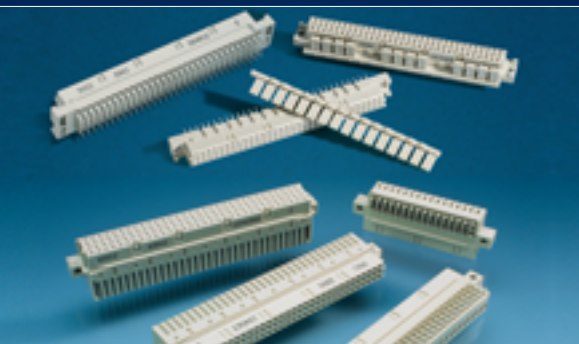




DIN 41612 / 60603-2 Connectors

and completions

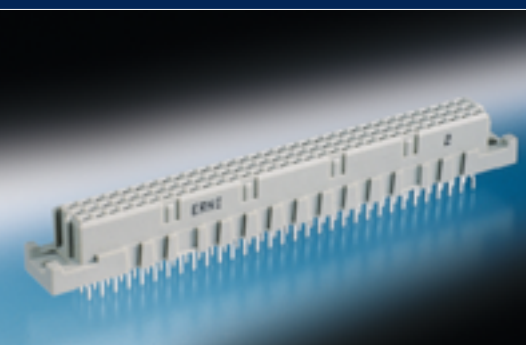




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General information

The DIN 41612/IEC 60603-2 connector family consists of 13 basic sizes and many complementary versions. It was developed for use in 19" rack systems in accordance with **DIN 41494 / IEC 60297**. The large number of different sizes and the efficient connection techniques have made it possible to install these connectors for in extremely wide range of applications.

Typical areas of application:

- Connection between plug-in card and back-panel wiring
- Connection between two PCB's arranged one above the other
- Connection to peripheral equipment with connector housings as accessories
- As periphery connectors for external interfaces from the wiring side

Main features

- Separable printed circuit board connectors
- International approvals, such as UL or CSA
- 13 connector sizes with the same plug-in and mounting conditions
- Additional connector sizes complementing the DIN 41612/IEC 60603-2 such as half or tripled sizes
- Different coding systems available
- Up to 160 contacts per connector
- Two to five row connectors possible
- Various termination types available
- 2.54 mm (0.1") basic pitch
- Early mate/late break contacts available on request
- Wide range of accessories
- Complete interface system available
- All female connectors mentioned in this data sheet have **dual sided female contact spring**.

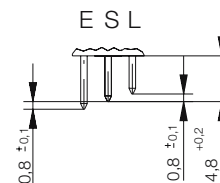
This contact principle offers a max. security in contacting and remaining contact resistance in extreme situations.

Early mate/late break

For the connectors size B, C, Q, R, D, E and F 0.8 mm early mate/late break male contacts can be loaded in any position in rows a, b, c, d, e and z.

The early mate/late break of the high current connector sizes H11 and H15 have a length of 3.5 mm (1,5 mm on request). Other lengths of early mate/late break contacts on request.

Stecklänge / mating length



E = early mate, late break / voreilend

S = standard

L = late mate, early break / nacheilend

Pre-centering

For applications with early mate/late break contacts the male connector insulators with pre-centering ensure even more reliable mating.

The insulators of the female connectors have a recess at the appropriate point. The dimensions of these versions do not conform to the specifications of DIN 41612/IEC 60603-2.

The ordering details are not listed in this data sheet but they can be supplied on request.

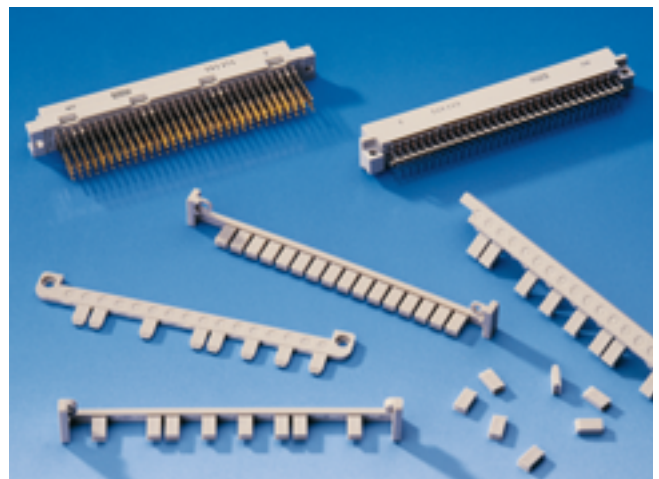
Male connectors with pre-centering do not mate with female connectors without a pre-centering recess.



Codings

Various coding systems are available for the connectors contained in this data sheet.

- **Coding with coding strips.** These coding strips are mounted together with the connector. For ERNI coding strips no extra modular space is required in the 19" rack system.
- **Integrated coding with coding wedges.** In this case coding wedges are fitted into the female connectors and the male connectors are provided with corresponding recesses.
- **Integrated coding with coding pins.** In this case coding pins are inserted into the female connectors and holes are drilled in the male connectors in the coding positions.



Retentive clip

For efficient mounting of the right angle connectors ERNI offers a retentive clip.

These clips are pre-mounted by ERNI. The connectors are attached to the pc board with this clip, which locks into the drillholes on the pc board, max. thickness of pcb = 1.6 mm. Since the clips can also be soldered, plated-through holes are recommended in such applications.



Wiring accessories

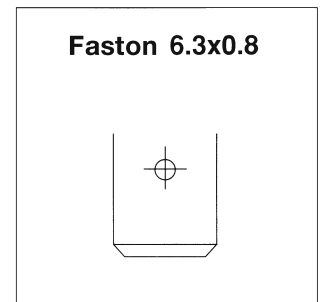
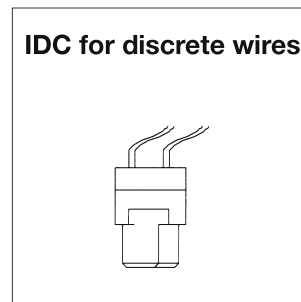
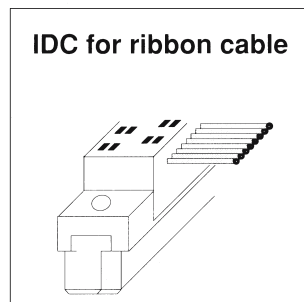
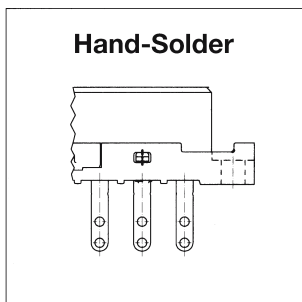
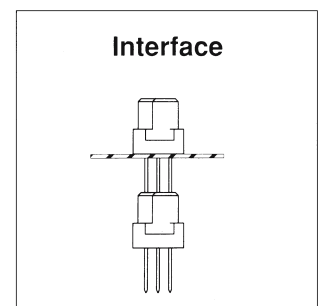
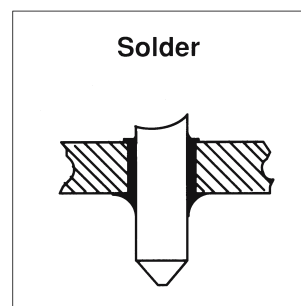
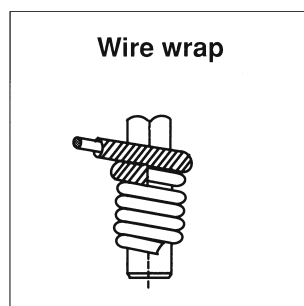
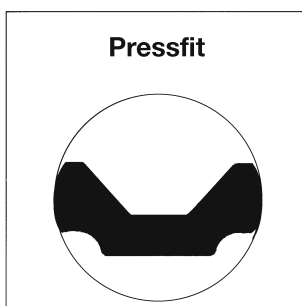
The ERNI connector housing range together with the ERNI interface connector system offers optimum protection for all plug-in interfaces for DIN 41612/IEC 60603-2 connectors. The range is dimensioned for the 19" rack system. Suitable variations are available for nearly every type of connector. Whether you intend to use a short type B/2 connector or a 64-pin insulation displacement connector, the ERNI range offers you the ideal housing.

- **KSG 173** Size: B, C, D, E, M, H11, H15, Q, R, E160, TE160, RD128
- **KSG 193** Size: B/2, C/2, Q/2, R/2
- **KSG 203** Size: F, Fi
- **KSG 253** Size: C (IDC)
- **KSG 204** Size: F, Fi

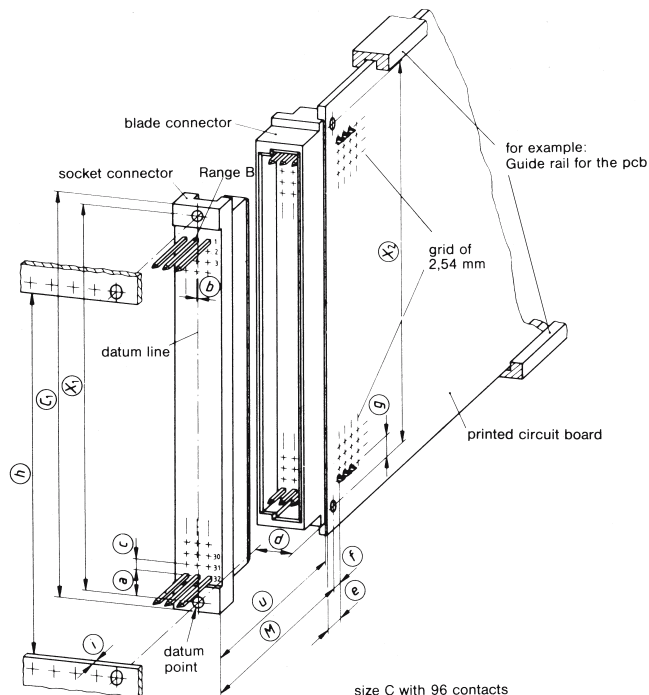
The connector housings are prepared for a maximum of 3 cable outlets and are offered with strain-relief clamps. A metal-plated version for shielding purposes is also available. For plug-in interfaces on the front or back panel of the rack ERNI has developed guide elements and shrouds in collaboration with well-known customers. These elements permit exact guidance for correct mating and provide robust screw locking. In addition you can fit a coding device.



