



Rugged diecast shell



Colored coding Bushing

## Cable Carriers



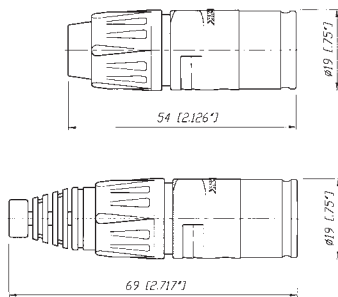
NE8MC



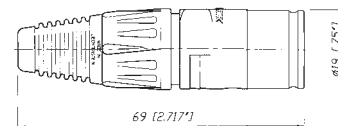
NE8MC-1 + BSE2

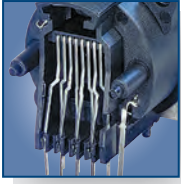
- The RJ45 system for harsh and demanding environment
- Cable connector carrier accepts the most common RJ45 plugs
- Cable connector carrier has rugged diecast shell and unique chuck type strain relief
- NE8MC-1 version with weatherproof Collinox plating and O-ring gasket
- Protects Ethernet connections in a variety of commercial type applications and is designed to prevent breakage of the fragile components of standard RJ45 connectors
- Cable connector carrier does not include RJ45 plug

NE8MC

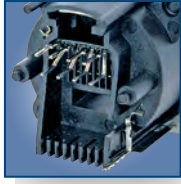


NE8MC-1





Horizontal PCB



Vertical PCB



IDC Terminals

## Receptacles



NE8FAV + ACRF-2



NE8FBH



NE8FAV-YK



NE8FDV



NE8FDV-Y110-B

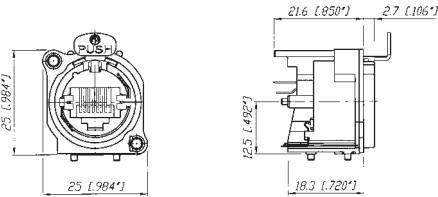


NE8FDH-C5E

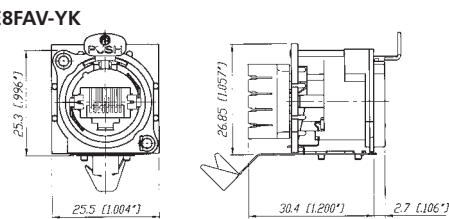
- "A / B" and "D" sized receptacles available in vertical and horizontal PCB or IDC terminations
- Accommodates NE8MC carriers or any standard RJ45 Plug
- D-versions with unified metal flange equal to "D" series-XLR, speakON, powerCON and BNC Bulkhead

- Receptacles comply with Class D (PCB versions) or CAT 5e (IDC versions and NE8FDH-C5E) according to TIA / EIA 568B and ISO / IEC 11801 standard
- D-version mountable from the front or rear of the panel
- Version with screw domes to fix connector onto PCB securely (NE8FAV-SD)

