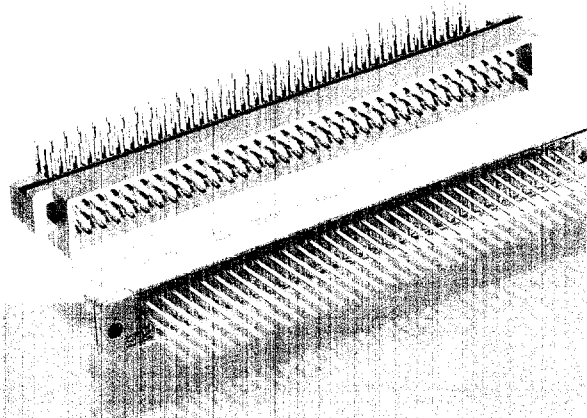


DIN Connectors

DIN 41 612 - VG - 95324



HARTS00003



Certified according to DIN EN ISO 9001
in design/development, production,
installation and servicing

Series Gds A-		2B	B	2C	C	M**	2Q	Q
Current Rating (A)		2	2	2	2	2	2	2
Clearance/Creepage (mm)		≥ 1.2	≥ 1.2	≥ 1.2	≥ 1.2	≥ 1.2	≥ 1.2	≥ 1.2
Pitch for Assembly		2 x 5.08 mm (0.20")	2 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	2 x 5.08 mm (0.20")	2 x 5.08 mm (0.20")
Number of Contacts		32	32 64	32 48	32 64 96	78 + 2 80 + 4 42 + 6 24 + 8	16 32	32 64
Contact Arrangement Termination Side								
Catalog No.		09 22	09 02	09 23	09 03	09 03 ²⁾	09 27	09 72
Male Connector Terminations	Solder Post, Angled for 1.6 mm (.063") PCB	132 □ 921	132 □ 921 164 □ 921	132 □ 921 148 □ 921	132 □ 921 164 □ 921 196 □ 921	124 □ 901 142 □ 901 160 □ 901 178 □ 901		
	Solder Post, Straight for 1.6 mm (.063") PCB	132 □ 922	132 □ 922 164 □ 922	132 □ 922 148 □ 922	132 □ 922 164 □ 922 196 □ 922		116 □ 902 132 □ 902	132 □ 902 164 □ 902
	Solder Post, Straight for 3.2 mm (.126") PCB						116 □ 903 132 □ 903	132 □ 903 164 □ 903
	Wrap Post, Straight*						116 □ 907 132 □ 907	132 □ 907 164 □ 907
	Wrap Post, Angled		132 □ 928 164 □ 928		132 □ 928 164 □ 928 196 □ 928			
	Press-in (5.5 mm) (Compliant Pin)	132 □ 935 ^{a)}	164 □ 935 ^{a)}	132 □ 935 ^{a)} 148 □ 935 ^{a)}	164 □ 935 ^{a)} 196 □ 935 ^{a)}		116 □ 904 132 □ 904	132 □ 904 164 □ 904
	Press-in a. Wrap Post (13 mm) (Compliant Pin)						116 □ 985 132 □ 985	132 □ 985 164 □ 985
	Crimp							
	Interface Wrap Post		064 2 981					
Female Connector Terminations	Solder Post, Angled for 1.6 mm (.063") PCB						116 □ 801 132 □ 801	132 □ 801 164 □ 801
	Solder Post, Straight for 1.6 mm (.063") PCB	132 □ 824	132 □ 824 164 □ 824	132 □ 824 148 □ 824	132 □ 824 164 □ 824 196 □ 824	124 □ 804 142 □ 804 160 □ 804 178 □ 804		
	Solder Post, Straight for 3.2 mm (.126") PCB	132 □ 825	132 □ 825 164 □ 825	132 □ 825 148 □ 825	132 □ 825 164 □ 825 196 □ 825	124 □ 805 142 □ 805 160 □ 805 178 □ 805		
	Wrap Post, Straight*	132 □ 821	132 □ 821 164 □ 821	132 □ 821 148 □ 821	132 □ 821 164 □ 821 196 □ 821	124 □ 801 142 □ 801 160 □ 801 178 □ 801		
	Solder Lug	132 □ 823	132 □ 823 164 □ 823	132 □ 823 148 □ 823	132 □ 823 164 □ 823 196 □ 823			
	Press-in (5.5 mm) (Compliant Pin)	132 □ 870 ¹⁰⁾	164 □ 870 ¹⁰⁾	148 □ 870 ¹⁰⁾	164 □ 850 196 □ 850			
	Press-in a. Wrap Post (13 mm) (Compliant Pin)	132 □ 840 ¹⁰⁾	164 □ 840 ¹⁰⁾		132 □ 851 164 □ 851 196 □ 851			
	Faston Blade							
	Crimp (molding only)		064 3 214 ¹⁾		096 3 214 ¹⁾			
	IDC		264 □ 828 ^{a)}		264 □ 828 ^{a)}			
	Cage-Clamp Spring							