Termination Technique



Basic dimensions for all sizes of the connector family according to DIN 41612/IEC 60603-2



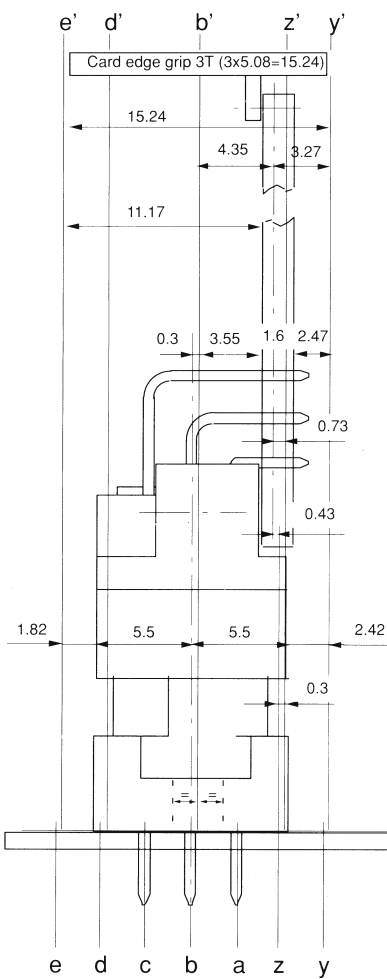
Important dimensions

Letter of dimension	Dimensions mm	Explanation
(C)	95	Maximum length of the connector assigned to the back panel
(M)	15.5 to 17.3	Mating zone for reliable contact making
(X ₁)	90	Distance between the mounting holes of the connector assigned to the back panel
(X ₂)	88.9	Distance between the mounting holes of the connector assigned to the assembly
(a)	5.63	Distance between the reference point and centerline through contact no. 32 with regard to the connector assigned to the back panel
(b)	0.3	Distance between the reference line (line through the fixing holes) and centerline of row b (also called offset)
(c)	nx2.54	Pitch of the terminals of the connector assigned to the back panel)
(d)	3.55	Distance between the reference line and the component side of the PCB
(e)	5.3	Distance between the edge of the PCB and the first row of holes for terminals of the connector mounted on the assembly
(f)	2.54	Distance between the mounting holes and the first row of holes for terminals of the connector mounted on the assembly
(g)	5.08	Distance between the mounting holes and the holes for contacts no. 1 and no. 32 of the connector assigned to the assembly
(h)	85	Minimum length of the panel cutout or minimum distance between the mounting rails for the connector assigned to the back panel
(i)	2.5	Maximum thickness of mounting plate or mounting rails
(u)	12.4 to 14.2	Mating zone for reliable contact making

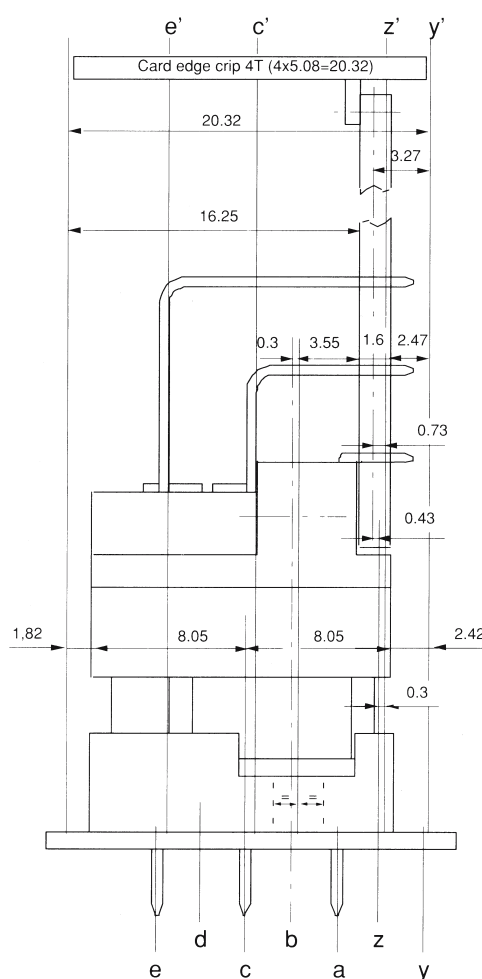
Mounting dimensions of the connectors

in the modular arrangement of the 19" rack system

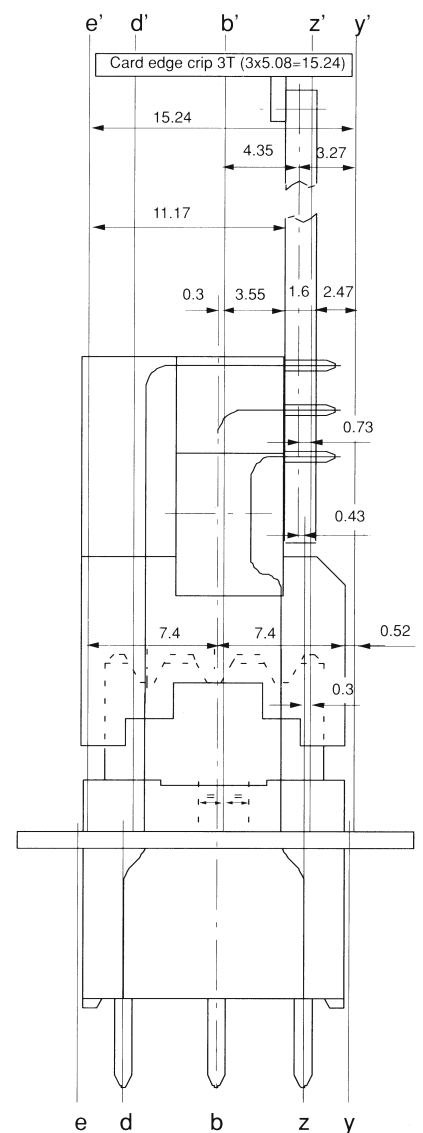
Exact position of connectors **size C**



Exact position of connectors **size E**



Exact position of connectors **size F**



These drawings contain important dimensions for the use of DIN 41612/IEC 60603-2 connectors in 19" rack systems.

The mounting dimensions shown for size F connectors illustrate how the width of 3 x 5.08 mm is maintained by means of a pitch offset between mating side and soldering side. These size F connectors can be used with 3U wide daughter cards in a 3U (3x5.08) 19" slot.

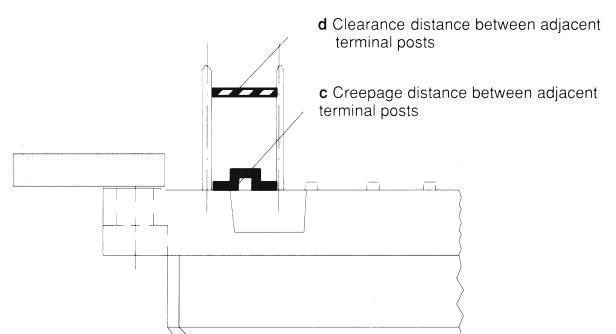
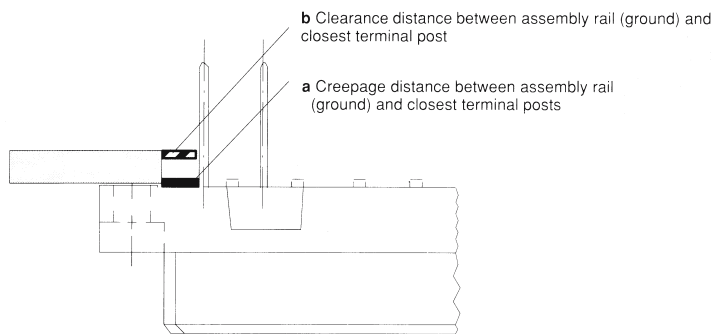
Clearance and creepage distances

for DIN 41612/IEC 60603-2 male and female connectors

Two different clearance and creepage distances are always distinguished for connectors:

1. The distances a and b are the shortest clearance and creepage distance between assembly rail (chassis) and the closest terminal post.
2. The distances c and d are the shortest clearance and creepage distance between 2 adjacent terminal posts in unwrapped state.

All the values apply to the connectors prior to their termination to the printed circuit board. The influence of the wiring on the clearance creepage distance and must be taken into account.



Minimum clearance and creepage distances according to IEC 60664

When calculating the minimum clearance and creepage distance for your application, the guidelines contained in IEC 60664 Parts 1 and 2, January 1989 issue are applicable. This standard contains the relevant values in tabular form.

Calculation of minimum **clearance** distances:

The minimum clearance primarily depends on the following factors:

- Rated impulse voltage for clearance distances (depending on overvoltage category).
- Pollution degree

Calculation of minimum **creepage** distance:

The minimum creepage distance is primarily dependent on the following factors:

- Operating voltage
- Pollution degree
- CTI values (comparative tracking index) of the insulation material
- Contents of insulation body



DIN 41612 / 60603-2 Pressfit Connectors ERNIPRESS™

In electronic and electrical equipment the solderless pressfit technique has become more and more widespread in times of packaging miniaturization and higher packing densities.

