				Perommended configuration of	alated through bolos for proce in	termination		-
HARTING DIN SI	anal fomale connect	Λ.Γ.	c FLI us (RoHS) (No.	Recommended configuration of plated through holes for press-in termination				
DIN 21	gnal female connecto	UI (In addition to the hot-air-level (HAL), ot to their different properties - such as n we recommend the following configuration	ner PCB surfaces are getting more important vechanical strength and coefficient of friction of PCB through holes.	. Due Tin plated PCB (HAL) acc. to EN 60352-5	Drilled hole Ø	1,15±0,025 mm max. 15 μm
General information							plated hole Ø Drilled hole Ø	0,94 - 1,09 mm 1,15±0,025 mm
Series de l'information				drilled hole 🛭	- -	Chemical tin plated PCB		min. 0,8µm
Design No. of contacts	IEC 60603-2 types: B, 2B, 3B, C, 2C, 3C, M max. 96	female		l K	Си min. 25 µm		plated hole Ø Drilled hole Ø	1,00 - 1,10 mm 1,15±0,025 mm
Contact spacing	2,54 mm					Gold /Nickel plated PCB	Ni .	3 - 7 µm
Test voltage Contact resistance	1000V max. 20m0hm						Au plated hole Ø	0,05 - 0,12 µm 1,00 - 1,10 mm
Insulation resistance	min. 10 ¹² Ohm						Drilled hole Ø	1,15±0,025 mm
Working current	2A at 20°C (see derating diagram) 40 A for	type M		finished hole	ø	Silver plated PCB	Ag	0,1 - 0,3 µm
Temperature range	-55°C +125°C				´= 		plated hole Ø	1,00 - 1,10 mm
	-40°C +105°C (for press-in connectors	s)		platin	g (e.g. Sn)	Copper plated PCB (OSP)	Drilled hole Ø	1,15±0,025 mm 1.00 – 1.10 mm
Termination technology Clearance & creepage distance	press-in, solder pins min. 1,2 mm each					1 65 (03) /	plated hole Ø	1,00 - 1,10 mm
<u> </u>	16-pole max. 15N 20-pole max. 20N	30-pole max. 30N	32-pole max. 30N					
Insertion and withdrawal force	48-pole max. 45N 64-pole max. 60N	96-pole max. 90N				; :	÷	÷
	PL 1 acc. to IEC 60603-2	500 mating cycles		Assembly instructions		: :		÷
Mating cycles	PL 2 acc. to IEC 60603–2 PL 3 acc. to IEC 60603–2	400 mating cycles 50 mating cycles			RTING press-in tools to ensure a reliab	le press-in process. Please ref	er to the catalogue for to	ols, machines and furthe
UL file	E102079	ov maring cycles		information about the press-in proc	ess.			
RoHS - compliant	Yes			Soldering instructions			-	
Leadfree	Yes							
Hot plugging	No			The connectors should be protected when	being soldered in a dip, flow or film soldering	hathe Otherwice they might become	contaminated as a socult of cal	dering operations on deferre
				as a result of overheating.	vening socialised in a dip, flow or fillin socialing	pariis. Ornerwise, riiey illiyiri pecome	contaminated as a LESALL OL SOL	ucening operations or deforme
Insulator material				(1) For prototypes and short runs protect	the connectors with an industrial adhesive tap	e, e.g. Tesaband 4331 (www.tesa.de)		
				Cover the underside of the connector moul	ding and the adjacent parts of the pcb as wel	l as the open sides of the connector.	. This will prevent heat and gas	es of the soldering apparatu
Material	PBT (thermoplastics, glass fiber reinforcement 30%	6)		from damaging the connector. About 140 +				
Color	RAL 7032 (grey)				ts protective cover with a fast action mechani sed for covering the parts that should not be		ors from gas and heat generate	ed by the soldering apparatus
UL classification Material group acc. IEC 60664-1	UL 94-V0 Illa (175 < CTI < 400)			ns an additional brotection a toll rail he o	aca tot covering the balls that should hot be	Solder Ed.		
