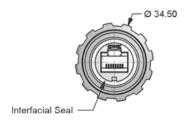
#### DESCRIPTION\_

- RJ45 Cat. 5e and Cat. 6A plug connector shielded
- for use with solid or stranded cable size AWG24
- M28 Screw for use inside the enclosure (IP20 protection) suitable for component housings with inline coupler
- Designs:
  - Black plastic
  - Metallized plastic, Cable fitting metal

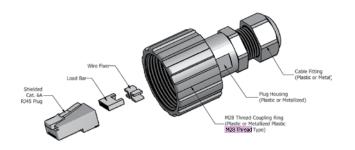
#### PRODUCT DRAWING.

Version Cat. 5e

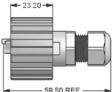




Version Cat. 6A







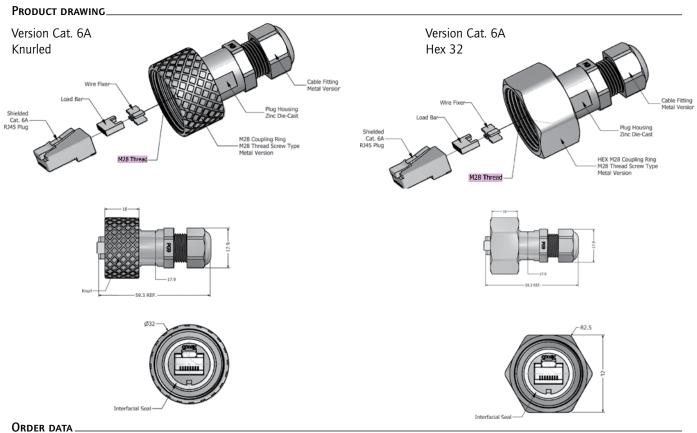
Туре	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 5e	Plastic	Plastic	Plastic	black	17-100464
Plug kit Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	17-100474
Plug kit Cat. 6A	Plastic	Plastic	Plastic	black	17-150254
Plug kit Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	17-150264

## Strain Relief version IP20 Cat. 6A - M28 thread - Metal



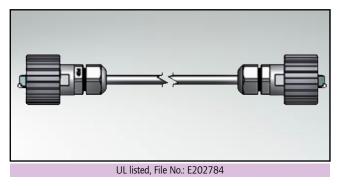
#### DESCRIPTION\_

- RJ45 Cat. 6A plug connector shielded
- For use with solid or stranded cable size AWG24
- M28 thread for installation in equipment (IP20-protection) suitable forw component housings with inline coupler
- Design:
  - Metal



Туре	Version	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 6A	Knurled	Metal	Zinc die-cast	Metal	nickel plated	17-150274
Plug kit Cat. 6A	Hex 32	Metal	Zinc die-cast	Metal	nickel plated	17-150754

IP67 to IP67 - Cat. 5e and Cat. 6A - Bayonet locking - Plastic and Metal

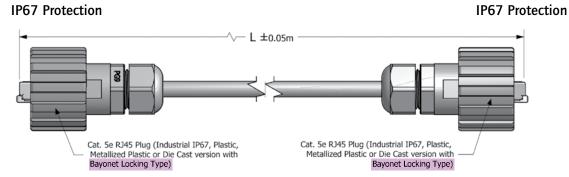


#### DESCRIPTION.

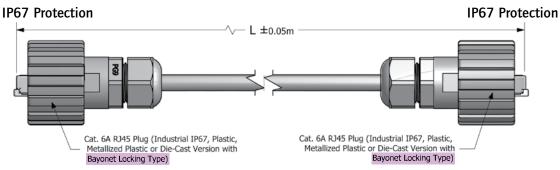
- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- IP67 protection on both cable ends
- Designs:
  - Black plastic
  - Metallized plastic
  - Zinc die-cast
- Cable: UTP unshielded (twisted pair)
   STP, S/STP shielded (twisted pair),
- Outdoor version with cable "Drain wire" and "Waterproof tape"
- Other lengths on request

PRODUCT DRAWING

#### Patch cord Cat. 5e

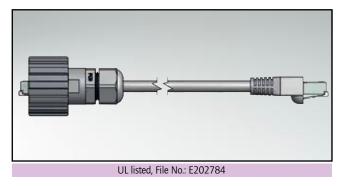


#### Patch cord Cat. 6A



Type Standard	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	2 m	17-10003	17-101144
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	4 m	17-10004	17-101154
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	5 m	17-10005	17-101164
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-10025	17-101174
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-10026	17-101184
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-10027	17-101194
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-100514	17-101204
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-100524	17-101214
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-100534	17-101224
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	2 m	17-102134	17-102074
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	4 m	17-102144	17-102084
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	5 m	17-102154	17-102094
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	2 m	17-102104	17-102044
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	4 m	17-102114	17-102054
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	5 m	17-102124	17-102064
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150304	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150314	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150324	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150334	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150344	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150354	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150364	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150374	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150384	

# IP67to IP20 - Cat. 5e and Cat. 6A - Bayonet locking - Plastic and Metal



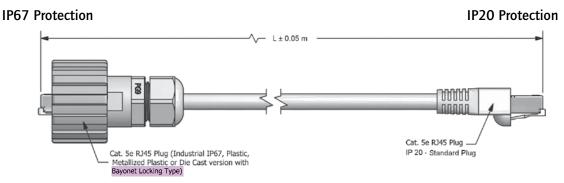
#### **DESCRIPTION**

- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- 1 x Industrial RJ45-IP67 1 x Standard RJ45-IP20
- Designs:
  - Black plastic
  - Metallized plastic
  - Zinc die-cast
- Cable: UTP unshielded (twisted pair)

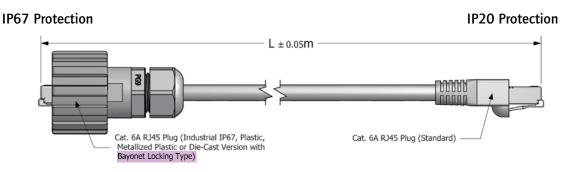
  STP, S/STP shielded (twisted pair),
- Outdoor version with cable "Drain wire" and "Waterproof tape"
- Other lengths on request

PRODUCT DRAWING.

#### Patch cord Cat. 5e

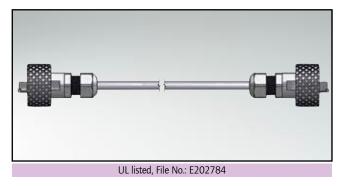


Patch cord Cat. 6A



Type Standard	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	2 m	17-10006	17-101234
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	4 m	17-10007	17-101244
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	5 m	17-10008	17-101254
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-10028	17-101264
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-10029	17-101274
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-10030	17-101284
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-101264	17-101294
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-101274	17-101304
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-101284	17-101314
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	2 m	17-102014	17-101984
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	4 m	17-102024	17-101964
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	5 m	17-102034	17-101974
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	2 m	17-101984	17-101924
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	4 m	17-101994	17-101934
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	5 m	17-102004	17-101944
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150424	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150434	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150444	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150454	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150464	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150474	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150484	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150494	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150504	

IP67 to IP67 - Cat. 5e and Cat. 6A - M28 thread - Metal

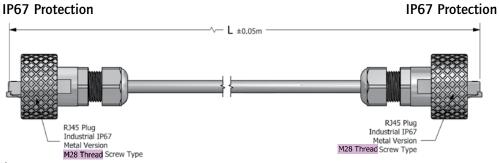


#### Description\_

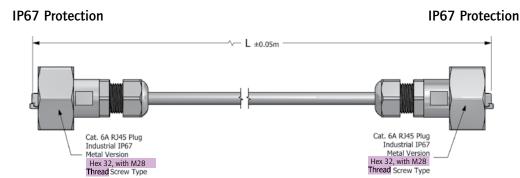
- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- 2 x Metall Industrial RJ45-IP67
- Designs:
  - Metallized plastic
  - Metal
- Cable: UTP unshielded (twisted pair)
   STP, S/STP shielded (twisted pair),
- Outdoor version with "Drain wire" and "Waterproof tape"
- Other lengths on request

PRODUCT DRAWING.

Patch cord Cat. 5e/Cat 6a Knurled

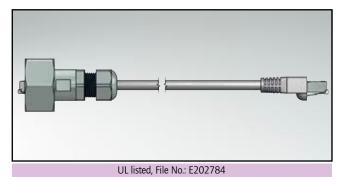


Patch cord Cat. 6A Hex 32



Type Knurled	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	2 m	17-100994	17-101084
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	4 m	17-101004	17-101094
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	5 m	17-101014	17-101104
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m		17-101114
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m		17-101124
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m		17-101134
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP. shielded	2 m	17-150724	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150734	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150744	
Hex 32		DI .:	**	. 12 1 4 1 1 1 4 1				
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150794	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150804	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150814	

IP67 to IP20 - Cat. 5e and Cat. 6A - Bayonet locking - Plastic and Metal



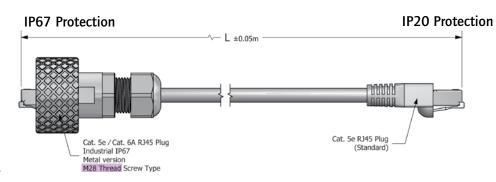
#### DESCRIPTION.

- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- 1 x Industrial RJ45-IP67 1 x Standard RJ45-IP20
- Designs:
  - Metallized plastic
  - Metal
- Cable: UTP unshielded (twisted pair)

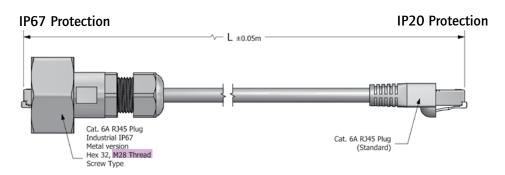
  STP, S/STP shielded (twisted pair),
- Outdoor version with cable "Drain wire" and "Waterproof tape"
- Other lengths on request

PRODUCT DRAWING.

# Patch cord Cat. 5e and Cat. 6A Knurled



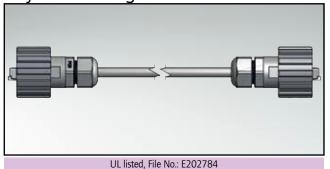
Patch cord Cat. 6A Hex 32



Typ Knurled	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	2 m		17-101024
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	4 m		17-101034
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	5 m		17-101044
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-100964	17-101054
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-100974	17-101064
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-100984	17-101074
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150764	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150774	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150784	
Hex 32								
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP. shielded	2 m	17-150824	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150834	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150844	

Strain relief version IP20 to IP20 or IP20 to IP67 - Cat. 6A -

Bayonet locking/M28 thread - Plastic

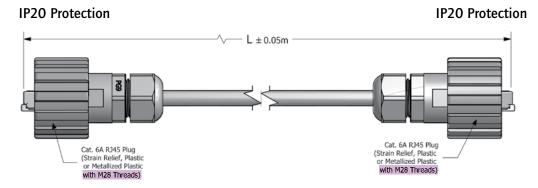


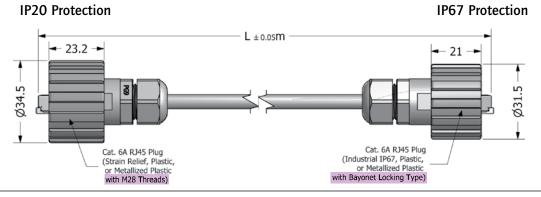
#### DESCRIPTION\_

- RJ45 Cat. 6A assembled patch cord
- 2 x Industrial RJ45
   1 x Industrial RJ45-IP67 1 x Standard RJ45-IP20
- Strain relief version:
  - Black plastic and metallized
- IP20 Protection on both cable ends IP20 Protection to IP67 Protection
- Cable: S/STP shielded (twisted pair)
- Other lengths on request

PRODUCT DRAWING.

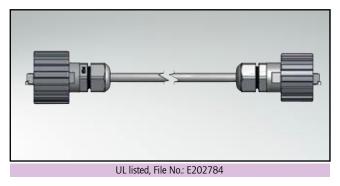
#### PatchCord Cat. 6A





Type Standard	Degree of protection	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150604
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150614
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150624
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	metallized	S/STP, shielded	2 m	17-150634
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	metallized	S/STP, shielded	4 m	17-150644
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	metallized	S/STP, shielded	5 m	17-150654
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150544
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150554
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150564
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP, shielded	2 m	17-150574
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP, shielded	4 m	17-150584
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP, shielded	5 m	17-150594

Strain relief version IP20 to IP67 - M28 thread / Bayonett locking - Cat. 5e

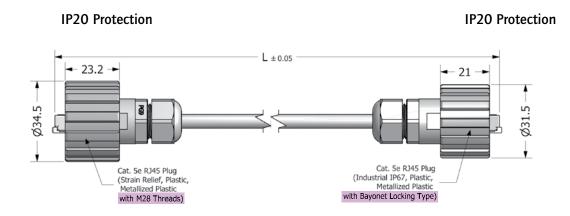


#### Description\_

- RJ45 Cat. 5e assembled patch cord
  1 x Industrial RJ45-IP67 1 x Standard RJ45-IP20
- Strain relief version:Design: Black plastic and metallized
- Cable: UTP unshielded (twisted pair)
   STP shielded (twisted pair),
- Outdoor version with "Drain wire" and "Waterproof tape"
- Other lengths on request

PRODUCT DRAWING.

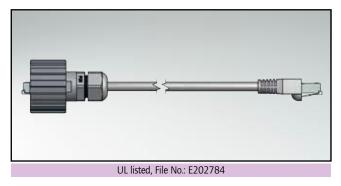
PatchCord Cat. 5e



Type Standard	Degree of protection	Material	Cable	Length (L)	Part Number
Patch cord	IP20/ IP67	Black plastic	UTP/Unshielded	2 m	17-101374
Patch cord	IP20/ IP67	Black plastic	UTP/Unshielded	4 m	17-101384
Patch cord	IP20/ IP67	Black plastic	UTP / Unshielded	5 m	17-101394
Patch cord	IP20/ IP67	Metallized plastic	STP/Shielded	2 m	17-101434
Patch cord	IP20/ IP67	Metallized plastic	STP/Shielded	4 m	17-101444
Patch cord	IP20/ IP67	Metallized plastic	STP/Shielded	5 m	17-101454

Type Outdoor	Degree of protection	Material	Cable	Length (L)	Part Number
Patch cord	IP20/ IP67	Black plastic	UTP/Unshielded	2 m	17-101404
Patch cord	IP20/ IP67	Black plastic	UTP/Unshielded	4 m	17-101414
Patch cord	IP20/ IP67	Black plastic	UTP/Unshielded	5 m	17-101424
Patch cord	IP20/ IP67	Metallized plastic	STP/Shielded	2 m	17-101464
Patch cord	IP20/ IP67	Metallized plastic	STP/Shielded	4 m	17-101474
Patch cord	IP20/ IP67	Metallized plastic	STP/Shielded	5 m	17-101484

Strain relief version IP20 to IP20 - Cat. 5e to Cat. 6A - M28 thread - Plastic

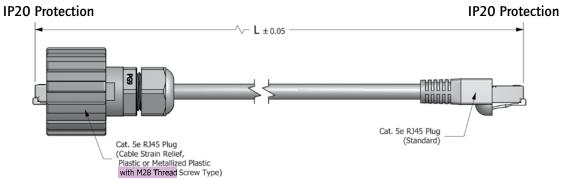


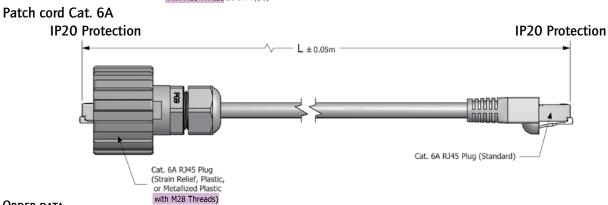
#### **DESCRIPTION**

- RJ45 Cat. 5e to Cat. 6A assembled patch cord
- IP20 Protection on both cable ends
- Strain relief version:
  - Black plastic
  - Metallized plastic
- Cable: UTP unshielded (twisted pair) STP, S/STP shielded (twisted pair),
- Other lengths on request

PRODUCT DRAWING.

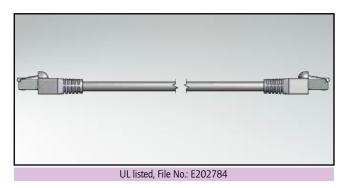
#### Patch cord Cat. 5e





Type Standard	Degree of protection	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	black	UTP/Unshielded	2 m	17-100574
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	black	UTP/Unshielded	4 m	17-100584
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	black	UTP/Unshielded	5 m	17-100594
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	metallized	STP/Shielded	2 m	17-100604
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	metallized	STP/Shielded	4 m	17-100614
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	metallized	STP/Shielded	5 m	17-100624
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP/Shielded	2 m	17-150664
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP/Shielded	4 m	17-150674
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP/Shielded	5 m	17-150684
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP/Shielded	2 m	17-150694
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP/Shielded	4 m	17-150704
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP/Shielded	5 m	17-150714

IP20 to IP20 - Cat. 5e or Cat. 6A



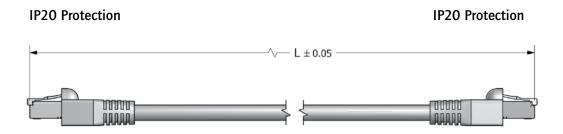
#### DESCRIPTION\_

- RJ45 Cat. 5e or Cat. 6A assembled patch cord
- IP20 Protection on both cable ends
- Kabel: UTP unshielded (twisted pair)

