



# TECHNICAL DATA SHEET

## 50 ohm connectors

Kabelwerk | **EUPEN** AG

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cable

# Connector 5/8" with 4.3-10 interface for EC 4.5-50 (5168)

### FEATURES

- **Low reflection coefficient up to 6GHz**
- **Low PIM level**
- **High contact force through inner contacts made in a high-strength copper alloy**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Installation "fit on and tighten it"**
- **O-ring sealing**



43MV58



43FV58

The connectors are designed according the standard interface as 4.3-10. Contact components are silver or trimetal plated to minimize insertion loss and passive intermodulation products; mechanical parts are nickel plated for heavy-duty handling and best corrosion resistance. Watertightness is achieved by using silicone o-rings to resist in the toughest environmental conditions. For a cost effective, easy and reliable installation, special trimming tool is recommended.

### SPECIFICATIONS

Connector type	4.3-10 male	4.3-10 female
<b>Electrical specifications</b>		
• Nominal impedance [ $\Omega$ ]	50	
• Return loss up to 6 GHz	$\geq 35$ dB	
• Insulation resistance [ $G\Omega$ ]	$\geq 5$	
• Test voltage (at sea level) [kV rms, 50Hz]	2.5	
• Working voltage (at sea level) [kV rms, 50Hz]	1	
• Max. peak power [kW]*	22.5	
• Screening effectiveness up to 1 GHz [dB]	$> 128$	
• Contact resistance (outer contact) [ $m\Omega$ ]	$\leq 1$	
• Contact resistance (inner contact) [ $m\Omega$ ]	$\leq 1$	
• PIM ratio (2 x 20 W carrier) [dBc]	$\leq -155$ (Typical -163)	
<b>Mechanical specifications</b>		
• Torque of coupling mechanism [Nm]	5 to 8	
• Tensile strength of coupling mechanism [N]	500	
• Cable retention [N]	$> 400$	
• Mechanical endurance (Nr of couplings)	$\geq 500$	
• Outer diameter [mm]	32	32
• Length [mm]	73	73
• Weight [g]	200	190
<b>Environmental specifications</b>		
• Temperature range	-40 °C to +85 °C (-40 °F to +185 °F)	
• Degree of protection	IP67/IP68 (mated connectors)	
• Climatic & moisture resistance test	acc. ANSI/SCTE 72 2002 R2007 (-40 °C / +60 °C @ 75% r.h.) for 2 weeks	
• Corrosion resistance test	acc. IEC 60068-2-11-Test Ka	
• Vibration test	acc. IEC 60068-2-6 (10 to 500 Hz @ 10 G)	
<b>Materials</b>		
• Externals parts	Brass with passivated silver or trimetal or nickel plating	
• Outer contact	Brass with passivated silver or trimetal plating	
• Inner contact	Passivated silver plated high-strength copper alloy and brass	
• Dielectric	TPX / PTFE	
• O-rings	High quality silicone	
<b>Cable dimensions</b>		
• Inner conductor outer diameter [mm]	7.04 $\pm$ 0.05	
• Outer conductor outer diameter [mm]	19.7 $\pm$ 0.3	
• Jacket outer diameter [mm]	21.9 $\pm$ 0.4	
<b>Order codes</b>		
• Connector code	43MV58	43FV58
• Special trimming tool	SPTC50V58	

\* 4.3-10 interface according to IEC61169-54