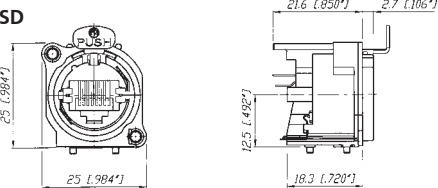
NE8FAV



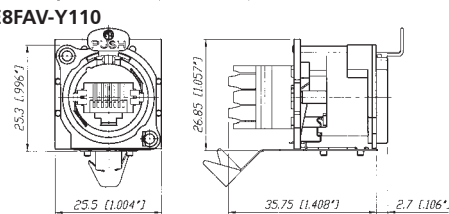
NE8FAV-YK



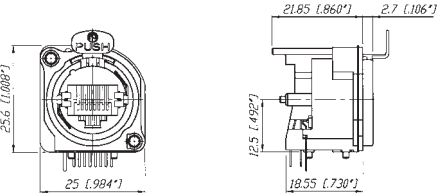
NE8FAV-SD



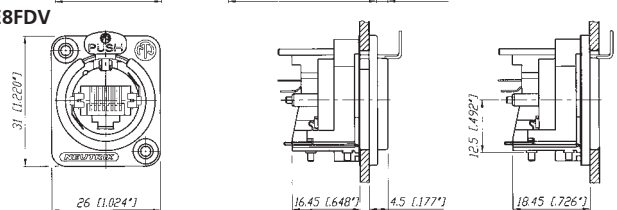
NE8FAV-Y110



NE8FBH



NE8FDV





Completely closed housing



Light pipe



NE8FDP rear side



Locking latch

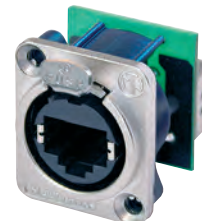
Shielded & Lighted



NE8FBH-S



NE8FBH-LED



NE8FDP



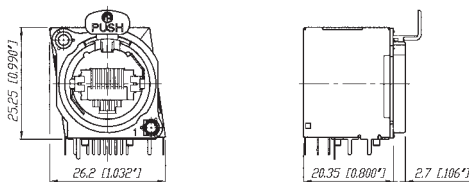
NE8FF

Feedthrough

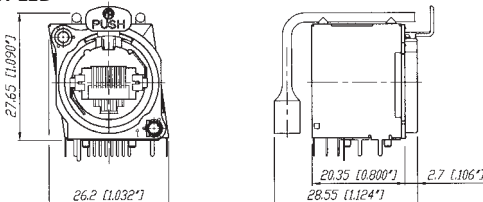
- Comprehensive shielding granted by completely closed metal housing
- Improves EMC performance of appliance even in unmated condition
- Lighted version offers in addition various illuminating indication possibilities by means of two separate light pipes
- Light pipes illuminated by standard 3 mm LEDs - to be mounted on PCB by customer

- Feedthrough as panel mount receptacle and as cable coupler
- NE8FDP feedthrough connector in D series housing for use in patchfields - rear side accommodates standard RJ45 plug
- NE8FF coupler (adapter) for cable to cable mating - use with NE8MC carriers or any standard RJ45 plugs

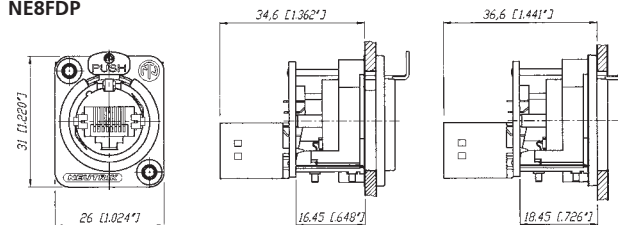
NE8FBH-S



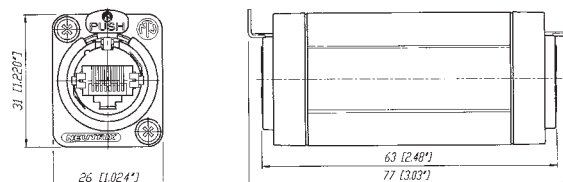
NE8FBH-LED



NE8FDP



NE8FF



# Technical Data

Specification		NE8MC* Cable Con.	NE8FA/B* (A + B Series)	NE8FD* (D Series)
<b>Electrical</b>				
Number of contacts		- <sup>1)</sup>	8	8
Rated current per contact	< 1.5 A	- <sup>1)</sup>	●	●
Rated voltage	< 50 V ac	- <sup>1)</sup>	●	●
Contact resistance	< 10 mΩ	- <sup>1)</sup>	●	●
Insulation resistance	> 500 MΩ	- <sup>1)</sup>	●	●
Dielectric strength	> 1'000 V ac rms	- <sup>1)</sup>	●	●
Frequency bandwidth	1 - 100 MHz	- <sup>1)</sup>	●	●
Transmission class acc. TIA / EIA 568B or IEC 11801	CAT 5e	- <sup>1)</sup>	●	● NE8FDH-C5E
	Class D	- <sup>1)</sup>	PCB Versions	PCB Versions NE8FDV
<b>Mechanical</b>				
Retention method	latch lock	●	●	●
Life time (mating cycles)	> 1'000 mating cycles	●	●	●
	> 200 mating cycles	-	-	SE8FD
Insertion / withdrawal force	≤ 20 N	●	●	●
Cable O.D. range	3.5 - 8 mm	●	-	-
Wire size	AWG 26 - 20	- <sup>1)</sup>	NE8*-Y*	NE8*-Y*
Panel thickness	max. 3 mm / 0.12"	-	●	4 mm / 0.16"
<b>Material</b>				
Housing	PBT D202G30	-	●	●
	Zinc diecast (ZnAlCu1, gal Ni / bl Cr / Collinox)	●	-	-
B / D-flange	Zinc diecast (ZnAlCu1, gal Ni / bl Cr)	-	●	●
Strain relief clamp	POM	●	-	-
	CuZn35Pb2, Tin plated	-	NE8*-Y*	NE8*-Y*
Contacts	Bronze (CuSn6)	- <sup>1)</sup>	●	●
Contact surface	Au (gal 0.2 μm over Ni plating)	- <sup>1)</sup>	●	●
Locking Element	Ck 67 steel, treated	-	●	●
Bushing	Polyamide (PA 6 15% GR)	●	-	-
Boot	Polyamide (PA 6)	●	-	-
Sealing gasket	EPDM	-	-	SE8FD
<b>Environment</b>				
Operating Temperature	-30°C to +80°C	●	●	●
	-20°C to +60°C	-	-	SE8FD
Protection class	IP54	-	-	SE8FD
Flammability	UL94V-0	UL94 HB	●	●
Solderability complies with IEC 68-2-20		-	PCB Version	PCB Version
Mating screw		-	A screw	E screw
Color coding		BSE-* / BSX-*	ACRF-*	DSS-*