  STP, S/STP shielded (twisted pair),
- Other lengths on request

PRODUCT DRAWING\_

Patch cord Cat. 5e or 6A



Type Standard	Degree of protection	Cable	Lenght (L)	Part Number black	Part Number blue	Part Number red	Part Number green	Part Number yellow	Part Number white
Patch cord Cat. 5e	IP20/ IP20	STP/Shielded	2 m	17-101324					
Patch cord Cat. 5e	IP20/ IP20	STP/Shielded	4 m	17-101334					
Patch cord Cat. 5e	IP20/ IP20	STP/Shielded	5 m	17-101344					
Patch cord Cat. 5e	IP20/ IP20	UTP/Unshielded	2 m	17-100654	17-100684	17-100714	17-100744	17-100774	17-100804
Patch cord Cat. 5e	IP20/ IP20	UTP/Unshielded	4 m	17-100664	17-100694	17-100724	17-100754	17-100784	17-100814
Patch cord Cat. 5e	IP20/ IP20	UTP/Unshielded	5 m	17-100674	17-100704	17-100734	17-100764	17-100794	17-100824
Patch cord Cat. 6A	IP20/ IP20	S/STP/Shielded	2 m	17-150874					
Patch cord Cat. 6A	IP20/ IP20	S/STP/Shielded	4 m	17-150894					
Patch cord Cat. 6A	IP20/ IP20	S/STP/Shielded	5 m	17-150904					

# **RJ45** and USB Accessories

# Protection cap plastic – Protection cap metal



#### DESCRIPTION.

- IP67 Protection unused interfaces
- Protection cap:
  - Black plastic
  - Metallized plastic
  - Metal
- Termination: Bayonet locking or M28 thread
- With tether or ballchain

#### PRODUCT DRAWING.

Plastic / Zinc die-cast
Bayonet locking
Tether
Ball chain

Туре	Material Protection cap	Surface	Locking	Fixing	Part Number
Protection cap	Plastic	Black	Bayonet	Tether	17-10002
Protection cap	Plastic	Metallized	Bayonet	Tether	17-10014
Protection cap	Zinc die-cast	Nickel plated	Bayonet	Ball chain	17-101800
Protection cap	Plastic	Black	Bayonet	Ball chain	17-101710
Protection cap	Plastic	Metallized metallisiert	Bayonet	Ball chain	17-101720
Protection cap	Metal	Nickel plated	M28 thread/Hex 32	Ball chain	17-101870
Protection cap	Metal	Nickel plated	M28 thread/Knurled	Ball chain	17-100950

# **Accessories and Installation tools**

# For RJ45 products



#### Description\_

- RJ45 plug connector Cat. 5e or 6A shielded
- Grommets, Color: black, blue, green, yellow, red or white
- RJ45 plug connector crimp tool
- Insertion tool for RJ45 IDC version
- Cable tester

PRODUCT DRAWING.

RJ45 Cat.5e or 6A Plug connector, shielded







RJ45 plug connector crimp tool



Multi-Modular cable tester



Insertion toll for RJ45 IDC version



ORDER DATA\_

Accessories/Tools	Part Number black	Part Number blue	Part Number green	Part Number yellow	Part Number red	Part Number white	Part Number
Grommet	795-601302	795-601303	795-601304	795-601305	795-601306	795-601307	
RJ45 Cat. 5e Plug connector, shielded							391J00039X
RJ45 Cat. 6A Plug connector, shielded							391J00049X
Crimp tool for RJ45 plug connector							360X30029X
Insertion tool for RJ45 insulation displacement terminatin version (IDC)							360X30049X
Cable tester							360X30039X

# Section 12

# MINI USB AND USB 2.0-IP67 CONNECTOR SYSTEM

CONEC has added the Mini-USB connector. This Mini-USB IP67 receptacle and plug family, feature a bayonet coupling for use in harsh environments. The "quick – connect" bayonet locking mechanism provides an audible and noticeable feedback to ensure the user that an IP67 watertight connection is made. No further mounting tool is required to make this simple, fast and robust connection.

The product line includes a panel receptacle for PCB installation or termination to a flexible circuit. The overall dimensions are compact and require a 12 mm diameter panel cutout.

The pre – terminated patch cables with an overmolded IP67 Mini USB Type B plug and an overmolded USB Type A are available in 2, 3 and 5 m length. The housings for the USB 2.0 Type A connectors have a bayonet latching mechanism according to the IEC 61076-3-106 standard. The housing can be mounted on the front or rear side of enclosure panels with thickness up to 3,2 mm. USB 2.0 plug set with solder termination is available for cable side and there are also preassembled patch cords available in various IP protection grades and lengths.





The housings are available in plastic, metalized plastic and nickel plated zinc die-cast. This robust design with IP67 rating ensures reliable protection and easy connection under harsh environmental conditions. Protective covers are available to keep IP67 protection when not in use.

Custom solutions are available upon request, please contact the factory.

#### Typical applications:

- CNC machines
- Communications equipment
- Outdoor wireless
- Bluetooth adapters
- Industrial process control
- Diagnostic and test instruments
- Outdoor displays
- Factory automation
- Outdoor telecommunications systems
- Oil and gas industries
- Mass transportation
- Outdoor monotoring devices
- Outdoor metering
- Outdoor telecommunication systems



# TECHNICAL DATA

Mechanical and electrical characteristics	
Interface connector	USB Connector per USB 2.0 specification
Locking mechanism	Bayonet locking or screw termination M28 thread
IP Degree of protection	IP67
Temperature range	Connector: -40°C to + 85°C / Patch cable: -40°C to +80°C
Current rating	1.5 A max. at 25°C
Voltage	100 VDC
Contact resistance	$30\ m\Omega$ max.
Insulation resistance	1000 ΜΩ
Electric strength contact to contact	500 VAC / 60 sec.
Electric strength contact to metal shell	1000 VAC / 60 sec.
Materials	
Housing	PBT, flame protection per UL 94-V0 or Zinc die-cast nickel plated
Fastening nut	Brass nickel plated
Shell sealing	Silicone
USB Socket metal shell	Steel nickel plated
USB Socket and plug connector plastic shell	PBT, flame protection per UL 94-V0
USB Socket and plug contacts	Phosphor bronze, gold plated
Connector housing	PBT, flame protection per UL 94-V0
Metal socket coupling ring	PBT, flame protection per UL 94-V0 or Zinc die-cast nickel plated
Cable termination	PA, flame protection per UL 94-V0 or brass nickel plated
Cable seal	NBR
Interface seal	Silicone
USB plug connector metal shell	Copper alloy, nickel plated
Protection cap	PBT, flame protection per UL 94-V0 or brass/ zinc die-cast nickel plated
Seal	Silicone
Protection cap	PE or brass/zinc die-cast nickel plated

 $\label{thm:continuous} \mbox{Technical specifications are subject to change without notice.}$ 

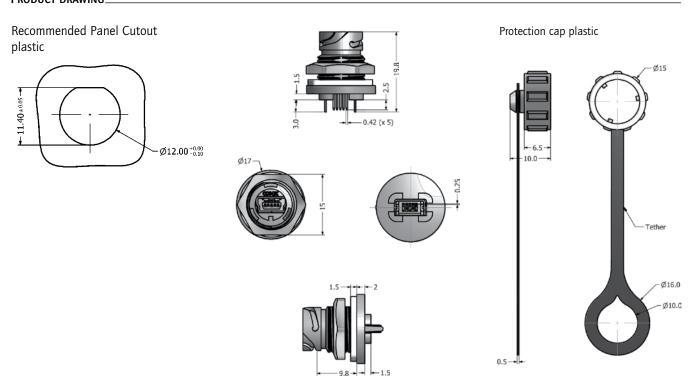
PC Tail termination, for rigid or flex circuit



#### DESCRIPTION

- For rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- Bayonet locking, IP67 rated in mated condition
- Available as set with protection cap

#### PRODUCT DRAWING.



Туре	Material	Termination	Protection cap	Part Number
Receptacle kit	Black plastic	Bayonet locking	Without protection cap	17-250001
Receptacle kit	Black plastic	Bayonet locking	With protection cap	17-250021
Protection cap	Black plastic	Bayonet locking		17-250010

# MINI USB 2.0 IP67 PATCH CORD

Mini USB 2.0 Type B - Standard USB 2.0 Type A connector

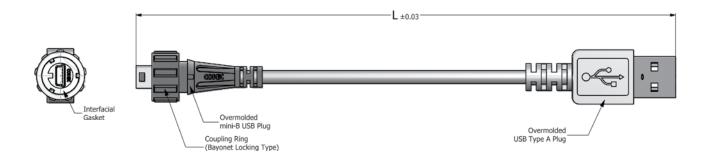


#### **DESCRIPTION**

- Design: Black plastic
- Bayonet locking, IP67 rated in mated condition

PRODUCT DRAWING

IP67-Protection IP20-Protection



Туре	Material	Termination	Length	Part Number
Patch cord	Black plastic	Bayonet locking	2 m	17-250031
Patch cord	Black plastic	Bayonet locking	3 m	17-250041
Patch cord	Black plastic	Bayonet locking	5 m	17-250051

