



**YANGINA DAYANIKLI
KABLOLAR**
FIRE RESISTANT
CABLES



Sinyal ve Güvenlik Kabloları
Signal Alarm and Security Cables

KLAS KABLO®

YAPI

- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5
Alev bariyeri : Mika bant
İzolasyon : HF-FR
Damar tanımlama : DIN-47100 renklerine uygun
Öz oluşturma : Damarlar katlar halinde bükülür.
Alev bariyeri : %100 örtmeli Özel yanma geciktirici bant
Dış Kılıf : HF-FR

CONSTRUCTION



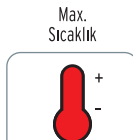

- Inner conductor : Flexible copper conductor, Class 5
Fire barrier : Mika tape
Insulation : HF-FR
Core colours : Acc. DIN 47100
Lay-up : Cores laid up in layers
Fire barrier : % 100 covered special tape
Outer sheath : HF-FR





KULLANIM ALANI


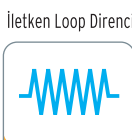


Bu tip halojeniz, alev geciktiricili izoleli veri ve sinyal kabloları elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişim kabloları olarak kullanılırlar.

APPLICATIONS

This type of halogen-free, flame retardant insulated data and signal cables are used for connections in the electronic control technology, puls and data transmission cables for voice frequency transmission.




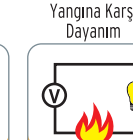
 15xD Min. Bending Radius	 -30 °C Min. Temperature	 +80 °C Max. Temperature	 IEC 60332-3 Reduced Fire Propagation
--	---	---	--

 1000 V Test Voltage	 250 V Max. Operating Voltage	 Min.50 MΩ*km Ins. Resistance	 IEC 60332-1 Flame Retardant
---	--	--	---

 mm / mm ² Cross Section	 Max..... Ω/km Cond. Loop Resistance	 A Dissipation Limit	 nF/m Mutual Capacitance
--	---	---	---

Kesit Cross Section (mm ²)	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	6,2	41	1000/500	49090802
3x0,75	6,5	52	1000/500	49090803
4x0,75	7,1	64	1000/500	49090804
2x1,0	6,5	47	1000/500	49091002
3x1,0	6,9	61	1000/500	49091003
4x1,0	7,6	76	1000/500	49091004
2x1,5	7,1	59	1000/500	49091502
3x1,5	7,6	77	1000/500	49091503
4x1,5	8,5	85	1000/500	49091504
2x2,5	8,3	85	1000/500	49092502
3x2,5	8,9	114	1000/500	49092503
4x2,5	9,7	149	1000/500	49092504

0,75	26,0	10	120
1,00	19,5	15	120
1,50	14,0	20	120
2,50	8,0	20	120

 IEC 60754 No Corr. Gases	 IEC 61034 Low Smoke Emission	 IEC 60331-3 Insulation Integrity (Fe)	 TS EN 50200 Fire resistance
--	---	---	---

Dış Kılıf Rengi
Sheath Colours

PORTAKAL
ORANGE





YAPI

İç iletken	: Elektrolitik bükülü bakır tel, Sınıf 5
Alev bariyeri	: Mika bant
İzolasyon	: HF-FR
Damar tanımlama	: DIN-47100 renklerine uygun
Öz oluşturma	: Damarlar katlar halinde bükülür.
Alev bariyeri	: %100 örtmeli Özel yanma geciktirici bant
Toprak teli	: Bükülü kalaylı bakır tel, Sınıf 2
Ekran	: Al-Pes bant ekran
Dış Kılıf	: HF-FR

CONSTRUCTION

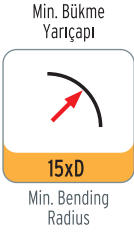
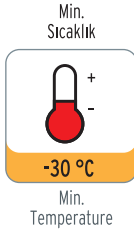
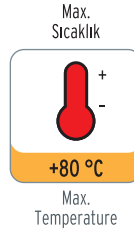

Inner conductor	: Flexible copper conductor, Class 5
Fire barrier	: Mica tape
Insulation	: HF-FR
Core colours	: Acc. DIN 47100
Lay-up	: Cores laid up in layers
Fire barrier	: % 100 covered special tape
Drain wire	: Stranded tinned copper, class 2
Screen	: Al-Pes tape
Outer sheath	: HF-FR



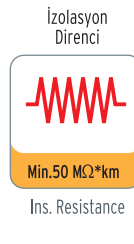

KULLANIM ALANI



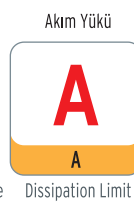
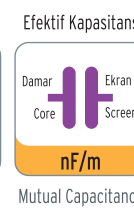


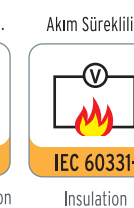
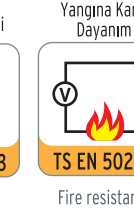
Bu tip halojeniz, alev geciktiricili izoleli veri ve sinyal kabloları elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişim kabloları olarak kullanılırlar.

