

Encoder connecting cable

for SSI - and incremental encoders



Digitronic Automationsanlagen GmbH

Steinbeisstraße 3 · D - 72636 Frickenhausen · Tel. (+49)7022/40590-0 · Fax -10
Auf der Langwies 1 · D - 65510 Hünstetten-Wallbach · Tel.(+49)6126/9453-0 · Fax -42
Internet: <http://www.digitronic.com> · E-Mail: mail@digitronic.com

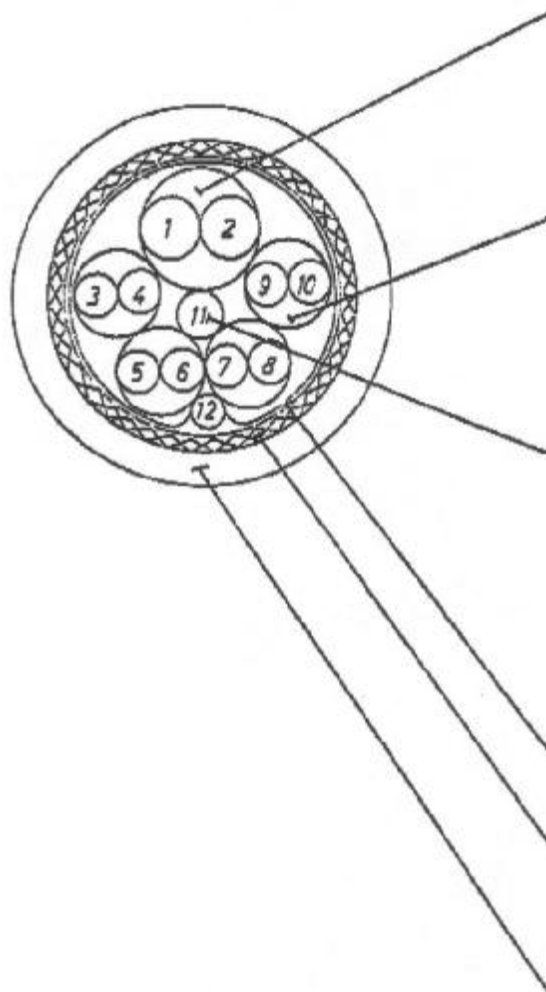
1. Cable type

Type: LiYC11Y 4 x 2 x 0,25 mm² TP + 2 x 0,5 mm² + 1 x 0,14 mm² TP.

2. Usage

For Encoder systems: Incrementel (HTL 24V or RS422) and SSI absolute (RS422).

3. Assembly



1 pair:
tinned copper wire 0,5mm² (16+0,20) with thermoplastic isolation (PVC) heat resistantly, colored, wire Ø: approx. 1,50mm

4 pairs:
tinned copper wire 0,25mm² (7+0,22) with thermoplastic isolation (PVC) heat resistantly, colored, wire Ø: approx. 1,15mm

1 Single wire:
tinned copper wire 0,14mm² (7+0,16) with thermoplastic isolation (PVC) heat resistantly, colored, wire Ø: approx. 1,0mm.

Total stranding
5 pairs + 1 wire.

Tape:
2 layers of isolating foil, overlapping.

Shield:
Network from bright copper wire 0,10mm Ø, coverage approx.. 85% with added tinned wire 0,25mm².

Sheath:
Polyurethan, resistant to friction, hydrolysis -, microbes -, and oil resistant, color: blue, print on: white "Digitronic" or black "UL20963", wall thickness: approx. 0,7mm, outside Ø: maximally 7,5mm.

4. Color code

Wire number	Color	Function SSI RS422	Function Incrementel 24V HTL	Function Incrementel RS422
1	Red	Power supp. +24V	Power supp. +24V	Power supp. +5V
2	Blue	Power supp. 0V	Power supp. 0V	Power supp. 0V
3	White	-	-	A - impulse (+)
4	Brown	-	-	A - impulse (-)
5	Pink	-	-	B - impulse (+)
6	Black	-	Clear impulse	B - impulse (-)
7	Magenta	Data +	B - impulse	Clear - impulse (+)
8	Yellow	Data -	-	Clear - impulse (-)
9	Gray	Clock +	A - impulse	-
10	Green	Clock -	-	-
11	Orange	-	-	-
12	Added wire	-	-	-

5. Electrical data

Wire resistance:
0,14 mm² = maximum 138 Ω/km
0,25 mm² = maximum 78 Ω/km
0,50 mm² = maximum 38 Ω/km

Insulation resistance: > 200 MΩ x km

Capacity:
Wire to wire 0,25 mm² ca. 105 nF/km
Wire to wire 0,5 mm² ca. 130 nF/km

Testing voltage:
Wire to wire 1,2kV
Wire to shield 1,2kV

6. Other requirements

Oil resistant at VDE 0472/9.71 § 803
Temperature resistant - 40° C .. + 90° C
Radius of bend 5 x overall diameter

7. Packing units

On deposit cable drum of 500 meters or single lengths of 5..100 meters.
Part number: K GKABEL11/ST.

8. Option UL

Part number: K GKABL11/ST/UL.
UL appropriate Style 20963 - 80° C / 30V / PUR / Coat mixture for UL changed