

Part number	no of cont.	A	B	C	D	E	G
15 22 006 x601 xxx	006	2.54	6.96	8.89	5.56	4.56	1.19
15 22 008 x601 xxx	008	3.81	8.23	10.16	6.83	5.83	1.19
15 22 010 x601 xxx	010	5.08	9.50	11.43	8.10	7.10	2.46
15 22 012 x601 xxx	012	6.35	10.77	12.70	9.37	8.37	2.46
15 22 014 x601 xxx	014	7.62	12.04	13.97	10.64	9.64	3.73
15 22 016 x601 xxx	016	8.89	13.31	15.24	11.91	10.91	3.73
15 22 018 x601 xxx	018	10.16	14.58	16.51	13.18	12.18	5.00
15 22 020 x601 xxx	020	11.43	15.85	17.78	14.45	13.45	5.00
15 22 022 x601 xxx	022	12.70	17.12	19.05	15.72	14.72	6.27
15 22 024 x601 xxx	024	13.97	18.39	20.32	16.99	15.99	6.27
15 22 026 x601 xxx	026	15.24	19.66	21.59	18.26	17.26	7.54
15 22 028 x601 xxx	028	16.51	20.93	22.86	19.53	18.53	7.54
15 22 030 x601 xxx	030	17.78	22.20	24.13	20.80	19.80	8.81
15 22 032 x601 xxx	032	19.05	23.47	25.40	22.07	21.07	8.81
15 22 034 x601 xxx	034	20.32	24.74	26.67	23.34	22.34	10.08
15 22 036 x601 xxx	036	21.59	26.01	27.94	24.61	23.61	10.08
15 22 038 x601 xxx	038	22.86	27.28	29.21	25.88	24.88	11.35
15 22 040 x601 xxx	040	24.13	28.55	30.48	27.15	26.15	11.35
15 22 042 x601 xxx	042	25.40	29.82	31.75	28.42	27.42	12.62
15 22 044 x601 xxx	044	26.67	31.09	33.02	29.69	28.69	12.62
15 22 046 x601 xxx	046	27.94	32.36	34.29	30.96	29.69	13.89
15 22 048 x601 xxx	048	29.21	33.63	35.56	32.23	31.23	13.89
15 22 050 x601 xxx	050	30.48	34.90	36.83	33.50	32.50	15.16
15 22 052 x601 xxx	052	31.75	36.17	38.10	34.77	33.77	15.16
15 22 054 x601 xxx	054	33.02	37.44	39.37	36.04	35.04	16.43
15 22 056 x601 xxx	056	34.29	38.71	40.64	37.31	36.31	16.43
15 22 058 x601 xxx	058	35.56	39.98	41.91	38.58	37.58	17.70
15 22 060 x601 xxx	060	36.83	41.25	43.18	39.85	38.85	17.70
15 22 062 x601 xxx	062	38.10	42.52	44.45	41.12	40.12	18.97
15 22 064 x601 xxx	064	39.37	43.79	45.72	42.39	41.39	18.97
15 22 066 x601 xxx	066	40.64	45.06	46.99	43.66	42.66	20.24
15 22 068 x601 xxx	068	41.91	46.33	48.26	44.93	43.93	20.24
15 22 070 x601 xxx	070	43.18	47.60	49.53	46.20	45.20	21.51
15 22 072 x601 xxx	072	44.45	48.87	50.80	47.47	46.47	21.51
15 22 074 x601 xxx	074	45.72	50.14	52.07	48.74	47.74	22.78
15 22 076 x601 xxx	076	46.99	51.41	53.34	50.01	49.01	22.78
15 22 078 x601 xxx	078	48.26	52.68	54.61	51.28	50.28	24.05
15 22 080 x601 xxx	080	49.53	53.95	55.88	52.55	51.55	24.05
15 22 082 x601 xxx	082	50.80	55.22	57.15	53.82	52.82	25.32
15 22 084 x601 xxx	084	52.07	56.49	58.42	55.09	54.09	25.32
15 22 086 x601 xxx	086	53.34	57.76	59.69	56.36	55.36	26.59
15 21 088 x601 xxx	088	54.61	59.03	60.96	57.63	56.63	26.59
15 21 090 x601 xxx	090	55.88	60.30	62.23	58.90	57.90	27.86
15 21 092 x601 xxx	092	57.15	61.57	63.50	60.17	59.17	27.86
15 22 094 x601 xxx	094	58.42	62.84	64.77	61.44	60.44	29.13
15 22 096 x601 xxx	096	59.69	64.11	66.04	62.71	61.71	29.13
15 22 098 x601 xxx	098	60.96	65.38	67.31	63.98	62.98	30.40
15 22 100 x601 xxx	100	62.23	66.65	68.58	65.25	64.25	30.40