APPLICATIONS

This type of halogen-free, flame retardant insulated data and signal cables are used for connections in the electronic control technology, puls and data transmission cables for voice frequency transmission.

 Min. Bükme Yarıçapı 15xD Min. Bending Radius	 Min. Sıcaklık -30 °C Min. Temperature	 Max. Sıcaklık +80 °C Max. Temperature	 Alev Yayıma IEC 60332-3 Reduced Fire Propagation
---	--	--	---

 Test Gerilimi 1000 V Test Voltage	 Max. Çalışma Gerilimi 250 V Max. Operating Voltage	 İzolasyon Direnci Min.50 MΩ*km Ins. Resistance	 Alev Geciktirici IEC 60332-1 Flame Retardant
--	---	---	---

 İletken Kesiti mm / mm ² Cross Section	 İletken Loop Direnci Max..... Ω/km Cond. Loop Resistance	 Akım Yüğü A Dissipation Limit	 Etkif Kapasitans nF/m Mutual Capacitance	 Zehirli Gaz İçermez IEC 60754 No Corr. Gases	 Düşük Duman Yoğ. IEC 61034 Low Smoke Emission	 Akım Sürekliliği IEC 60331-3 Insulation Integrity (Fe)	 Yangına Karşı Dayanım TS EN 50200 Fire resistance
--	---	--	---	---	--	--	--

0,75	26,0	10	120
1,00	19,5	15	120
1,50	14,0	20	120
2,50	8,0	20	120

Dış Kılıf Rengi
Sheath Colours

PORTAKAL
ORANGE



Sinyal ve Güvenlik Kabloları
Signal Alarm and Security Cables

KLAS KABLO®

YAPI

- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5
Alev bariyeri : Mika bant
İzolasyon : HF-FR
Damar tanımlama : DIN-47100 renklerine uygun
Öz oluşturma : Damarlar katlar halinde bükülür.
Alev bariyeri : %100 örtmeli Özel yanma geciktirici bant
Ekran : Kalaylı bakır tellerden örgü
Dış Kılıf : HF-FR

CONSTRUCTION





- Inner conductor : Flexible copper conductor, Class 5
Fire barrier : Mica tape
Insulation : HF-FR
Core colours : Acc. DIN 47100
Lay-up : Cores laid up in layers
Fire barrier : % 100 covered special tape
Drain wire : Stranded tinned copper, class 2
Screen : Al-Pes tape
Outer sheath : HF-FR





KULLANIM ALANI




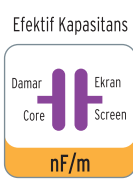
Bu tip halojeniz, alev geciktiricili izoleli veri ve sinyal kabloları elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişim kabloları olarak kullanılırlar.

APPLICATIONS

This type of halogen-free, flame retardant insulated data and signal cables are used for connections in the electronic control technology, puls and data transmission cables for voice frequency transmission.


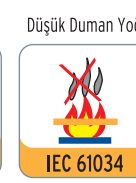

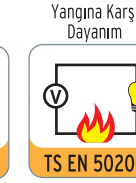
 15xD Min. Bending Radius	 -30 °C Min. Temperature	 +80 °C Max. Temperature	 IEC 60332-3 Reduced Fire Propagation
--	---	---	--

 1000 V Test Voltage	 250 V Max. Operating Voltage	 Min.50 MΩ*km Ins. Resistance	 IEC 60332-1 Flame Retardant
---	--	--	---

 mm / mm ² Cross Section	 Max..... Ω/km Cond. Loop Resistance	 A Dissipation Limit	 nF/m Mutual Capacitance
--	---	---	---

0,75	26,0	10	120
1,00	19,5	15	120
1,50	14,0	20	120
2,50	8,0	20	120

Kesit Cross Section (mm ²)	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	6,4	50	1000/500	49690802
3x0,75	6,9	64	1000/500	49690803
4x0,75	7,5	75	1000/500	49690804
2x1,0	6,9	58	1000/500	49691002
3x1,0	7,3	72	1000/500	49691003
4x1,0	8,0	89	1000/500	49691004
2x1,5	7,5	71	1000/500	49691502
3x1,5	8,0	90	1000/500	49691503
4x1,5	8,9	99	1000/500	49691504
2x2,5	8,7	98	1000/500	49692502
3x2,5	9,3	129	1000/500	49692503
4x2,5	10,3	165	1000/500	49692504

 IEC 60754 No Corr. Gases	 IEC 61034 Low Smoke Emission	 IEC 60331-3 Insulation Integrity (Fe)	 TS EN 50200 Fire resistance
--	---	---	---

Dış Kılıf Rengi
Sheath Colours

PORTAKAL
ORANGE





KLAS KABLO®

YAPI





- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5
Alev bariyeri : Mika bant
İzolasyon : HF-FR
Damar tanımlama : DIN-47100 renklerine uygun
Öz oluşturma : Damarlar katlar halinde bükülür.
Alev bariyeri : % 100 Alev geciktirici özel bant
1. Ekran : %100 örtmeli Al-Pes bant ile ekranlanır
Al tarafı dışta
2. Ekran : Kalaylı bakır tellerden örgü
Dış Kılıf : HF-FR