ERNI's compliant pressfit zone is a reliable connection between the PC Board and the connector.

ERNI offers a comprehensive pressfit range for all connector types. Also included in the ERNI pressfit range are the right angled pressfit connectors used for daughter card connectors. The pressfit zone is designed that the contact fit in the copper layer of the plated-through hole of a PCB. The tin plating of the hole is penetrated. The result is a reliable gas tight and therefore corrosion-free contact with low electrical resistance.

Solderless pressfit connectors are an integral part of today's modern electronic packaging bus systems. The main function of a bus system is to connect assemblies with one another and their power supply. Since plug-in modules are becoming more and more powerful, the demands placed on the bus systems are continually increasing. Higher system speeds and the overall shrinking of the connection structure are making the bus system a more crucial part of the control system.

With newer assembly processes for PC Boards, like the pressfit termination, the mechanism is now available to utilize more powerful electro mechanical components.

ERNIPRESS™ solderless pressfit connectors are a perfect fit for such applications. Furthermore, there are many applications where the delicate structure of the PC Board cannot withstand the harshness of automated soldering processes.

For DIN connectors ERNI has two pressfit zones in use. Both zones require exactly the same hole specifications of the PCB.

1. EE-zone contour like a boat



2. EN-zone eye of the needle



Required specifications of the PCB

In manufacturing the PC Board for the pressfit technique it is essential that the recommended DIN PC Board specifications are met. The dimensions of the plated through drillholes and their hole design are described in IEC 60352-5.

The quality and long-term performance of a pressfit connector are influenced by the following factors:

- a) Base material of the PCB.
To meet UL requirements, epoxy glass fabric type Hgw 2372.1 to DIN 7735, FR 4, should be used.
- b.) Adherence to drillhole tolerances.
For optimum and uniform plating of the PCB, a selective rack technique, flexible anode arrangement and continuous plating bath monitoring are suggested.
- c.) Drillhole diameter, positioning and diameter tolerances.
Maintaining the correct roughness of the drillhole wall and restricting drill bit travel are critical production processes.
- d.) PCB hole and layout requirements.
A minimal residual ring width of 0.1 mm, finished hole diameter tolerances, layer thicknesses, and a high quality consistent conductive pattern are all critical.
- e.) Insertion and retention forces.
Measurement of these forces should be checked.

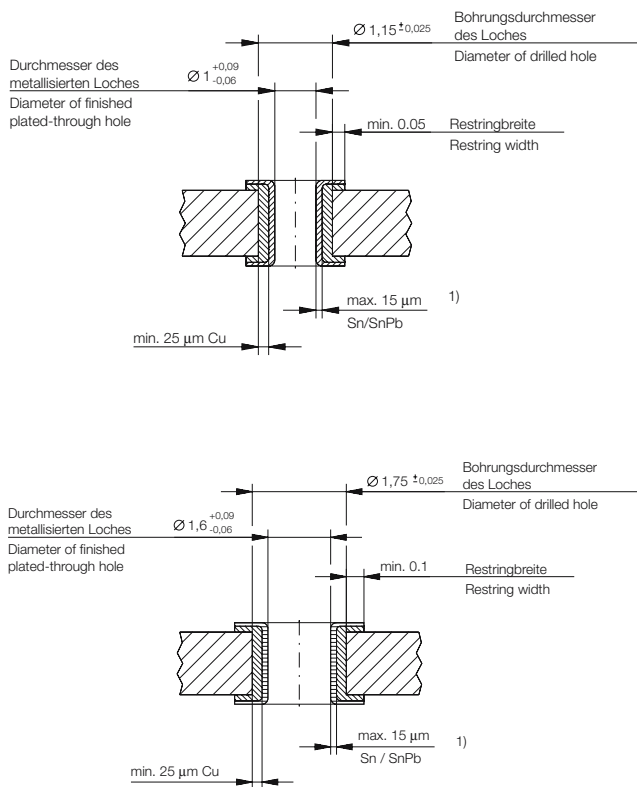
Insertion and retention forces

The design of the pressfit zone of the ERNIPRESS™ connectors performs a dual function. On the one hand this design has high elasticity and therefore can accommodate large hole tolerances. On the other hand, the pressfit zone's design ensures high edge loading at the copper layer of the PCB hole resulting in a gas-tight, corrosion-free and mechanically secure connection.

Due to the special shape of the pressfit zone, insertion forces are not detrimental to the hole plating.

Retention forces of the contacts in the PCB hole are sufficient to withstand the torques which occur during wire wrap termination. Typical average values for retention force are between 50 – 110 N per contact depending upon PCB thicknesses.

Hole design



Press-in tools



Vertical Pressfit Connectors

The male and female connectors are assembled into the PC Board in a one-step operation. No additional securing such as with screw hardware is necessary.

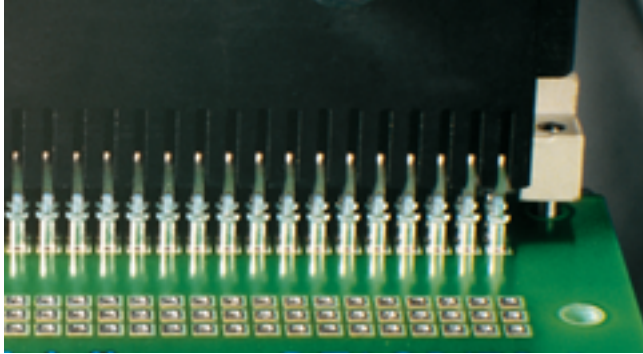
Pressfitting of female connector sizes B, B/2, B/3, C, C/2, C/3, M, D, E and F is performed with the aid of a press-in tool which transmits the insertion force to the individual contacts.

For female connector sizes B and C, an additional version is offered which can be pressfitted with just a flat press-in tool. Insertion force is absorbed by the connector housing.

Female connector sizes E 160, H 11 and H 15 are similarly pressfitted with a flat press-in tool.

When pressfitting the inverted male connectors the insertion force is directly loaded on the male contacts.

Right Angle Pressfit Connectors



The male connectors and the inverted female connectors have right-angled pressfit terminations with a shoulder. The appropriate press-in tool with matching cavities, enables the pressfitting of the connectors into the PCB. The press-in forces are absorbed by the contact shoulder.

Ordering Information

Vertical Female Connectors Type	Contact Supporting Upper Tool Tool Part Number	Flat Upper Tool Part Number	Lower Tool Part Number	Pin Cross Section
B		471787	220108	
B/2	471693		220051	
B/3	471819		220527	
C		471684	471855	
C/2	471582	471791	220051	
C/3		220139	220527	
CD		471837	473447	
E160		471584	473447	
E80		471920	471677	
Eurocard Center Connectors	473449		471943	
D	471590	471684	471855	0.6x0.6
			471694	1x1
E	471591	471584	473447	0.6x0.6
			471694	1x1
F flat			473447	
F	471592	220153	471694	
M 24-8	220290		471867	
M 42-6	220291		471867	
M 60-4	220292		471867	
M 78-2	220293		471867	
H 11		471684	473161	
H15		471836	471839	

Ordering Information

Vertical Male Connectors Type	Contact Supporting Upper Tool Tool Part Number	Lower Tool Part Number
Q	220370	220108
R	471585	471855
R/2	471597	220051
R/3	220364	220527
RD	471606	473447
TE	471608	473447

Right Angle Male Connectors Type	Contact Supporting Upper Tool Tool Part Number	Flat Upper Tool Part Number	Lower Tool Part Number
B	471630		471729
B/2	471632		471729
B/3	471634		471729
C	471629	220316	471556
C/2	471631		471556
C/3	471633		471556
CD	471922		471793
E160	471628		471710

Right Angle Female Connectors Type	Contact Supporting Upper Tool Tool Part Number	Lower Tool Part Number
Q	471640	471729
R	471639	471556
R/2	471642	220681
R/3	471645	471556
RD	471638	471793
TE	471637	471710

Presses

In addition ERNI offers modern hand lever presses with different options. At least insertion forces can be measured and monitored by a IPC supported hand lever press.



DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics

Standard		B, B/2, B/3, C, C/2, C/3, Q, Q/2, Q/3, R, R/2, R/3, CD, RD, TE, E80, E160, ECC	M
Number of Pins		20, 30, 32, 48, 64, 80, 96, 128, 160	6, 24, 42, 60, 78
Technical data			
Climate Category	DIN EN 60068-1 test b	55/125/56	55/125/56
Temperature range		-55/125 °C	-55/125 °C
Current rating	IEC60512 test 5b	Ambient temperature 20 °C 2.0 A 70 °C 1.6 A 100 °C 1.0 A	Ambient temperature 20 °C 2.0 A 70 °C 1.6 A 100 °C 1.0 A
Clearance and creepage distance		contact - contact 1.2 mm contact - ground 1.8 mm contact - ground 1.6 mm (clearance)	contact - contact 1.2 mm contact - ground 3.0 mm contact - ground 2.5 mm (clearance)
CTI value	IEC 60112	225 (Standard and THR) 250 (Inverted Versions)	225
Voltage rating	IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664
Dielectric strength	IEC 60512	contact - contact 1000 V _{rms} contact - ground 1550 V _{rms}	contact - contact 1000 V _{rms} contact - ground 1550 V _{rms}
Contact resistance	IEC 60512 test 2a	< 20 mΩ	< 20 mΩ
Insulation resistance	IEC 60512 test 3a	> 10 ⁴ MΩ	> 10 ⁴ MΩ
Vibration sine	IEC 60512 test 6d	10 – 2000 Hz 20 g	10 – 2000 Hz 20 g
Contact interruption (while vibration test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Shock halfsine	IEC 60512 test 6c	50 g 11 ms	50 g 11 ms
Contact interruption (while shock test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Mechanical operation (mating cycles)	IEC 60512 test 9a	Class 1: 500 mating cycles Class 2: 400 mating cycles	Class 1: 500 mating cycles Class 2: 400 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	20 cont.: 18 N max. 30 cont.: 28 N max. 32 cont.: 30 N max. 48 cont.: 45 N max. 64 cont.: 60 N max. 96 cont.: 90 N max. 128 cont.: 100 N max. 160 cont.: 110 N max.	6 cont.: 5 N max. 24 cont.: 22 N max. 42 cont.: 40 N max. 60 cont.: 57 N max. 78 cont.: 74 N max. With special contacts max. 100 N
Gauge retention force per contact	IEC 60512 test 16e	> 0.15 N	> 0.15 N

DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics



	Standard	B, B/2, B/3, C, C/2, C/3, Q, Q/2, Q/3, R, R/2, R/3, CD, RD, TE, E80, E160, ECC	M
Number of Pins		20, 30, 32, 48, 64, 80, 96, 128, 160	6, 24, 42, 60, 78
Process-conditions			
Solder temperature max.	IEC 68-2-20		
Hand soldering temperature max.		3.5 s at 350 °C	3.5 s at 350 °C
Dip soldering temperature max.		10 s at 260 °C	10 s at 260 °C
Reflow soldering temperature max.		10 s at 260 °C (THR versions)	
Warning		Soldering of pressfit connectors not recommended.	Soldering of pressfit connectors not recommended.
Materials			
Housing: Plastic material (symbol)		PBT GF PA 46 GF (THR)	PBT GF
CTI value	IEC 60112	225 (Standard and THR) 250 (Inverted Versions)	225
UL flame rating		UL 94 V-0	UL 94 V-0
UL file		E47960 (Standard and THR) E41938 (Inverted Versions)	E47960
Contact and mating area			
Base material		Cu alloy	Cu alloy
Plating		Gold plated	Gold plated
Termination area			
Base material		Cu alloy	Cu alloy
Solder, pressfit and THR		Sn	Sn
Environment compatibility			
Recycling		no flame-retardent additives, no toxic additives, allows easy recycling	
Product-approval and customer specific tests			
UL		E84703	E84703
CSA		LR62504	LR62504



DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics

	Standard	D, E	F
Number of Pins		32, 48	32, 48
Technical data			
Climate Category	DIN EN 60068-1 test b	55/125/56	55/125/56
Temperature range		-55/125 °C	-55/125 °C
Current rating	IEC60512 test 5b	Ambient temperature 20 °C 5.5 A 70 °C 4.0 A 100 °C 2.5 A	Ambient temperature 20 °C 5.5 A 70 °C 4.0 A 100 °C 2.5 A
Clearance and creepage distance		contact - contact 3.0 mm (clearance) contact - ground 1.6 mm (clearance) contact - contact 3.0 mm contact - ground 1.8 mm	contact - contact 1.6 mm (clearance) contact - ground 3.5 mm (clearance) contact - contact 3.0 mm contact - ground 6.0 mm
CTI value	IEC 60112	225	175 (Type F) 250 (Type F flat)
Voltage rating	IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664
Dielectric strength	IEC 60512	contact - contact 1550 V _{rms} contact - ground 1550 V _{rms}	contact - contact 1550 V _{rms} contact - ground 2500 V _{rms}
Contact resistance	IEC 60512 test 2a	< 15 mΩ	< 15 mΩ
Insulation resistance	IEC 60512 test 3a	> 10 ⁴ MΩ	> 10 ⁴ MΩ
Vibration sine	IEC 60512 test 6d	10 – 2000 Hz 20 g	10 – 2000 Hz 20 g
Contact interruption (while vibration test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Shock halfsine	IEC 60512 test 6c	50 g 11 ms	50 g 11 ms
Contact interruption (while shock test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Mechanical operation (mating cycles)	IEC 60512 test 9a	Class 1: 500 mating cycles Class 2: 400 mating cycles	Class 1: 500 mating cycles Class 2: 400 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	D: 40 N max. E: 60 N max.	32 cont.: 50 N max. 48 cont.: 75 N max.
Gauge retention force per contact	IEC 60512 test 16e	> 0.15 N	> 0.2 N

DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics



	Standard	D, E	F
Number of Pins		32, 48	32, 48
Process-conditions			
Solder temperature max.	IEC 68-2-20		
Hand soldering temperature max.		3.5 s at 350 °C	3.5 s at 350 °C
Dip soldering temperature max.		10 s at 260 °C	10 s at 260 °C
Warning		Soldering of pressfit connectors not recommended.	Soldering of pressfit connectors not recommended.
Materials			
Housing: Plastic material (symbol)		PBT GF	PC GF (Type F) PBT GF (Type F flat)
CTI value	IEC 60112	225	175 (Type F) 250 (Type F flat)
UL flame rating		UL 94 V-0	UL 94 V-1(Type F) UL 94 V-0 (Type F flat)
UL file		E47960	E41613 (Type F) E41938 (Type F flat)
Contact and mating area			
Base material		Cu alloy	Cu alloy
Plating		Gold plated	Gold plated
Termination area			
Base material		Cu alloy	Cu alloy
Solder, pressfit and THR		Sn	Sn
Environment compatibility			
Recycling		no flame-retardent additives, no toxic additives, allows easy recycling	
Product-approval and customer specific tests			
UL		E84703	E84703
CSA		LR62504	LR62504



DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics

	Standard	H11	H15, H-F (data only for Contacts)
Number of Pins		11	15, 7/24 (7 Power/24 Signal)
Technical data			
Climate Category	DIN EN 60068-1 test b	55/125/56	55/125/56
Temperature range		-55/125 °C	-55/125 °C
Current rating	IEC60512 test 5b	Ambient temperature 20 °C 15 A 70 °C 11 A 100 °C 7.5 A	Ambient temperature 20 °C 15 A 70 °C 11 A 100 °C 7.5 A
Clearance and creepage distance		contact - contact 4.5 mm (clearance) contact - ground 4.5 mm (clearance) contact - contact 8 mm contact - ground 8 mm	contact - contact 4.5 mm (clearance) contact - ground 4.5 mm (clearance) contact - contact 8 mm contact - ground 8 mm
CTI value	IEC 60112	175	175 225 (H11 solder, pressfit)
Voltage rating	IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664
Dielectric strength	IEC 60512	contact - contact 3100 V _{rms} contact - ground 3100 V _{rms}	contact - contact 3100 V _{rms} contact - ground 3100 V _{rms}
Contact resistance	IEC 60512 test 2a	< 8 mΩ	< 8 mΩ
Insulation resistance	IEC 60512 test 3a	> 10 ⁴ MΩ	> 10 ⁴ MΩ
Vibration sine	IEC 60512 test 6d	10 – 2000 Hz 20 g	10 – 2000 Hz 20 g
Contact interruption (while vibration test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Shock halfsine	IEC 60512 test 6c	50 g 11 ms	50 g 11 ms
Contact interruption (while shock test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Mechanical operation (mating cycles)	IEC 60512 test 9a	Class 1: 500 mating cycles	Class 1: 500 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	max. 80 N	max. 90 N
Gauge retention force per contact	IEC 60512 test 16e	> 0.2 N	> 0.2 N

DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics



	Standard	H11	H15, H-F (data only for Contacts)
Number of Pins		11	15, 7/24 (7 Power/24 Signal)
Process-conditions			
Solder temperature max.	IEC 68-2-20		
Hand soldering temperature max.		3.5 s at 350 °C	3.5 s at 350 °C
Dip soldering temperature max.		10 s at 260 °C	10 s at 260 °C
Warning		Soldering of pressfit connectors not recommended.	Soldering of pressfit connectors not recommended.
Materials			
Housing: Plastic material (symbol)		PC GF LCP GF (Female Pressfit)	PC GF PBT GF (H11 solder, pressfit)
CTI value	IEC 60112	175	175 225 (H11 solder, pressfit)
UL flame rating		UL 94 V-1 UL 94 V-0 (Female Pressfit)	UL 94 V-1 UL 94 V-0 (H11 solder, pressfit)
UL file		E41613 E83005	E41613 E47960 (H11 solder, pressfit)
Contact and mating area			
Base material		Cu alloy	Cu alloy
Plating		Silver plated	Silver plated
Termination area			
Base material		Cu alloy	Cu alloy
Plating		Sn	Sn
Environment compatibility			
Recycling		no flame-retardent additives, no toxic additives, allows easy recycling	
Product-approval and customer specific tests			
UL		E84703	E84703
CSA		LR62504	LR62504



DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics

	Standard	IDC	Crimp
Number of Pins		64, 96	48, 96, 160
Technical data			
Climate Category	DIN EN 60068-1 test b	55/125/56	55/125/56
Temperature range		-55/125 °C	-55/125 °C
Current rating	IEC60512 test 5b	Ambient temperature 20 °C 2.0 A 70 °C 1.6 A 100 °C 1.0 A	Ambient temperature 20 °C 2.0 A 70 °C 1.6 A 100 °C 1.0 A
Clearance and creepage distance		contact - contact 1.2 mm contact - ground 1.8 mm contact - ground 1.6 mm (clearance)	contact - contact 1.2 mm contact - ground 1.8 mm contact - ground 1.6 mm (clearance)
CTI value	IEC 60112	175 (Type C 96) 225	225 (Type C/2) 250
Voltage rating	IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664	Has to be determined according to customer application (degree of environmental pollution) according to IEC 60664
Dielectric strength	IEC 60512	contact - contact 1000 V _{rms} contact - ground 1550 V _{rms}	contact - contact 1000 V _{rms} contact - ground 1550 V _{rms}
Contact resistance	IEC 60512 test 2a	< 20 mΩ	< 20 mΩ
Insulation resistance	IEC 60512 test 3a	> 10 ⁴ MΩ	> 10 ⁴ MΩ
Vibration sine	IEC 60512 test 6d	10 – 2000 Hz 20 g	10 – 2000 Hz 20 g
Contact interruption (while vibration test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Shock halfsine	IEC 60512 test 6c	50 g 11 ms	50 g 11 ms
Contact interruption (while shock test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Mechanical operation (mating cycles)	IEC 60512 test 9a	Class 1: 500 mating cycles Class 2: 400 mating cycles	Class 1: 500 mating cycles Class 2: 400 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	64 cont.: 60 N max. 96 cont.: 90 N max.	48 cont.: 45 N max. 96 cont.: 90 N max. 160 cont.: 110 N max.
Gauge retention force per contact	IEC 60512 test 16e	> 0.15 N	> 0.15 N

Attention

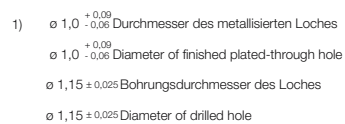
The electrical and thermal variables may be influenced by whichever cable is used.

DIN 41612 / IEC 60603-2 Connectors

Electrical and Mechanical Characteristics



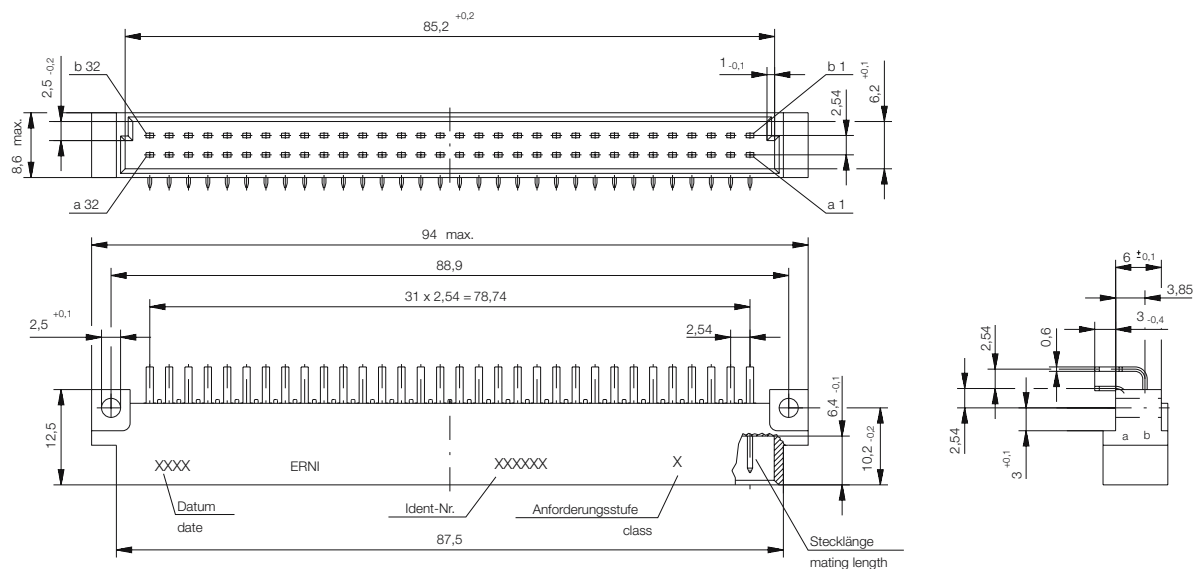
	Standard	IDC	Crimp
Number of Pins		64, 96	48, 96, 160
Process-conditions			
Processing temperature		0/55 °C	0/55 °C
Materials			
Housing: Plastic material (symbol)		PC GF (Type C 96) PBT GF	PBT GF
CTI value	IEC 60112	175 (Type C 96) 225	225 (Type C/2) 250
UL flame rating		UL 94 V-1 (Type C 96) UL 94 V-0	UL 94 V-0
UL file		E41613 (Type C 96) E47960	E47960 (Type C/2) E41938
Contact and mating area			
Base material		Cu alloy	Cu alloy
Plating		Gold plated	Gold plated
Termination area			
Base material		Cu alloy	Cu alloy
Plating		Sn	Sn
Environment compatibility			
Recycling		no flame-retardent additives, no toxic additives, allows easy recycling	
Product-approval and customer specific tests			
UL		E84703	
CSA		LR62504	
Attention			
The electrical and thermal variables may be influenced by whichever cable is used.			



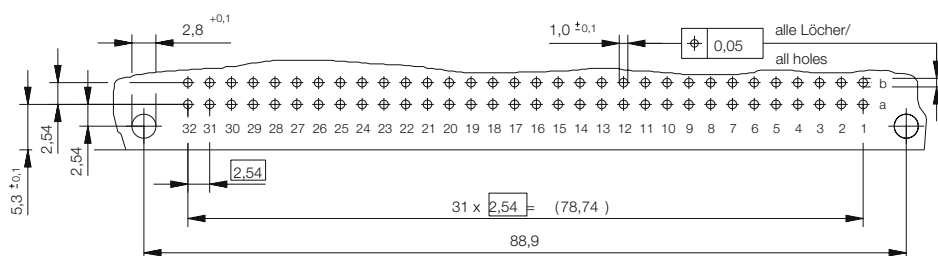
DIN 41612 / IEC 60603-2 Connectors Type B Male



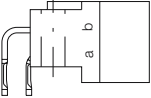
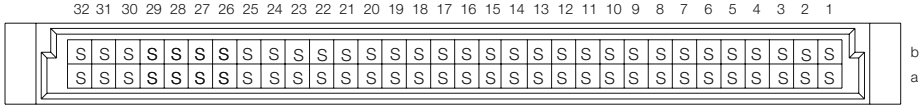
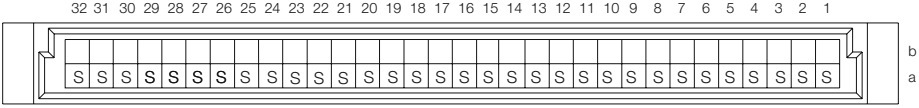
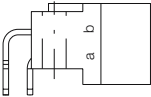
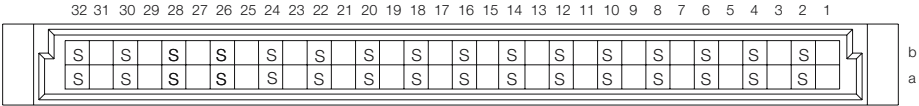
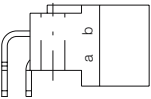
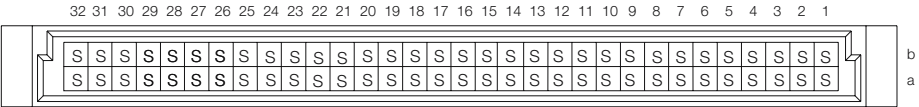
Dimensional Drawing Solder



Leiterplatten-Lochbild / PCB drillhole pattern



Ordering Information

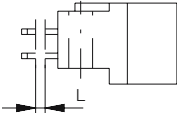
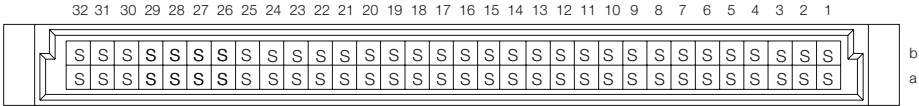
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013130
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	533208
	Solder	3 mm	0.6 x 0.6 mm	2	—	533408
32	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	043606
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	533207
32	Solder	3 mm	0.6 x 0.6 mm	2	—	533407
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	533206
	Solder	3 mm	0.6 x 0.6 mm	2	—	533406
64	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	023545

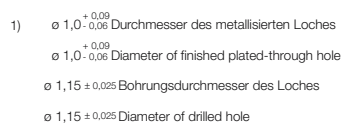
DIN 41612 / IEC 60603-2 Connectors

Type B Male

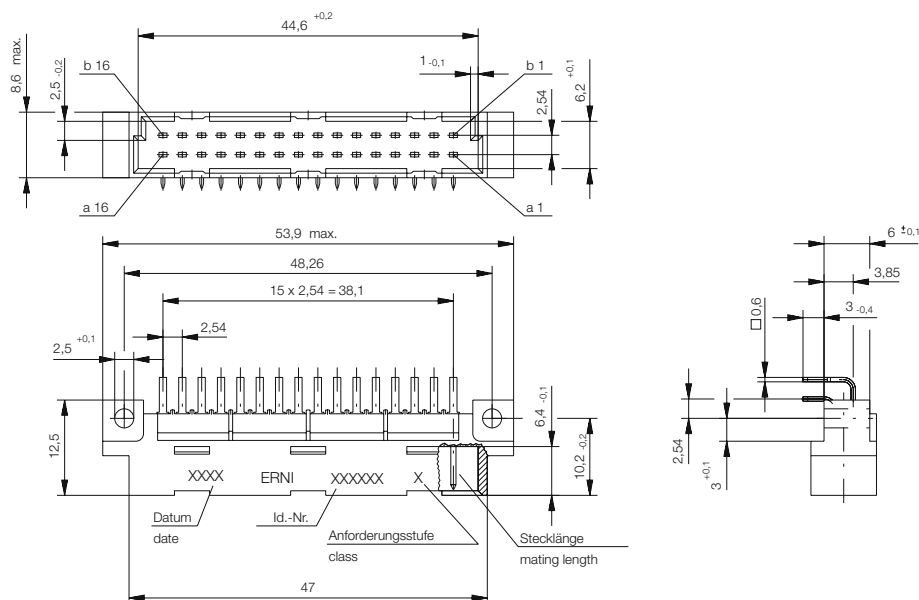


Ordering Information

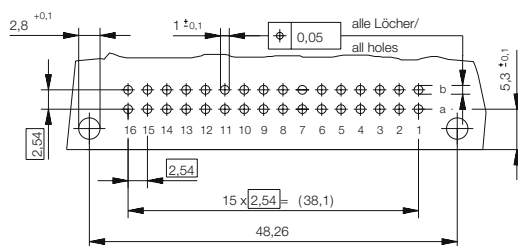
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
 						
