



**SİNYAL ve**  
**KUMANDA KABLOLARI**  
**SIGNAL and**  
**CONTROL CABLES**



KLAS KABLO®

#### YAPI

İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5  
İzolasyon : PVC  
Damar tanımlama : DIN-47100 renklerine uygun  
Öz oluşturma : Damarlar katlar halinde bükülür.  
Dış Kılıf : PVC

#### CONSTRUCTION

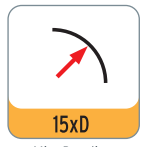
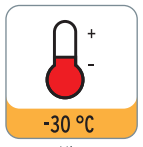
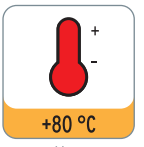
Inner conductor : Flexible copper conductor, Class 5  
Insulation : PVC  
Core colours : Acc. DIN 47100  
Lay-up : Cores laid up in layers  
Outer sheath : PVC

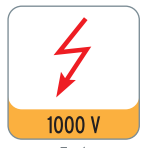
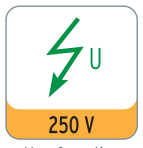

#### KULLANIM ALANI

Bu tip kablolar elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişiminde kullanılırlar.

#### APPLICATIONS

This type of 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
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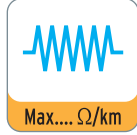

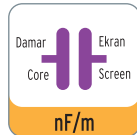
 1000 V Test Voltage	 250 V Max. Operating Voltage	 Min.50 MΩ*km Ins. Resistance
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Alev Geciktirici  
  
IEC 60332-1  
Flame Retardant

#### Dış Kılıf Rengi Sheath Colours

RAL-7001 GRİ  
RAL-7001 GREY



İletken Kesiti	İletken DC Direnci	Akım Yüğü	Efektif Kapasitans
 mm <sup>2</sup> Cross Section	 Max....Ω/km Cond. Loop Resistance	 A Dissipation Limit	 nF/m Mutual Capacitance
0,14	142,5	1,5	90
0,22	88,0	2,0	100
0,25	81,2	2,5	100
0,34	58,9	2,5	110
0,50	39,0	6	120
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 <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,14	3,3	14	1000/500/100	41000102
3x0,14	3,5	15	1000/500/100	41000103
4x0,14	3,7	19	1000/500/100	41000104
5x0,14	4,0	22	1000/500/100	41000105
6x0,14	4,4	26	1000/500/100	41000106
7x0,14	4,4	29	1000/500/100	41000107
8x0,14	4,8	33	1000/500/100	41000108
10x0,14	5,4	40	1000/500/100	41000110
12x0,14	5,6	45	1000/500/100	41000112

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	3,4	17	1000/500/100	41000202
3x0,22	3,6	20	1000/500/100	41000203
4x0,22	4,0	25	1000/500/100	41000204
5x0,22	4,4	31	1000/500/100	41000205
6x0,22	4,7	36	1000/500/100	41000206
7x0,22	4,7	38	1000/500/100	41000207
8x0,22	5,4	46	1000/500/100	41000208
10x0,22	6,1	55	1000/500/100	41000210
12x0,22	6,4	65	1000/500/100	41000212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	3,4	17	1000/500/100	41000302
3x0,25	3,7	21	1000/500/100	41000303
4x0,25	4,1	26	1000/500/100	41000304
5x0,25	4,5	32	1000/500/100	41000305
6x0,25	4,8	37	1000/500/100	41000306
7x0,25	4,8	39	1000/500/100	41000307
8x0,25	5,5	47	1000/500/100	41000308
10x0,25	6,3	57	1000/500/100	41000310
12x0,25	6,6	67	1000/500/100	41000312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,1	25	1000/500/100	41000402
3x0,34	4,3	29	1000/500/100	41000403
4x0,34	4,7	35	1000/500/100	41000404
5x0,34	5,0	41	1000/500/100	41000405
6x0,34	5,5	50	1000/500/100	41000406
7x0,34	5,5	51	1000/500/100	41000407
8x0,34	6,1	61	1000/500/100	41000408
10x0,34	7,1	80	1000/500/100	41000410
12x0,34	7,3	90	1000/500/100	41000412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	4,6	32	1000/500/100	41000502
3x0,50	5,0	40	1000/500/100	41000503
4x0,50	5,4	47	1000/500/100	41000504
5x0,50	5,8	56	1000/500/100	41000505
6x0,50	6,5	68	1000/500/100	41000506
7x0,50	6,5	70	1000/500/100	41000507
8x0,50	7,3	86	1000/500/100	41000508
10x0,50	8,0	112	1000/500/100	41000510
12x0,50	8,2	120	1000/500/100	41000512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	5,2	40	1000/500/100	41000802
3x0,75	5,5	49	1000/500/100	41000803
4x0,75	6,0	60	1000/500/100	41000804
5x0,75	6,5	69	1000/500/100	41000805
6x0,75	7,3	78	1000/500/100	41000806
7x0,75	7,3	90	1000/500/100	41000807
8x0,75	8,1	110	1000/500/100	41000808
10x0,75	9,0	135	1000/500/100	41000810
12x0,75	9,4	150	1000/500/100	41000812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	5,4	47	1000/500/100	41001002
3x1,0	5,8	57	1000/500/100	41001003
4x1,0	6,3	71	1000/500/100	41001004
5x1,0	7,1	88	1000/500/100	41001005
6x1,0	7,8	105	1000/500/100	41001006
7x1,0	7,8	111	1000/500/100	41001007
8x1,0	8,7	130	1000/500/100	41001008
10x1,0	10,0	165	1000/500/100	41001010
12x1,0	10,4	190	1000/500/100	41001012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	6,2	61	1000/500/100	41401502
3x1,5	6,8	79	1000/500/100	41401503
4x1,5	7,4	100	1000/500/100	41401504
5x1,5	8,0	120	1000/500/100	41401505
6x1,5	8,8	142	1000/500/100	41401506
7x1,5	8,8	151	1000/500/100	41401507
8x1,5	10,2	190	1000/500/100	41401508
10x1,5	11,5	230	1000/500/100	41401510
12x1,5	12,6	280	1000/500/100	41401512



KLAS KABLO®

#### YAPI

- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5  
İzolasyon : PVC  
Damar tanımlama : DIN-47100 renklerine uygun  
Öz oluşturma : Damarlar katlar halinde bükülür.  
1. Ekran : %100 örtmeli Polyester bant+Toprak Teli + Al-Pes bant ile ekranlanır, Al tarafı içte toprak teli ile temaslı  
Dış Kılıf : PVC

#### CONSTRUCTION

- Inner conductor : Flexible copper conductor, Class 5  
Insulation : PVC  
Core colours : Acc. DIN 47100  
Lay-up : Cores laid up in layers  
Screen : %100 covered Polyester tape +drain wire + Al-Pes tape, Al inside  
Outer sheath : PVC

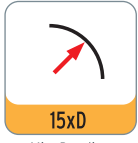
#### KULLANIM ALANI

Bu tip kablolar elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişimde kullanılırlar.

