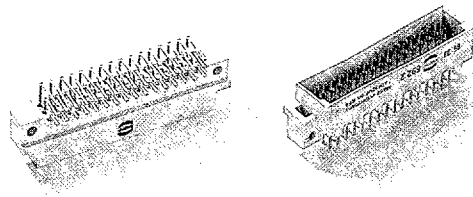




Number of contacts

48, 32, 16



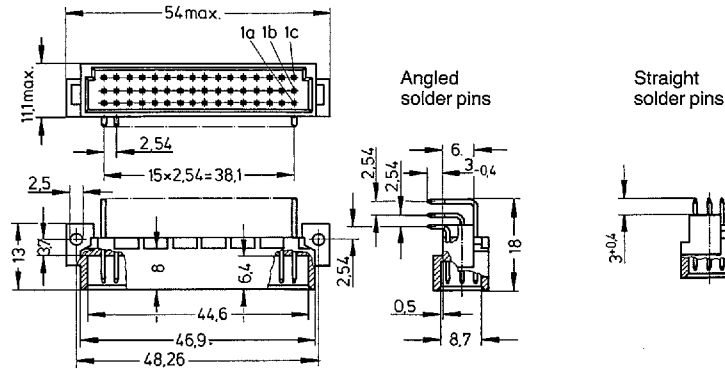
Male connectors

Identification	Number of contacts	Contact arrangement	Part No. Performance levels according to DIN 41 612, explanations page 10		
			3	2	1
Male connector with angled solder pins	48		09 23 148 7921	09 23 148 6921	09 23 148 2921*
	32		09 23 132 7921	09 23 132 6921	09 23 132 2921*
	16		09 23 116 7931	09 23 116 6931	09 23 116 2931*
	46 + 2▲		09 23 148 7951	09 23 148 6951	09 23 148 2951*
Male connector with straight solder pins	48		09 23 148 7922	09 23 148 6922	09 23 148 2922*
	32		09 23 132 7922	09 23 132 6922	09 23 132 2922*
	16		09 23 116 7932	09 23 116 6932	09 23 116 2932*
	46 + 2▲		09 23 148 7952	09 23 148 6952	09 23 148 2952*

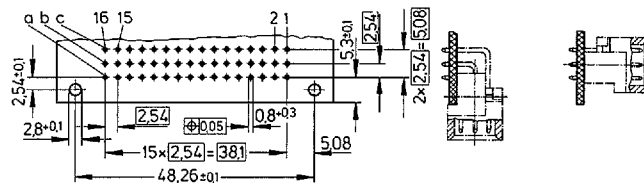
Male connector with angled press-in terminations

Part Nos. and versions see "har·press" catalogue

Dimensions



Board drillings



Dimensions in mm

▲ Male connectors with 2 first mating contacts [(0.8 mm) pos. a 1 and a 16]*
Male connectors with contacts in other positions/other rows on request

* Not normally kept in stock

Economic and Reliable Connections

The Gds connector system for use in 19" racks to DIN 41 494

Gds A series according to

DIN	41 612
VG	95 324 ¹⁾
IEC	603-2
MIL-C-	55 302
BT	222
BS	9525
HE	12
NFC	93-420
UL-gelistet	
CSA	018753
CECC	75 100

Developed for economical assembly of electronic plant and equipment

HARTING offer the most comprehensive range of highly versatile connectors complemented by many styles of shell housings making a complete interconnection and interface system.

¹⁾Connectors can be manufactured to VG 95 324 the standard of the German Federal Agency for Defence Engineering and Procurement (BWB) also with the VDE electronic symbol of approval.



The division Printed Board Connectors Gds A is certified according to DIN EN ISO 9001

The advantages

- Indirect mating (male/female)
- Automated production techniques
- Continuous quality assurance
- 15-96 contacts
- Complete interconnection system
- Numerous interface connectors
- A wide variety of hoods
- Many termination techniques provide for the lowest installed cost
- Contacts selectively gold-plated
- Tinned terminations for increased solderability

The terminations

- Wrap post for automated wiring
- Straight and angled solder pins for printed circuits
- Solder lugs for discrete wiring
- Press-in technique for back planes
- Crimp contacts for selective loading
- Insulation displacement contacts for mass termination
- Faston blades for higher power discrete wiring
- Cage-clamp contacts provide low cost connection for solid or stranded wires

For "non standard applications" we can manufacture designs to match your requirements. Please discuss requirements with us.

HARTING printed board connectors incorporate the latest design features and provide the assurance of high quality and reliability with economy.

Sales Department
HARTING-Components

General information

It is the user's responsibility to check whether the components illustrated in this catalogue comply with different regulations from those stated in special fields of application which we are unable to foresee.

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

This catalogue must not be used in any form or manner without our prior approval in writing (Copyright Law, Fair Trading Law, Civil Code).

We are bound by the German version on

Performance level 3 as per DIN 41 612, part 5

50 mating cycles.
Then visual inspection no gas test.
No functional impairment.

Part-number-explanation 09 7 . . .

Performance level 2 as per DIN 41 612, part 5

400 mating cycles.
200 mating cycles 4 days gas test using 10 ppm SO₂.
Measurement of contact resistance.
200 mating cycles then visual inspection. No abrasion of the contact finish through to the base material.
No functional impairment.

Part-number-explanation 09 6 . . .