Performance level	
PL1 : > 500 mating cycles	2
PL2 : > 250 mating cycles	6
PLS4 : min. 0.06μm Au over 0.7+0.2μm PdNi	5
Packaging	
tape & reel with 280 pcs per reel	000
samples	333

 All Dimensions in mm Original Size DIN A 3			Techn. Character.			Nicht tolerierte Maße/ Free size tolerances			
				Dat.	Name	Maßstab/Scale 5 / 1	har-flex straight female stacking height 9.05mm with vacuum cover		
			Detail.	23Aou.2011	JA				
			Insp.	30Aou.2011	JWV				
			Stand.						
			HARTING EURL F-95972 Paris				TB1522XXXX601.XXX		Blatt/ page 1 / 1
Mod.	Dat.	Name					Sub.		



har-flex straight female connector



General information

Design	Mezzanine connector	
No. of contacts	from 6 to 100poles	
Contact spacing	1,27mm x 1,27mm [0,050"x0,050"]	
Test voltage	500 V	
Contact resistance	< 25 mOhm	
Insulation resistance	> 1x10 ⁷ Ohm	
Working current acc. to IEC 60512, @70°C, 80% derating	6 poles : 1,2A	68poles : 0,75A
	32 poles : 0,8A	100 poles : 0,7A
Temperature range	-55°C ... +125°C	
Termination technology	SMT	
Reflow processing temperature	2min. @ 220°C	
Clearance & creepage distance	0,4mm min.	
Insertion force (depending on mating PCB)	approximately 0,5N/contact	
Withdrawal force (depending on mating PCB)	approximately 0,5N/contact	
Mating cycles	PL1 : 500 mating cycles	
	PL2 : 250 mating cycles	
RoHS - compliant	Yes	
Leadfree	Yes	

Insulator material

Material	LCP (liquid crystalline polymer)
Color	black
UL classification	UL 94-V0
Material group acc. IEC 60664-1	IIIa (175 ≤ CTI < 400)

Contact material

Contact material	Copper alloy
Plating termination zone	Sn
Plating contact zone	Au over PdNi (acc.to Performamnce Level)

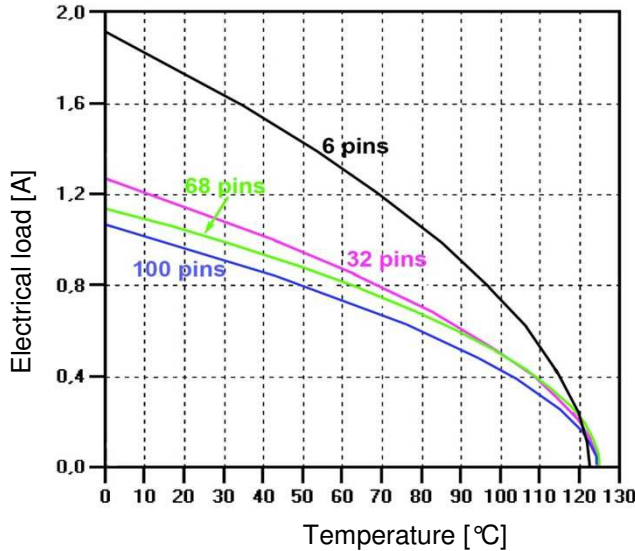
Derating diagram acc. to IEC 60512-5 (Current carrying capacity)

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals.