#### APPLICATIONS

This type of cables are used for connections in the electronic control technology, puls and data transmission cables for voice frequency transmission.

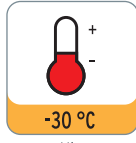
Min. Bükme  
Yarıçapı



15xD

Min. Bending  
Radius

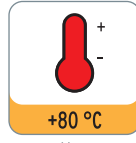
Min.  
Sıcaklık



-30 °C

Min.  
Temperature

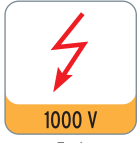
Max.  
Sıcaklık



+80 °C

Max.  
Temperature

Test  
Gerilimi



1000 V

Test  
Voltage

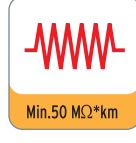
Max. Çalışma  
Gerilimi



250 V

Max. Operating  
Voltage

İzolasyon  
Direnci



Min.50 MΩ\*km

Ins. Resistance

Alev Geciktirici



IEC 60332-1

Flame Retardant

Dış Kılıf Rengi  
Sheath Colours

RAL-7001 GRİ  
RAL-7001 GREY



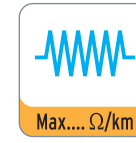
İletken Kesiti



mm<sup>2</sup>

Cross Section

İletken DC Direnci



Max.... Ω/km

Cond. Loop Resistance

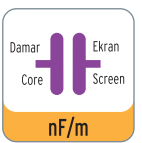
Akım Yüğü



A

Dissipation Limit

Efektif Kapasitans



nF/m

Mutual Capacitance

0,14

142,5

1,5

90

0,22

88,0

2,0

100

0,25

81,2

2,5

100

0,34

58,9

2,5

110

0,50

39,0

6

120

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 <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	3,5	18	1000/500/100	41200202
3x0,22	3,8	21	1000/500/100	41200203
4x0,22	4,4	27	1000/500/100	41200204
5x0,22	4,6	31	1000/500/100	41200205
6x0,22	4,7	35	1000/500/100	41200206
7x0,22	5,0	39	1000/500/100	41200207
8x0,22	5,4	44	1000/500/100	41200208
10x0,22	6,1	52	1000/500/100	41200210
12x0,22	6,6	62	1000/500/100	41200212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	3,6	18	1000/500/100	41200302
3x0,25	3,9	22	1000/500/100	41200303
4x0,25	4,4	28	1000/500/100	41200304
5x0,25	4,7	32	1000/500/100	41200305
6x0,25	4,9	36	1000/500/100	41200306
7x0,25	5,1	40	1000/500/100	41200307
8x0,25	5,6	45	1000/500/100	41200308
10x0,25	6,3	54	1000/500/100	41200310
12x0,25	6,8	65	1000/500/100	41200312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,1	23	1000/500/100	41200402
3x0,34	4,6	30	1000/500/100	41200403
4x0,34	4,8	35	1000/500/100	41200404
5x0,34	5,3	41	1000/500/100	41200405
6x0,34	5,5	48	1000/500/100	41200406
7x0,34	5,7	52	1000/500/100	41200407
8x0,34	6,3	60	1000/500/100	41200408
10x0,34	7,4	75	1000/500/100	41200410
12x0,34	8,1	89	1000/500/100	41200412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	4,6	25	1000/500/100	41200502
3x0,50	4,9	35	1000/500/100	41200503
4x0,50	5,3	44	1000/500/100	41200504
5x0,50	5,8	50	1000/500/100	41200505
6x0,50	6,1	58	1000/500/100	41200506
7x0,50	6,3	65	1000/500/100	41200507
8x0,50	7,1	77	1000/500/100	41200508
10x0,50	8,0	95	1000/500/100	41200510
12x0,50	8,8	120	1000/500/100	41200512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	4,9	38	1000/500/100	41200802
3x0,75	5,3	49	1000/500/100	41200803
4x0,75	5,8	57	1000/500/100	41200804
5x0,75	6,3	72	1000/500/100	41200805
6x0,75	6,6	84	1000/500/100	41200806
7x0,75	7,1	95	1000/500/100	41200807
8x0,75	7,8	103	1000/500/100	41200808
10x0,75	8,8	129	1000/500/100	41200810
12x0,75	9,1	154	1000/500/100	41200812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	5,6	45	1000/500/100	41201002
3x1,0	5,9	60	1000/500/100	41201003
4x1,0	6,5	78	1000/500/100	41201004
5x1,0	7,4	94	1000/500/100	41201005
6x1,0	7,7	105	1000/500/100	41201006
7x1,0	8,0	115	1000/500/100	41201007
8x1,0	8,9	132	1000/500/100	41201008
10x1,0	10,1	165	1000/500/100	41201010
12x1,0	10,6	194	1000/500/100	41201012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	6,3	60	1000/500/100	41201502
3x1,5	7,0	86	1000/500/100	41201503
4x1,5	7,7	108	1000/500/100	41201504
5x1,5	8,3	128	1000/500/100	41201505
6x1,5	9,1	137	1000/500/100	41201506
7x1,5	9,1	159	1000/500/100	41201507
8x1,5	10,4	182	1000/500/100	41201508
10x1,5	11,8	220	1000/500/100	41201510
12x1,5	12,2	264	1000/500/100	41201512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x2,5	7,6	88	1000/500/100	41401502
3x2,5	8,2	122	1000/500/100	41401503
4x2,5	9,1	148	1000/500/100	41401504
5x2,5	9,9	174	1000/500/100	41401505
6x2,5	11,1	212	1000/500/100	41401506
7x2,5	11,1	238	1000/500/100	41401507
8x2,5	12,4	275	1000/500/100	41401508
10x2,5	14,5	344	1000/500/100	41401510
12x2,5	15,4	420	1000/500/100	41401512

KLAS KABLO®

#### YAPI

- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5  
İzolasyon : PVC  
Damar tanımlama : DIN-47100 renklerine uygun  
Öz oluşturma : Damarlar katlar halinde bükülür.  
1. Ekran : %100 örtmeli Polyester bant+  
Kalaylı bakır tellerden örgü  
Dış Kılıf : PVC

#### CONSTRUCTION

- Inner conductor : Flexible copper conductor, Class 5  
Insulation : PVC  
Core colours : Acc. DIN 47100  
Lay-up : Cores laid up in layers  
Screen : %100 covered Polyester tape +  
Tinned copper braid  
Outer sheath : PVC

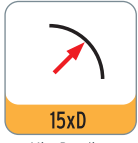
#### KULLANIM ALANI

Bu tip kablolar elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişiminde kullanılırlar.

