

SVP
Broadcast
Microwave

TCS
TRIAx CABLE SPOOL

MANUAL V1.0



1 Description

The triax cable spool is used to connect the control unit and the RF heads of portable transmitters, DT-70 and HDT-70, and portable receivers, DR-70 and HDR-70.

In the triax cable inner conductor is used to transmit IF frequency signal in 70MHz and communication signals between the RF head and the control unit of the portable system. 1st outer conductor is used to support the power supply that gives the control unit to the RF head. 2nd outer conductor is connected to GND in both equipments, control unit and RF head.



Figure 1 Triax cable Spool

2 Features

2.1 Construction

Inner conductor	stranded copper wires, silvered
Insulation	Foam-PE, natural coloured
1 st outer conductor	copper braid, silvered
Insulation	thermoplastic elastomer, natural coloured
2 nd outer conductor	copper braid, bare
Sheath	PVC-special altern. PU, altern. PU-special red, RAL 3000, altern. black RAL 9005

2.2 Dimensions

Inner conductor	stranded copper wire, silvered	Ø 1.0 mm
Insulation	foam-PE	Ø 4.5 mm
Inner screen	copper braid, silvered	Ø 5.1 mm
Insulation	thermoplastic elastomer	Ø 6.6 mm
Outer screen	copper braid, bare	Ø 7.2 mm
Sheath	red, RAL 3000	Ø 8.4 mm
Sheath, reinforced	black, RAL 9005	Ø 8.9 mm
Sheath marking		DRAKA COMTEQ - TRIFLEX 8 HDTV Ch.-Nr. alter.

2.3 Mechanical properties

Minimum bending radius	without load	60 mm
	with load	120 mm
Operating temperature	for PVC, DMC – Flex, PU and DMC-FLEX PU	-40°C up to +70°C

2.4 Electrical properties (20°C)

Characteristic impedance		75 $\Omega \pm 3 \%$
Mutual capacitance	800 Hz	54 pF/m
DC resistance	inner conductor	28 Ω /km
	inner screen	12 Ω /km
	outer screen	10 Ω /km
Insulation resistance	inner conductor/inner screen	$\geq 10^4$ M Ω *km
	inner screen/outer screen	$\geq 10^3$ M Ω *km
Max. operating voltage		300 V
Screening factor	30 – 1000 MHz	≥ 75 dB

2.5 Attenuation and return loss

Attenuation (dB/100m)		Return loss (dB)	
Frequency (MHz)		Frequency (MHz)	
1	0.7	1 – 100	> 26
10	2.6	100 – 300	> 23
20	3.6		
40	5.2		
50	5.8		
60	6.4		
100	8.4		
300	15.1		

2.6 Technical data

Weight kg/km	90
Copper content m	55
Bending radius N	60
Tensile force mm	5.2

Notes:

Final note

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