64	Solder	3.8 mm	0.6 x 0.6 mm	1	–	414377
64	Solder	3.8 mm	0.6 x 0.6 mm	2	–	414378
64	Solder	12 mm	0.6 x 0.6 mm	1	–	414379
64	Solder	12 mm	0.6 x 0.6 mm	2	–	414380



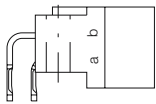
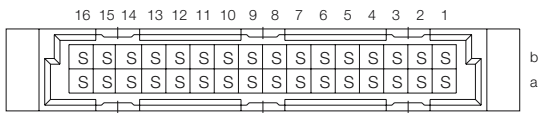
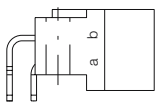
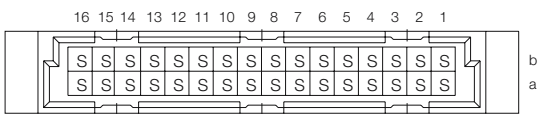
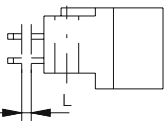
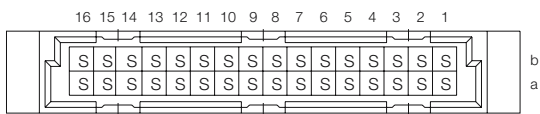
Dimensional Drawing Solder



Leiterplatten-Lochbild / PCB drillhole pattern



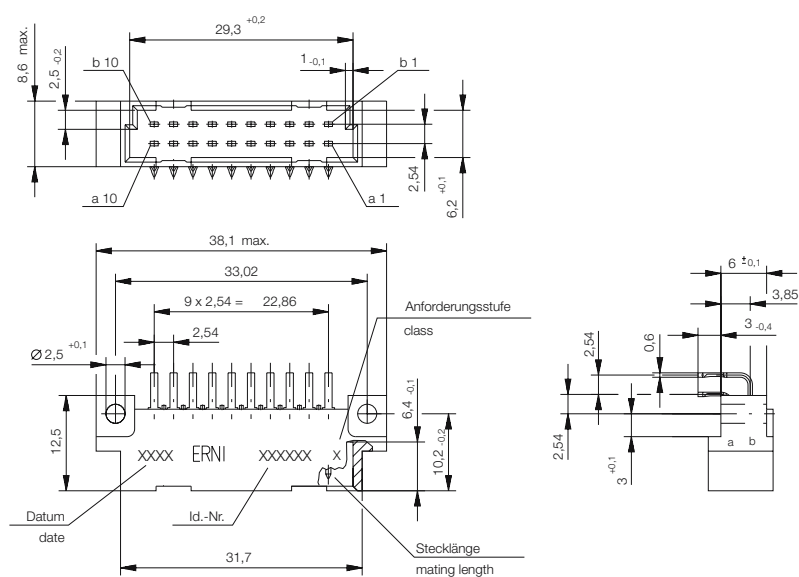
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
		3 mm	0.6 x 0.6 mm	2	1.5 mm	013135
		3 mm	0.6 x 0.6 mm	1	—	413852
				2	—	413853
		3.8 mm	0.6 x 0.6 mm	1	—	594056
		3.8 mm	0.6 x 0.6 mm	2	—	594613
		12 mm	0.6 x 0.6 mm	2	—	594614

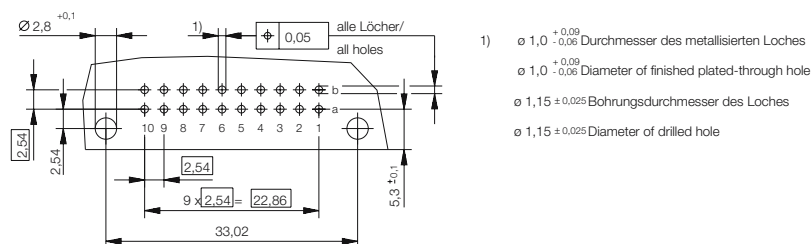
DIN 41612 / IEC 60603-2 Connectors Type B/3 Male



Dimensional Drawing Pressfit



Leiterplatten-Lochbild / PCB drillhole pattern



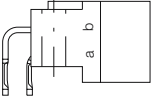
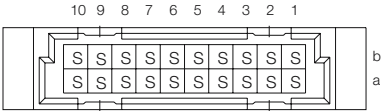
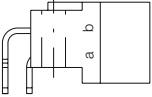
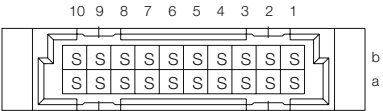
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DIN 41612 / IEC 60603-2 Connectors

Type B/3 Male

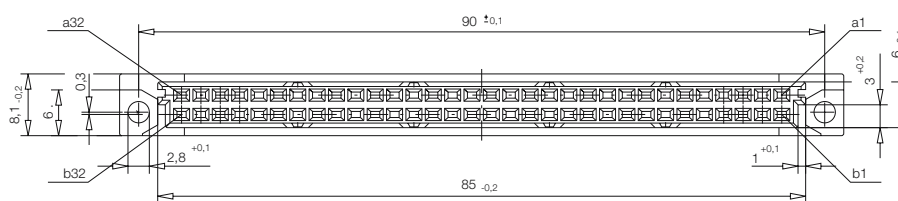
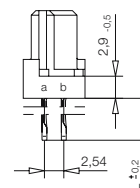
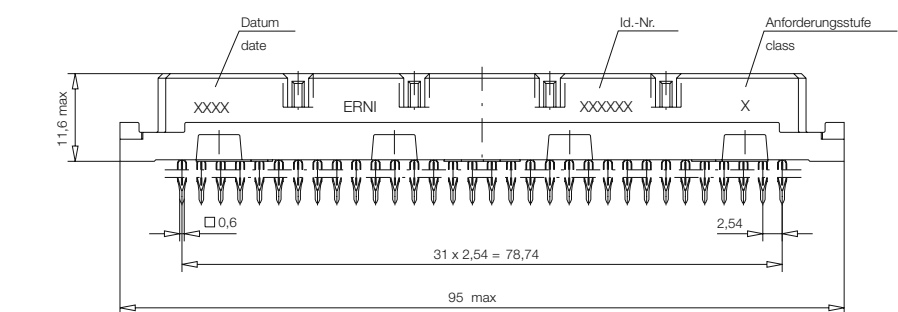


Ordering Information

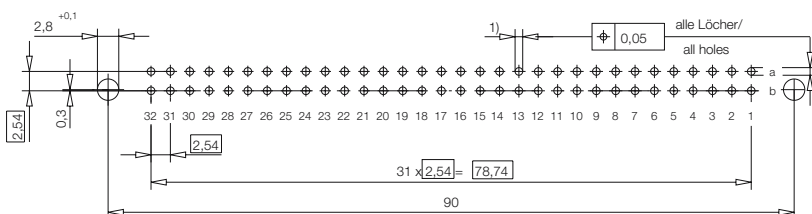
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013133
						
