

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 monitoring 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 mΩ max.
Insulation resistance	1000 MΩ
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

Technical specifications are subject to change without notice.

MINI USB 2.0 TYPE B IP67 PANEL MOUNTED RECEPTACLE

PC Tail termination, for rigid or flex circuit



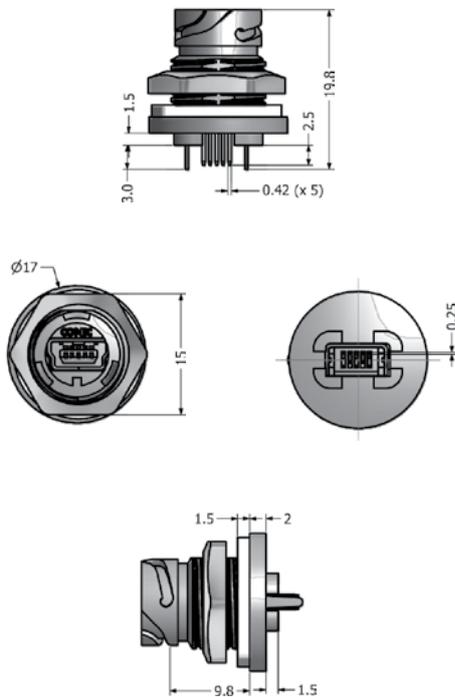
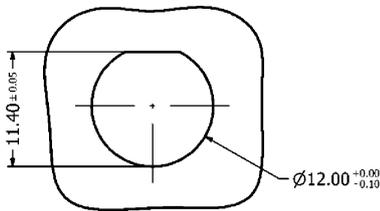
UL listed, File No.: E202784

DESCRIPTION

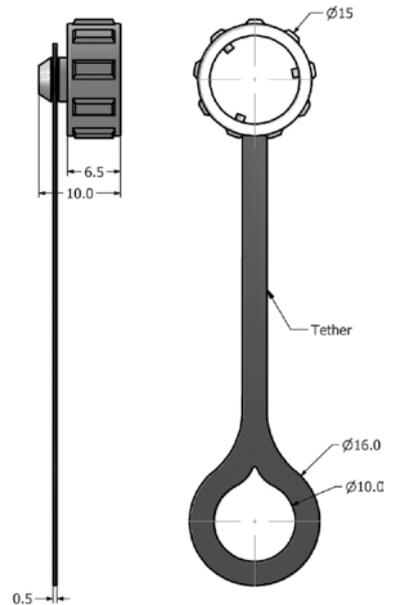
- For rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- Bayonet locking, IP67 rated in mated condition
- Available as set with protection cap

