



Soldered Jumper Cables

EUPEN offers jumper cables manufactured with

1/2"-HIFLEX cable (EC4-50-HF / 5092) or

1/2" standard cable (EC4-50 / 5128) and

soldered **DIN 7-16** or

N type connectors in straight or right angle version.

The high quality silver plated connectors are designed for watertight applications and optimized for optimum performances.

Standard jumper cables are black. Grey 1/2"-HIFLEX jumper cables are available on request.

EUPEN offers jumper cables with a complete watertight DIN 7-16 connectors:

- watertight connector front side by means of two O-rings: one between the inner contact and the dielectric, the other one between the dielectric and the connector body.
- the cable outer conductor is soldered over 360° to the connector body to ensure a perfect water tightness.
- the overmolding of the connector acts as a first protection against water ingress.

FEATURES AND BENEFITS

- **easy, fast and reliable installation**
- **excellent return loss (VSWR) values**
- **high screening effectiveness**
- **low level and stable 3rd order intermodulation products (IM3)**
- **water tight according to IP 68**
- **high mechanical stability**
- **LTE compliant**



GSM Base station



TECHNICAL DATA SHEET

50 ohm connectors

Kabelwerk | **EUPEN** AG

Rev.: 03/2010-09-21

cable

2/3

Soldered Jumper Cables

TECHNICAL DATA

Cable type	<i>EC4-50-HF (5092)</i> 1/2"-HIFLEX		<i>EC4-50-(5128)</i> 1/2"			
Electrical						
• Nominal impedance [Ω]	50 \pm 1					
• Frequency range [MHz]	10 - 2700					
• PIM ratio (2 x 20 W carrier) [dBc]	\leq -155 (Typical -163)					
• Attenuation per m at 20 °C [dB] - without connectors*						
960 MHz	0.106		0.071			
1880 MHz	0.151		0.103			
2200 MHz	0.170		0.113			
2600 MHz	0.187		0.123			
• RF Voltage rating (Peak) [V]	1130		1600			
• Relative propagation velocity [%]	82		88			
Mechanical						
• Minimum bending radius [mm]						
- single	30		70			
- repeated	30		125			
• Connector torque (nominal) [Nm]						
- DIN 7-16 connector	28		28			
- N type connector	12		12			
Environmental						
• Temperature range [°C]						
- installation	-40 to +60					
- operating	-55 to +85					
• Protection against water ingress	Water tightness acc. to IP 68 (0.5 bar / 24 h)					
- Longitudinal water tightness	Two O-rings in the DIN 7-16 connector head					
• General environmental	Corrosion and UV resistant					
• RoHS compliance (EU Directive 2002/95/EC)	YES					
Maximum power rating [W]						
Connector 1	Connector 2	Reference	800 - 1000 MHz	1700 - 2700 MHz	800 - 1000 MHz	1700 - 2700 MHz
7-16	7-16	...-DyDy	650	350	800	450
7-16	N	...-DyNy	600	300	600	300
N	N	...-NyNy	600	300	600	300
Return loss [dB] (VSWR)						
Connector 1	Connector 2	Reference	800 - 1000 MHz	1700 - 2700 MHz	800 - 1000 MHz	1700 - 2700 MHz
7-16	7-16	...-DyDy	> 32 (< 1.05)	> 29 (< 1.075)	> 32 (< 1.05)	> 29 (< 1.075)
		...-DyDML	> 30 (< 1.065)	> 28 (< 1.08)	-	-
		...-DMLDML	> 28 (< 1.08)	> 26 (< 1.10)	-	-
7-16	N	...-DyNy	> 32 (< 1.05)	> 29 (< 1.075)	> 32 (< 1.05)	> 29 (< 1.075)
		...-DyNML	> 30 (< 1.065)	> 28 (< 1.08)	-	-
		...-DMLNy	> 30 (< 1.065)	> 28 (< 1.08)	-	-
		...-DMLNML	> 28 (< 1.08)	> 26 (< 1.10)	-	-
N	N	...-NyNy	> 30 (< 1.065)	> 27 (< 1.09)	> 30 (< 1.065)	> 27 (< 1.09)
		...-NyNML	> 29 (< 1.07)	> 27 (< 1.09)	-	-
		...-NMLNML	> 28 (< 1.08)	> 26 (< 1.10)	-	-

* Typical values without connectors, the typical connector attenuation (2 connectors) is less than 0.02 [dB]



TECHNICAL DATA SHEET

50 ohm connectors

Kabelwerk | **EUPEN** AG

Rev.: 03/2010-09-21

cable

3/3

Soldered Jumper Cables

PRODUCT OVERVIEW

Cable type		EC4-50-HF (5092) 1/2"-HIFLEX	EC4-50-(5128) 1/2"
Connector 1	Connector 2		
DIN 7-16 male	DIN 7-16 male	EC4-HF-S-xxx-DMDM	EC4-S-xxx-DMDM
DIN 7-16 male	DIN 7-16 female	EC4-HF-S-xxx-DMDF	EC4-S-xxx-DMDF
DIN 7-16 male	DIN 7-16 male right angle	EC4-HF-S-xxx-DMDML	-
DIN 7-16 male right angle	DIN 7-16 female	EC4-HF-S-xxx-DMLDF	-
DIN 7-16 male	N male	EC4-HF-S-xxx-DMNM	EC4-S-xxx-DMNM
DIN 7-16 male	N male right angle	EC4-HF-S-xxx-DMNML	-
DIN 7-16 female	N male	EC4-HF-S-xxx-DFNM	EC4-S-xxx-DFNM
N male	N male	EC4-HF-S-xxx-NMNM	EC4-S-xxx-NMNM

Other versions on request.

1/2"-HIFLEX available in grey colour.

PRODUCT REFERENCE SYSTEM

EC4-HF-S-xxx-DyzyDyzy

Cable type: EC4-HF: 1/2"-HIFLEX - EC4-50-HF (5092)
EC4: 1/2" - EC4-50 (5128)

Connector version: (none): screwed version
S: soldered connectors

xxx = Length in cm:	030: 30 cm	150: 150 cm	300: 300 cm
	050: 50 cm	200: 200 cm	xxx: xxx cm
	100: 100 cm	250: 250 cm	

Connector 1: D: DIN 7-16
N: N Type

y = Connector 1 - type: F: female
M: male

z = Connector 1 - style: (none): straight version
L: right angle version

Connector 2: D: DIN 7-16
N: N Type

y = Connector 2 - type: F: female
M: male

z = Connector 2 - style: (none): straight version
L: right angle version

xxx = jumper cable length