<u> </u>	2] 3		4		5		6		7		8
						Recommended configu	uration of plated th	hrough holes for pre	ss-in termination	1		
DIN C	: f -	L CTI		DAUG 🖊			'					-
LARTING DIN Si	ignal female conn	Jector - CII	> 400	RoHS C	: 71.1 us	In addition to the hot-air	r-level (HAL), other P	CB surfaces are getting	more important.	T:I-1-1 DCD (IIAI)	Drilled hole $arphi$	1,15±0,025 mm
						Due to their different pr friction - we recommend	roperties – such as mo the following configur	ecnanical strength and d ration of PCB through h	oetticient of oles.	Tin plated PCB (HAL) acc to. EN 60352-5	Sn	max. 15 µm
						4	, ,	,			plated hole $arphi$	0,94 - 1,09 mi
General information							d			Ch:! #:-	Drilled hole \emptyset	1,15±0,025 mm
Jener de information						<u>drilled</u>	hole Ø	 -		Chemical tin plated PCB	Sn	min. 0,8 µm
Design	IEC 60603-2	types: B, C, M female					+	Cu min. 25 µm		,	plated hole $arphi$	1,00 - 1,10 mm
No. of contacts	max. 96							/X !!!!			Drilled hole $arphi$	1,15±0,025 mm
Contact spacing	2,54 mm									Gold / Nickel	Sn	3 – 7 µm
Test voltage	1000V									plated PCB	Au	0,05 – 0,12 µг
Contact resistance	max. 15m0hm										plated hole	1,00 - 1,10 mm
Insulation resistance	min. 10 ¹² 0hm					,				6.1 1 1 2 5 5	Drilled hole ∅	1,15±0,025 mm
Working current	2A at 20°C (see der -55°C +125°C	rating diagram) 40 A	for type M			finish	hed hole Ø	- -		Silver plated PCB	Ag	0,1 - 0,3 µm
Temperature range	-55°C +125°C -40°C +105°C	(for press-in conne	rtors)				plating (e.g. Sn)	<u> </u>			plated hole Ø	1,00 - 1,10 mm
Termination technology	press-in, solder pins	,	F10131					11-		Copper plated	Drilled hole ∅	1,15±0,025 mm
Clearance & creepage distance	min. 1,2 mm each	-								PCB (OSP)	plated hole $arphi$	1,00 - 1,10 mm
	16-pole max. 15N	20-pole max. 20N	30-pole max. 30N	N 32-pole max. 30N	N					:-:	:	
Insertion and withdrawal force	48-pole max. 45N	64-pole max. 60N	96-pole max. 90N			Assembly instruction	IS					
Mating cycles	acc. to performance	e level, see table below								e press-in process. Pl	ease refer to the o	atalogue for tool,
JL file	E102079					machines and further	r information about	the press-in proces	SS.			
RoHS – compliant	Yes					Soldering instructions	S		-	9-5	=	ŧ
_eadfree	Yes					October mig mistri deritori.	-			: :	-	÷
Hot plugging	No					The connectors shou	ld be protected wh	nen being soldered in	a dip, flow or f	ilm soldering baths. Of	therwise, they migh	become
						contaminated as a re	esult of soldering (operations or deform	ned as a result o	or overheating.		
nsulator material						(1) For prototypes ar	nd short runs prot	ect the connectors v	with an industrial	adhesive tape, e.g. To	esaband 4331 (www.	tesa.de).
nsucaror marcrial						Cover the underside	of the connector m	moulding and the adja	acent parts of th	ne pcb as well as the ector. About 140 + 5 i	open sides of the	connector. This will
 Material	PCT (thermonlastics	s, glass fiber reinforcement	30%)			1					,	
Tolor		olour denations and speckle				(2) For large series	a jig is recommende	ed. Its protective cov	er with a fast a	ction mechanical lockination a foil can be use	ng device shields th	e connectors from
JL classification	UL 94-V0					gas and heaf genera not be soldered.	neu ny the solderin	ny apparatus. As an	auumonat profec	. IIVII a IOIL CAN DE USE	a ron covering the	hams that should
Material group acc. IEC 60664-1	II (400 < CTI < 600)	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·								:	
NFF classification	13, F3					Cross section of solo	der terminations			:-:		
							0,75 _{-0,07}					
							0,07					
Contact material				<u> </u>								
 Contact material	Cappar allan											
ontact material Plating termination zone	Copper alloy Sn over Ni for solde	for Ni for press in				0,0	√ 0,197 - 0,23	3 mm^2				
Plating rermination zone		e level, see table below				Ψ, 0	, , , , , ,					
taining contract Addic	acc. To per formalite	teret, see rable below										
						Derating diagram acc	. to IEC 60512-5 (C	urrent carrying capa	city)			
										Α		
						The current carrying	capacity is limited	by maximum tempera	ature	Α .		