	Solder	3 mm	0.6 x 0.6 mm	2	–	424207



Dimensional Drawing Pressfit



Leiterplatten-Lochbild / PCB drillhole pattern

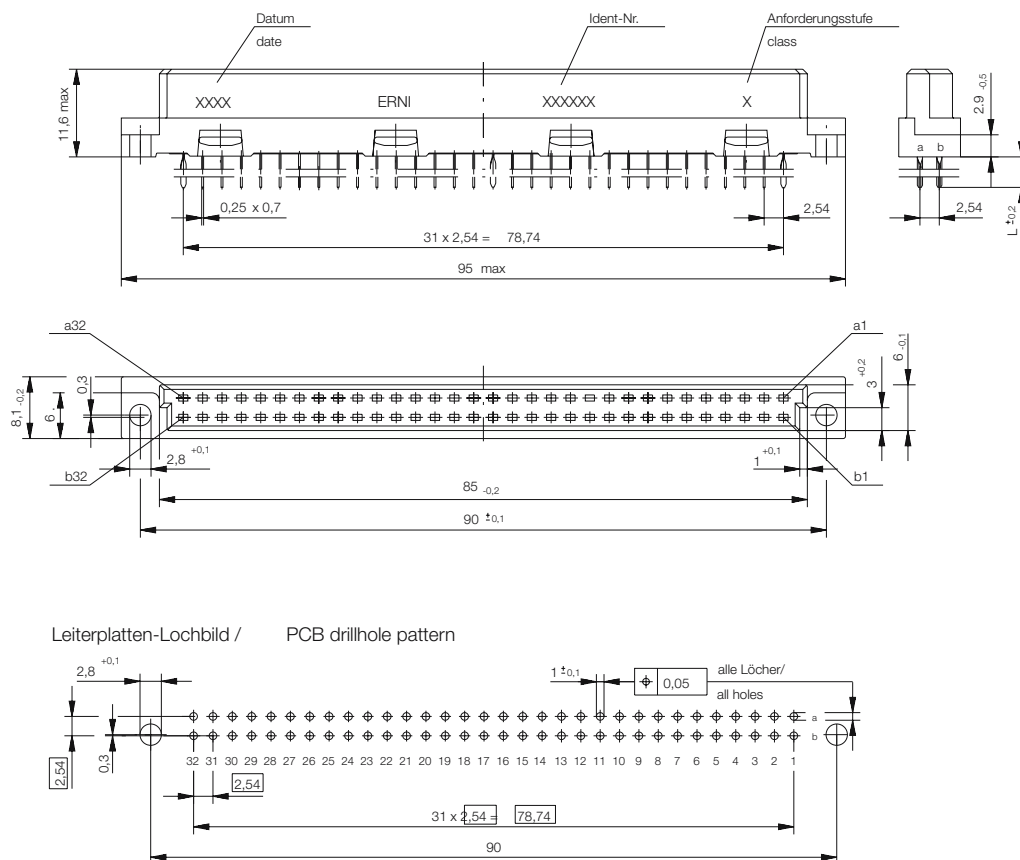


- $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Durchmesser des metallisierten Loches
 - $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Diameter of finished plated-through hole
 - $\varnothing 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 - $\varnothing 1,15 \pm 0,025$ Diameter of drilled hole

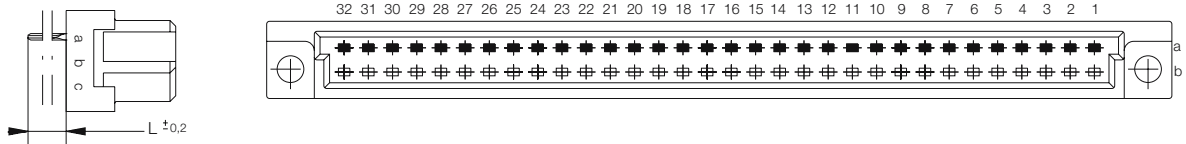
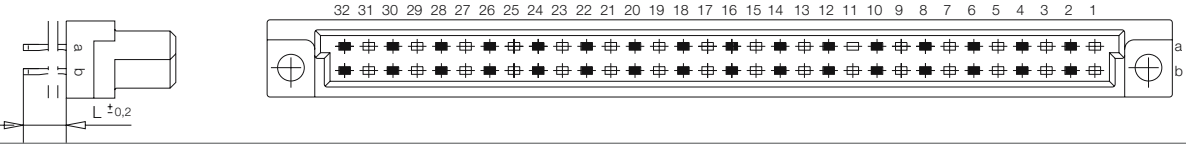
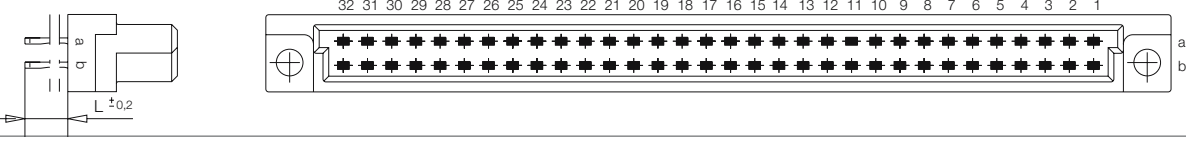
DIN 41612 / IEC 60603-2 Connectors Type B Female



Dimensional Drawing Solder



Ordering Information

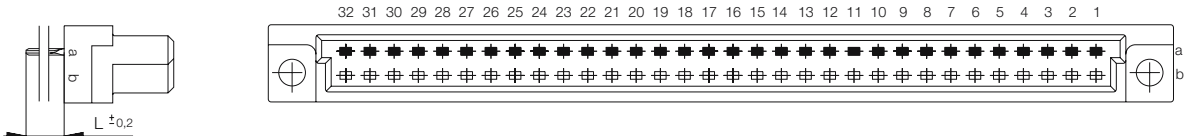
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	023107
						
32	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	043175
						
64	Pressfit	5.5 mm	0.6 x 0.6 mm	1	2.5 mm	023367
64	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	023108
64	Pressfit w/o Flange	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	043543
64	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	3 mm	023379
64	Pressfit	17 mm	0.6 x 0.6 mm	2	2.5 mm	023365
64	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	2.5 mm	023372

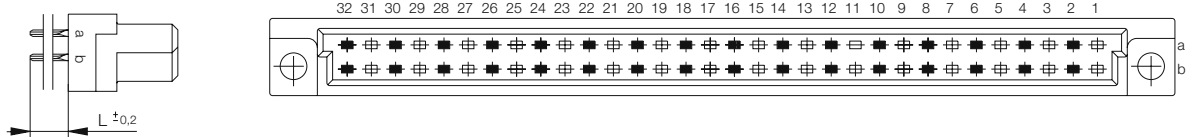
DIN 41612 / IEC 60603-2 Connectors

Type B Female

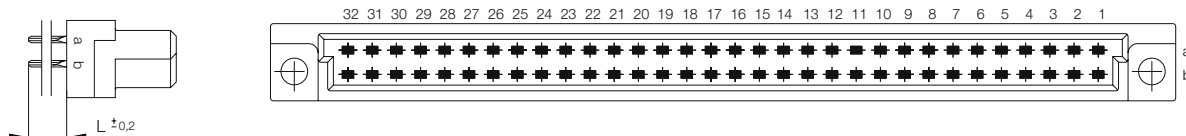


Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Solder	2.5 mm	0.25 x 0.7 mm	2	—	063719
32	Solder	4 mm	0.25 x 0.7 mm	1	—	004344
32	Solder	4 mm	0.25 x 0.7 mm	2	—	594835
32	Solder	13 mm	0.6 x 0.6 mm	1	—	543214
32	Solder	13 mm	0.6 x 0.6 mm	2	—	543414

						
32	Solder	2.5 mm	0.25 x 0.7 mm	2	—	063258
32	Solder	4 mm	0.25 x 0.7 mm	2	—	033617
32	Solder	13 mm	0.6 x 0.6 mm	1	—	543213
32	Solder	13 mm	0.6 x 0.6 mm	2	—	543413

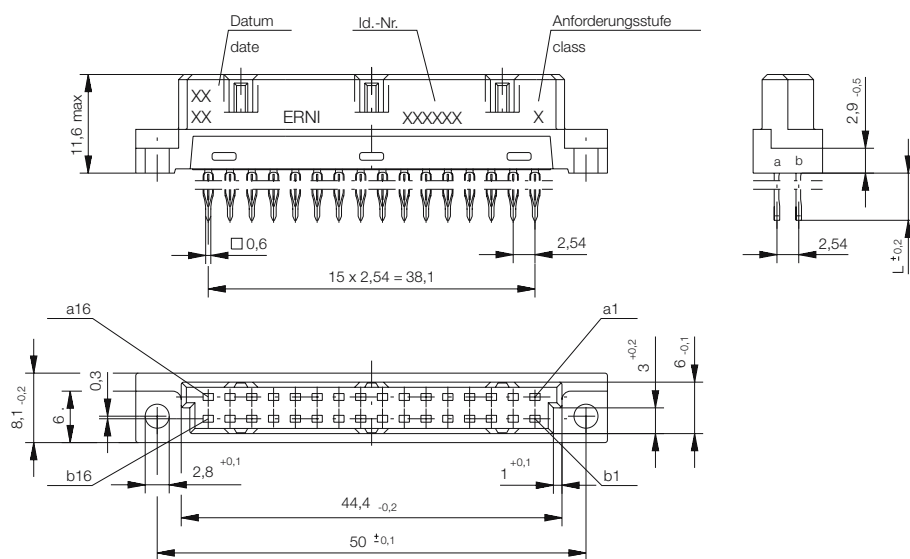
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
64	Solder	2.5 mm	0.25 x 0.7 mm	1	—	004982
64	Solder	2.5 mm	0.25 x 0.7 mm	2	—	003441
64	Solder with Clip	2.5 mm	0.25 x 0.7 mm	2	—	033746
64	Solder	4 mm	0.25 x 0.7 mm	1	—	594079
64	Solder	4 mm	0.25 x 0.7 mm	2	—	594080
64	Solder with Clip	4 mm	0.25 x 0.7 mm	2	—	033227
64	Solder	13 mm	0.6 x 0.6 mm	1	—	543212
64	Solder	13 mm	0.6 x 0.6 mm	2	—	543412
64	Solder w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	023072
64	Solder w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	593403

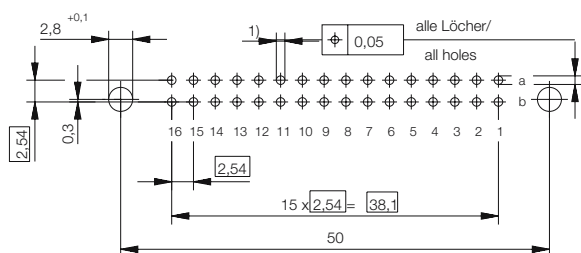
DIN 41612 / IEC 60603-2 Connectors Type B/2 Female