Coding Pins:

Type	Cat. No.
Gds A-B, A-2 B, Gds A-C, A-2 C, Gds A-M, Gds A-Q, A-2 Q Gds A-R, A-2 R	09 02 000 9901

* Wrap Posts, Straight

Series	□		Length	
	mm	inch	mm	inch
2 B, B, 2 C, C, M, 2 Q, Q, 2 R, R	0.6 x 0.6	0.024 x 0.024	13	0.512
D, E	1 x 1	0.039 x 0.039	20	0.787
F/FC, MH	1 x 1	0.039 x 0.039	22	0.866

Please complete
the Cat. No. with

7

Performance Level
3

50 mating cycles

No gas test
Visual Inspection

6

Performance Level
2

400 mating cycles
200 mating cycles

4 days gas test using 10 ppm SO₂
measured contact resistance ≤ 20 mΩ
visual inspection; No abrasion of contact
finish through to base material

2

Performance Level
1

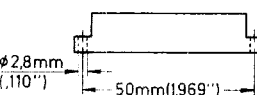
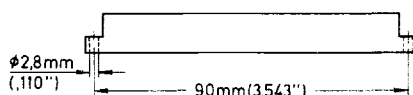
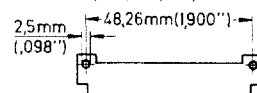
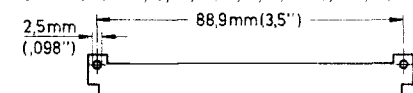
500 mating cycles
250 mating cycles

21 days gas test using 10 ppm SO₂
measured contact resistance ≤ 20 mΩ
visual inspection; No abrasion of contact
finish through to base material

2R	R	D	E	2F/FC	F/FC	FM	H	MH
2	2	6	6	6	6	6	15	6 15
≥ 1.2	≥ 1.2	≥ 1.6/3.0	≥ 1.6/3.0	≥ 1.6/3.0	≥ 1.6/3.0	≥ 1.6/3.0	≥ 4.5/8.0	≥ 1.6/3.0 ≥ 4.5/8.0
3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	4 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")	3 x 5.08 mm (0.20")
16 32 48	32 64 96	32	48	24	32 32 48	45	15	24 + 7
09 28	09 73	09 04	09 05	09 26	09 06	09 06	09 06	09 06
		132 □ 921	148 □ 921 148 □ 931 ³⁾		132 □ 901 132 □ 931 148 □ 901	145 2971 ¹⁾	115 2911 115 2932 ⁶⁾	131 □ 922 ⁶⁾ 131 □ 924 ⁷⁾
116 □ 902 132 □ 902 148 □ 902	132 □ 902 164 □ 902 196 □ 902	132 □ 922						
116 □ 903 132 □ 903 148 □ 903	132 □ 903 164 □ 903 196 □ 903		048 6924		032 2905 048 2905			
116 □ 907 132 □ 907 148 □ 907	132 □ 907 164 □ 907 196 □ 907				032 2903 048 2903			
116 □ 904 132 □ 904 148 □ 904	132 □ 904 164 □ 904 196 □ 904							
116 □ 985 132 □ 985 148 □ 985	132 □ 985 164 □ 985 196 □ 985						Faston Blade 015 2912 015 2931 ⁹⁾	031 □ 921 ⁶⁾ 031 □ 923 ⁷⁾
				024 3411 ¹⁾	048 2 906			
				024 2981	048 2 981			
116 □ 801 132 □ 801 148 □ 801	132 □ 801 164 □ 801 196 □ 801	232 □ 826 ⁴⁾			232 □ 846 ⁵⁾ 232 □ 836 ⁵⁾ 248 □ 836 ⁵⁾			
		232 □ 832	248 □ 832		232 □ 848 232 □ 858 248 □ 848		215 2821	
		232 □ 831	248 □ 831		232 □ 835 232 □ 845 248 □ 835		215 2831	231 □ 822
		232 □ 821	248 □ 821		232 □ 821 232 □ 831 248 □ 821	045 2872		231 □ 821
		232 □ 823	248 □ 823		232 □ 823 232 □ 843 248 □ 823			
					232 □ 832 232 □ 892 248 □ 832			
					232 □ 837 232 □ 897 248 □ 837			
Coding Pins:							215 2811	
Type	Cat. No.							
Gds A-D, A-E, Gds A-F/FC, Gds A-FM, Gds A-2F/FC, Gds A-MH	09 04 000 9908	032 3 213 ¹⁾	048 3 202 ¹⁾	024 3201 ¹⁾	248 3 201 ¹⁾	024 3202 ¹⁾		231 2 881 ¹⁾
							015 2813	