#### APPLICATIONS

This type of cables are used for connections in the electronic control technology, puls and data transmission cables for voice frequency transmission.

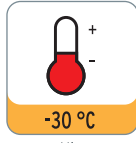
Min. Bükme  
Yarıçapı



15xD

Min. Bending  
Radius

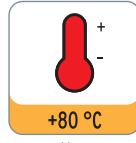
Min.  
Sıcaklık



-30 °C

Min.  
Temperature

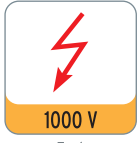
Max.  
Sıcaklık



+80 °C

Max.  
Temperature

Test  
Gerilimi



1000 V

Test  
Voltage

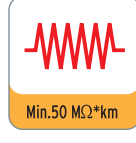
Max. Çalışma  
Gerilimi



250 V

Max. Operating  
Voltage

İzolasyon  
Direnci



Min.50 MΩ\*km

Ins. Resistance

Alev Geciktirici



IEC 60332-1

Flame Retardant

Dış Kılıf Rengi  
Sheath Colours

RAL-7001 GRİ  
RAL-7001 GREY



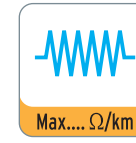
İletken Kesiti



mm<sup>2</sup>

Cross Section

İletken DC Direnci



Max.... Ω/km

Cond. Loop Resistance

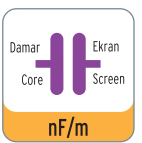
Akım Yüğü



A

Dissipation Limit

Efektif Kapasitans



nF/m

Mutual Capacitance

0,14	142,5	1,5	90
0,22	88,0	2,0	100
0,25	81,2	2,5	100
0,34	58,9	2,5	110
0,50	39,0	6	120
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 <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,14	3,8	17	1000/500/100	41400102
3x0,14	4,0	21	1000/500/100	41400103
4x0,14	4,3	28	1000/500/100	41400104
5x0,14	4,6	32	1000/500/100	41400105
6x0,14	4,8	33	1000/500/100	41400106
7x0,14	5,1	35	1000/500/100	41400107
8x0,14	5,3	40	1000/500/100	41400108
10x0,14	6,0	50	1000/500/100	41400110
12x0,14	6,2	57	1000/500/100	41400112

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	4,1	19	1000/500/100	41400202
3x0,22	4,3	24	1000/500/100	41400203
4x0,22	4,6	29	1000/500/100	41400204
5x0,22	4,9	35	1000/500/100	41400205
6x0,22	5,3	41	1000/500/100	41400206
7x0,22	5,3	42	1000/500/100	41400207
8x0,22	5,7	48	1000/500/100	41400208
10x0,22	6,5	59	1000/500/100	41400210
12x0,22	6,9	69	1000/500/100	41400212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	3,9	20	1000/500/100	41400302
3x0,25	4,3	25	1000/500/100	41400303
4x0,25	4,6	32	1000/500/100	41400304
5x0,25	4,9	37	1000/500/100	41400305
6x0,25	5,3	42	1000/500/100	41400306
7x0,25	5,3	45	1000/500/100	41400307
8x0,25	5,9	52	1000/500/100	41400308
10x0,25	6,6	62	1000/500/100	41400310
12x0,25	7,3	79	1000/500/100	41400312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,4	27	1000/500/100	41400402
3x0,34	4,7	35	1000/500/100	41400403
4x0,34	5,2	40	1000/500/100	41400404
5x0,34	5,6	47	1000/500/100	41400405
6x0,34	6,0	55	1000/500/100	41400406
7x0,34	6,0	60	1000/500/100	41400407
8x0,34	6,6	70	1000/500/100	41400408
10x0,34	7,7	85	1000/500/100	41400410
12x0,34	8,1	100	1000/500/100	41400412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	5,1	34	1000/500/100	41400502
3x0,50	5,2	40	1000/500/100	41400503
4x0,50	5,7	51	1000/500/100	41400504
5x0,50	6,0	55	1000/500/100	41400505
6x0,50	6,4	70	1000/500/100	41400506
7x0,50	6,6	77	1000/500/100	41400507
8x0,50	7,6	88	1000/500/100	41400508
10x0,50	8,4	110	1000/500/100	41400510
12x0,50	8,7	134	1000/500/100	41400512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	5,5	42	1000/500/100	41400802
3x0,75	5,7	53	1000/500/100	41400803
4x0,75	6,2	64	1000/500/100	41400804
5x0,75	6,7	74	1000/500/100	41400805
6x0,75	7,2	90	1000/500/100	41400806
7x0,75	7,4	98	1000/500/100	41400807
8x0,75	8,2	110	1000/500/100	41400808
10x0,75	9,2	134	1000/500/100	41400810
12x0,75	9,6	155	1000/500/100	41400812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	6,0	52	1000/500/100	41401002
3x1,0	6,4	65	1000/500/100	41401003
4x1,0	7,0	80	1000/500/100	41401004
5x1,0	7,7	98	1000/500/100	41401005
6x1,0	8,4	112	1000/500/100	41401006
7x1,0	8,4	123	1000/500/100	41401007
8x1,0	9,3	140	1000/500/100	41401008
10x1,0	10,7	180	1000/500/100	41401010
12x1,0	11,0	200	1000/500/100	41401012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	6,8	65	1000/500/100	41401502
3x1,5	7,4	87	1000/500/100	41401503
4x1,5	8,0	106	1000/500/100	41401504
5x1,5	8,7	128	1000/500/100	41401505
6x1,5	9,4	150	1000/500/100	41401506
7x1,5	9,7	165	1000/500/100	41401507
8x1,5	10,8	197	1000/500/100	41401508
10x1,5	12,3	243	1000/500/100	41401510
12x1,5	13,0	295	1000/500/100	41401512

KLAS KABLO®

#### YAPI

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

#### CONSTRUCTION

- Inner conductor : Flexible copper conductor, Class 5  
Insulation : PVC  
Core colours : Acc. DIN 47100  
Lay-up : Cores laid up in layers  
1. Screen : %100 covered Polyester tape + Al-Pes tape, Al outside  
Screen : Tinned copper braid  
Outer sheath : PVC

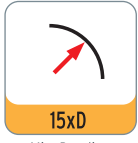
#### KULLANIM ALANI

Bu tip kablolar elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişiminde kullanılırlar.

