KOCH Kabel
Smart cabling by Koch Kabel AG

Koflex Ethernet halogen-free FHI

Produkt
- Ethernetleitungen „mud resistant" mit Schiffs-Approbationen

Einsatzbereich
- Maschinenbau
- Anlagenbau
- Schiffsbau / Off Shore-Anwendungen
- Schwerindustrie

Eigenschaften
- Halogenfrei
- Flammwidrig, selbstverlöschend
- Hydrolyse-, mikroben- und verrottungsfest
- Witterungs-, Ozon- und UV-beständig
- Beständig gegen Öle, Fette, alkoholfreie Benzine und Kerosin
- Abriebfest, kerbzäh, weiterreißfest
- Frei von Lackbenetzung störende Substanzen (LABSfrei), RoHS-konform

Cat. 5e SFUTP / mud resistant

Technische Daten

Normen	IEC 60754-2, IEC 61034 IEC 60332-3-24, EN 50173-1, EN 50288-2-1 IEC 11801, IEC 61156-5 IEC 60811-2-1
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 158Ω/km
Temperaturbereich	-40 °C bis +85 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	LR / GL / DNV
Leitermaterial	E-Kupferlitze blank
Isolation	LSHF-FR

Koflex Ethenet halogen-free FHI

product
- *Ethernet cables "mud resistant" with approval for shipbuilding*

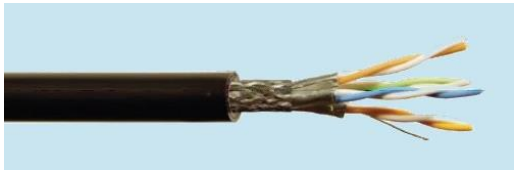
area of application
- *mechanical engineering*
- *plant engineering and construction*
- *ship building / off shore applications*
- *heavy industry*

properties
- *halogen free*
- *flame-retardant, self-extinguishing*
- *hydrolysis-resistant, microbe-resistant, and rot-resistant*
- *weathering, ozone and UV resistant*
- *largely resistant to oils, greases, alcohol-free benzines and kerosene*
- *free from paint wetting Interfering substances (LABS-free), RoHS Compliant*

Cat. 5e SFUTP / mud resistant

technical data

standards	*IEC 60754-2, IEC 61034* *IEC 60332-3-24, IEC-60332-1* *EN 50173-1, EN 50288-2-1* *IEC 11801, IEC 61156-5* *IEC 60811-2-1*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 158Ω/km*
temperature range	*-40°C to +85°C*
min. bending radius	*cable diameter x 8*
approval	*LR / GL / DNV*
conductor	*bare E-copper, stranded wires*
insulation	*LSHF-FR*



Art.nr part-no	Aderzahl / Querschnitt number of cores / cross section	Aussen—Ø mm outer Ø mm	Gewicht kg/100m weight kg/100m	Kupferzahl kg/100m copper index kg/100m
C40608022	(4x2x0.22)	7.7	6.8	3.6

Koflex Ethernet halogen-free FHI

Cat. 7 S/FTP PimF / mud resistant

Technische Daten

Normen	IEC 60754-2, IEC 61034 IEC 60332-3-24, EN 50173-1, EN 50288-2-1 IEC 11801, IEC 61156-5 IEC 60811-2-1
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 155Ω/km
Temperaturbereich	-40 °C bis +85 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	GL / DNV
Leitermaterial	Kupferdraht blank
Isolation	LSHF-FR

Koflex Ethernet halogen-free FHI

Cat. 7 S/FTP PimF / mud resistant

technical data

standards	*IEC 60754-2, IEC 61034* *IEC 60332-3-24* *EN 50173-1, EN 50288-2-1* *IEC 11801, IEC 61156-5* *IEC 60811-2-1*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 155Ω/km*
temperature range	*-40°C to +85°C*
min. bending radius	*cable diameter x 8*
approval	*GL / DNV*
conductor	*solid wire, bare copper*
insulation	*LSHF-FR*