Basic Dimensions:

Series Gds A-B, C, M, Q, R, D, E, F/FC, FM, H, MH Half size Gds A-2B, 2C, 2Q, 2R, 2F/FC



¹⁾ Molding only; see next page for crimp contacts

²⁾ See next page for special contacts

³⁾ Row separation 2.54 mm (.10")

⁴⁾ 2 Brackets required, 2 x 09 06 000 9912

⁵⁾ 2 Brackets required, 2 x 09 06 000 9975

⁶⁾ First mate, last break contact z 32

⁷⁾ First mate, last break contact z 2 and z 32

⁸⁾ Angled version

⁹⁾ Bench press 09 99 000 0114

Base plate 09 99 000 0150

¹⁰⁾ Without fixing flange

We reserve the right to modify designs in order to improve quality, keep in step with technological advancement or meet particular requirements in production.

Accessories and Tooling

Crimp Contacts (Performance Level 1)				Insertion Tool ¹⁾	Crimp Tool ¹⁾	Automatic Crimping Machine for	Elektric Press 09 98 000 2000
Type	AWG	Male	Female	Removal Tool ²⁾	Locator ²⁾ Service Tool incl. Locator ³⁾	Male	Female
B, C	26-22	Single 5000/reel	09 02 999 8474 09 02 000 6474	09 99 000 0100 ¹⁾ 09 99 000 0101 ²⁾	09 99 000 0075 ¹⁾ 09 99 000 0099 ²⁾		09 98 000 2004
D, E, 2 F/FC, F/FC, FM, MH	28-24	Single 2500/reel	09 06 000 9554 09 06 000 9544	09 06 000 8474 09 06 000 6474	09 99 000 0088 ¹⁾ 09 99 000 0087 ²⁾	09 99 000 0075 ¹⁾ 09 99 000 0086 ²⁾ 09 99 000 0191 ³⁾	09 98 000 2005 09 98 000 2001
	26-20	Single 2500/reel	09 06 000 9551 09 06 000 9541	09 06 000 8471 09 06 000 6471	09 99 000 0088 ¹⁾ 09 99 000 0087 ²⁾	09 99 000 0076 ¹⁾ 09 99 000 0086 ²⁾ 09 99 000 0191 ³⁾	09 98 000 2006 09 98 000 2002
	20-16	Single 2500/reel	09 06 000 9552 09 06 000 9542	09 06 000 8472 09 06 000 6472	09 99 000 0088 ¹⁾ 09 99 000 0087 ²⁾	09 99 000 0077 ¹⁾ 09 99 000 0086 ²⁾ 09 99 000 0191 ³⁾	09 98 000 2007 09 98 000 2003

Some Special Contacts for Series M

Type	I	High Current Contacts Straight	Angled	High Voltage Contacts 2.8 kV	Coaxial Contacts Straight	Angled	Removal Tool
Male Contacts	10 A 20 A 40 A	09 03 000 6101 09 03 000 6102 09 03 000 6103	09 03 000 6104	max. AWG 20 09 03 000 6140	09 03 000 6160	09 03 000 6161	09 99 000 0174
Female Contacts	10 A 20 A 40 A	09 03 000 6201 09 03 000 6202 09 03 000 6203		max. AWG 20 09 03 000 6240	09 03 000 6260	09 03 000 6262	

