## **Technical characteristics**

Number of contacts Type D Type E	32 48				
Contact spacing (mm) Type D Type E	5,08 male connector 5.08 x 5.08 male connector 2.54 x 5.08 female connector 5.08 x 5.08				
Working current see current carrying capacity chart	6 A max. 1 A max. for female connector type E angled				
Clearance Types D and E Type E male connector row separation 2.54 mm	≥ 3.0 mm ≥ 1.6 mm				
Creepage	≥ 3.0 mm				
Working voltage The working voltage also depends on the clearance and creepage dimensions of the pcb itself and the associated wiring	according to the safety regulations of the equipment Explanations see chapter 00				
Test voltage U <sub>r.m.s.</sub>	1.55 kV				
Contact resistance	$ \leq 15 \text{ m}\Omega $ $ \leq 20 \text{ m}\Omega \text{ for female connector} $ type E angled				
Insulation resistance	$ \geq 10^{12} \Omega \text{ for standard articles} \\ \geq 10^{11} \Omega \text{ for special NFF articles (with part-no. ending 222)} $				
Temperature range The higher temperature limit includes the local ambient and heating effects of the contacts under load	– 55 °C + 125 °C – 40 °C + 105 °C for press-in connectors				
Degree of protection for crimp terminal according to DIN 40 050	IP 20				
Electrical termination	Solder pins for pcb connections Ø 1.0 $\pm$ 0.1 mm according to IEC 60 326-3 Wrap posts 1 x 1 mm diagonal 1.34-1.45 mm Angled solder pins 1 x 1 mm for pcb connections Ø 1.6 $\pm$ 0.1 mm Solder lugs Crimp terminal 0.09-1.5 mm <sup>2</sup> Compliant press-in terminations $\geq$ 1.6 mm see recommendation page 00.25 in acc. to EN 60 352-5				
Insertion and withdrawal force	32 way ≤ 40 N 48 way ≤ 75 N				
Materials Mouldings Contacts Contact surface Contact zone	Thermoplastic resin, glass-fibre filled, UL 94-V0 Copper alloy Selectively gold plated according to performance				
<sup>1)</sup> Explanation of performance levels see chapter 00					
Mating conditions	0				

#### 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



#### Fitting the crimp contacts

After crimping the wires onto the contacts with the help of a crimping tool or an automatic crimping machine the contacts should be correctly oriented and inserted into the cavities of the connector moulding in the required configuration. They snap into position and are firmly held in place. A light pull on the wire assures the correct tensile strength of the contact. When using stranded wires with a gauge below 0.37 mm<sup>2</sup> an insertion tool is necessary.

#### Removing the crimp contacts

The removal tool is inserted into a slot on the termination side of the respective crimp cavity. This action compresses the contact retaining spring therefore the contact can then be easily withdrawn using a light pull on the wire. This action will cause no damage to the contact/wire which can be repositioned/refitted as necessary. The drawing demonstrates the crimp removal procedure (max. 5x).



03 10

Coding systems

Mounting clips

see chapter 00

see chapter 00

# DIN 41 612 · Type D

Number of contacts





#### Male connectors

Identification	Number of contacts	Contact arrangement	Part No. Performance le 3	evels according to IEC 60603-2 2	2. Explanation chapter 00 1	
Male connector with angled solder pins	32		09 04 132 7921	09 04 132 6921 09 04 132 6921 222 <sup>t)</sup> 09 04 332 6921 <sup>b)</sup> 09 04 632 6921 <sup>c)</sup>	09 04 132 2921 09 04 132 2921 222 <sup>f)</sup>	
SMC	32			09 04 332 6919 <sup>b)d)</sup>		
	30 + 2▲			09 04 132 6951 09 04 632 6951°)	09 04 632 2951°)	Power to 6 A
Male connector with straight solder pins	32	c <u>2 4</u> a •		09 04 132 6922		NID
	30 + 2▲			09 04 132 6952		
Dimensions	94  max $2a 2c$ $3a 2c$ $3a 3c$					
Board drillings Mounting side	2 <u>8-01</u>	32 30 28 26 24 22 508 2x 15x 508 01 15x 508	2 20 18 16 14 12 10 8 6 4 2			03
▲ Male connectors with 2 leadi	ng contacts	[(0.8 mm) po	s. a2 and a32] <sup>d)</sup> C <sup>-</sup>	ГI > 400	Dimensions in mm	11