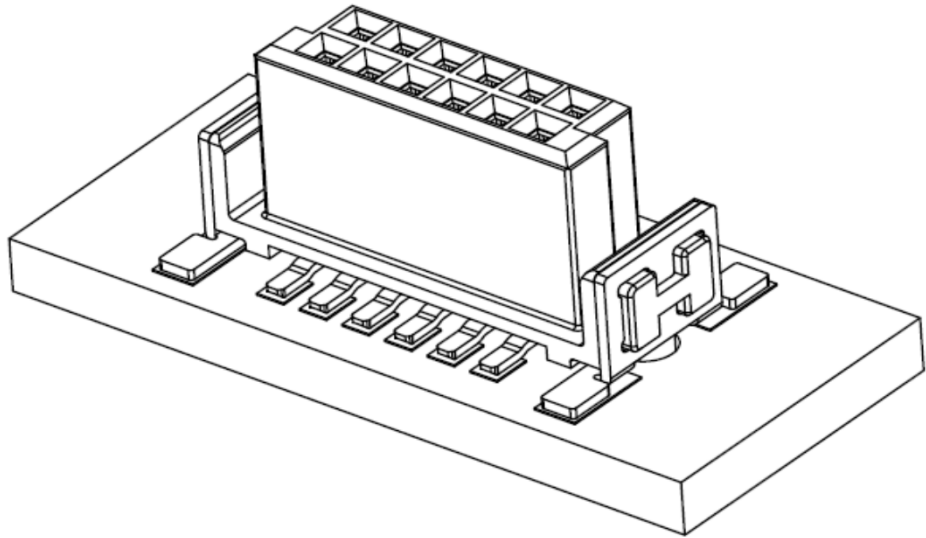
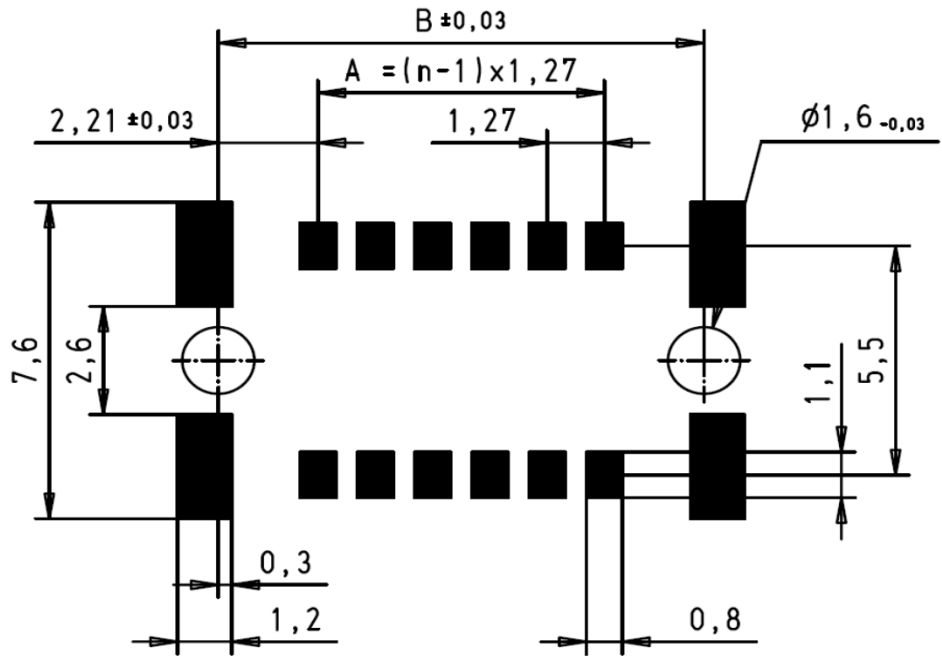
The current capacity curve is valid for continuous, non interrupted current loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60512-5

derating curve at I_{max}*0,8 (IEC 60512-5-2)



Recommended layout



Pole number	A	B
006	2,54	6,96
008	3,81	8,23
010	5,08	9,50
012	6,35	10,77
014	7,62	12,04
016	8,89	13,31
018	10,16	14,58
020	11,43	15,85
022	12,70	17,12
024	13,97	18,39
026	15,24	19,66
028	16,51	20,93
030	17,78	22,20
032	19,05	23,47
034	20,32	24,74
036	21,59	26,01
038	22,86	27,28
040	24,13	28,55
042	25,40	29,82
044	26,67	31,09
046	27,94	32,36
048	29,21	33,63
050	30,48	34,90
052	31,75	36,17
054	33,02	37,44
056	34,29	38,71
058	35,56	39,98
060	36,83	41,25
062	38,10	42,52
064	39,37	43,79
066	40,64	45,06
068	41,91	46,33
070	43,18	47,60
072	44,45	48,87
074	45,72	50,14
076	46,99	51,41
078	48,26	52,68
080	49,53	53,95
082	50,80	55,22
084	52,07	56,49
086	53,34	57,76
088	54,61	59,03
090	55,88	60,30
092	57,15	61,57
094	58,42	62,84
096	59,69	64,11
098	60,96	65,38
100	62,23	66,65

			Date	Name		
			Detail.	29aou11		JA
			Inspec.	30aou11		JMV
			Stand.			
Mod.	Date	Name	HARTING Electronics GmbH & Co. KG			

