

# SOLDERED JUMPER CABLES

## with connectors DIN 7-16, N and 4.3-10

**EUPEN** offers jumper cables with 1/2" Hiflex cable (5092 / EC4-50-HF) or 1/2" standard cable (5128 / EC4-50). The connectors are soldered and a wide range of interfaces is available: DIN 7-16, N or 4.3-10, many of them being available as straight or right angle connectors. These jumper cables are designed for watertight applications and optimised performances.

### Features

- excellent return loss values
- very low bending radius:
  - 30 mm for 1/2" Hiflex (5092)
  - 70 mm for 1/2" standard (5128) for single bending (125 mm for repeated bendings)
- very low level of 3<sup>rd</sup> order intermodulation products
- easy, fast and reliable installation
- water tightness according to IP67/IP68 (mated connectors)
- the overmolding of the connector provides an additional mechanical protection

### Product reference

#### EC4-**vv**-**S**-**www**-**XYZXYZ**

- EC4** = 1/2" cable (5128)
- vv** = HF for Hiflex (5092)
- S** = soldered connector
- www** = length in cm
- X** = D for DIN 7-16 type connector  
N for N type connector  
43 for 4.3-10 type connector
- Y** = M for male or F for female
- Z** = L for right angle connector

### Marking

- Manufacturer EUPEN
- Week & Year of Production
- Product Ref.: for ex.: EC4-HF-S-200-DMDM
- Torque
- Product Nr. EUPEN
- Serial Number



interface 4.3-10



**Technical data**

<b>Cable type*</b>	<b>EC4-50-HF (5092) 1/2"-HIFLEX</b>			<b>EC4-50 (5128) 1/2"</b>				
<b>Electrical</b>								
• Nominal impedance [ $\Omega$ ]				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			
<b>Mechanical</b>								
• 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			
- 4.3-10 connector		8			8			
<b>Environmental</b>								
• 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) (mated connectors)				
• General environmental				Corrosion and UV resistant				
• RoHS compliance (EU Directive 2002/95/EC)				YES				
<b>Maximum power rating [W]</b>								
Connector 1	Connector 2	Reference	0.8-1.0 GHz	1.7-2.2 GHz	2.5-2.7 GHz	0.8-1.0 GHz	1.7-2.2 GHz	2.5-2.7 GHz
7-16	7-16	...-DyDyZ	880	560	500	1090	710	630
7-16	N	...-DyNZyZ	640	400	350	640	400	350
N	N	...-NyzNyz	640	400	350	640	400	350
7-16	4.3-10	...-Dy43M	700	470	420	-	-	-
<b>Return loss [dB] ***</b>								
Connector 1	Connector 2	Reference	0.8-1.0 GHz	1.7-2.2 GHz	2.5-2.7 GHz	0.8-1.0 GHz	1.7-2.2 GHz	2.5-2.7 GHz
7-16	7-16	...-DyDy	$\geq$ 32	$\geq$ 28	$\geq$ 28	$\geq$ 32	$\geq$ 29	$\geq$ 29
		...-DyDML	$\geq$ 30	$\geq$ 28	$\geq$ 28	-	-	-
		...-DMLDML	$\geq$ 28	$\geq$ 26	$\geq$ 26	-	-	-
7-16	N	...-DyNy	$\geq$ 32	$\geq$ 28	$\geq$ 28	$\geq$ 32	$\geq$ 29	$\geq$ 29
		...-DyNML	$\geq$ 30	$\geq$ 28	$\geq$ 28	-	-	-
		...-DMLNy	$\geq$ 30	$\geq$ 28	$\geq$ 28	-	-	-
		...-DMLNML	$\geq$ 28	$\geq$ 26	$\geq$ 26	-	-	-
N	N	...-NyNy	$\geq$ 30	$\geq$ 27	$\geq$ 27	$\geq$ 30	$\geq$ 27	$\geq$ 27
		...-NyNML	$\geq$ 29	$\geq$ 27	$\geq$ 27	-	-	-
		...-NMLNML	$\geq$ 28	$\geq$ 26	$\geq$ 26	-	-	-
7-16	4.3-10	...-Dy43M	$\geq$ 32	$\geq$ 28	$\geq$ 28	-	-	-

\* HLFRR versions also available

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

\*\*\* These values are given for a length of the jumper up to 7 meters.