Inline coupling - Bayonet locking - Plastic or zinc die-cast



#### DESCRIPTION

- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic or metallized, zinc die-cast nickel plated
- Termination inside USB 2.0 Type A
- Bayonet locking per IEC 61076-3-106
- IP67-Protection in mated condition
- Available as set with protection cap

# Recommended Panel Cutout for plastic Beyonet Channel x 3 Beyonet Chan

Туре	Material	Surface	Protection cap	Part Number
Installation housing set	Plastic	black	Without protection cap	17-200001
Installation housing set	Plastic	black	With protection cap	17-200161
Installation housing set	Plastic	metallized	Without protection cap	17-200011
Installation housing set	Plastic	metallized	With protection cap	17-200721
Installation housing set	Zinc die-cast	nickel plated	Without protection cap	17-200601
Installation housing set	Zinc die-cast	nickel plated	With protection cap	17-200611

Solder termination (PCB) - Bayonet locking - Plastic or zinc die-cast

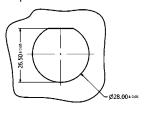


#### DESCRIPTION

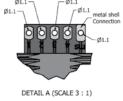
- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic or metallized, zinc die-cast nickel plated
- Solder termination inside (PCB)
- Bayonet locking per IEC 61076-3-106
- Low profile version for rear panel mounting up to wall thickness of 2.0 mm
- IP67 Protection in mated condition

#### PRODUCT DRAWING.

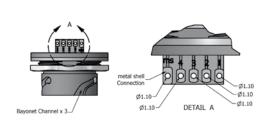
Recommended Panel Cutout for plastic version



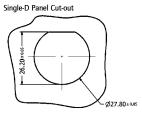
Standard version



Low profile version

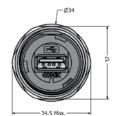


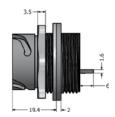
for metal version

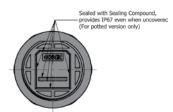


Double-D Panel Cut-out

Ø28.00±0.05









Туре	Material	Surface	Sealing	Part Number
Receptacle connector standard	Plastic	black		17-200881
Receptacle connector standard	Plastic	black	Sealing compound	17-210001
Receptacle connector standard	Plastic	metallized		17-200891
Receptacle connector standard	Plastic	metallized	Sealing compound	17-210011
Receptacle connector standard	Zinc die-cast	nickel plated		17-210151
Receptacle connector standard	Zinc die-cast	nickel plated	Sealing compound	17-210161
Receptacle connector Low profile	Plastic	black		17-210021
Receptacle connector Low profile	Plastic	black	Sealing compound	17-210041
Receptacle connector Low profile	Plastic	metallized		17-210031
Receptacle connector Low profile	Plastic	metallized	Sealing compound	17-210051

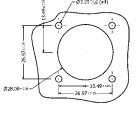
Inline coupling - Bayonet locking - Square flange - Zinc die-cast

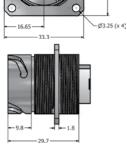


#### UL listed, File No.: E202784

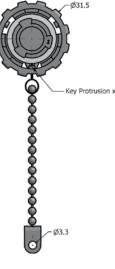
- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Zinc die-cast nickel plated
- Termination inside USB 2.0 Type A
- Bayonet locking per IEC 61076-3-106
- IP67-Protection in mated condition
- Available as set with protection cap
- Accessories:
- Gasket and mounting hardware can be ordered separately
- Mounting hardware includes 4x (screw M3 + nut + flat washer + spring washer)

# PRODUCT DRAWING. Recommended Panel Cutout without assembly with assembly Protection cap metal Double-D Panel Cut-out Round Panel Cut-out









Туре	Material	Surface	Protection cap	Part Number
Receptacle without assembly	Zinc die-cast	nickel plated	without Protection cap	17-200781
Panel gasket	Silicone			17-103540
Mounting hardware	Stainless steel			17-103530
Receptacle with assembly	Zinc die-cast	nickel plated	without Protection cap	17-210111
Receptacle with assembly	Zinc die-cast	nickel plated	with Protection cap	17-210121

Inline coupling – both sides Bayonet locking – Plastic



#### DESCRIPTION

- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- Bayonet locking per IEC 61076-3-106
- IP67 protection in mated condition
- Available as set with protection cap

# Recommended Panel Cutout Protection cap plastic Baycost Channel x 3 USB 2.0 Type A Female/Female Adaptor Ourreit s 3 Female/Female Adaptor

Туре	Material	Surface	Protection cap	Part Number
Receptacle	Plastic	black	without Protection cap	17-210131
Receptacle	Plastic	black	with Protection cap	17-210141

Inline coupling - M28 thread- Zinc die-cast

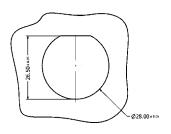


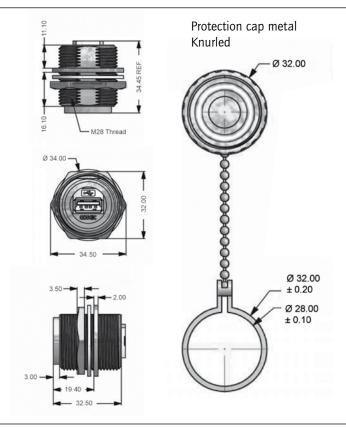
#### DESCRIPTION

- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Zinc die-cast nickel plated
- Termination inside USB 2.0 Type A
- IP67 protection over M28 thread
- Available as set with or without protection cap

#### PRODUCT DRAWING.

Recommended Panel Cutout





Туре	Material	Surface	Design	Protection cap	Part Number
Receptacle	Zinc die-cast	nickel plated	Inline coupling	Without protection cap	17-200321
Receptacle	Zinc die-cast	nickel plated	Inline coupling	With protection cap	17-200431

# USB 2.0 Type A IP67 Plug kit

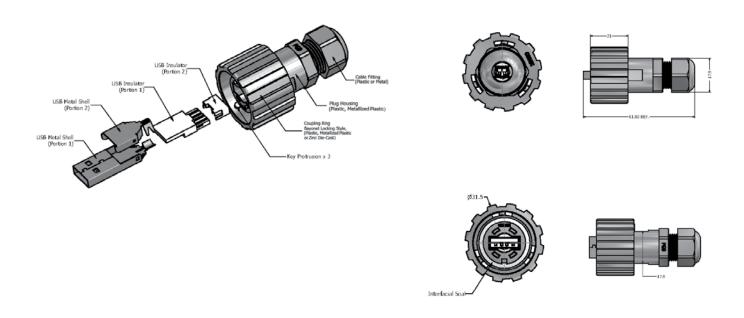
# Standard version - Bayonet locking - Plastic and metal



#### DESCRIPTION

- Design: Black plastic and metallized, Zinc die-cast nickel plated
- USB Connector per USB 2.0 specification Type A
- Bayonet locking per IEC 61076-3-106
- USB 2.0 Type A can be ordered separately

PRODUCT DRAWING.



Туре	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit	Plastic	Plastic	Plastic	black	17-200121
Plug kit	Plastic	Plastic	Metal	metallized/nickel plated	17-200131
Plug kit	Zinc die-cast	Plastic	Metal	metallized/nickel plated	17-200591
Plug USB 2.0 Type A					39-500101

# USB 2.0 Type A IP67 Plug kit

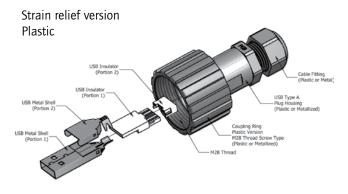
### Standard-/Strain relief version - M28 thread - Plastic and Metal

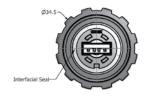


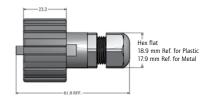
#### DESCRIPTION

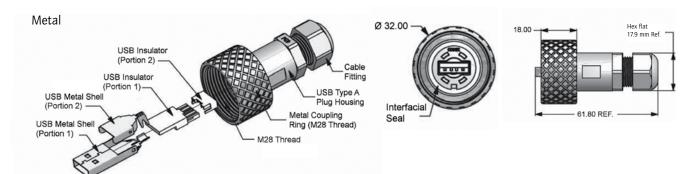
- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Design:
  - Black plastic
  - Metallized plastic
  - Metal version
- USB Connector per USB 2.0 Spezification Type A
- M28 thread
- USB 2.0 Type A can be ordered separately

#### PRODUCT DRAWING.





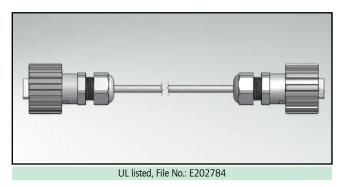




Туре	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit	Plastic	Plastic	Plastic	black	17-200151
Plug kit	Plastic	Plastic	Metal	metallized/nickel plated	17-200731
Plug kit	Metal	Plastic	Metal	metallized/nickel plated	17-200331
Plug USB 2.0 Type A					39-500101

# USB 2.0 Type A to Type A Patch cord

IP67 to IP67 - Bayonet locking

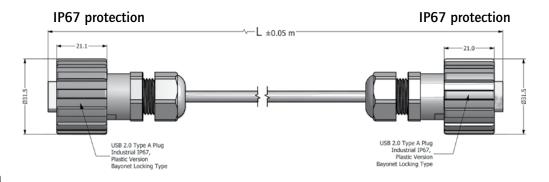


#### DESCRIPTION.

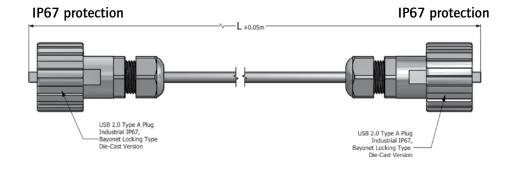
- Assembled patch cord
- Design:
  - Black plastic
  - Zinc die-cast nickel plated
- IP67 protection on both cable ends
- Other lengths on request

PRODUCT DRAWING.