CONSTRUCTION


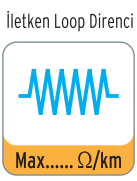





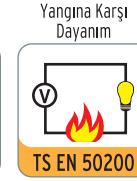
- Inner conductor : Flexible copper conductor, Class 5
Fire barrier : Mica tape
Insulation : HF-FR
Core colours : Acc. DIN 47100
Lay-up : Cores laid up in layers
Fire barrier : % 100 covered special tape
1. Screen : % 100 covered Al-Pes tape, Al outside
2. Screen : Tinned copper braid
Outer sheath : HF-FR

KULLANIM ALANI

Bu tip halojeniz, alev geciktiricili izoleli veri ve sinyal kabloları elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişim kabloları olarak kullanılırlar.

 15xD Min. Bending Radius	 -30 °C Min. Temperature	 +80 °C Max. Temperature	 IEC 60332-3 Reduced Fire Propagation
--	---	---	--

 1000 V Test Voltage	 250 V Max. Operating Voltage	 Min.50 MΩ*km Ins. Resistance	 IEC 60332-1 Flame Retardant
---	--	--	---

 mm / mm ² Cross Section	 Max..... Ω/km Cond. Loop Resistance	 A Dissipation Limit	 nF/m Mutual Capacitance	 IEC 60754 No Corr. Gases	 IEC 61034 Low Smoke Emission	 IEC 60331-3 Insulation Integrity (Fe)	 TS EN 50200 Fire resistance
--	---	---	---	--	--	---	---

0,75	26,0	10	120
1,00	19,5	15	120
1,50	14,0	20	120
2,50	8,0	20	120

Dış Kılıf Rengi
Sheath Colours

PORTAKAL
ORANGE



Kesit Cross Section (mm ²)	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	6,6	52	1000/500	49490802
3x0,75	7,0	66	1000/500	49490803
4x0,75	7,6	77	1000/500	49490804
2x1,0	7,1	60	1000/500	49491002
3x1,0	7,5	74	1000/500	49491003
4x1,0	8,2	93	1000/500	49491004
2x1,5	7,7	73	1000/500	49491502
3x1,5	8,2	92	1000/500	49491503
4x1,5	9,1	102	1000/500	49491504
2 x 2, 5	8,9	101	1000/500	49492502
3 x 2, 5	9,4	131	1000/500	49492503
4 x 2, 5	10,4	168	1000/500	49492504



Yangın Alarm ve Güvenlik Kabloları
Fire Alarm and Security Cables

KLAS KABLO®

YAPI

- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5
Alev bariyeri : Mika bant
İzolasyon : HF-FR
Damar tanımlama : VDE 0815 renklerine uygun
Öz oluşturma : İkilili bükülmüş damarlar katlar halinde bükülür.
Alev bariyeri : %100 örtmeli Özel yanma geciktirici bant
Toprak teli : Kalaylı bakır tel, Sınıf 1
Ekran : Al-Pes bant ekran
Dış Kılıf : HF-FR

KULLANIM ALANI





Elektronik kontrol sistemlerindeki sabit bina içi tesisatlarda yangın alarm ve güvenlik kabloları olarak kullanılır.





CONSTRUCTION




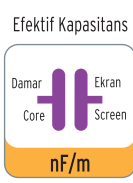



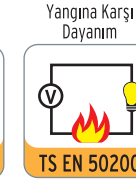
- Inner conductor : Solid bare copper conductor, Class 5
Fire barrier : Mica tape
Insulation : HF-FR
Core colours : Acc. VDE 0815
Lay-up : Twisted cores laid up in layers
Fire barrier : % 100 covered special tape
Drain wire : Tinned copper, class 1
Screen : Al-Pes tape
Outer sheath : HF-FR

APPLICATIONS

This type of cables are used for fire-alarm and security connections in the electronic fire control systems at fixed indoor installations.

 15xD Min. Bending Radius	 -30 °C Min. Temperature	 +70 °C Max. Temperature	 IEC 60332-3 Reduced Fire Propagation
--	---	---	--

 800 V Test Voltage	 300 V Max. Operating Voltage	 Min.100 MΩ*km Ins. Resistance	 IEC 60332-1 Flame Reterdant
--	--	---	---

 mm / mm ² Cross Section	 Max..... Ω/km Cond. Loop Resistance	 K ₁ pF/1000m Capacity Unbalance	 Damar Core Ekran Screen nF/m Mutual Capacitance	 IEC 60754 No Corr. Gases	 IEC 61034 Low Smoke Emission	 IEC 60331-3 Insulation Integrity (Fe)	 TS EN 50200 Fire resistance
--	---	---	--	--	---	---	---

0,80 mm	36,0	2000	100
1,00 mm	23,0	2000	100
1,50 mm ²	12,1	2000	100
2,50 mm ²	7,41	3000	130

Dış Kılıf Rengi
Sheath Colours

PORTAKAL
ORANGE