Shell Housings

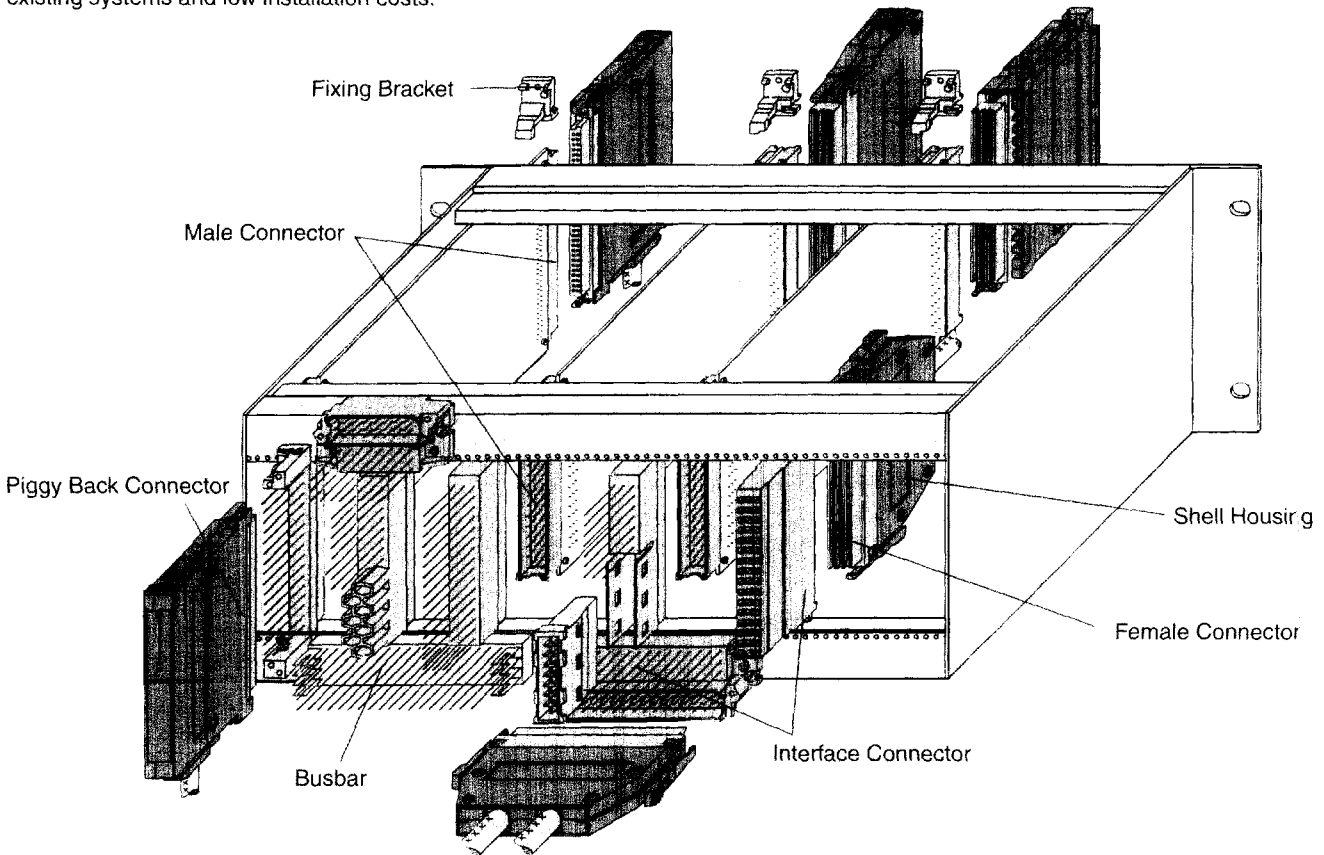
	C	A	B	D 15	D 20	G	O
With Female Insert							
With Male Insert							
Connector Series that fit into housings	Gds A-B, A-C, Gds A-D, A-E	Gds A-F/FC	Gds A-F/FC, Gds A-H, A-MH	Gds A-F/FC, Gds A-H, A-MH	Gds A-F/FC, Gds A-H, A-MH	Gds A-E, A-F/FC, Gds A-H, A-MH	Gds A-F/FC, Gds A-H, A-MH
Catalog No.	09 02 064 0501 09 02 064 0502 09 03 096 0501 09 05 048 0501	09 06 048 0501 09 06 048 0401 09 06 048 0402	09 06 048 0503 09 06 048 0504 09 06 048 0505	09 06 048 0515	09 06 048 0521	09 06 000 9957	09 06 000 9968 09 06 000 9930* * Order 2 pieces
Locking Levers Order 2 pieces, in some cases each with different part nos. for left and right hand	09 02 000 9902 09 02 000 9903	Supplied with the shell housing	09 06 000 9913 09 06 000 9919	Supplied with the shell housing			
Fixing Brackets	c	a	b	b	b	b	b
For Male Connectors							
Multiple Left Fixing Right	09 02 000 9919 09 02 000 9920	09 06 000 9901 09 06 000 9902	09 06 000 9907 09 06 000 9908	09 06 000 9907 09 06 000 9908	09 06 000 9907 09 06 000 9908	09 06 000 9907 09 06 000 9908	09 06 000 9907 09 06 000 9908
Single Left Fixing Right	09 02 000 9921 09 02 000 9922	09 06 000 9905 09 06 000 9906	09 06 000 9909 09 06 000 9910	09 06 000 9909 09 06 000 9910	09 06 000 9909 09 06 000 9910	09 06 000 9909 09 06 000 9910	09 06 000 9909 09 06 000 9910
For Female Connectors			b	b			b
Multiple Left Fixing Right			09 06 000 9933 09 06 000 9933	09 06 000 9933 09 06 000 9933			09 06 000 9930 09 06 000 9933 09 06 000 9933
Single Left Fixing Right			09 06 000 9951 09 06 000 9952	09 06 000 9951 09 06 000 9952			09 06 000 9930 09 06 000 9951 09 06 000 9952