<sup>1)</sup>: Specs depend on type of RJ45 plugs used

## Ordering Information

### Cable Connector

NE8MC	Cable housing with chuck and bushing (two antikink boots, one up to 5 mm and one up to 8 mm cable O.D.) (standard bushing in black, 9 different coding colours on request)
NE8MC-B	Black chromium housing with chuck and bushing (two antikink boots, one for 5 mm and one for 8 mm cable O.D.) (standard bushing in black, 9 different coding colours on request)
NE8MC-1	Cable housing with chuck and X-series bushing, Collinox plating and O-ring gasket (perfect for waterproof applications) (standard bushing in black, 9 different coding colours on request)
NE8MC-B-1	Black chromium housing with chuck and X-series bushing (standard bushing in black, 9 different coding colours on request)
IMPORTANT:	Cable connectors do not include RJ 45 plug. RJ 45 cable assembly must be provided by end-user!

Receptacle	A-shape (all plastic)	B-shape (Nickel ring)	D-shape
Horizontal PCB	NE8FAH	NE8FBH	
Vertical PCB	NE8FAV	NE8FBV	NE8FDV
Vertical PCB with additional screw domes	NE8FAV-SD**		
IDC terminals	NE8FAV-YK**		NE8FDV-YK**
IDC 110 punch down terminals	NE8FAV-Y110**		NE8FDV-Y110**
Horizontal PCB with metal housing (shielded)		NE8FBH-S	
Horizontal PCB in CAT5e			NE8FDH-C5e
Horizontal PCB with metal housing and light pipe		NE8FBH-LED	

\*\* ... includes 2 mounting screws

### Feedthrough

NE8FDP	Receptacle (includes 2 mounting screws)
NE8FF	Coupler

### Accessories

								
A screw	E screw	E screw Nickel	ACRF-*	DSS-*	BSE-*	BSX-*	SCDX	SCDP-*
A-Screw	Mounting screw for A / B -shape (black self-tapping PLASTITE® screw 2.9 x 8, panhead)							
E-Screw	Mounting screw for D-shape (black self-tapping PLASTITE® screw 2.9 x 12, countersunk)							
E-Screw-Ni	Mounting screw for D-shape (Nickel self-tapping PLASTITE® screw 2.9 x 12, countersunk)							
ACRF-*	Colored coding rings for A-shape receptacles (Box of 100 pcs.)							
BSE-*	Colored boot for cable connector carrier (Box of 100 pcs.)							
BSX-*	Colored bushing for NE8MC-1 and NE8MC-B-1 cable connectors							
DSS-*	Lettering plate for D series, colored plastic							
NZP1RU	Panel1RU D-shape housing							
SCDP-*	D-Size sealing gaskets, color coding (*: 0- black, 2- red, 4- yellow, 5- green, 6- blue, 9- white)							
SCDX	Hinged cover seals D-size chassis connectors, IP42 rated							
	*: 0 - Black, 1 - Brown, 2 - Red, 3 - Orange, 4 - Yellow, 5 - Green, 6 - Blue, 7 - Violet, 8 - Grey, 9 - White							

### Waterproof kit for etherCON D-Series



Waterproof assembly kit - SE8FD

SE8FD	Waterproof kit, IP 54, consists of push, gasket, frontplate Suitable for all NE8FD*, perfect in combination with NE8MC-1 (with Collinox plating and sealing gasket)
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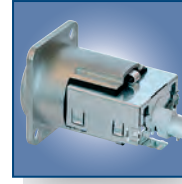
Push Pull locking