Art.nr part-no	**Aderzahl / Querschnitt** number of cores / cross section	**Aussen—Ø mm** outer Ø mm	**Gewicht kg/100m** weight kg/100m	**Kupferzahl kg/100m** copper index kg/100m
C47008023	(4x2xAWG23/1)	9.6	10.0	3.8

Koflex Ethernet halogen-free

Cat. 6 (6A) S/FTP PimF

Technische Daten

Normen	IEC 60754-2, IEC 61034-1/2 IEC 60332-3-24, IEC 60332-1 IEC 60092-359, IEC 60092-350 IEC 61156-5
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 145Ω/km
Temperaturbereich	-40 °C bis +85 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	GL / DNV / ABS
Leitermaterial	E-Kupferlitze blank
Isolation	LSHF-FR

Koflex Ethernet halogen-free

Cat. 6 (6A) S/FTP PimF

technical data

Standards	*IEC 60754-2, IEC 61034-1/2* *IEC 60332-3-24,* *IEC 60332-1* *IEC 60092-359, IEC 60092-350* *IEC 61156-5*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 145Ω/km*
temperature range	*-40°C to +85°C*
min. bending radius	*cable diameter x 8*
approval	*GL / DNV*
conductor	*bare E-copper, stranded wires*
insulation	*LSHF-FR*

Art.nr part-no	Aderzahl / Querschnitt number of cores / cross section	Aussen—Ø mm outer Ø mm	Gewicht kg/100m weight kg/100m	Kupferzahl kg/100m copper index kg/100m
Cat. 6				
C41004223	(4x2xAWG23/1)	7.9	7.0	3.2
Cat. 6A armoured / armiert				
C43004226	(4x2xAWG26/7)	10.3	27.5	3.6

Koflex Ethernet halogen-free FHI

Cat. 7 S/FTP PimF / mud resistant

Technische Daten

Normen	IEC 60754-2, IEC 61034 IEC 60332-3-24, EN 50173-1, EN 50288-2-1 IEC 11801, IEC 61156-5 IEC 60811-2-1
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 138Ω/km
Temperaturbereich	-40 °C bis +85 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	GL / DNV
Leitermaterial	E-Kupferlitze blank
Isolation	LSHF-FR

Koflex Ethernet halogen-free FHI

Cat. 7 S/FTP PimF / mud resistant

technical data

standards	*IEC 60754-2, IEC 61034* *IEC 60332-3-24* *EN 50173-1, EN 50288-2-1* *IEC 11801, IEC 61156-5* *IEC 60811-2-1*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 138Ω/km*
temperature range	*-40°C to +85°C*
min. bending radius	*cable diameter x 8*
approval	*GL / DNV*
conductor	*bare E-copper, stranded wires*
insulation	*LSHF-FR*

Art.nr part-no	Aderzahl / Querschnitt number of cores / cross section	Aussen—Ø mm outer Ø mm	Gewicht kg/100m weight kg/100m	Kupferzahl kg/100m copper index kg/100m
Double jacket / Doppelmantel				
C47510827	(4x2x0.27)	10.1	11.2	3.6
Single jacket / Einfacher Mantel				
C47510927	(4x2x0.27)	8.1	7.5	3.2

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Koflex Ethernet Fire Resistant FE180/E30

Cat. 5e

Technische Daten

Normen	IEC 60754-2, EN 520567-2-2 IEC 60332-1-2, IEC 60332-3-22/24 Cat. A/C EN 50266-2-2/4 Cat. A/C IEC 61034-1/-2, EN 61034-1/2 IEC 60331-21/VDE 472-814
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 145Ω/km
Temperaturbereich	-30 °C bis +65 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	GL / DNV
Leitermaterial	E-Kupferlitze blank
Isolation	Silicon / LSZH / rot

Koflex Ethernet Fire Resistant FE180/E30

Cat. 5e

technical data

Standards	*IEC 60754-2, EN 520567-2-2* *IEC 60332-1-2* *IEC 60332-3-22/24 Cat. A/C* *EN 50266-2-2/4 Cat. A/C* *IEC 61034-1/-2, EN 61034-1/2* *IEC 60331-21/VDE 472-814*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 145Ω/km*
temperature range	*-30°C to +65°C*
min. bending radius	*cable diameter x 8*
approval	*GL / DNV*
conductor	*bare E-copper, stranded wires*
insulation	Silicon rubber */ LSZH / red*