PRODUCT DRAWING

Recommended Panel Cutout plastic



Protection cap plastic



ORDER DATA

Type	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



UL listed, File No.: E202784

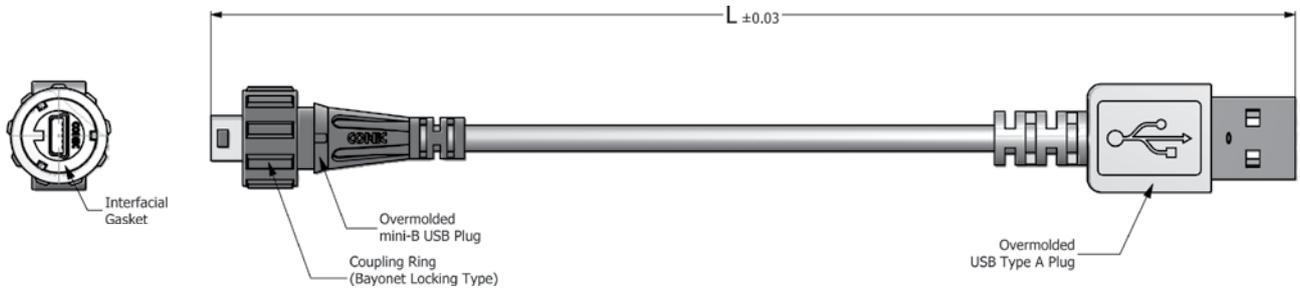
DESCRIPTION

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

PRODUCT DRAWING

IP67-Protection

IP20-Protection



ORDER DATA

Type	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

USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

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



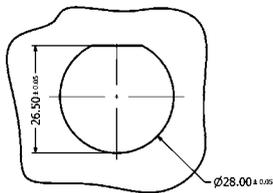
UL listed, File No.: E202784

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

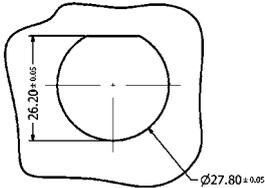
PRODUCT DRAWING

Recommended Panel Cutout for plastic

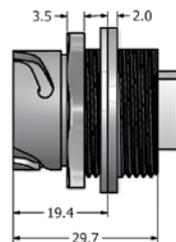
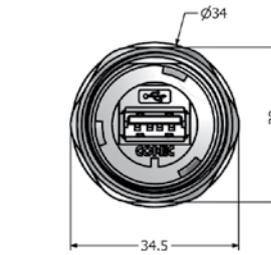
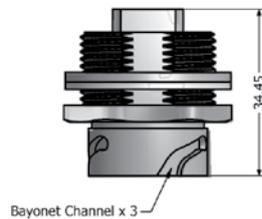
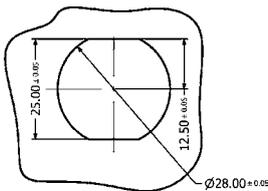


for metal

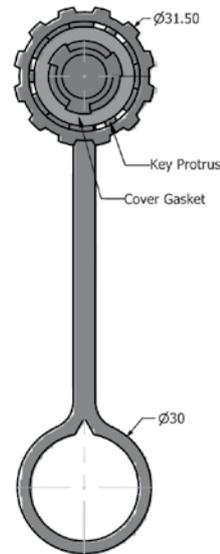
Single-D Panel Cut-out



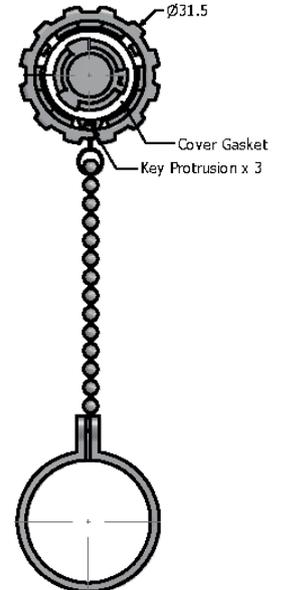
Double-D Panel Cut-out



Protection cap plastic



Protection cap metal



ORDER DATA

Type	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

USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

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



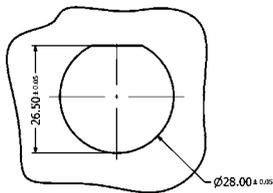
UL listed, File No.: E202784

DESCRIPTION

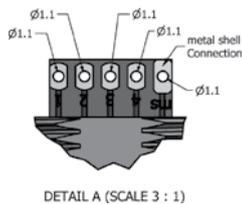
- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic or metallized, zinc die-cast nickel plated
- Solder termination inside (PCB)
- Bayonet locking per IEC 61076-3-106
- Low profile version for rear panel mounting up to wall thickness of 2.0 mm
- IP67 Protection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

PRODUCT DRAWING

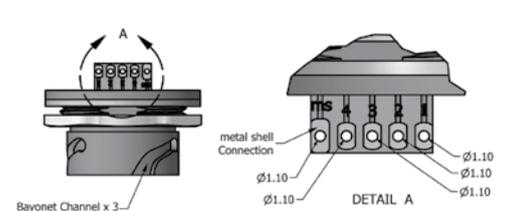
Recommended Panel Cutout for plastic version