IP65 in mated condition



D-shape metal shell



Closed shielding

## CAT6 Patch Cable



NKE6S-\*

## CAT6 Receptacles



NE8FDY-C6

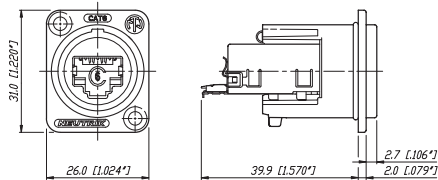
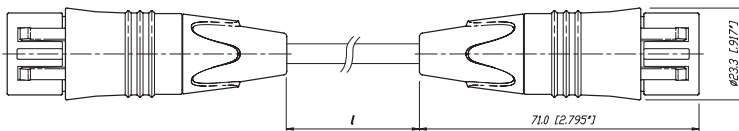


NE8FDY-C6-B

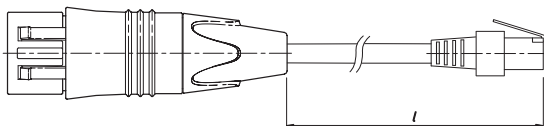
- CAT6 compliant - data rate up to 10 GBit/s
- Dust and water resistant according IP65 in mated condition
- Push Pull mating design provides secure locking system
- Shielded system - high noise immunity and EMI protection
- IDC contacts offer gas-tight termination
- Ready made patch cables with rugged diecast cable carrier and unique chuck-type strain relief

NKE6S-\*

NE8FDY-C6



NKE6S-\*-WOC



## Design Criteria

The ruggedized RJ45 CAT6 connection system, provides solutions for high bandwidth data transfer in harsh and demanding environments. This series offers additional headroom for high performance Fast Ethernet 100BaseT and Gigabit Ethernet 1000BaseT connectivity in audio, lighting, live stage and industrial environments and even guarantees to be prepared for future 10 Gbit applications (true CAT6). The etherCON CAT6 series offers a D-shape panel connector with metal housing and secure latching system. Tool-free IDC termination makes cable assembly easy and fast. The preassembled CAT6 patch cables use a shielded S/FTP cable with cable plug carrier offering a robust metal shell and Push-Pull locking system. Integrated sealing rings make the system dust and waterproof to IP 65 rating.

### Features & Benefits:

- CAT6 performance – fast data transmission and high bandwidth applications
- CAT6 specifications according TIA / EIA 568B, ISO / IEC 11801, EN 50173
- Shielded system - high noise immunity and EMI protection
- Push Pull mating - secure and proven locking system
- D-shape metal panel connector
- Ground lead jumper on panel connector with selectable grounding option
- IDC termination without tool
- Ready made patch cables with rugged cable carrier and unique chuck-type strain relief
- Dust and waterproof according IP 65

## Technical Data

Electrical	Receptacle		Patch cable		Materials	Receptacle		Patch cable						
	Number of contacts	Rated current per contact	TIA / EIA rating	Input to output resistance		Insulation resistance	Dielectric strength	NEXT (250 MHz)	Attenuation (250 MHz)	Housing	Adapter	Strain relief clamp	Contacts	Contact surface
	8	1.5 A	CAT6	< 200 mΩ	> 500 MΩ	1 kV dc	48.7 dB	0.1 dB	Zinc diecast	Polyamide PA 6	-	Bronze CuSn	Gold	-
	8	1.5 A	CAT6	< 200 mΩ	> 500 MΩ	1 kV dc	48.7 dB		Zinc diecast	Polyamide PA 6	-	Bronze CuSn	Gold	PU / PA

Mechanical			Environmental		
Retention method	Push-Pull		Operating temperature	-10°C to +60°C	
Life time (mating cycles)	> 1'000		Storage temperature	-40°C to +70°C	
Wire size	0.5 - 0.65 mm (AWG 24 - AWG 22)		Flammability	UL94HB	
Stranded wire	AWG 26/7 - 22/7		Protection class	IP 65	

## Ordering Information

### Patch Cable

NKE6S-*	Standard lengths: 0.5, 1, 2, 3, 5, 10, 30 m
NKE6S-*-WOC	Equipped on one side with metal shell, standard lengths: 1, 2, 3, 5, 10, 30 m Custom length in meter steps on request.

### Receptacle

NE8FDY-C6	etherCON CAT6 with Nickel D-shell
NE8FDY-C6-B	etherCON CAT6 with Black Chrome D-shell

### Accessories

Accessories see page 89 / 93