Art.nr part-no	**Aderzahl / Querschnitt** number of cores / cross section	**Aussen—Ø mm** outer Ø mm	**Gewicht kg/100m** weight kg/100m	**Kupferzahl kg/100m** copper index kg/100m
Cat. 5e U/UTP FE180E30				
D41404224	(4x2xAWG22/1)	10.0	10.5	2.6
Cat. 5e U/FTP FE180/E30				
D41414224	(4x2xAWG22/1)	10.2	10.8	3.0

Koflex Ethernet Fire Resistant FE90

Cat. 5e

Technische Daten

Normen	IEC 60754-2, EN 520567-2-2 IEC 60332-1-2, IEC 60332-3-22/24 Cat. A/C EN 50266-2-2/4 Cat. A/C IEC 61034-1/-2, EN 61034-1/2 IEC 60331-23/21 (90 min.)
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 145Ω/km
Temperaturbereich	-30 °C bis +65 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	GL / DNV
Leitermaterial	E-Kupferlitze blank
Isolation	FR-LSZH / XL-HFFR

Koflex Ethernet Fire Resistant FE90

Cat. 5e

technical data

Standards	*IEC 60754-2, EN 520567-2-2* *IEC 60332-1-2* *IEC 60332-3-22/24 Cat. A/C* *EN 50266-2-2/4 Cat. A/C* *IEC 61034-1/-2, EN 61034-1/2* *IEC 60331-23/21 (90 min.)*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 145Ω/km*
temperature range	*-30°C to +65°C*
min. bending radius	*cable diameter x 8*
approval	*GL / DNV*
conductor	*bare E-copper, stranded wires*
insulation	*FR-LSZH / XL-HFFR*

Art.nr part-no	Aderzahl / Querschnitt number of cores / cross section	Aussen—Ø mm outer Ø mm	Gewicht kg/100m weight kg/100m	Kupferzahl kg/100m copper index kg/100m
Cat. 5e U/FTP				
D41304224	(4x2xAWG24/1)	8.1	7.0	3.0
Cat. 5e U/FTP outdoor				
D41014224	(4x2xAWG24/1)	12.0	18.0	3.2
Cat. 5e U/FTP mud resistant – corrugated steel armouring / Armierung: gerilltes Stahlband				
D41024224	(4x2xAWG24/1)	12.0	19.0	3.2
Cat. 5e U/FTP steel braid armouring / Armierung: Stahldrahtgefelcht				
D41034224	(4x2xAWG24/1)	12.5	22.8	3.2
Cat. 5e U/FTP mud resistant - steel braid armouring / Armierung: Stahldrahtgefelcht				
D41044224	(4x2xAWG24/1)	12.0	22.0	3.2
Cat. 5e S/FTP				
D41104224	(4x2xAWG24/1)	8.2	7.9	3.6

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Koflex Ethernet Fire Resistant FE90

Cat. 6 und 6A

Technische Daten

Normen	IEC 60754-2, EN520567-2-2 IEC 60332-1-2, IEC 60332-3-22/24 Cat. A/C EN50266-2-2/4 Cat. A/C IEC 61034-1/-2, EN61034-1/2 IEC 60331-23/21 (90 min.)
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 145Ω/km
Temperaturbereich	-30 °C bis +65 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	GL / DNV
Leitermaterial	E-Kupferlitze blank
Isolation	FR-LSZH / XL-HFFR

Koflex Ethernet Fire Resistant FE90

Cat. 6 and 6A

technical data

Standards	*IEC 60754-2, EN 520567-2-2* *IEC 60332-1-2* *IEC 60332-3-22/24 Cat. A/C* *EN 50266-2-2/4 Cat. A/C* *IEC 61034-1/-2, EN 61034-1/2* *IEC 60331-23/21 (90 min.)*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 145Ω/km*
temperature range	*-30°C to +65°C*
min. bending radius	*cable diameter x 8*
approval	*GL / DNV*
conductor	*bare E-copper, stranded wires*
insulation	*FR-LSZH / XL-HFFR*