Standard version

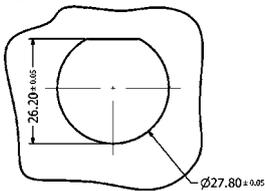


Low profile version

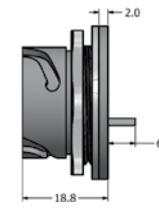
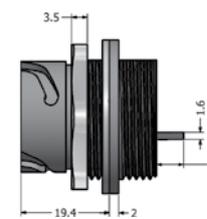
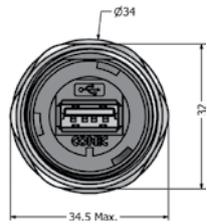
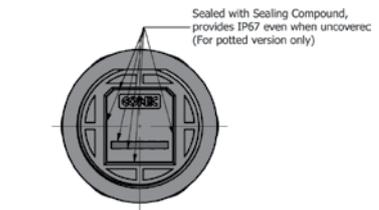
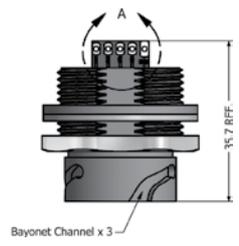
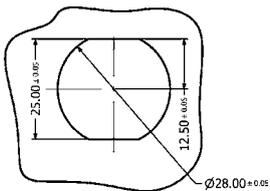


for metal version

Single-D Panel Cut-out



Double-D Panel Cut-out



ORDER DATA

Type	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

USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

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



UL listed, File No.: E202784

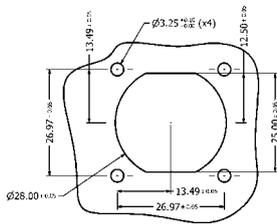
DESCRIPTION

- 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
- 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)

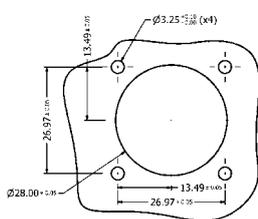
PRODUCT DRAWING

Recommended Panel Cutout

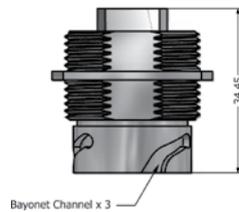
Double-D Panel Cut-out



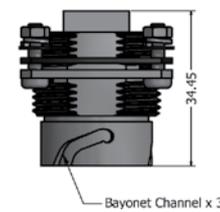
Round Panel Cut-out



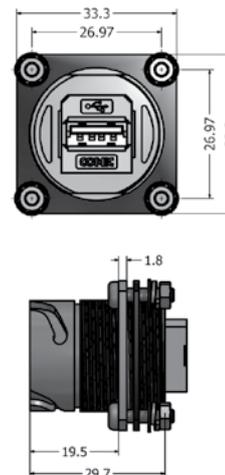
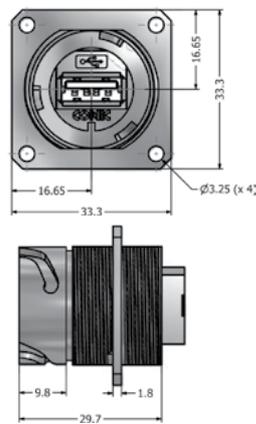
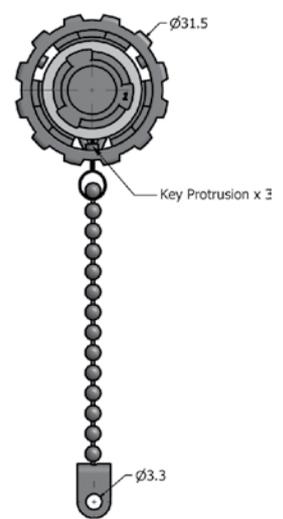
without assembly



