

FMH1 S1/40V F1 B RL

Weidmüller Interface GmbH & Co. KG

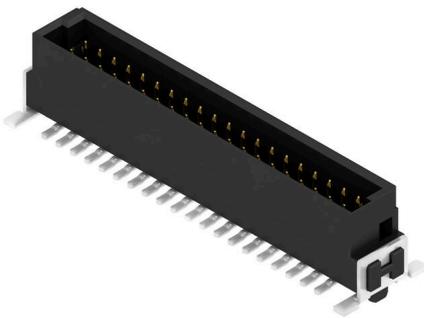
Klingenbergstraße 26

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, male header, SMD solder connection, Pitch in mm (P): 1.27 mm, Number of poles: 40, 180°, Tape
Order No.	2747030000
Type	FMH1 S1/40V F1 B RL
GTIN (EAN)	4064675001485
Qty.	280 items
Product data	IEC: / 2.8 A UL: 150 V
Packaging	Tape

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Technical data

Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (cURus) E92202

Dimensions and weights

Depth	7.4 mm	Depth (inches)	0.2913 inch
Height	7.6 mm	Height (inches)	0.2992 inch
Width	30.48 mm	Width (inches)	1.2 inch
Net weight	6.22 g		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1
SCIP	aea9b935-6702-4dae-ad26-35dc43fc0395

System specifications

Product family	OMNIMATE Signal - Board-to-Board	Type of connection	Board connection
Mounting onto the PCB	SMD solder connection	Pitch in mm (P)	1.27 mm
Pitch in inches (P)	0.050 "	Outgoing elbow	180°
Number of poles	40	Number of solder pins per pole	1
Coplanarity:	0.1 mm	Number of rows	1
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	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Insulation resistance	$\geq 10^{10} \Omega$	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact base material	Copper alloy
Contact material	Cu-alloy	Contact surface	Gold over nickel
Layer structure of plug contact	$\geq 2 \mu\text{m Ni} / \geq 0.4 \mu\text{m PdNi} / \geq 0.05 \mu\text{m Au}$	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-55 °C
Operating temperature, max.	125 °C		

Rated data acc. to IEC

Rated current, min. number of poles (Tu=20°C)	2.8 A	Creepage distance, min.	0.4 mm
Clearance, min.	0.4 mm		

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Technical data

Rated data acc. to UL 1977

Reference to approval values	Specifications are maximum values, details - see approval certificate.	Rated voltage (UL 1977) (obsolete)	150 V
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Packing

Packaging	Tape	VPE length	350.00 mm
VPE width	345.00 mm	VPE height	135.00 mm

Important note

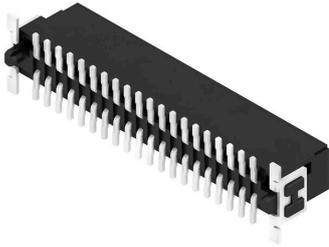
IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products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

Classifications

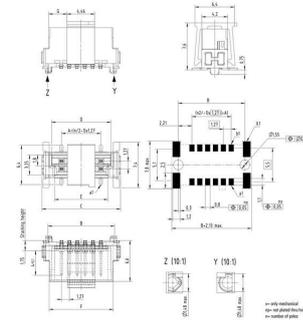
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

Product image

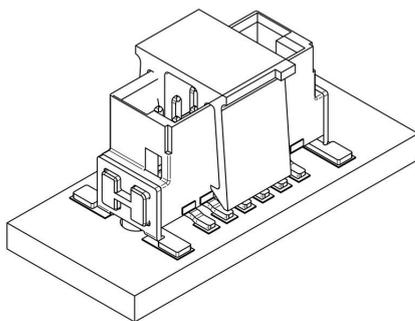


Dimensional drawing

Typ	No. of pins	Series	A	B	C	D	E	F	G
FMH1 S1/40V F1 B RL	12	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	15	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	18	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	21	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	24	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	27	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	30	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	33	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	36	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	39	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	42	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	45	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	48	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	51	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	54	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	57	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	60	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	63	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	66	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	69	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	72	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	75	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	78	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	81	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	84	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	87	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	90	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	93	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	96	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	99	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	102	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	105	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	108	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	111	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	114	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	117	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	120	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	123	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	126	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	129	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0
FMH1 S1/40V F1 B RL	132	FMH1 S1/40V F1 B RL	40.0	40.0	40.0	40.0	40.0	40.0	40.0



Detailed drawing



Derating curve