HARTING's Gds A series of DIN connection components offers a comprehensive range of highly versatile connectors complemented by many styles of shell housings and a wide range of accessories, comprising a complete interconnection and interface system. Gds A series connectors are based on the requirements of DIN Standard 41 612. The number of contacts ranges from 15, 16, 32, 48, 64 and 96 in one, two or three rows in a 3.7" length molding. Contact areas are selectively gold plated according to the requirements of three different performance levels.

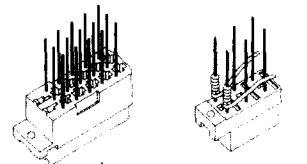
HARTING DIN connectors are also available with a wide variety of termination methods providing compatibility with existing systems and low installation costs.

The HARTING series Gds A DIN connectors include such features as:

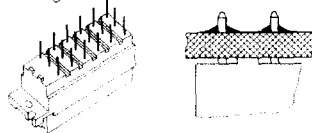
- Certified according to DIN EN ISO 9001 in design/development, production installation and servicing.
- All connectors series are CSA-approved.
- Connectors Series 2 B, B, 2 C, C, 2 Q, Q, 2 R, R, F/FC, 2 F/FC, H, M and MH are UL-approved.
- Low insertion and withdrawal force.
- High vibration resistance.
- Tinned terminations for greater solderability.
- All male connectors are available with first mate/last break connections for greater safety.



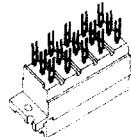
Wrap posts for automatic wiring techniques.



Solder pins for printed circuit boards.



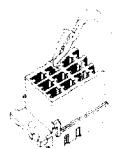
Solder lugs for discrete wiring.



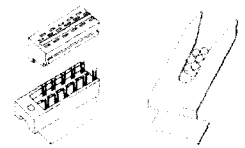
Press-in Technology for backplanes.
(Compliant Pin)



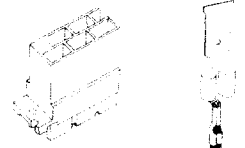
Crimp contacts for flexible wiring and selective loading.
Contacts are easily replaced.



Insulation displacement contacts for mass termination of flat cable.



Faston blades for high power discrete wiring.