with assembly



Protection cap metal



ORDER DATA

Type	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

USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

Inline coupling – both sides Bayonet locking – Plastic



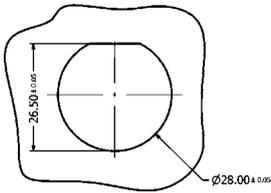
UL listed, File No.: E202784

DESCRIPTION

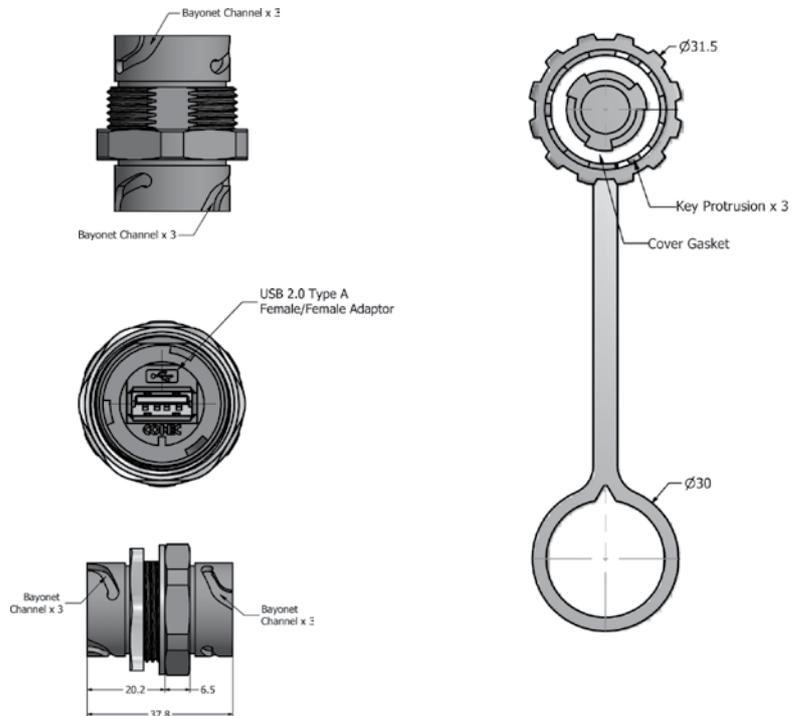
- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- Bayonet locking per IEC 61076-3-106
- IP67 protection in mated condition
- Available as set with protection cap

PRODUCT DRAWING

Recommended Panel Cutout



Protection cap plastic

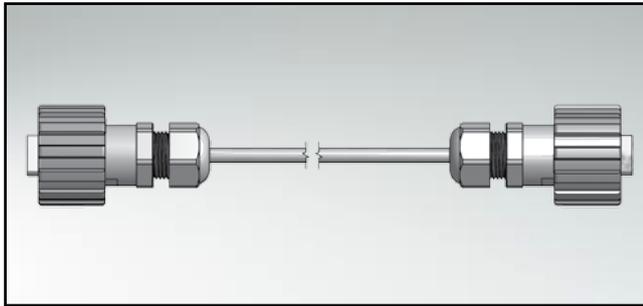


ORDER DATA

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

USB 2.0 TYPE A TO TYPE A PATCH CORD

IP67 to IP67 – Bayonet locking



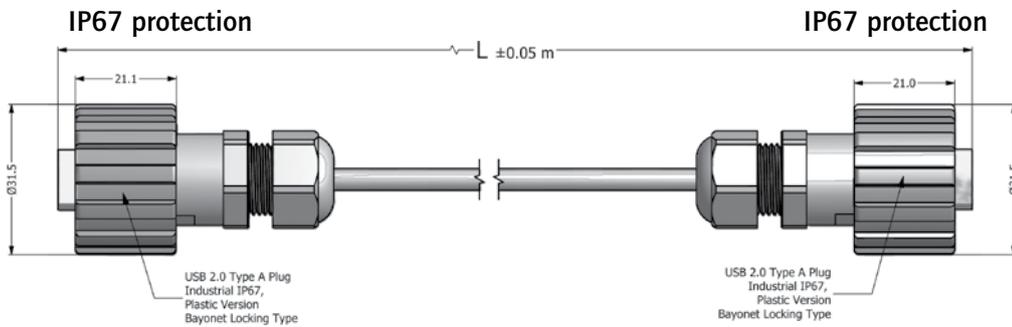
UL listed, File No.: E202784

DESCRIPTION

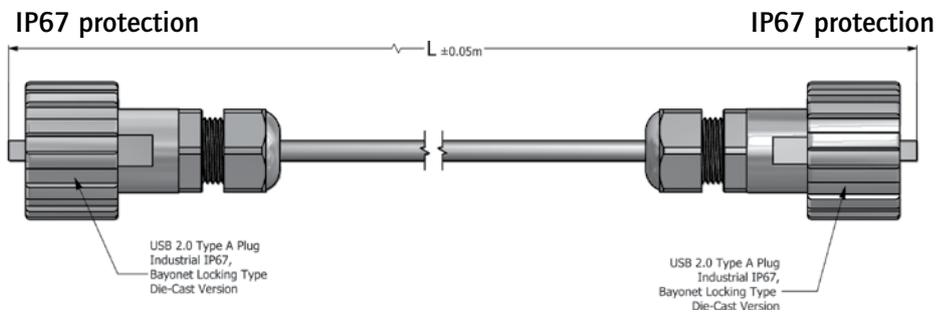
- Assembled patch cord
- Design:
 - Black plastic
 - Zinc die-cast nickel plated
- IP67 protection on both cable ends
- Other lengths on request

