

#### 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 industry 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: 68, Box			
Order No.	<u>2827340000</u>			
Туре	FC20 TN/68A S1 B BX			
GTIN (EAN)	4064675363941			
Qty.	10 items			
Product data	IEC: / 1.9 A			
	UL:			
Packaging	Box			

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Catalogue status / Drawings





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# **Technical data**

ROHS	Conform				
Dimensions and weights					
Net weight	19.6 g				
Environmental Product Com					
RoHS Compliance Status REACH SVHC	Compliant without exemption  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	200 mm		
Pitch in mm (P)	1.27 mm	Pitch in inches (P)	0.050 "		
Conductor outlet direction	90°/270°	Number of poles	68		
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 con	nection				
Wire connection cross section AWG.	AWG 30/1, 30/7	Wire connection cross section AWG,	AWG 30/1, 30/7		
min.	AVVG 30/ 1, 30/ /	max.	AVVG 30/ 1, 30/ /		
Rated data acc. to IEC					
Rated current, min. number of poles	1.9 A	Creepage distance, min.	0.4 mm		
(Tu=20°C) Clearance, min.	0.4 mm				
	C. 1 111111				
Packing					
Packaging	Вох	VPE length	155.00 mm		
VPE width	64.00 mm	VPE height	38.00 mm		

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Catalogue status / Drawings

can be evaluated on request.

recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products

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N	otes

#### Classifications

ETIM 8.0         EC002599         ETIM 9.0         E           ETIM 10.0         EC002599         ECLASS 9.0         2           ECLASS 9.1         27-06-03-08         ECLASS 10.0         2           ECLASS 11.0         27-06-03-08         ECLASS 12.0         2           ECLASS 13.0         27-06-03-08         ECLASS 14.0         2				
ETIM 10.0       EC002599       ECLASS 9.0         ECLASS 9.1       27-06-03-08       ECLASS 10.0         ECLASS 11.0       27-06-03-08       ECLASS 12.0         ECLASS 13.0       27-06-03-08       ECLASS 14.0	ETIM 6.0	EC002599	ETIM 7.0	EC002599
ECLASS 9.1       27-06-03-08       ECLASS 10.0       2         ECLASS 11.0       27-06-03-08       ECLASS 12.0       2         ECLASS 13.0       27-06-03-08       ECLASS 14.0       2	ETIM 8.0	EC002599	ETIM 9.0	EC002599
ECLASS 11.0       27-06-03-08       ECLASS 12.0       2         ECLASS 13.0       27-06-03-08       ECLASS 14.0       2	ETIM 10.0	EC002599	ECLASS 9.0	27-06-03-08
ECLASS 13.0 27-06-03-08 ECLASS 14.0 2	ECLASS 9.1	27-06-03-08	ECLASS 10.0	27-06-03-08
	ECLASS 11.0	27-06-03-08	ECLASS 12.0	27-06-03-08
ECLASS 15.0 27-06-03-08	ECLASS 13.0	27-06-03-08	ECLASS 14.0	27-06-03-08
27-00-03-00	ECLASS 15.0	27-06-03-08		



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# Drawings

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With optional strain relief





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