Performance level 1 as per DIN 41 612, part 5

500 mating cycles.
250 mating cycles 21 days gas test using 10 ppm SO₂.
Measurement of contact resistance.
250 mating cycles then visual inspection. No abrasion of the contact finish through to the base material.
No functional impairment.

Part-number-explanation 09 2 . . .

VG Version as per VG 95 324, part 1

500 mating cycles – then 1 day gas test using 10.000 ppm SO₂ and 1 day gas test using 10.000 ppm H₂S.
Then visual inspection. No abrasion of the contact finish through to the base material. No functional impairment.

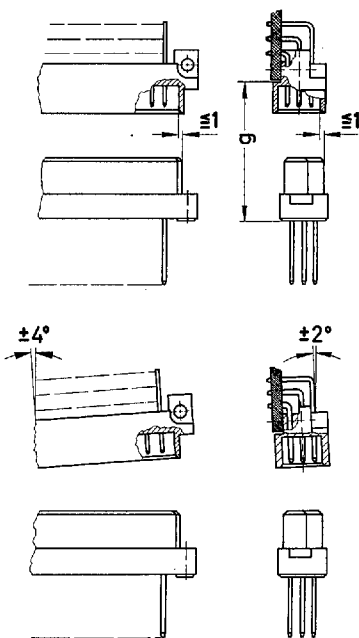
Part-number-explanation 09 4 . . .

Other plating finishes available on request.

Mating conditions

To ensure reliable connections and prevent unnecessary damage, please refer to the application data diagrams.

These recommendations are set out in DIN 41 612 P. 1. The connectors shall not be coupled and decoupled under electrical load.

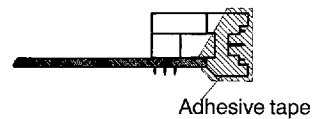


g = 12,4 - 14,2

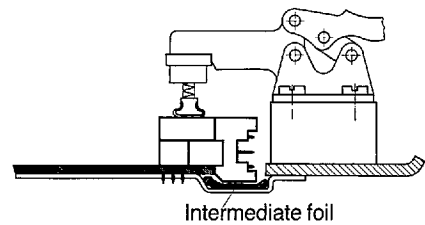
Soldering the male connectors into P.C. Boards

The male connectors of the Gds A series should be protected when soldering using dip, flow or film soldering baths, against contamination as a result of soldering operations or deformation of the connector bodies as a result of overheating.

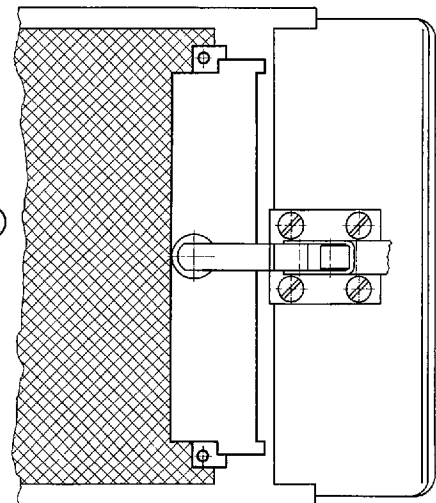
- ① For prototypes and short runs cover the connectors with an industrial adhesive tape, e.g. Tesaband 4657 grey. Tape the underside of the connector moulding and adjacent parts of the P.C. Board and tape up the open end of the connector. This will prevent heat and gases from the soldering apparatus damaging the connector. About 140 + 5 mm of tape should be sufficient.
- ② For large run production a jig is recommended. This has a protective cover with a fast action mechanical locking device that shields the connector from the gas and heat generated by the soldering apparatus. For additional protection a foil can be used covering parts not to be soldered.



①



②



Summary Gds A



Type	B					2B			C					2C				
Part No.	09 02					09 22			09 03					09 23				
Working current	2					2			2					2				
Clearance (mm) Creepage (mm)	≧ 1.2 ≧ 1.2					≧ 1.2 ≧ 1.2			≧ 1.2 ≧ 1.2					≧ 1.2 ≧ 1.2				
Minimum assembly spacing	2 x 5.08 mm					2 x 5.08 mm			3 x 5.08 mm					3 x 5.08 mm				
Number of contacts	64	32	32			32	16		96	64	32	32		48	32	16		
Contact arrangement View from termination side				Page			Page					Page				Page		
Male connectors		1)	●	●	●	22	●	●	28	●	●	●	●	30	●	●	●	36
		2)	●			22	●		28	●	●			30	●			36
		< 4 ¹⁾	●	●	●	22	●	●	28	●	●	●	●	30	●	●	●	36
		< 4 ²⁾	●			22	●		28	●	●			30	●			36
						22								30				
Female connectors			●	●	●	24	●	●	29	●	●	●	●	32	●	●	●	37
		< 4	●	●	●	24	●	●	29	●	●	●	●	32	●	●	●	37
		≧ 4	●	●	●	24	●	●	29	●	●	●	●	32	●	●	●	37
			●	●	●	24				●	●	●	●	32				
			see Q →				see 2 Q →				see R →				see 2 R →			
			●	←	←	27				●	←	←	←	35				
			●			26					●			34				
Interface connectors	I																	
	U		0.6 [□]	●		23				←								

Distributor																		
Pin shroud			→							●				118				
Shell housing		C	●			94					●			94				
Fixing brackets		c	●			96					●			99				

1) Without first mating contacts 2) With first mating contacts