PRODUCT DRAWING

Plastic design



Metal design

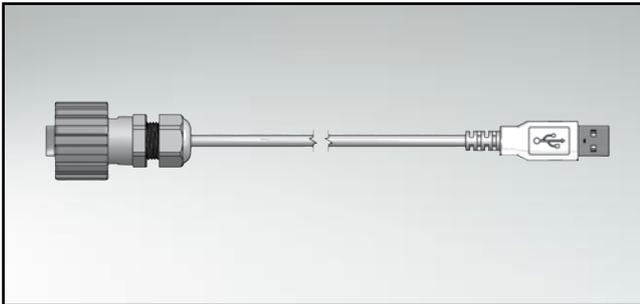


ORDER DATA

Type	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

IP67 to IP20 – Bayonet locking



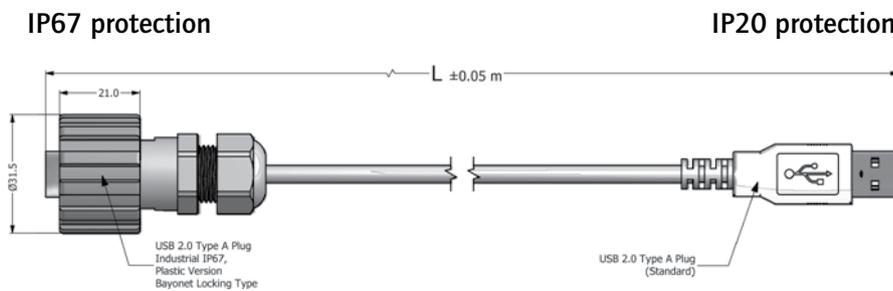
UL listed, File No.: E202784

DESCRIPTION

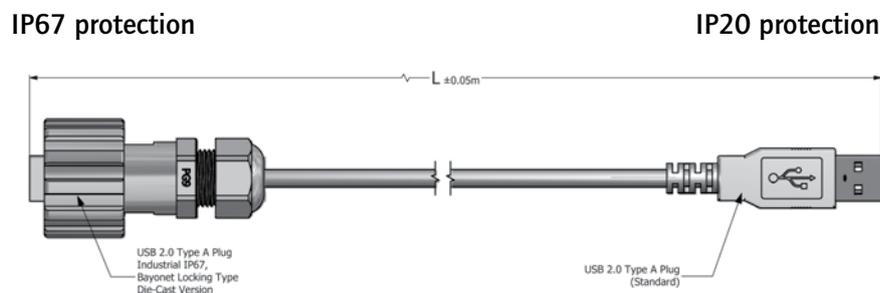
- Assembled patch cord
- USB 2.0 Type A Bayonet locking to USB 2.0 Type A Standard
- Design:
 - Black plastic and metallized
 - Zinc die-cast nickel plated
- Other lengths on request