#### APPLICATIONS

This type of cables are used for connections in the electronic control technology, puls and data transmission cables for voice frequency transmission.

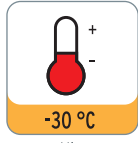
Min. Bükme  
Yarıçapı



15xD

Min. Bending  
Radius

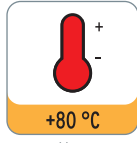
Min.  
Sıcaklık



-30 °C

Min.  
Temperature

Max.  
Sıcaklık



+80 °C

Max.  
Temperature

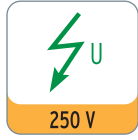
Test  
Gerilimi



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

Dış Kılıf Rengi  
Sheath Colours

RAL-7001 GRİ  
RAL-7001 GREY



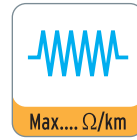
İletken Kesiti



mm<sup>2</sup>

Cross Section

İletken DC Direnci



Max....Ω/km

Cond. Loop Resistance

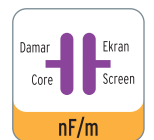
Akım Yüğü



A

Dissipation Limit

Efektif Kapasitans



nF/m

Mutual Capacitance

0,14

142,5

1,5

90

0,22

88,0

2,0

100

0,25

81,2

2,5

100

0,34

58,9

2,5

110

0,50

39,0

6

120

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 <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,14	4,0	19	1000/500/100	41400102
3x0,14	4,1	22	1000/500/100	41400103
4x0,14	4,6	28	1000/500/100	41400104
5x0,14	4,9	32	1000/500/100	41400105
6x0,14	5,0	36	1000/500/100	41400106
7x0,14	5,3	39	1000/500/100	41400107
8x0,14	5,6	43	1000/500/100	41400108
10x0,14	6,2	50	1000/500/100	41400110
12x0,14	6,8	61	1000/500/100	41400112

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	4,1	22	1000/500/100	41400202
3x0,22	4,3	26	1000/500/100	41400203
4x0,22	4,8	33	1000/500/100	41400204
5x0,22	5,2	38	1000/500/100	41400205
6x0,22	5,3	42	1000/500/100	41400206
7x0,22	5,6	47	1000/500/100	41400207
8x0,22	6,0	52	1000/500/100	41400208
10x0,22	6,8	64	1000/500/100	41400210
12x0,22	7,3	73	1000/500/100	41400212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	4,2	22	1000/500/100	41400302
3x0,25	4,4	26	1000/500/100	41400303
4x0,25	5,0	33	1000/500/100	41400304
5x0,25	5,3	39	1000/500/100	41400305
6x0,25	5,5	43	1000/500/100	41400306
7x0,25	5,7	48	1000/500/100	41400307
8x0,25	6,1	54	1000/500/100	41400308
10x0,25	7,0	68	1000/500/100	41400310
12x0,25	7,5	78	1000/500/100	41400312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,6	27	1000/500/100	41400402
3x0,34	4,8	32	1000/500/100	41400403
4x0,34	5,2	39	1000/500/100	41400404
5x0,34	5,6	45	1000/500/100	41400405
6x0,34	5,7	51	1000/500/100	41400406
7x0,34	6,0	57	1000/500/100	41400407
8x0,34	6,6	67	1000/500/100	41400408
10x0,34	7,4	80	1000/500/100	41400410
12x0,34	7,9	92	1000/500/100	41400412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	5,2	33	1000/500/100	41400502
3x0,50	5,5	40	1000/500/100	41400503
4x0,50	5,9	49	1000/500/100	41400504
5x0,50	6,6	60	1000/500/100	41400505
6x0,50	6,8	69	1000/500/100	41400506
7x0,50	7,1	78	1000/500/100	41400507
8x0,50	8,1	96	1000/500/100	41400508
10x0,50	8,5	104	1000/500/100	41400510
12x0,50	9,2	125	1000/500/100	41400512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	5,6	39	1000/500/100	41400802
3x0,75	5,9	50	1000/500/100	41400803
4x0,75	6,4	61	1000/500/100	41400804
5x0,75	7,2	78	1000/500/100	41400805
6x0,75	7,7	92	1000/500/100	41400806
7x0,75	7,7	97	1000/500/100	41400807
8x0,75	8,3	121	1000/500/100	41400808
10x0,75	9,5	138	1000/500/100	41400810
12x0,75	10,5	165	1000/500/100	41400812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	6,0	46	1000/500/100	41401002
3x1,0	6,4	59	1000/500/100	41401003
4x1,0	7,2	77	1000/500/100	41401004
5x1,0	7,7	93	1000/500/100	41401005
6x1,0	8,4	110	1000/500/100	41401006
7x1,0	8,4	117	1000/500/100	41401007
8x1,0	9,1	147	1000/500/100	41401008
10x1,0	10,4	167	1000/500/100	41401010
12x1,0	11,2	198	1000/500/100	41401012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	7,0	63	1000/500/100	41401502
3x1,5	7,4	81	1000/500/100	41401503
4x1,5	8,0	102	1000/500/100	41401504
5x1,5	8,7	124	1000/500/100	41401505
6x1,5	9,7	152	1000/500/100	41401506
7x1,5	9,7	163	1000/500/100	41401507
8x1,5	10,6	200	1000/500/100	41401508
10x1,5	12,0	235	1000/500/100	41401510
12x1,5	13,0	275	1000/500/100	41401512



KLAS KABLO®

#### YAPI

İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5  
İzolasyon : HF-FR izole  
Damar tanımlama : DIN-47100 renklerine uygun  
Öz oluşturma : Damarlar katlar halinde bükülür.  
Dış Kılıf : HF-FR kılıf

#### CONSTRUCTION

Inner conductor : Flexible copper conductor, Class 5  
Insulation : HF-FR compound  
Core colours : Acc. DIN 47100  
Lay-up : Cores laid up in layers  
Outer sheath : HF-FR Compound

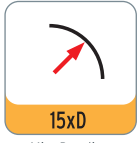
#### KULLANIM ALANI

Bu tip halojen-siz, alev geciktiricili izoleli veri ve sinyal kabloları elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişim kabloları 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.