Technical data sheet
har flex female stacking height 6,25and 9,05 mm
DS 15 21 110 03 01

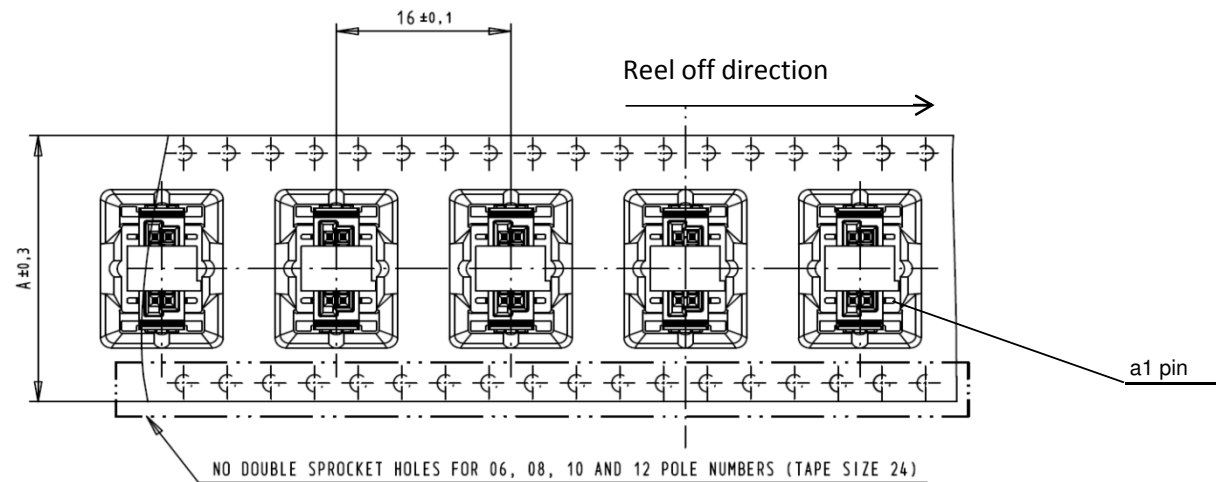


har-flex straight female connector



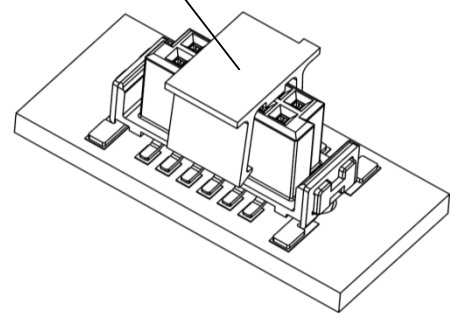
Tape layout & packaging

Tape acc. to IEC 60286-3

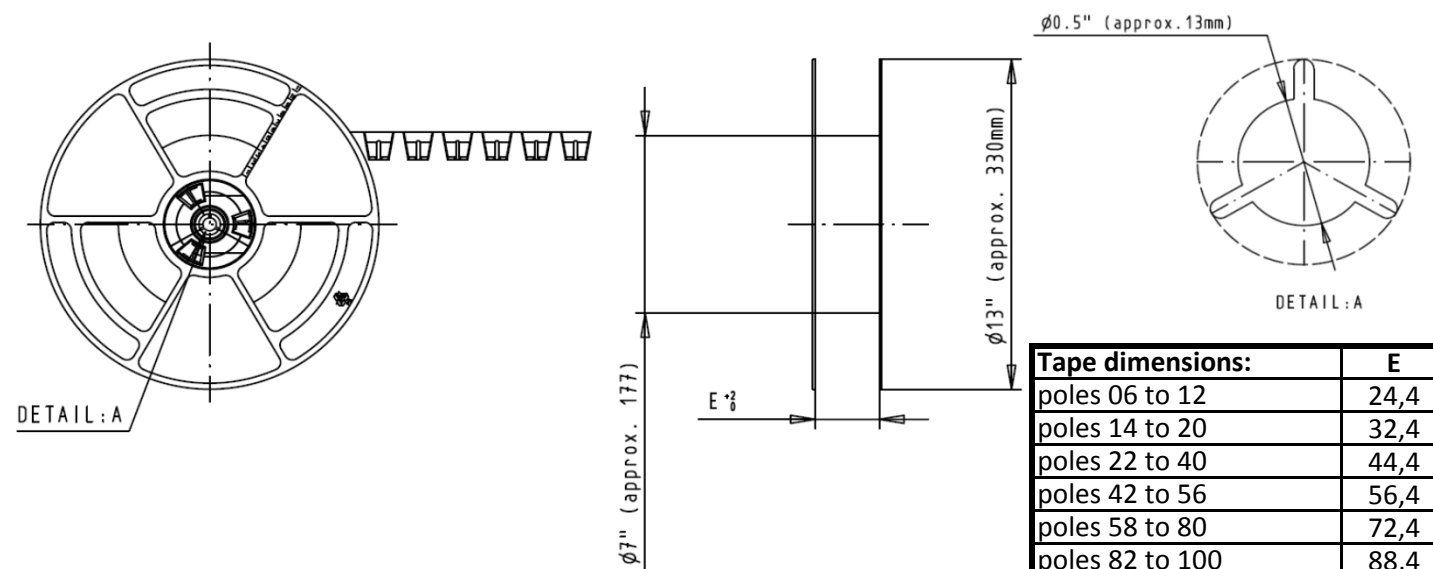


Tape dimensions:	A
poles 06 to 12	24,0
poles 14 to 20	32,0
poles 22 to 40	44,0
poles 42 to 56	56,0
poles 58 to 80	72,0
poles 82 to 100	88,0

Pick & place pad $6,4 \pm 0,1 \times 4,5 \pm 0,1$



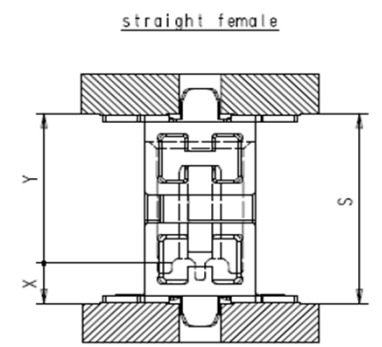
Reel dimensions



Tape dimensions:	E
poles 06 to 12	24,4
poles 14 to 20	32,4
poles 22 to 40	44,4
poles 42 to 56	56,4
poles 58 to 80	72,4
poles 82 to 100	88,4

Application information

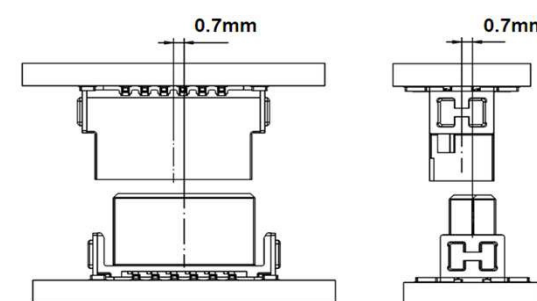
S	14mm				
	13mm				
	12mm				
	11mm				
	10mm				