PRODUCT DRAWING

Plastic version



Metal version

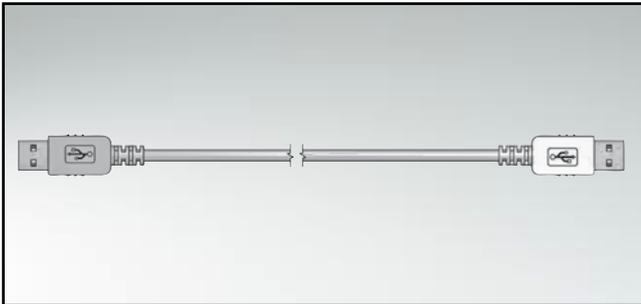


ORDER DATA

Type	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 OR TYPE B PATCH CORD

IP20 to IP20



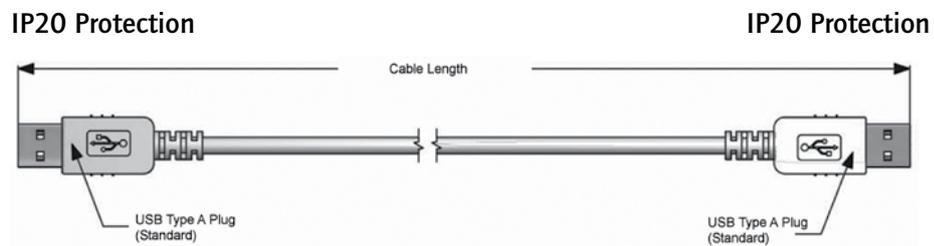
UL listed, File No.: E202784

DESCRIPTION

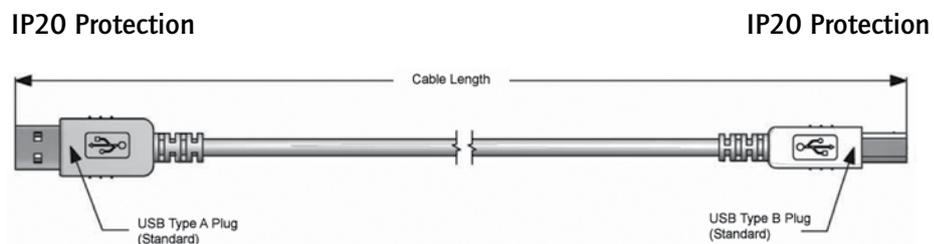
- Assembled patch cord
- IP20 Protection on both cable ends
- USB 2.0 Connector Type A to Typ A or Type A to Type B
- Other lengths on request

PRODUCT DRAWING

Type A to type A



Type A to type B

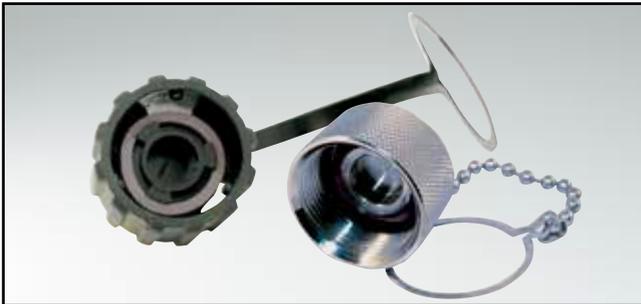


ORDER DATA

Type	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

RJ45 and USB ACCESSORIES

Protection cap plastic – Protection cap metal



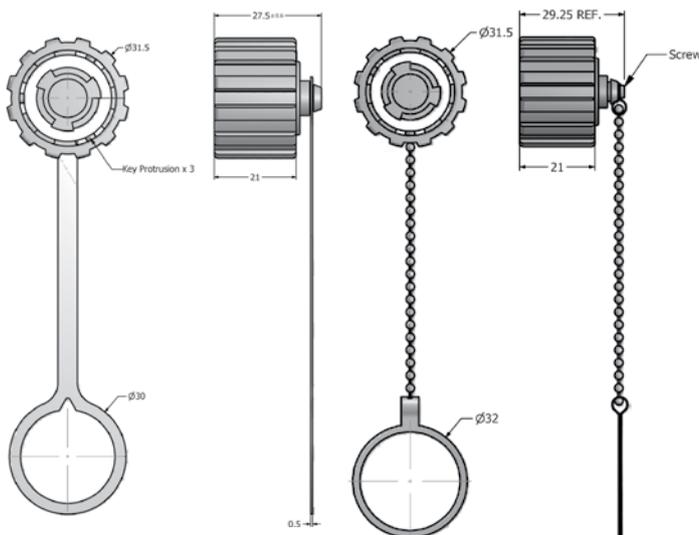
DESCRIPTION

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

PRODUCT DRAWING

Plastic version
Bayonet locking
Tether

Plastic / Zinc die-cast
Bayonet locking
Ball chain



ORDER DATA

Type	Material	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