Plastic design



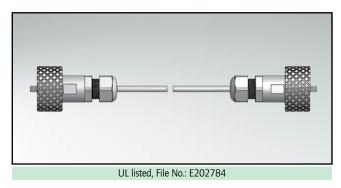
Metal design



Туре	Degree of Protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP67-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200281
Patch cord	IP67-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200291
Patch cord	IP67-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200311
Patch cord	IP67-IP67	Zinc die-cast	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	2 m	17-200621
Patch cord	IP67-IP67	Zinc die-cast	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	3 m	17-200631
Patch cord	IP67-IP67	Zinc die-cast	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	4,5m	17-200641

# USB 2.0 Type A to Type A Patch cord

IP20 to IP20/IP67 to IP67 - M28 thread

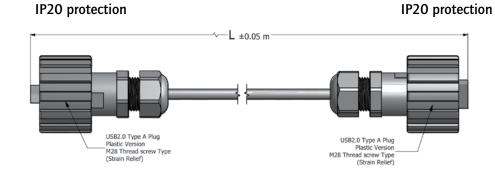


#### DESCRIPTION.

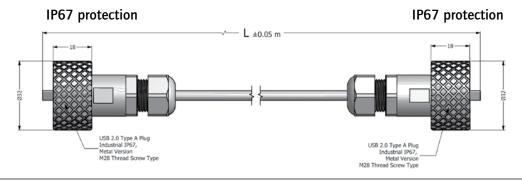
- Assembled patch cord
- Strain relief versionDesign: Black plastic
- IP20 Protection on both cable ends
- Metal version
- IP67 Protection on both cable ends
- Other lengths on request

#### PRODUCT DRAWING.

Strain relief version Plastic



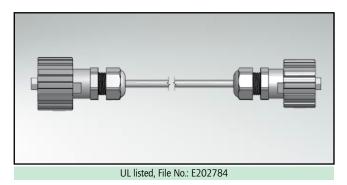
Metal



Туре	Degree of Protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200811
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200821
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200831
Patch cord	IP67-IP67	Metal	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	2 m	17-200401
Patch cord	IP67-IP67	Metal	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	3 m	17-200411
Patch cord	IP67-IP67	Metal	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	4,5m	17-200421

# **USB 2.0 Type A to Type A Patchcord**

Strain relief version - IP20 to IP67 - M28 thread/Bayonet locking

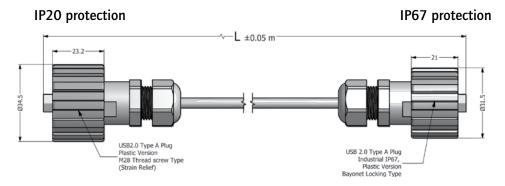


#### DESCRIPTION

- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Assembled patch cord
- Design:
  - Black plastic
- Other lengths on request

PRODUCT DRAWING

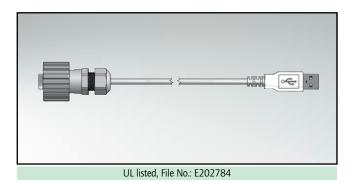
Strain relief version Plastic



Туре	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patchcord	IP20-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200541
Patchcord	IP20-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200551
Patchcord	IP20-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200561

# USB 2.0 Type A to Type A Patch cord

# IP67 to IP20 - Bayonet locking



#### DESCRIPTION.

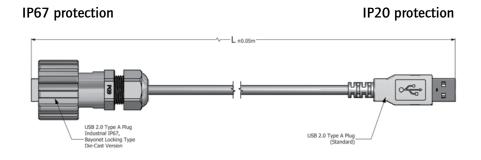
- Assembled patch cord
- USB 2.0 Type A Bayonet locking to USB 2.0 Type A Standard
- Design:
  - Black plastic and metallized
  - Zinc die-cast nickel plated
- Other lengths on request

PRODUCT DRAWING

Plastic version

# IP20 protection L ±0.05 m L ±0.05 m USB 2.0 Type A Plug Industrial IP67, Plastic Version Baynott Locking Type

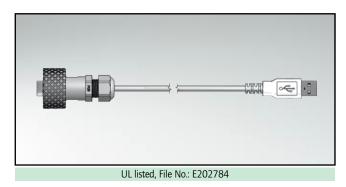
Metal version



Туре	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patchcord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200231
Patchcord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200241
Patchcord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200261
Patchcord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200681
Patchcord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200691
Patchcord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200701

# USB 2.0 Type A to Type A Patch cord

Strain relief version - IP20 to IP20/IP67 to IP20 - M28 thread



#### DESCRIPTION

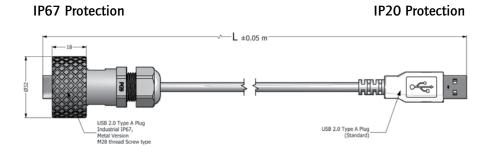
- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Assembled patch cord
- Strain relief versionDesign: Black plastic
- IP20 Protectionon both cable ends
- Metal version
- IP67 Protection on one cable end
- Other lengths on request

#### PRODUCT DRAWING

Strain relief version Plastic

# IP20 Protection L ±0.05 m USB 2.0 Type A Plug USB 2.0 Type A Plug

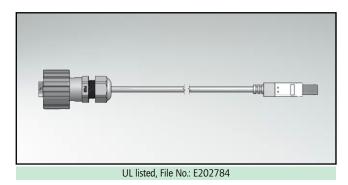
Metal



Туре	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200511
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200521
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200531
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200371
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200381
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200391

# USB 2.0 Type A to Type B Patch cord

# IP67 to IP20 - Bayonet locking



#### DESCRIPTION.

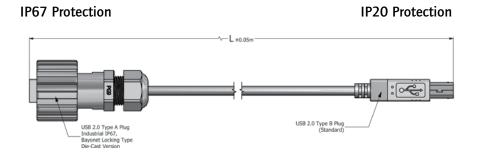
- Assembled patch cord
- USB 2.0 Type A Bayonet locking to USB 2.0 Type B Standard
- Design:
  - Black plastic
  - Zinc die-cast nickel plated
- Other lengths on request

PRODUCT DRAWING.

Plastic design

# IP67 Protection IP20 Protection L ±0.05 m USB 2.0 Type A Plug

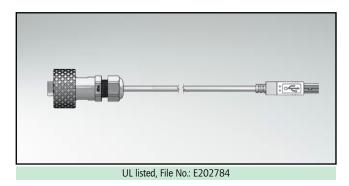
Metal design



Туре	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200181
Patch cord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200191
Patch cord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200211
Patch cord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200651
Patch cord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200661
Patch cord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200671

# USB 2.0 Type A to Type B Patch cord

Strain relief version - IP20 to IP20/IP67 to IP20 - M28 thread



#### DESCRIPTION

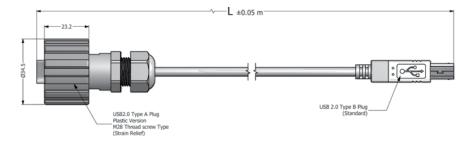
- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Assembled patch cord
- Strain relief versionDesign: Black plastic
- IP20 Protectionon both cable ends
- Metal version
- IP67 Protection on one cable end
- Other lengths on request

PRODUCT DRAWING

Strain relief version Plastic

#### **IP20 Protection**

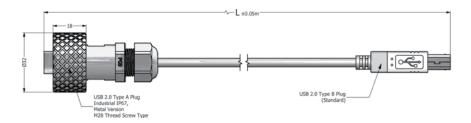
#### **IP20 Protection**



Metal

#### **IP67 Protection**

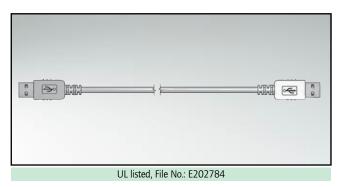
#### **IP20 Protection**



Туре	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200481
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200491
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200501
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200341
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200351
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200361

# USB 2.0 Type A to Type A or Type B Patch cord

IP20 to IP20

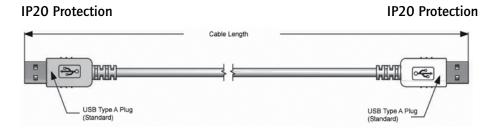


#### DESCRIPTION.

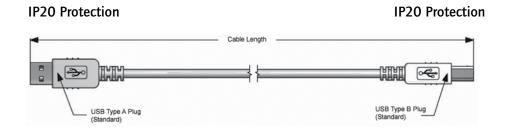
- Assembled patch cord
- IP20 Protectionon both cable ends
- USB 2.0 Connector Type A to Typ A or Type A to Type B
- Other lengths on request

PRODUCT DRAWING.