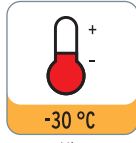
Min. Bükme  
Yarıçapı



15xD

Min. Bending  
Radius

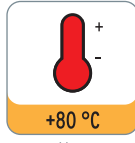
Min.  
Sıcaklık



-30 °C

Min.  
Temperature

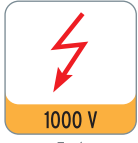
Max.  
Sıcaklık



+80 °C

Max.  
Temperature

Test  
Gerilimi



1000 V

Test  
Voltage

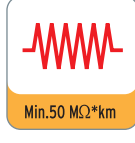
Max. Çalışma  
Gerilimi



250 V

Max. Operating  
Voltage

İzolasyon  
Direnci



Min.50 MΩ\*km

Ins. Resistance

Alev Geciktirici



IEC 60332-1

Flame Retardant

Zehirli Gaz İçermez



IEC 60754

No Corr. Gases

Düşük Duman Yoğ.



IEC 61034

Low Smoke Emission

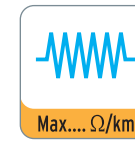
İletken Kesiti



mm<sup>2</sup>

Cross Section

İletken DC Direnci



Max.... Ω/km

Cond. Loop Resistance

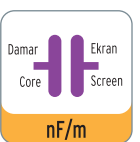
Akım Yüğü



A

Dissipation Limit

Efektif Kapasitans



nF/m

Mutual Capacitance

0,14

142,5

1,5

90

0,22

88,0

2,0

100

0,25

81,2

2,5

100

0,34

58,9

2,5

110

0,50

39,0

6

120

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

RAL-7001 GRİ  
RAL-7001 GREY



Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,14	3,3	14	1000/500/100	49000102
3x0,14	3,5	15	1000/500/100	49000103
4x0,14	3,7	19	1000/500/100	49000104
5x0,14	4,0	22	1000/500/100	49000105
6x0,14	4,4	26	1000/500/100	49000106
7x0,14	4,4	29	1000/500/100	49000107
8x0,14	4,8	33	1000/500/100	49000108
10x0,14	5,4	40	1000/500/100	49000110
12x0,14	5,6	45	1000/500/100	49000112

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	3,4	17	1000/500/100	49000202
3x0,22	3,6	20	1000/500/100	49000203
4x0,22	4,0	25	1000/500/100	49000204
5x0,22	4,4	31	1000/500/100	49000205
6x0,22	4,7	36	1000/500/100	49000206
7x0,22	4,7	38	1000/500/100	49000207
8x0,22	5,4	46	1000/500/100	49000208
10x0,22	6,1	55	1000/500/100	49000210
12x0,22	6,4	65	1000/500/100	49000212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	3,4	17	1000/500/100	49000302
3x0,25	3,7	21	1000/500/100	49000303
4x0,25	4,1	26	1000/500/100	49000304
5x0,25	4,5	32	1000/500/100	49000305
6x0,25	4,8	37	1000/500/100	49000306
7x0,25	4,8	39	1000/500/100	49000307
8x0,25	5,5	47	1000/500/100	49000308
10x0,25	6,3	57	1000/500/100	49000310
12x0,25	6,6	67	1000/500/100	49000312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,1	25	1000/500/100	49000402
3x0,34	4,3	29	1000/500/100	49000403
4x0,34	4,7	35	1000/500/100	49000404
5x0,34	5,0	41	1000/500/100	49000405
6x0,34	5,5	50	1000/500/100	49000406
7x0,34	5,5	51	1000/500/100	49000407
8x0,34	6,1	61	1000/500/100	49000408
10x0,34	7,1	80	1000/500/100	49000410
12x0,34	7,3	90	1000/500/100	49000412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	4,6	32	1000/500/100	49000502
3x0,50	5,0	40	1000/500/100	49000503
4x0,50	5,4	47	1000/500/100	49000504
5x0,50	5,8	56	1000/500/100	49000505
6x0,50	6,5	68	1000/500/100	49000506
7x0,50	6,5	70	1000/500/100	49000507
8x0,50	7,3	86	1000/500/100	49000508
10x0,50	8,0	112	1000/500/100	49000510
12x0,50	8,2	120	1000/500/100	49000512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	5,2	40	1000/500/100	49000802
3x0,75	5,5	49	1000/500/100	49000803
4x0,75	6,0	60	1000/500/100	49000804
5x0,75	6,5	69	1000/500/100	49000805
6x0,75	7,3	78	1000/500/100	49000806
7x0,75	7,3	90	1000/500/100	49000807
8x0,75	8,1	110	1000/500/100	49000808
10x0,75	9,0	135	1000/500/100	49000810
12x0,75	9,4	150	1000/500/100	49000812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	5,4	47	1000/500/100	49001002
3x1,0	5,8	57	1000/500/100	49001003
4x1,0	6,3	71	1000/500/100	49001004
5x1,0	7,1	88	1000/500/100	49001005
6x1,0	7,8	105	1000/500/100	49001006
7x1,0	7,8	111	1000/500/100	49001007
8x1,0	8,7	130	1000/500/100	49001008
10x1,0	10,0	165	1000/500/100	49001010
12x1,0	10,4	190	1000/500/100	49001012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	6,2	61	1000/500/100	49001502
3x1,5	6,8	79	1000/500/100	49001503
4x1,5	7,4	100	1000/500/100	49001504
5x1,5	8,0	120	1000/500/100	49001505
6x1,5	8,8	142	1000/500/100	49001506
7x1,5	8,8	151	1000/500/100	49001507
8x1,5	10,2	190	1000/500/100	49001508
10x1,5	11,5	230	1000/500/100	49001510
12x1,5	12,6	280	1000/500/100	49001512

KLAS KABLO®

#### YAPI

- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5  
İzolasyon : HF-FR izole  
Damar tanımlama : DIN-47100 renklerine uygun  
Öz oluşturma : Damarlar katlar halinde bükülür.  
Ekran : %100 örtmeli Polyester bant + Toprak  
Teli + Al-Pes bant ile ekranlanır, Al  
tarafı içte toprak teli ile temaslı  
Dış Kılıf : HF-FR kılıf

#### CONSTRUCTION

- Inner conductor : Flexible copper conductor, Class 5  
Insulation : HF-FR compound  
Core colours : Acc. DIN 47100  
Lay-up : Cores laid up in layers  
Screen : %100 covered Polyester tape + drain  
wire + Al-Pes tape, Al inside  
Tinned copper braid  
Outer sheath : HF-FR Compound

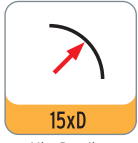
#### KULLANIM ALANI

Bu tip halojen-siz, alev geciktiricili izoleli veri ve sinyal kabloları elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişim kabloları 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.