Art.nr part-no	Aderzahl / Querschnitt number of cores / cross section	Aussen—Ø mm outer Ø mm	Gewicht kg/100m weight kg/100m	Kupferzahl kg/100m copper index kg/100m
Cat.6 S/FTP				
D41504223	(4x2xAWG23/1)	9.1	9.3	3.2
Cat.6 S/FTP outdoor – steel braiding armouring – Armierung: Stahldrahtgeflecht				
D41514223	(4x2xAWG23/1)	12.5	22.5	3.4
Cat. 6A U/FTP				
D43054223	(4x2xAWG23/1)	8.3	7.1	3.2
Cat. 6A S/FTP				
D43504223	(4x2xAWG23/1)	8.0	8.5	3.6
Cat. 6A S/FTP stranded conductors / Litzenaufbau				
D43514223	(4x2xAWG23/7)	9.0	9.5	3.4
Cat. 6A S/FTP mud resistant steel braiding armouring – Armierung: Stahldrahtgeflecht NEK TS 606				
D43564223	(4x2xAWG23/1)	13.5	26.0	3.6
Cat. 6A S/FTP stranded conductors - mud resistant steel braiding armouring – Litzenaufbau - Armierung: Stahldrahtgeflecht NEK TS 606				
D43574223	(4x2xAWG23/7)	13.0	25.0	3.6

Koflex Ethernet Fire Resistant FE90 und FE180

Cat. 7 und 7A

Technische Daten

Normen	IEC 60754-2, EN520567-2-2 IEC 60332-1-2, IEC 60332-3-22/24 Cat. A/C EN50266-2-2/4 Cat. A/C IEC 61034-1/-2, EN61034-1/2 IEC 60331-23/21 (90 min.)
Impedanz	100Ω +/-5% @ 100MHz
Schleifenwiderstand	≤ 145Ω/km
Temperaturbereich	-30 °C bis +65 °C
Mindestbiegeradius	Leitungsdurchmesser x 8
Approbation	GL / DNV
Leitermaterial	E-Kupferlitze blank
Isolation	FR-LSZH / XL-HFFR

Koflex Ethernet Fire Resistant FE90 and FE180

Cat. 7 and 7A

technical data

Standards	*IEC 60754-2, EN 520567-2-2* *IEC 60332-1-2* *IEC 60332-3-22/24 Cat. A/C* *EN 50266-2-2/4 Cat. A/C* *IEC 61034-1/-2, EN 61034-1/2* *IEC 60331-23/21 (90 min.)*
impedance	*100Ω +/-5% @ 100MHz*
loop resistant	*≤ 145Ω/km*
temperature range	*-30°C to +65°C*
min. bending radius	*cable diameter x 8*
approval	*GL / DNV*
conductor	*bare E-copper, stranded wires*
insulation	*FR-LSZH / XL-HFFR*

Art.nr part-no	Aderzahl / Querschnitt number of cores / cross section	Aussen—Ø mm outer Ø mm	Gewicht kg/100m weight kg/100m	Kupferzahl kg/100m copper index kg/100m
Cat.7 S/FTP				
D45054223	(4x2xAWG23/1)	8.5	8.4	3.2
Cat.7 S/FTP stranded conductors FE180 / Litzenaufbau FE180				
D45014223	(4x2xAWG23/7)	9.1	9.5	3.6
Cat. 7 S/FTP mud resistant NEK TS 606				
D4506223	(4x2xAWG23/1)	8.5	8.4	3.2
Cat. 7 S/FTP stranded conductors - steel braiding armouring / Litzenaufbau - Armierung: Stahldrahtgeflecht				
D45044223	(4x2xAWG23/7)	8.0	8.5	3.6
Cat. 7A S/FTP				
D44554223	(4x2xAWG23/1)	8.2	8.5	3.4