Type A to type A



Type A to type B



Туре	Degree of protection	Material	Cable	Length (L)	Part Number
Patch cord	IP20 Type A-IP20 Type A	Plastic	AWM 2725, black	2 m	17-201031
Patch cord	IP20 Type A-IP20 Type A	Plastic	AWM 2725, black	3 m	17-201041
Patch cord	IP20 Type A-IP20 Type A	Plastic	AWM 2725, black	4,5m	17-201061
Patch cord	IP20 Type A-IP20 Type B	Plastic	AWM 2725, black	2 m	17-201081
Patch cord	IP20 Type A-IP20 Type B	Plastic	AWM 2725, black	3 m	17-201091
Patch cord	IP20 Type A-IP20 Type B	Plastic	AWM 2725, black	4,5m	17-201111

# Section 5

# **µTCA**<sup>™</sup> Power module Connectors



The MicroTCA standard now provides a specification that permits the design of small, economical and flexible systems from standardized modules.

Power modules, which ensure a secure power supply for the system, are also a part of MicroTCA system design criteria.

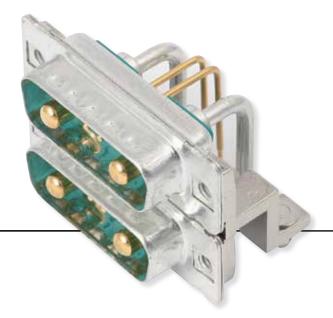
The power feed from an external source is accomplished by way of a cable connected to the external source and ending locally in a power input connector mounted on the front side of the power module.

The MicroTCA .0 specification defines appropriate interfaces for this. An interface has been chosen for the input side of MicroTCA direct current power modules which is based on the dual port Combination D-SUB connector.

Form factor 7W2 modules are used for power supplies of -48V and -60V.

Form factor 9W4 is used for +24V power supplies to provide coding and differentiation. The specified connectors consist of two power contacts and two signal contacts.

The signal contacts are used for hot-swap control purposes and, according to specification, should be shorted with a jumper on the cable side of the connector.



A 24 amp rating per contact is required for the 7W2 version and a 49 amp rating per contact for the 9W4 version.

The contact may not have an operational temperature rise in excess of  $30^{\circ}$  C.

The machined precision contacts used in CONEC MicroTCA power module input connectors offer considerable power reserves and are specified for 250 insertion cycles.

The CONEC product line encompasses connectors for installation on the PC board in dual and single port designs for throught hole soldering and SMT. Filtered version available on request. Socket connectors are available for use with cable. These connectors are offered with signal contacts which are bridged and unbridged versions.

Included in the product offering are slim line, low profile hoods and suitable connectors.





# TECHNICAL DATA

Materials		
Insulator	PBT (UL 94-VO)	
Power Contacts	Copper alloy, Precision machined contacts	Mating side Au over Ni
		Soldering side Sn over Ni
Signal contacts	Copper alloy, Precision machined contacts	Mating side Au over Ni
		Soldering side Au over Ni
Shell	Steel	Tin plated
Mounting bracket	Zink die-cast	Tin plated
4-40 UNC threaded insert	Copper alloy	Tin plated
Hex bolt with 4-40 UNC threaded insert and washers	Steel	Nickel plated
PCB clip for .063"/1.6 mm PCB	Copper alloy	Tin plated
Mechanical and electrical characteristics		
Current rating	Power contacts	24 A at max. 30°C temperature rise
	Signal contacts	7.5 A nominal
Clearance- and creepage distance	Power contacts	.059"/1.5 mm min.
	Signal contacts	.016"/0.4 mm min.
	Signal and power contacts	.059"/1.5 mm min.
	Power contacts and shell	.059"/1.5 mm min.
	Signal contact and shell	.059"/1.5 mm min.
Insulation resistance	Power contact	5000 mΩ min.
	Signal contact	5000 mΩ min.
	Signal and power contacts	5000 mΩ min.
	Power contacts and Shell	5000 mΩ min.
	Signal contact and Shell	5000 mΩ min.
Dielectric with standing voltage	1000 V r.m.s.	
Mating cycles	250 cycles	
Mating force	100 N max.	
Unmating force	65 N max.	

 $\label{thm:continuous} \mbox{Technical specifications are subject to change without notice.}$ 

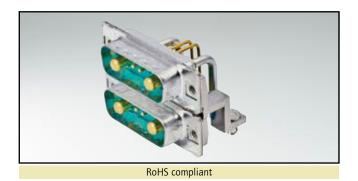
# SOLDER PROFILE

Comportor Time	Preheating		Solder terminal dipping p	parameters
Connector Type	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
Filter D-SUB	100°C	30s	260°C	5s
Combo D-SUB Filter	120°C	120s	260°C	5s
Filter D-SUB Water Resistant	100°C	30s	240°C	5s
Combo D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Solid Body Type Water Resistant	150°C	180s	265°C	8s
	15000	100	20500	
RJ45 Modular Jack Filtered	150°C	180s	265°C	8s
-11: -1 :	15000	100	20500	
Filter Plates	150°C	180s	265°C	8s

Recommended wave-solder parameters for CONEC connectors.

# MICROTCA Power modul input connectors

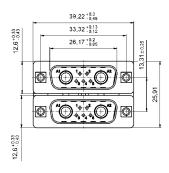
Plug connector - Solder pin angled - Dual port style - Through hole

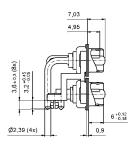


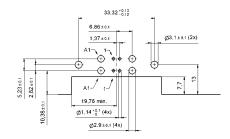
#### DESCRIPTION.

- Standard version according to MTCA.0 specification
- Design 7W2 for -48/-60 V Power modul
- Design: 2 power contacts 24 A / 2 signal contacts per port
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

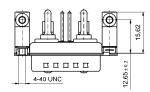
#### PRODUCT DRAWING.

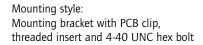


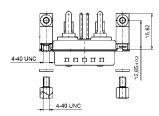




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert







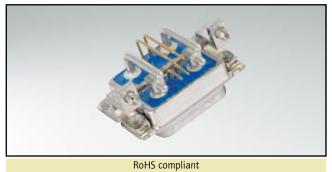
#### ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000011
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000021

PCB clip .122"/3.1  $\pm$  .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# MICROTCA Power modul input connectors

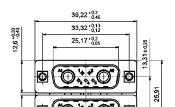
Plug connector – Solder pin angled – Dual port style – Filter version – Through hole

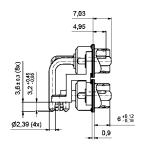


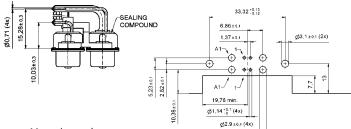
PRODUCT DRAWING\_\_\_\_\_

#### DESCRIPTION.

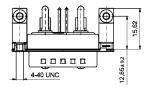
- Standard version according to MTCA.0 specification
- Filtered power contacts with 54 nF or 10 nF Capacitance
- Signal contacts are not filtered
- Design 7W2 for -48/-60 V Power modul
- Design: 2 power contacts 24 A / 2 signal contacts per port
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

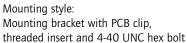


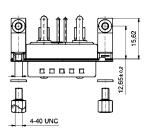




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert







#### ORDER DATA

PLUG CONNECTOR			
Design	Mounting style	Filter capacitance for power contact	Part Number
7W2	Mounting bracket with PCB clip / 4-40 UNC Hex bolt	54 nF	24-000031
7W2	Mounting bracket with PCB clip / 4-40 UNC Threaded insert	54 nF	24-000011
7W2	Mounting bracket with PCB clip / 4-40 UNC Hex bolt	10 nF	24-000041
7W2	Mounting bracket with PCB clip / 4-40 UNC Threaded insert	10 nF	24-000051

PCB clip .122"/3.1  $\pm$  .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

Plug connector - SMT version - Suitable for reflow - Angled - Dual port style

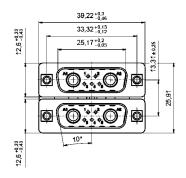


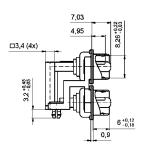
RoHS compliant

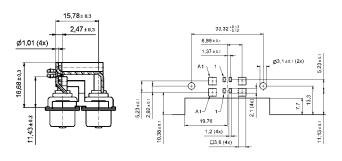
#### DESCRIPTION.