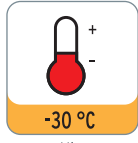
Min. Bükme  
Yarıçapı



15xD

Min. Bending  
Radius

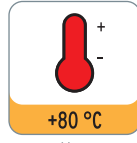
Min.  
Sıcaklık



-30 °C

Min.  
Temperature

Max.  
Sıcaklık



+80 °C

Max.  
Temperature

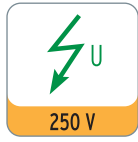
Test  
Gerilimi



1000 V

Test  
Voltage

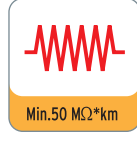
Max. Çalışma  
Gerilimi



250 V

Max. Operating  
Voltage

İzolasyon  
Direnci



Min.50 MΩ\*km

Ins. Resistance

Alev Geciktirici



IEC 60332-1

Flame Retardant

Zehirli Gaz İçermez



IEC 60754

No Corr. Gases

Düşük Duman Yoğ.



IEC 61034

Low Smoke Emission

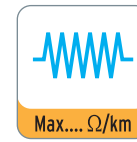
İletken Kesiti



mm<sup>2</sup>

Cross Section

İletken DC Direnci



Max.... Ω/km

Cond. Loop Resistance

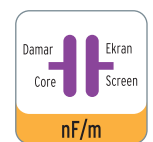
Akım Yüğü



A

Dissipation Limit

Efektif Kapasitans



nF/m

Mutual Capacitance

0,14

0,22

0,25

0,34

0,50

0,75

1,00

1,50

2,50

142,5

88,0

81,2

58,9

39,0

26,0

19,5

14,0

8,0

1,5

2,0

2,5

2,5

6

10

15

20

20

90

100

100

110

120

120

120

120

120

Dış Kılıf Rengi  
Sheath Colours

RAL-7001 GRİ  
RAL-7001 GREY



Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	3,5	18	1000/500/100	49100202
3x0,22	3,8	21	1000/500/100	49100203
4x0,22	4,4	27	1000/500/100	49100204
5x0,22	4,6	31	1000/500/100	49100205
6x0,22	4,7	35	1000/500/100	49100206
7x0,22	5,0	39	1000/500/100	49100207
8x0,22	5,4	44	1000/500/100	49100208
10x0,22	6,1	52	1000/500/100	49100210
12x0,22	6,6	62	1000/500/100	49100212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	3,6	18	1000/500/100	49100302
3x0,25	3,9	22	1000/500/100	49100303
4x0,25	4,4	28	1000/500/100	49100304
5x0,25	4,7	32	1000/500/100	49100305
6x0,25	4,9	36	1000/500/100	49100306
7x0,25	5,1	40	1000/500/100	49100307
8x0,25	5,6	45	1000/500/100	49100308
10x0,25	6,3	54	1000/500/100	49100310
12x0,25	6,8	65	1000/500/100	49100312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,1	23	1000/500/100	49100402
3x0,34	4,6	30	1000/500/100	49100403
4x0,34	4,8	35	1000/500/100	49100404
5x0,34	5,3	41	1000/500/100	49100405
6x0,34	5,5	48	1000/500/100	49100406
7x0,34	5,7	52	1000/500/100	49100407
8x0,34	6,3	60	1000/500/100	49100408
10x0,34	7,4	75	1000/500/100	49100410
12x0,34	8,1	89	1000/500/100	49100412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	4,6	25	1000/500/100	49100502
3x0,50	4,9	35	1000/500/100	49100503
4x0,50	5,3	44	1000/500/100	49100504
5x0,50	5,8	50	1000/500/100	49100505
6x0,50	6,1	58	1000/500/100	49100506
7x0,50	6,3	65	1000/500/100	49100507
8x0,50	7,1	77	1000/500/100	49100508
10x0,50	8,0	95	1000/500/100	49100510
12x0,50	8,8	120	1000/500/100	49100512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	4,9	38	1000/500/100	49100802
3x0,75	5,3	49	1000/500/100	49100803
4x0,75	5,8	57	1000/500/100	49100804
5x0,75	6,3	72	1000/500/100	49100805
6x0,75	6,6	84	1000/500/100	49100806
7x0,75	7,1	95	1000/500/100	49100807
8x0,75	7,8	103	1000/500/100	49100808
10x0,75	8,8	129	1000/500/100	49100810
12x0,75	9,1	154	1000/500/100	49100812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	5,6	45	1000/500/100	49101002
3x1,0	5,9	60	1000/500/100	49101003
4x1,0	6,5	78	1000/500/100	49101004
5x1,0	7,4	94	1000/500/100	49101005
6x1,0	7,7	105	1000/500/100	49101006
7x1,0	8,0	115	1000/500/100	49101007
8x1,0	8,9	132	1000/500/100	49101008
10x1,0	10,1	165	1000/500/100	49101010
12x1,0	10,6	194	1000/500/100	49101012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	6,3	60	1000/500/100	49101502
3x1,5	7,0	86	1000/500/100	49101503
4x1,5	7,7	108	1000/500/100	49101504
5x1,5	8,3	128	1000/500/100	49101505
6x1,5	9,1	137	1000/500/100	49101506
7x1,5	9,1	159	1000/500/100	49101507
8x1,5	10,4	182	1000/500/100	49101508
10x1,5	11,8	220	1000/500/100	49101510
12x1,5	12,2	264	1000/500/100	49101512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x2,5	7,6	88	1000/500/100	49102502
3x2,5	8,2	122	1000/500/100	49102503
4x2,5	9,1	148	1000/500/100	49102504
5x2,5	9,9	174	1000/500/100	49102505
6x2,5	11,1	212	1000/500/100	49102506
7x2,5	11,1	238	1000/500/100	49102507
8x2,5	12,4	275	1000/500/100	49102508
10x2,5	14,5	344	1000/500/100	49102510
12x2,5	15,4	420	1000/500/100	49102512



KLAS KABLO®

#### YAPI

- İç iletken : Elektrolitik bükülü bakır tel, Sınıf 5  
İzolasyon : HF-FR izole  
Damar tanımlama : DIN-47100 renklerine uygun  
Öz oluşturma : Damarlar katlar halinde bükülür.  
Ekran : %100 örtmeli Polyester bant+  
Kalaylı bakır tellerden örgü  
Dış Kılıf : HF-FR kılıf malzemesi

#### CONSTRUCTION

- Inner conductor : Flexible copper conductor, Class 5  
Insulation : HF-FR compound  
Core colours : Acc. DIN 47100  
Lay-up : Cores laid up in layers  
Screen : %100 covered Polyester tape +  
Tinned copper braid  
Outer sheath : HF-FR Compound

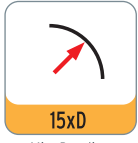
#### KULLANIM ALANI

Bu tip halojen-siz, alev geciktiricili izoleli veri ve sinyal kabloları elektronik kontrol sistemlerindeki bağlantılarda, ses frekansı iletiminde, sinyal ve bilgi iletişim kabloları 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.