NFF classification	13, F4							
					1.		÷	<u>.</u>
Control and the				Cross section of solder termina	TIONS			
Contact material								
Contact material	Copper alloy							
comaci marchidi								
Plating termination zone	Sn over Ni for solder, Ni for press-in			I				
Plating termination zone Plating contact zone I	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3)				75			
Plating termination zone Plating contact zone I	Sn over Ni for solder, Ni for press-in			↓),75 _{-0,07}			
Plating termination zone Plating contact zone I	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3)),75 _{-0,07}			
Plating termination zone Plating contact zone I Plating contact zone II (termination side)	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni				<u>.</u>			
Plating termination zone Plating contact zone I Plating contact zone II (termination side)	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni	Δ),75 _{-0,07} \0,197 - 0,233 mm²			
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity)	A 2		0,3±0,01	<u>.</u>			
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts inclu	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals.	A 2			<u>.</u>			
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts inclu The current capacity curve is valid for con	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals.	A 2						
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts included current capacity curve is valid for contacts of contacts of contacts of contacts of contacts of contacts of contacts is given.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. Intinuous, non nnectors when	A 2 1.5						
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts inclusting the current capacity curve is valid for conterrupted current loaded contacts of conterrupted current loaded contacts is given the maximum temperature.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. Intinuous, non innectors when en, without exceeding	A 2 1.5						
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts included to the current capacity curve is valid for contact current loaded contacts of contacts included contacts of contacts in give the maximum temperature.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. Intinuous, non innectors when en, without exceeding	A 2 1.5						
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts included the current capacity curve is valid for conterrupted current loaded contacts of consimultaneous power on all contacts is give the maximum temperature.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. intinuous, non innectors when een, without exceeding DIN IEC 60512-5	A 2 1.5 1						
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts included to the current capacity curve is valid for contact current loaded contacts of contacts included contacts of contacts in give the maximum temperature.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. intinuous, non innectors when een, without exceeding DIN IEC 60512-5	A 2 1.5 1		0,3±0,01	0,197 - 0,233 mm²			
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts included to the current capacity curve is valid for contact current loaded contacts of contacts included contacts of contacts in give the maximum temperature.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. intinuous, non innectors when een, without exceeding DIN IEC 60512-5	A 2 1.5 1		All Dimensions in	0,197 - 0,233 mm² nm Scale Free size tol.		Ref.	
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts inclusting the current capacity curve is valid for conterrupted current loaded contacts of conterrupted current loaded contacts is given the maximum temperature.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. intinuous, non innectors when een, without exceeding DIN IEC 60512-5	A 2 1.5		0,3±0,01	0,197 - 0,233 mm² mm		Sub. DS 09 03 210 00 01	
Plating termination zone Plating contact zone I Plating contact zone II (termination side) Derating diagram acc. to IEC 60512-5 (Curr The current carrying capacity is limited by of materials for inserts and contacts included the current capacity curve is valid for conterrupted current loaded contacts of consimultaneous power on all contacts is give the maximum temperature.	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. intinuous, non innectors when een, without exceeding DIN IEC 60512-5	A 2 1.5 1		All Dimensions in	0,197 - 0,233 mm² nm Scale Free size tol. 1:1 d Created by Inspected		Sub. DS 09 03 210 00 01 Date	State
	Sn over Ni for solder, Ni for press-in Au over PdNi over Ni (Au over Ni for PL3) Au over Ni rent carrying capacity) y maximum temperature uding terminals. intinuous, non innectors when een, without exceeding DIN IEC 60512-5	A 2 1.5 1 0.5	80 100 120 20	All Dimensions in Original Size DIN All rights reserve	O,197 - O,233 mm² nm Scale Free size tol. 1:1 d Created by Inspected DAHMS	HOFFMANN	Sub. DS 09 03 210 00 01 Date	State Final Release
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