- SMT Version with contact spacer plate
- Design 7W2 for -48/-60V power modul
- Design: 2 power contacts 35 A / 2 signal contacts per port
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

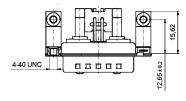
#### PRODUCT DRAWING.



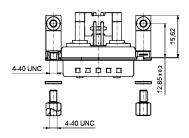




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert



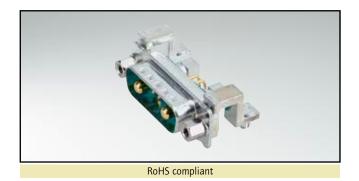
Mounting style: Mounting bracket with PCB clip, threaded insert and 4-40 UNC hex bolt



### ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000031
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000041

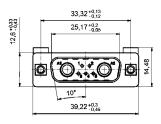
### Plug connector - Solder pin angled - Through hole

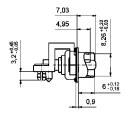


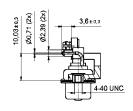
#### DESCRIPTION

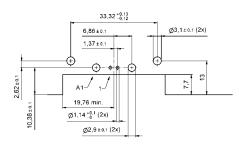
- Single port version for MicroTCA PCB layout
- Design 7W2 for -48/-60 V power modul
- Design: 2 power contacts 24 A / 2 signal contacts
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

PRODUCT DRAWING.

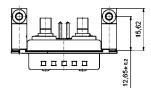




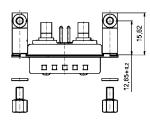




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert



Mounting style: Mounting bracket with PCB clip, threaded insert and 4-40 UNC hex bolt



### ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000051
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000061

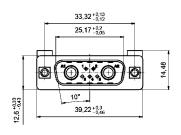
Plug connector - Solder pin angled - Filter version - Through hole

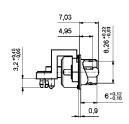


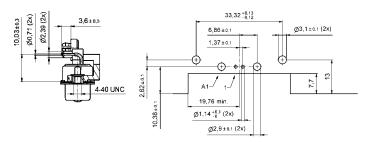
#### DESCRIPTION

- Single port version for MicroTCA PCB layout
- Design 7W2 for -48/-60 V power modul
- Design: 2 power contacts 24 A / 2 signal contacts
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

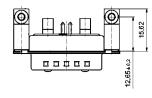
PRODUCT DRAWING



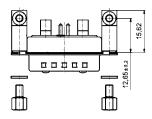




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert



Mounting style: Mounting bracket with PCB clip, threaded insert and 4-40 UNC hex bolt



### ORDER DATA

Plug connector				
Design	Mounting style	Filter capacitance for power contact	Part Number	
7W2	Mounting bracket with PCB clip/4-40 UNC Hex bolt	54 nF	24-000061	
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	54 nF	24-000071	
7W2	Mounting bracket with PCB clip/4-40 UNC Hex bolt	10 nF	24-000081	
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	10 nF	24-000091	

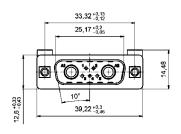
Plug connector - SMT version - Suitable for reflow - Angled

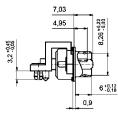


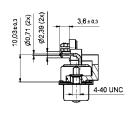
Description

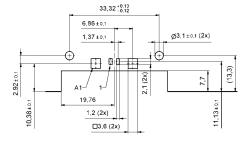
- SMT Version with contact spacer plate
- Design 7W2 for -48/-60V power modul
- Design: 2 power contacts 35 A / 2 signal contacts
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

PRODUCT DRAWING

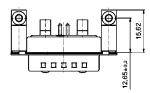




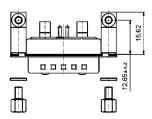




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert



Mounting style: Mounting bracket with PCB clip, threaded insert and 4-40 UNC hex bolt



### ORDER DATA

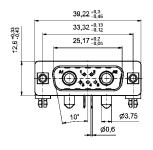
PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000071
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000081

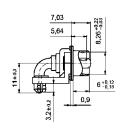
# Plug connector - Solder pin - Angled - Through hole

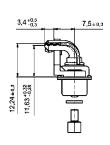


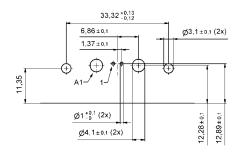
- 7W2 Combination D-SUB Connector
- Design: 2 power contacts 40 A / 2 signal contacts
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

#### PRODUCT DRAWING.

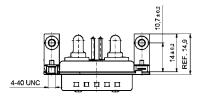




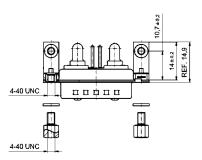




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert



Mounting style: Mounting bracket with PCB clip, threaded insert and 4-40 UNC hex bolt



### ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000091
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000101

# Plug connector - Solder pin - Angled - Filter version - Through hole

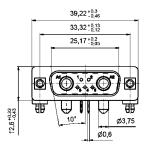


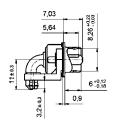
RoHS compliant

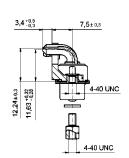
#### DESCRIPTION.

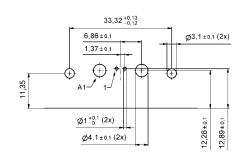
- 7W2 Combination D-SUB Connectors
- Design: 2 power contacts 40 A / 2 signal contacts
- Filtered power contacts with 54 nF or 10 nF Capacitance
- Signal contacts are not filtered
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

#### PRODUCT DRAWING.

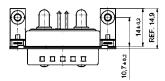




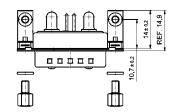




Mounting style: Mounting bracket with PCB clip, 4-40 UNC threaded insert



Mounting style: Mounting bracket with PCB clip, threaded insert and 4-40 UNC hex bolt



### ORDER DATA

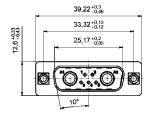
Plug connector				
Design	Mounting style	Filter capacitance for power contact	Part Number	
7W2	Mounting bracket with PCB clip/4-40 UNC Hex bolt	54 nF	24-000101	
7W2	Mounting bracket with PCB clip / 4-40 UNC Threaded insert	54 nF	24-000111	
7W2	Mounting bracket with PCB clip / 4-40 UNC Hex bolt	10 nF	24-000121	
7W2	Mounting bracket with PCB clip / 4-40 UNC Threaded insert	10 nF	24-000131	

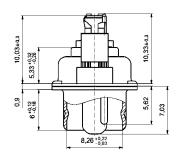
# Plug connector - Solder pin - Straight - Through hole

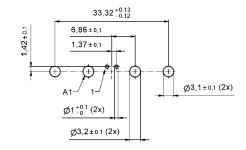


- 7W2 Combination D-SUB Connectors
- Design: 2 power contacts 24 A / 2 signal contacts
- Mounting styles:
  - 4-40 UNC threaded rear spacer with PCB clip, 4-40 UNC threaded insert
  - 4-40 UNC threaded rear spacer with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

#### PRODUCT DRAWING.



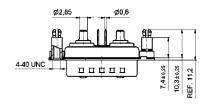




### Mounting style:

4-40 UNC threaded rear spacer with PCB clip,

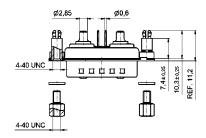
4-40 UNC threaded insert



### Mounting style:

4-40 UNC threaded rear spacer with PCB clip,

4-40 UNC hex bolt



### ORDER DATA

Plug connector				
Design	Mounting style 4-40 UNC	Part Number		
7W2	Threaded rear spacer with PCB clip / Hex bolt	13-000111		
7W2	Threaded rear spacer with PCB clip/Threaded insert	13-000121		

PCB clip .122"/3.1 ± .004"/ 0.10 mm hole diameter

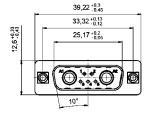
# Plug connector - Solder pin - Straight - Filter version - Through hole

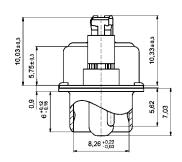


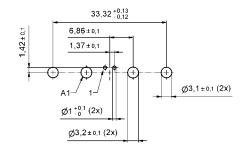
### DESCRIPTION\_

- 7W2 Combination D-SUB Connectors
- Design: 2 power contacts 24 A / 2 signal contacts
- Filtered power contacts with 54 nF oder 10 nF capacitance
- Mounting styles:
  - 4-40 UNC threaded rear spacer with PCB clip, 4-40 UNC threaded insert
  - 4-40 UNC threaded rear spacer with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

PRODUCT DRAWING.