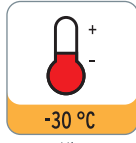
Min. Bükme  
Yarıçapı



15xD

Min. Bending  
Radius

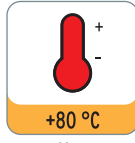
Min.  
Sıcaklık



-30 °C

Min.  
Temperature

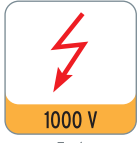
Max.  
Sıcaklık



+80 °C

Max.  
Temperature

Test  
Gerilimi



1000 V

Test  
Voltage

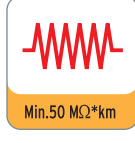
Max. Çalışma  
Gerilimi



250 V

Max. Operating  
Voltage

İzolasyon  
Direnci



Min.50 MΩ\*km

Ins. Resistance

Alev Geciktirici



IEC 60332-1

Flame Retardant

Zehirli Gaz İçermez



IEC 60754

No Corr. Gases

Düşük Duman Yoğ.



IEC 61034

Low Smoke Emission

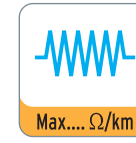
İletken Kesiti



mm<sup>2</sup>

Cross Section

İletken DC Direnci



Max.... Ω/km

Cond. Loop Resistance

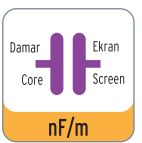
Akım Yüğü



A

Dissipation Limit

Efektif Kapasitans



nF/m

Mutual Capacitance

0,14

142,5

1,5

90

0,22

88,0

2,0

100

0,25

81,2

2,5

100

0,34

58,9

2,5

110

0,50

39,0

6

120

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

RAL-7001 GRİ  
RAL-7001 GREY



Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,14	3,8	17	1000/500/100	49600102
3x0,14	4,0	21	1000/500/100	49600103
4x0,14	4,3	28	1000/500/100	49600104
5x0,14	4,6	32	1000/500/100	49600105
6x0,14	4,8	33	1000/500/100	49600106
7x0,14	5,1	35	1000/500/100	49600107
8x0,14	5,3	40	1000/500/100	49600108
10x0,14	6,0	50	1000/500/100	49600110
12x0,14	6,2	57	1000/500/100	49600112

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	4,1	19	1000/500/100	49600202
3x0,22	4,3	24	1000/500/100	49600203
4x0,22	4,6	31	1000/500/100	49600204
5x0,22	4,9	36	1000/500/100	49600205
6x0,22	5,3	41	1000/500/100	49600206
7x0,22	5,3	44	1000/500/100	49600207
8x0,22	5,7	49	1000/500/100	49600208
10x0,22	6,5	59	1000/500/100	49600210
12x0,22	6,9	77	1000/500/100	49600212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	3,9	20	1000/500/100	49600302
3x0,25	4,3	25	1000/500/100	49600303
4x0,25	4,6	32	1000/500/100	49600304
5x0,25	4,9	37	1000/500/100	49600305
6x0,25	5,3	42	1000/500/100	49600306
7x0,25	5,3	45	1000/500/100	49600307
8x0,25	5,9	52	1000/500/100	49600308
10x0,25	6,6	62	1000/500/100	49600310
12x0,25	7,3	79	1000/500/100	49600312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,4	27	1000/500/100	49600402
3x0,34	4,7	35	1000/500/100	49600403
4x0,34	5,2	40	1000/500/100	49600404
5x0,34	5,6	47	1000/500/100	49600405
6x0,34	6,0	55	1000/500/100	49600406
7x0,34	6,0	60	1000/500/100	49600407
8x0,34	6,6	70	1000/500/100	49600408
10x0,34	7,7	85	1000/500/100	49600410
12x0,34	8,1	100	1000/500/100	49600412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	5,1	34	1000/500/100	49600502
3x0,50	5,2	40	1000/500/100	49600503
4x0,50	5,7	51	1000/500/100	49600504
5x0,50	6,0	55	1000/500/100	49600505
6x0,50	6,4	70	1000/500/100	49600506
7x0,50	6,6	77	1000/500/100	49600507
8x0,50	7,6	88	1000/500/100	49600508
10x0,50	8,4	110	1000/500/100	49600510
12x0,50	8,7	134	1000/500/100	49600512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	5,5	42	1000/500/100	49600802
3x0,75	5,7	53	1000/500/100	49600803
4x0,75	6,2	64	1000/500/100	49600804
5x0,75	6,7	74	1000/500/100	49600805
6x0,75	7,2	90	1000/500/100	49600806
7x0,75	7,4	98	1000/500/100	49600807
8x0,75	8,2	110	1000/500/100	49600808
10x0,75	9,2	134	1000/500/100	49600810
12x0,75	9,6	155	1000/500/100	49600812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	6,0	52	1000/500/100	49601002
3x1,0	6,4	65	1000/500/100	49601003
4x1,0	7,0	80	1000/500/100	49601004
5x1,0	7,7	98	1000/500/100	49601005
6x1,0	8,4	112	1000/500/100	49601006
7x1,0	8,4	123	1000/500/100	49601007
8x1,0	9,3	140	1000/500/100	49601008
10x1,0	10,7	180	1000/500/100	49601010
12x1,0	11,0	200	1000/500/100	49601012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	6,8	65	1000/500/100	49601502
3x1,5	7,4	87	1000/500/100	49601503
4x1,5	8,0	106	1000/500/100	49601504
5x1,5	8,7	128	1000/500/100	49601505
6x1,5	9,4	150	1000/500/100	49601506
7x1,5	9,7	165	1000/500/100	49601507
8x1,5	10,8	197	1000/500/100	49601508
10x1,5	12,3	243	1000/500/100	49601510
12x1,5	13,0	295	1000/500/100	49601512

