				•	
ARTING DIN Signal	male connecto	or _ THR	.0	L'us Rolls	Soldering instructions
Dily Signal	illate conficer)1 - 11IIV	C TV	LEUS compliant Y	THR (Through Hole Reflow) connectors are designed to be used in a reflow oven together with other SMD (Surface Mount Device) components. In this process, called as v
					"Pin in Hole Intrusive Reflow", the connectors are inserted into plated through holes in a comparable way to conventional component mounting. All other components can
eral information	÷	·	· · · · · · · · · · · · · · · · · · ·		assembled on the pcb surface.
erat information					The length of the connector contacts should be such that they protrude by no more than 1.5 millimetres after insertion to the pcb. Each contact collects solder on its t as it penetrates the solder paste in the hole. So if the contact is too long, this solder would no longer be able to reflow back into the plated through hole by capillary
ign	IEC 60603-2	types: B, 2B, 3B, C, 2C,	3C, M male		action during the soldering process, therefore the quality of the soldered connection would suffer as a result.
of contacts	max. 96				
tact spacing t voltage	2,54mm 1000V				Quantity of solder paste
tact resistance	max. 15m0hm				Before the components are assembled, solder paste must be applied to all the solder pads (for connecting surface-mount components) and the plated through holes.
lation resistance	min. 10 ¹² Ohm				To ensure that the plated through holes are completely filled, significantly more solder paste must be applied than traditional solder pads on the pcb surface. There ar numerous calculation methods available which are complicated to apply. The following rule of thumb has proved valuable in practice:
king current		signal contacts, see derating diagram)			
perature range	-55°C +125°C	for reflect coldesing			VPaste = 2(VH - VP) in which:
nination technology	max. 15s at 240°C SMC with solder p	for reflow soldering			
rance & creepage distance	min. 1,2mm each	<u></u>			VH = Volume of the plated through hole VP = Volume of the connector termination in the hole
	16-pole max. 15N	20-pole max. 20N			Comment: the multiplier "2" compensates for solder paste shrinkage during soldering. For this purpose, it was assumed that 50 % of the paste consists of the actual so
rtion and withdrawal force	30-pole max. 30N	32-pole max. 30N	07 1 2011		the other 50 % being soldering aids.
ng cycles	48-pole max. 45N	64-pole max. 60N re level, see table below	96-pole max. 90N		-
ile	E102079	e teret, see rable below			Cross section of solder pins
S - compliant	Yes				$A = 0.29 \text{mm}^2 - 0.33 \text{mm}^2$
free	Yes				— M
plugging	No				
					9,0
lator material					
erial		cs, glass fiber reinforcement 30%)	.d		-1
Colour natural coloured, colour deviations and speckles permitted UL classification UL 94-V0				Derating diagram acc. to IEC 60512-5 (Current carrying capacity)	
Material group acc. IEC 60664-1 II (400 <u><</u> CTI < 600)				beraring diagram acc. 10 icc 00012-0 (current carrying capacity)	
classification	13, F3				The current carrying capacity is limited by maximum temperature
					of materials for inserts and contacts including terminals.
					The current capacity curve is valid for continuous, non interrupted current loaded contacts of connectors when
tact material					simultaneous power on all contacts is given, without exceeding
tack material	c				I The maximum temperature.
tact material ing termination zone	Copper alloy Sn over Ni				Control and test procedures according to DIN IEC 60512-5
ing contact zone	acc. to performance level, see table below				
	,				
	0	ag system			- 0.5
,	matir	ng cycles			
performance level	acc. to IEC 60603-2	complementary	plating contac	.T ZONE	
	acc. 10 IEC 00003-2	acc. to IEC 60603-2			0 20 40 60 80 100 120 °C
1	500		Au over PdNi	over Ni	Temperature [°C]
2	400		Au over PdNi	over Ni	_
3	50		Au over PdNi		_
NM30 (S4)		500	min. 0,76µm (30µinch) noble metal (alloy) over Ni		-
Au1	500		Au over	•	-
Au2	400		Au over		
Au30		500	min. 0,76µm (30µinch) Au over Ni		All Dimensions in mm Scale Free size tol. Ref.
AUJV		500	min. 1,27µm (50µinch		All Dimensions in mm Scale Free size tol. Original Size DIN A3 1:1 Ref. Sub.
			min. 1,60µm (70µinch		All rights reserved Created by Inspected by Standardisation Date State
Au50		500 min. 2,00µm (90µinch) Au over Ni			STORCK FINERT HOFFMANN 2018-06-28 Final Release
Au50 Au70		700	IIIIII. E.VVDIII 17VDIIILI	7 710 OTC: III	
Au50 Au70 Au90	indaed plating entions highli				Department EC PD - DE Title DIVISION TITLE DIVISION TO THE DIV
Au50 Au70 Au90	Indard plating options highli		options are available on request.	·	DIN Signal male connector - THR 100561189/UGD/
Au50 Au70 Au90	Indard plating options highli				HARTING Electronics GmbH D-32339 Espelkamp Title DIN Signal male connector - THR Type DS Number 09031230201 Title DIN Signal male connector - THR Type DS Number 09031230201