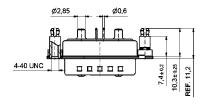




### Mounting style:

4-40 UNC threaded rear spacer with PCB clip,

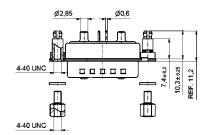
4-40 UNC threaded insert



### Mounting style:

4-40 UNC threaded rear spacer with PCB clip,

4-40 UNC hex bolt



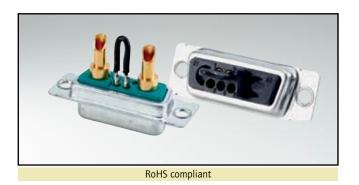
### ORDER DATA

Plug connector				
Design	Mounting style 4-40 UNC	Filter capacitance for power contact	Part Number	
7W2	Threaded rear spacer with PCB clip/Hex bolt	54 nF	24-000141	
7W2	Threaded rear spacer with PCB clip/Threaded insert	54 nF	24-000151	
7W2	Threaded rear spacer with PCB clip/Hex bolt	10 nF	24-000161	
7W2	Threaded rear spacer with PCB clip/Threaded insert	10 nF	24-000171	

PCB clip .122"/3.1  $\pm$  .004"/0.10 mm hole diameter

# MICROTCA POWER INPUT CONNECTOR

Socket connector – Solder cup or crimp body

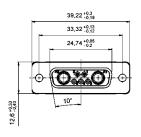


#### DESCRIPTION

- 7W2 MicroTCA Design: 2 Power / 2 signal contacts
- Available with bridged and unbridged signal contacts
- Mounting style: with Through-hole .118"/3.0 mm
- Power contacts solder cup or crimp type wire size
- Note for 9W4 product please contact factory

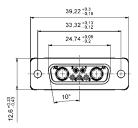
### PRODUCT DRAWING.

### Solder cup

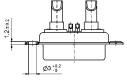


AWG	Х	<b>Current Rating</b>
10-12	3.5	max. 30 A
12-14	2.7	max. 20 A
16-20	1.8	max. 10 A

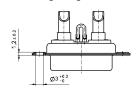
### Crimp version

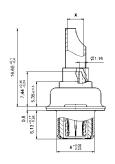


### With signal contacts

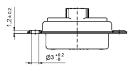


With bridged signal contact

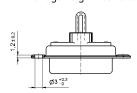


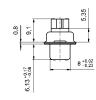


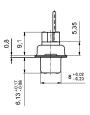
### Without signal contacts



with bridged signal contacts





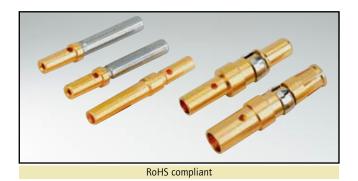


Socket connector version solder cup					
Design	Wire size	Current rating	Mounting style	Signal contacts	Part Number
7W2	AWG 1012	30 A	Through-hole .118"/3.0 mm	Unbridged	13-000131
7W2	AWG 1214	20 A	Through-hole .118"/3.0 mm	Unbridged	13-000141
7W2	AWG 1620	10 A	Through-hole .118"/3.0 mm	Unbridged	13-000151
7W2	AWG 1012	30 A	Through-hole .118"/3.0 mm	Bridged	13-000161
7W2	AWG 1214	20 A	Through-hole .118"/3.0 mm	Bridged	13-000171
7W2	AWG 1620	10 A	Through-hole .118"/3.0 mm	Bridged	13-000181

SOCKET CONNECTOR CRIMP BODY					
Design	Design	Mounting style	Crimp signal contacts	Part Number	
7W2	Crimp body	Through-hole .118"/3.0 mm	Without signal contacts	13-000190	
7W2	Crimp body	Through-hole .118"/3.0 mm	Bridged	13-000201	

# MICROTCA POWER INPUT CONTACTS

# Socket contact - Crimp body - Precision machined

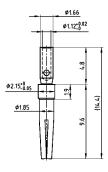


#### DESCRIPTION

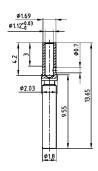
- Standard packaging
- Precision machined contacts
- Quality class 1 is standard
- Other quality classes on request
- Short power contacts, offered for use in MicroTCA specific hood

### PRODUCT DRAWING.

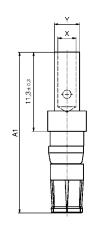
Signal crimp contact (Standard version)



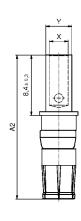
Signal crimp contact (closed entry version)



Power crimp contact (standard version)



Power crimp contact (short version)



AWG	A,	A <sub>2</sub>	Х	Y	Current Rating
8-10		20.08	4.6	5.35	40A
10-12	22.98	20.08	3.7	4.7	30 A
12-14	22.98	20.08	2.6	3.6	20 A
16-20	22.98	20.08	1.7	2.6	10 A

Socket contact					
Version	Wire cross section	Current rating	Part Number		
Signal crimp (standard version)	AWG 2024	7.5 A	162C18709X		
Power crimp (standard version)	AWG 1012/A = 22.98	30 A	132C11039X		
Power crimp (standard version)	AWG 1214/A = 22.98	20 A	132C11029X		
Power crimp (standard version)	AWG 1620/A = 22.98	10 A	132C11019X		
Signal crimp (closed entry version)	AWG 2024	7.5 A	132C15019X		
Power crimp (for MicroTCA) (short version)	AWG 810/A = 20.08	40 A	13-000321		
Power crimp (for MicroTCA) (short version)	AWG 1012 / A = 20.08	30 A	13-000311		
Power crimp (for MicroTCA) (short version)	AWG 1214/A = 20.08	20 A	13-000301		
Power crimp (for MicroTCA) (short version)	AWG 1620 / A = 20.08	10 A	13-000291		

# MICROTCA CABLE HOOD AND CONNECTOR SET

Plastic hood with crimp connector body - Straight cable entry

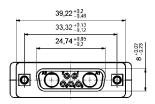


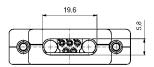
#### DESCRIPTION

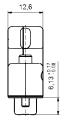
- Compact 7W2 shell inclusive crimp-socket connector
- Available with bridged signal contacts
- Short 4-40 UNC screws with Phillips or Allen key
- Material Housing: PBT GF; UL 94 VO, black
- Integrated strain relief
- Power contacts for wire size AWG 8 up to AWG 20
- This hood only fits this included connector, sold together as a set
- Choose short power contacts from previous page, sold separately

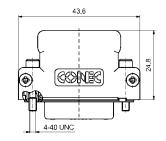
### PRODUCT DRAWING.

Hood with short screw (Socket connector included)

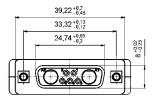


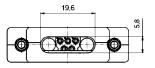


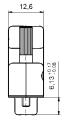


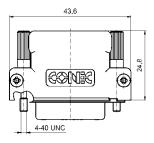


Hood with jack screw (Socket connector included)









Socket connector					
Design	Signal contacts	Screw design	Part Number		
Hood / Crimp socket connector 7W2	Without signal contacts	Short/Allen key	13-000210		
Hood / Crimp socket connector 7W2	Without signal contacts	Short/Phillips head	13-000220		
Hood / Crimp socket connector 7W2	Bridged	Short/Allen key	13-000231		
Hood / Crimp socket connector 7W2	Bridged	Short/Phillips head	13-000241		
Hood/Crimp socket connector 7W2	Without signal contacts	Jack screw/Allen key	13-000370		
Hood / Crimp socket connector 7W2	Without signal contacts	Jack screw/Phillips head	13-000380		
Hood / Crimp socket connector 7W2	Bridged	Jack screw/Allen key	13-000391		
Hood/Crimp socket connector 7W2	Bridged	Jack screw/Phillips head	13-000401		

# MICROTCA CABLE HOOD

# Metal design – Side cable entry

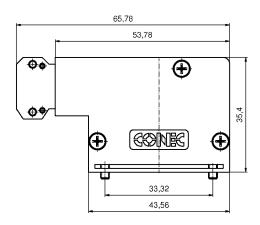


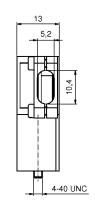
RoHS compliant

### DESCRIPTION.

- Cable hood for 7W2 MicroTCA Standard socket connector
- Suitable for other D-SUB Connectors
- Material: Zink die-cast
- Fastening with 4-40 UNC thread and jack screws
- Solide zink die-cast strain relief
- Plastic cable run integrated in shell
- Bulk or single packaged units

PRODUCT DRAWING.





D-SUB MICROTCA HOOD 7W2					
Туре	Design	Part Number			
7W2	Metal hood	16-000010			