KLAS KABLO®

#### YAPI

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

#### CONSTRUCTION

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

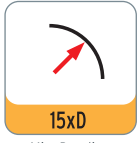
#### KULLANIM ALANI

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

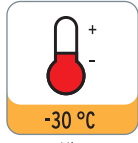
Min. Bükme Yarıçapı



15xD

Min. Bending Radius

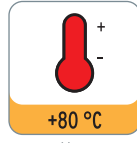
Min. Sıcaklık



-30 °C

Min. Temperature

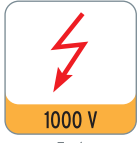
Max. Sıcaklık



+80 °C

Max. Temperature

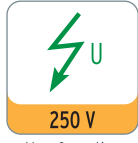
Test Gerilimi



1000 V

Test Voltage

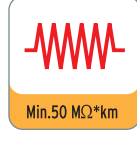
Max. Çalışma Gerilimi



250 V

Max. Operating Voltage

İzolasyon Direnci



Min. 50 MΩ\*km

Ins. Resistance

Alev Geciktirici



IEC 60332-1

Flame Retardant

Zehirli Gaz İçermez



IEC 60754

No Corr. Gases

Düşük Duman Yoğ.



IEC 61034

Low Smoke Emission

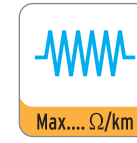
İletken Kesiti



mm<sup>2</sup>

Cross Section

İletken DC Direnci



Max.... Ω/km

Cond. Loop Resistance

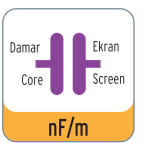
Akım Yüğü



A

Dissipation Limit

Efektif Kapasitans



nF/m

Mutual Capacitance

0,14

142,5

1,5

90

0,22

88,0

2,0

100

0,25

81,2

2,5

100

0,34

58,9

2,5

110

0,50

39,0

6

120

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

RAL-7001 GRİ  
RAL-7001 GREY





Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,14	4,0	19	1000/500/100	49400102
3x0,14	4,1	22	1000/500/100	49400103
4x0,14	4,6	28	1000/500/100	49400104
5x0,14	4,9	32	1000/500/100	49400105
6x0,14	5,0	36	1000/500/100	49400106
7x0,14	5,3	39	1000/500/100	49400107
8x0,14	5,6	43	1000/500/100	49400108
10x0,14	6,2	50	1000/500/100	49400110
12x0,14	6,8	61	1000/500/100	49400112

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,22	4,1	22	1000/500/100	49400202
3x0,22	4,3	26	1000/500/100	49400203
4x0,22	4,8	33	1000/500/100	49400204
5x0,22	5,2	38	1000/500/100	49400205
6x0,22	5,3	42	1000/500/100	49400206
7x0,22	5,6	47	1000/500/100	49400207
8x0,22	6,0	52	1000/500/100	49400208
10x0,22	6,8	64	1000/500/100	49400210
12x0,22	7,3	73	1000/500/100	49400212

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,25	4,2	22	1000/500/100	49400302
3x0,25	4,4	26	1000/500/100	49400303
4x0,25	5,0	33	1000/500/100	49400304
5x0,25	5,3	39	1000/500/100	49400305
6x0,25	5,5	43	1000/500/100	49400306
7x0,25	5,7	48	1000/500/100	49400307
8x0,25	6,1	54	1000/500/100	49400308
10x0,25	7,0	68	1000/500/100	49400310
12x0,25	7,5	78	1000/500/100	49400312

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,34	4,6	27	1000/500/100	49400402
3x0,34	4,8	32	1000/500/100	49400403
4x0,34	5,2	39	1000/500/100	49400404
5x0,34	5,6	45	1000/500/100	49400405
6x0,34	5,7	51	1000/500/100	49400406
7x0,34	6,0	57	1000/500/100	49400407
8x0,34	6,6	67	1000/500/100	49400408
10x0,34	7,4	80	1000/500/100	49400410
12x0,34	7,9	92	1000/500/100	49400412

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,50	5,2	33	1000/500/100	49400502
3x0,50	5,5	40	1000/500/100	49400503
4x0,50	5,9	49	1000/500/100	49400504
5x0,50	6,6	60	1000/500/100	49400505
6x0,50	6,8	69	1000/500/100	49400506
7x0,50	7,1	78	1000/500/100	49400507
8x0,50	8,1	96	1000/500/100	49400508
10x0,50	8,5	104	1000/500/100	49400510
12x0,50	9,2	125	1000/500/100	49400512

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x0,75	5,6	39	1000/500/100	49400802
3x0,75	5,9	50	1000/500/100	49400803
4x0,75	6,4	61	1000/500/100	49400804
5x0,75	7,2	78	1000/500/100	49400805
6x0,75	7,7	92	1000/500/100	49400806
7x0,75	7,7	97	1000/500/100	49400807
8x0,75	8,3	121	1000/500/100	49400808
10x0,75	9,5	138	1000/500/100	49400810
12x0,75	10,5	165	1000/500/100	49400812

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,0	6,0	46	1000/500/100	49401002
3x1,0	6,4	59	1000/500/100	49401003
4x1,0	7,0	77	1000/500/100	49401004
5x1,0	7,7	93	1000/500/100	49401005
6x1,0	8,4	110	1000/500/100	49401006
7x1,0	8,4	117	1000/500/100	49401007
8x1,0	9,3	147	1000/500/100	49401008
10x1,0	10,7	167	1000/500/100	49401010
12x1,0	11,0	198	1000/500/100	49401012

Kesit Cross Section (mm <sup>2</sup> )	Kablo Çapı Overall Dia. (mm)	Yaklaşık Ağırlık Approx. Weight (kg/km)	Standart Uzunluk Standart Length (m)	Kod No. Code Nr.
2x1,5	7,0	63	1000/500/100	49401502
3x1,5	7,4	81	1000/500/100	49401503
4x1,5	8,0	102	1000/500/100	49401504
5x1,5	8,7	124	1000/500/100	49401505
6x1,5	9,7	152	1000/500/100	49401506
7x1,5	9,7	163	1000/500/100	49401507
8x1,5	10,6	200	1000/500/100	49401508
10x1,5	12,0	235	1000/500/100	49401510
12x1,5	13,0	275	1000/500/100	49401512