<sup>b)</sup> Connectors with snap-in clips see chapter 00 <sup>c)</sup> Connectors with coding see chapter 00

<sup>&</sup>lt;sup>f)</sup> Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2



 $^{\rm b)}$  Connectors with snap-in clips see chapter 00  $^{\rm c)}$  Connectors with coding see chapter 00

<sup>1)</sup> Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2

## DIN 41 612 · Type D

Number of contacts





## Female connectors

Identification	Number of contacts	Contact arrangement	Part No.	Part No. Performance levels according to IEC 60603-2. Explanation chapter 0 2 1			
Female connector with angled solder pins 1 x 1 mm		2 4			09 04 232 6826	09 04 232 2826	
	32				09 04 232 6826 222 <sup>1)</sup>		DIN Power un +o 6 A
Dimensions							
					2.9 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5		
Fixing bracket Metal			09 06	000 9912 <sup>1)</sup>			
<sup>1)</sup> order 2 pieces for one connector							
Board drillings Mounting side					2,0°01 (0) 2,0°01 (0) 2,0°01 (0) 2,0°01 (0) 2,0°01 (0) 2,0°01 (0) 2,0°01 (0) 2,0°01 (0) 2,0°01 (0) (0) (0) (0) (0) (0) (0) (0)		
						Dimensions in mm	03 13

<sup>f)</sup> Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2

ARTIN

# DIN 41612 · Type D

Number of contacts

# max. 32



## Female connectors

DIN Power up to 6 A

	Identification	Number of contacts	Part No.	Drawing		Dimensions in mm	1
	Female connector for crimp contacts Order contacts separately				84, 95 ±0,05		-
DIN Power up to 6 A		32 32	09 04 032 3213 <sup>f)</sup> 09 04 532 3213 <sup>c)f)</sup>	2, 85 a0,05 2	15x 5,08 (=76,2)	Reihe rov I -a -c Position	
	Shell housing 09 03 096 0501 see chapter 20				90±0,1 94,78±0,12	position	
	Identification	Identification Wire gauge	Part No. Perform 2	nance levels accordir	ng to IEC 60603-2	2. Explanation chapter 00 1	
	Female crimp FC contacts						
	Bandoliered contacts (approx. 2,500 pieces)	1 2 3	09 06 000 6 09 06 000 6 09 06 000 6	484 481 482		09 06 000 6474 09 06 000 6471 09 06 000 6472	
	Bandoliered contacts (approx. 250 pieces)	1 2 3	09 06 000 7 09 06 000 7 09 06 000 7	484 481 482		09 06 000 7474 09 06 000 7471 09 06 000 7472	
	Individual contacts1)	1 2 3	09 06 000 8 09 06 000 8 09 06 000 8	484 481 482		09 06 000 8474 09 06 000 8471 09 06 000 8472	
	Female contacts with solder lugs <sup>2)</sup> (lockable)					09 06 000 6420	
03	FC 1 FC 2 FC 3	1 2 3	Wire gauge $mm^2$ AWG $0.09 - 0.25$ $28 - 24$ $0.14 - 0.56$ $26 - 20$ $0.5 - 1.5$ $20 - 16$ $3.5 + 0.5$ mm of insulation is strip to be crimpedFor the fabrication in line with the use exclusively crimp tools appro (see DIN EN 60352-2)	Insulation ø mm 0.7 - 1.5 0.8 - 2.0 1.6 - 2.8 ped from the wires specification please ved by HARTING	dentification Bandoliered contacts ndividual contacts		
14			insertion, removal and chimping to	une see mapler ou			

<sup>1)</sup> Packaging unit 1,000 pieces
 <sup>2)</sup> Solder contacts must not be used together with shell housing A. Special contact surface: 2 μm gold.
 <sup>c)</sup> Connectors with coding see chapter 00
 <sup>f)</sup> Railway classification NFF 16-101, Smoke index: F1, Flammability class: I2