	9mm				
X & Y	8mm				
	stacking heights	male 1.75mm female 6.25mm	male 3.25mm female 6.25mm	male 1.75mm female 9.05mm	male 3.25mm female 9.05mm
	PCB distance	8mm - 9.5mm	9.5mm - 11mm	10.8mm - 12.3mm	12.3mm - 13.8mm
	part numbers	15 11 ... 15 21 ...	15 12 ... 15 21 ...	15 11 ... 15 22 ...	15 12 ... 15 22 ...



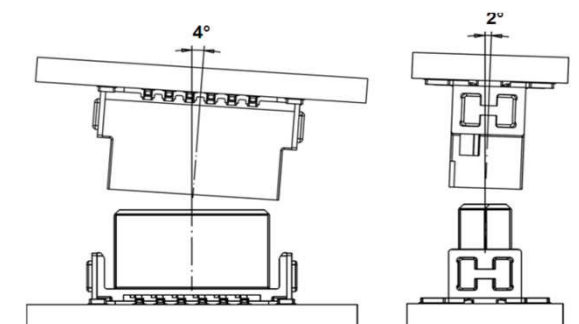
straight male			
3.25	9.05	12.3	13.8
1.75	9.05	10.8	12.3
3.25	6.25	9.5	11
1.75	6.25	8	9.5
X	Y	Smin	Smax

* Smax = Smin + 1.5 wiping length with additional contact overlap security

Admissible inclination



Admissible mismatching



				Date	Name		Technical data sheet	
			Detail.	29aou11	JA		har flex female stacking height 6,25and 9,05 mm	
			Inspec.	30aou11	JMV		DS 15 21 110 03 01	
			Stand.					
Mod.	Date	Name	HARTING Electronics GmbH & Co. KG					