

FC50 TN/50A S1 B BX

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



OMNIMATE® - Board-to-Board connectors

Flexible engineering of compact devices

The use of future-proof contact systems, as well as the optimisation of manufacturing processes, are increasingly important in the development of efficient industrial devices, especially in the field of Industry 4.0. OMNIMATE® board-to-board connectors feature a 1.27 mm pitch and offer maximum flexibility due to different designs.

- Flexible device design - Industrial suitable density combined with high flexible connection combinations (Mezzanine, Mother-to-Daughter, Extender-card, Cable-to-Board)
- Automation-Ready - Developed for automatic assembly with high precise pin coplanarity and SMT-fixation
- Reliable contact - Up to 500 mating cycles due to industrial suitable gold-surface (PdNi-Au)
- Process-Ready - High performance LCP material for reflow soldering
- Scalability - Different heights with high contact overlapping ensure various solutions from 12 – 80 poles.
- Robust miniaturisation - simple and safe connection even possible under unfavorable mating conditions – e.g. inclination or offset.

General ordering data

Version	PCB plug-in connector, female plug, Pitch in mm (P): 1.27 mm, Number of poles: 50, Box
Order No.	2827290000
Type	FC50 TN/50A S1 B BX
GTIN (EAN)	4064675363897
Qty.	10 items
Product data	IEC: / 1.9 A UL:
Packaging	Box

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Technical data

Approvals

ROHS Conform

Dimensions and weights

Length	12.2 mm	Length (inches)	0.4803 inch
Net weight	21.5 g		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

System Parameters

Product family	OMNIMATE Signal - Board-to-Board	Type of connection	Insulation displacement connection (IDC)
Wire connection method	IDC terminal	Cable length	500 mm
Pitch in mm (P)	1.27 mm	Pitch in inches (P)	0.050 "
Conductor outlet direction	90°/270°	Number of poles	50
Number of rows	2	Pin series quantity	2
Protection degree	IP20	Volume resistance	<25 mΩ
Plugging cycles	500	Plugging force/pole, max.	0.6 N
Pulling force/pole, max.	0.6 N		

Material data

Insulating material	LCP	Colour	grey
Colour chart (similar)	RAL 7035	Insulation resistance	≥ 20 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact base material	Copper alloy	Contact material	Cu-alloy
Contact surface	Ni/Au	Layer structure of plug contact	≥ 2 μm Ni / ≥ 0.4 μm PdNi / ≥ 0.05 μm Au
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-40 °C	Operating temperature, max.	125 °C

Conductors suitable for connection

Wire connection cross section AWG, min.	AWG 30/1, 30/7	Wire connection cross section AWG, max.	AWG 30/1, 30/7
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Rated data acc. to IEC

Rated current, min. number of poles (Tu=20°C)	1.9 A	Creepage distance, min.	0.4 mm
Clearance, min.	0.4 mm		

Packing

Packaging	Box	VPE length	155.00 mm
VPE width	64.00 mm	VPE height	38.00 mm

Important note

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp.
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fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

Notes

Classifications

ETIM 8.0	EC002599	ETIM 9.0	EC002599
ETIM 10.0	EC002599	ECLASS 14.0	27-06-03-08
ECLASS 15.0	27-06-03-08		

Drawings

Product image



With optional strain relief



Three standard lengths (0.1 m, 0.2 m, and 0.5 m)