Cage-clamp spring contacts provide low cost connection for solid or stranded wires.



HARTING Products Application Orientated Technology



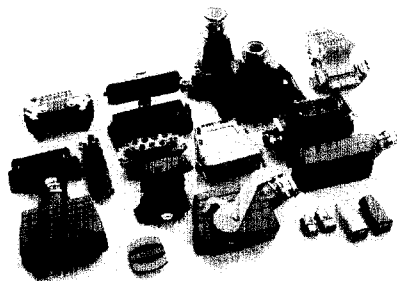
Founded in 1945 HARTING has become one of the world's leading manufacturers and suppliers of Industrial Power Connectors designed to meet demanding industrial applications and environments.

Reliable Quality and Service from HARTING.

With manufacturing facilities in Germany, Great Britain, Hong Kong, Switzerland and USA and subsidiary companies throughout the world, HARTING's dedicated staff of connection technology experts forms the foundation of a company prepared to meet the challenge of today's ever changing and demanding market-customer requirements.

Internationally recognized as a major supplier of advanced technology and reliable quality connectors, HARTING's market leader dedication in the research and development of connection technology and inter-connection systems assures that only top-quality products complying with international standards are offered.

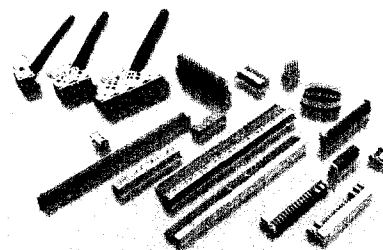
The following product lines are currently available from HARTING.



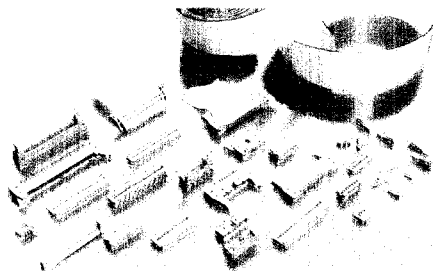
Heavy Duty Han® Connectors



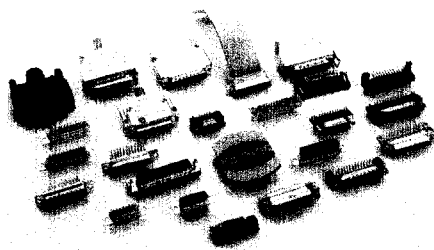
DIN Connectors



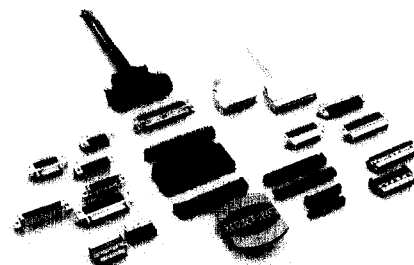
High Density Connector System
Modular · Metric 2.5 mm



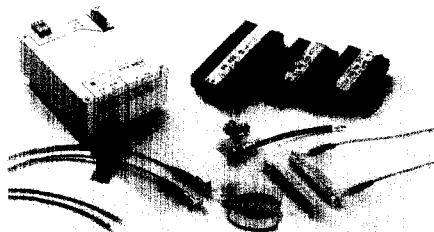
IDC Flat Cable Connectors



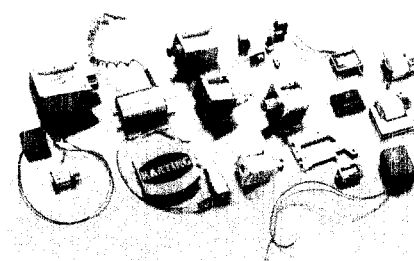
D-Subminiature Connectors



Micro-Electronic-Connectors
Contact spacing 1.27 mm



Fiber Optic Systems and Components



Miniature Solenoids

HARTING, INC. OF NORTH AMERICA

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ELGIN, IL 60123

TEL: 847-741-1500 FAX: 847-741-8257

Representatives HARTING

A-1230 Wien
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B-1731 Zellik
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São Paulo
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East-Europe: D-01219 Dresden
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Representatives

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Turkey: Beyoglu 80050 Istanbul
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World Headquarters

HARTING KGaA

Postfach 1133

D-32325 Espelkamp

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