	mating cy	ycles				The current carrying of materials for inse	capacity is limited erts and contacts in	by maximum temperancluding terminals.	ature	2		
performance level			pla	ating contact zone		of materials for inse	erts and contacts in	ncluding terminals.	ature	2		
	acc to IEC 60603 2	complementary	pla	iting contact zone		of materials for inse The current capacity interrupted current l	curve is valid for loaded contacts of	ncluding terminals. continuous, non connectors when		2 Z		
	acc. to IEC 60603-2		•			of materials for inse The current capacity interrupted current l simultaneous power c	erts and contacts in curve is valid for loaded contacts of on all contacts is g	ncluding terminals. continuous, non connectors when		2 Z		
	acc. to IEC 60603-2 a	complementary	Au	over PdNi over Ni		of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		2 Z		
	acc. to IEC 60603-2	complementary	Au			of materials for inse The current capacity interrupted current l simultaneous power c	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		2 Z		
	acc. to IEC 60603-2 a	complementary	Au e	over PdNi over Ni		of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		2 Z		
performance level 1 2 3	acc. to IEC 60603-2 at 500 400	complementary acc. to IEC 60603-2	Au (Au (over PdNi over Ni over PdNi over Ni over PdNi over Ni)v) over Ni	of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		2 Z		
performance level 1 2 3 NM30 (S4)	acc. to IEC 60603-2 at 500 400	complementary acc. to IEC 60603-2	Au (Au (Au (min. 0,76µm (30µir	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo		of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		2		
performance level 1 2 3 NM30 (S4) Au30	acc. to IEC 60603-2 at 500 400	complementary acc. to IEC 60603-2 500 500	Аи (Аи (Аи (тіп. 0,76µm (30µіг тіп. 0,76,	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30µinch) Au over	Ni	of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		Electrical Load [A]		
performance level 1 2 3 NM30 (S4) Au30 Au50	acc. to IEC 60603-2 at 500 400	500 500 500	Au (Au (Au (min. 0,76µm (30µir min. 0,76µ min. 1,27µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		2 Z		100 120 °C
performance level 1 2 3 NM30 (S4) Au30	acc. to IEC 60603-2 at 500 400	complementary acc. to IEC 60603-2 500 500	Au (Au (Au (min. 0,76µm (30µir min. 0,76µ min. 1,27µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30µinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature.	ncluding terminals. continuous, non connectors when given, without exceed		Electrical Load [A]	60 80 Temperature [
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current l simultaneous power of the maximum tempera Control and test prof	erts and contacts in curve is valid for loaded contacts of on all contacts is g ature. cedures according t	ncluding terminals. continuous, non connectors when given, without exceed to DIN IEC 60512-5	ling	Electrical Load [A]	Temperature [
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 at 500 400	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test pro	erts and contacts in curve is valid for loaded contacts of on all contacts is gature. The cedures according the cedures according the cedures according the cedures according the cedures in mm	continuous, non connectors when given, without exceed to DIN IEC 60512-5	ling	Electrical Load [A]	Temperature [
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test pro	curve is valid for curve is valid for loaded contacts of on all contacts is gature. cedures according to the contacts is gature.	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to	ling L	Electrical Load [A]	Temperature [Ref. Sub.	°C]
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test prof	curve is valid for curve is valid for loaded contacts of on all contacts is gature. cedures according to the management of the management	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to I:1	ling L	Electrical Load [A] 0.5 0.5 0.5 0.5 Standardisation D	Temperature [Ref. Sub. Date	°C]
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test prof	mensions in mm al Size DIN A3 Tes reserved Curve is valid for valid for loaded contacts of on all contacts is gature.	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to I:1	ling L	Electrical Load [A] 0.5 0.5 0.5 0.5 Standardisation D	Temperature [Ref. Sub. Date	State Final Release
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test prof	mensions in mm al Size DIN A3	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to 1:1 eated by Ins ORCK LEH	ling L. pected by NERT	THOPFMANN 2	Temperature [Ref. Sub. Date	State Final Release
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test prof All Dir Origina All right Department E	mensions in mm al Size DIN A3 1 Title CPD - DE Title Curve is valid for curve is valid for curve is valid for all contacts of on all contacts is gature.	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to 1:1 eated by Ins ORCK LEH	ling L. pected by NERT	THOPFMANN 2	Temperature [Ref. Sub. Date	State Final Release
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test prof	mensions in mm al Size DIN A3 1 To PD - DE Title	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to Ins ORCK Instantial Instanti	ing Dected by INERT Male connecto	Standardisation HOFFMANN Or - (T > 400	Temperature [Ref. Sub. Date	State Final Release Doc-Key / ECM
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test prof All Din Origina All right Department E HARTING Electronics Gmb	mensions in mm al Size DIN A3 1 To PD - DE Title	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to Ins ORCK Instantial Instanti	ing Dected by INERT Male connecto	Standardisation HOFFMANN Or - (T > 400	Temperature [Ref. Sub. Date	State Final Release Doc-Key / ECM
performance level 1 2 3 NM30 (S4) Au30 Au50 Au70	acc. to IEC 60603-2 al	500 500 500 500	Аи А Аи А Мін. 0,76µm (30µіг мін. 0,76µ мін. 1,27µ мін. 1,60µ	over PdNi over Ni over PdNi over Ni over PdNi over Ni inch) noble metal (allo ipm (30pinch) Au over ipm (50pinch) Au over	Ni Ni	of materials for inse The current capacity interrupted current I simultaneous power of the maximum tempera Control and test prof All Dir Origina All right Department E	mensions in mm al Size DIN A3 1 To PD - DE Title	continuous, non connectors when given, without exceed to DIN IEC 60512-5 Scale Free size to Ins ORCK Instantial Instanti	ling L. pected by NERT	Standardisation HOFFMANN Or - (T > 400	Temperature [Ref. Sub. Date	State Final Release Doc-Key / ECM