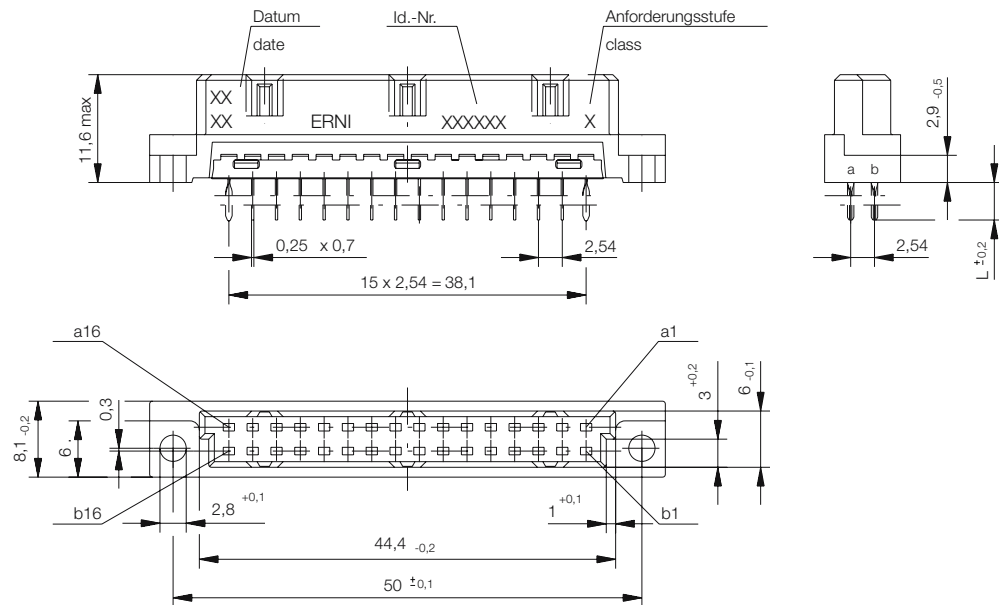
Dimensional Drawing Pressfit



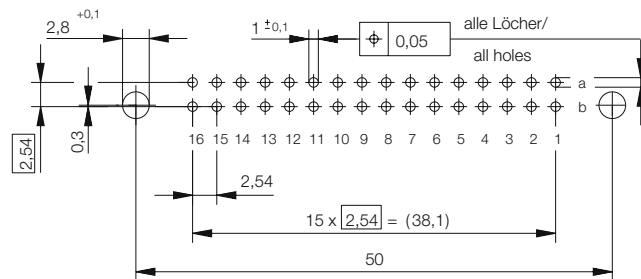
Leiterplatten-Lochbild / PCB drillhole pattern



Dimensional Drawing Solder



Leiterplatten-Lochbild / PCB drillhole pattern

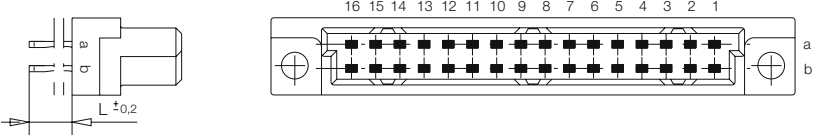
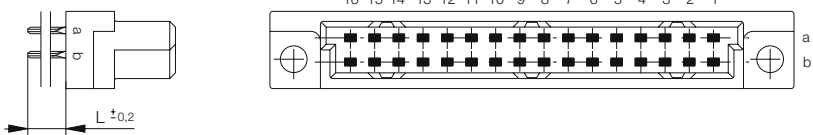


DIN 41612 / IEC 60603-2 Connectors

Type B/2 Female

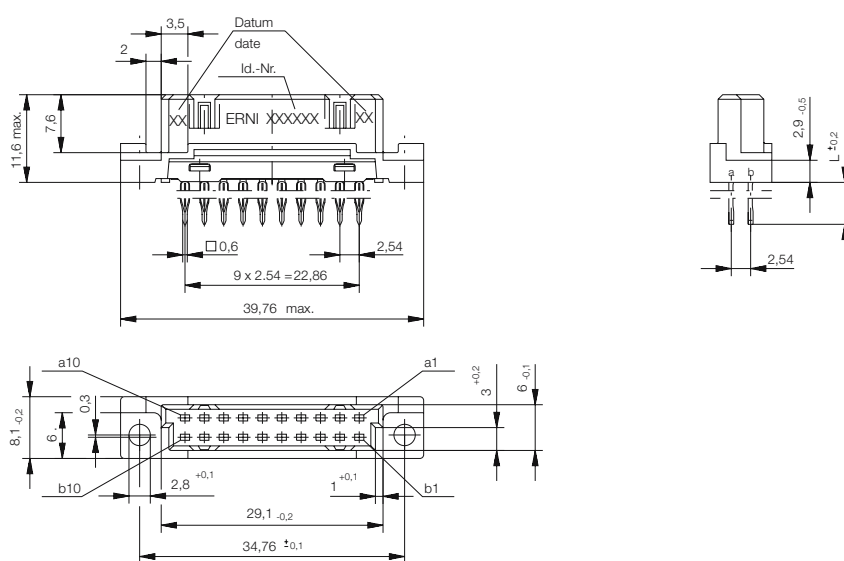


Ordering Information

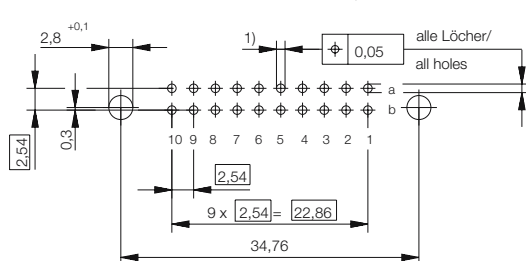
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	414313
32	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	3 mm	023380
32	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	3 mm	023373
						
32	Solder	2.5 mm	0.25 x 0.7 mm	2	—	003260
32	Solder	4 mm	0.25 x 0.7 mm	1	—	594088
32	Solder	4 mm	0.25 x 0.7 mm	2	—	594089
32	Solder	13 mm	0.6 x 0.6 mm	1	—	414803
32	Solder	13 mm	0.6 x 0.6 mm	2	—	414290



Dimensional Drawing Pressfit



Leiterplatten-Lochbild / PCB drillhole pattern



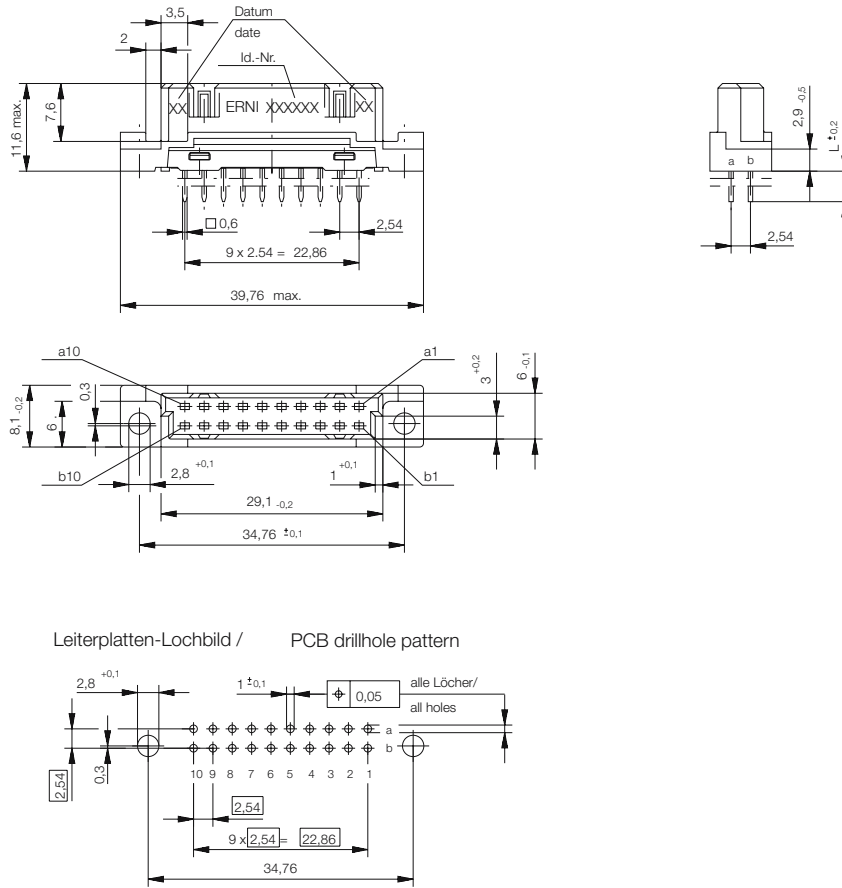
- 1) $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Durchmesser des metallisierten Loches
 $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Diameter of finished plated-through hole
 $\varnothing 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 $\varnothing 1,15 \pm 0,025$ Diameter of drilled hole

DIN 41612 / IEC 60603-2 Connectors

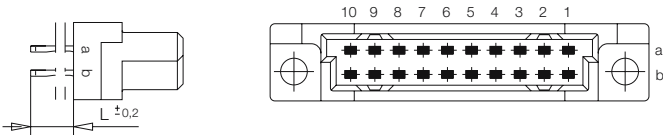
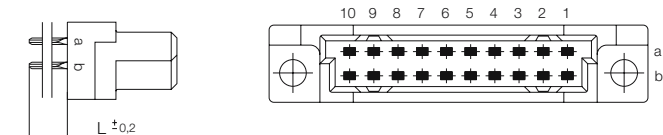
Type B/3 Female



Dimensional Drawing Solder



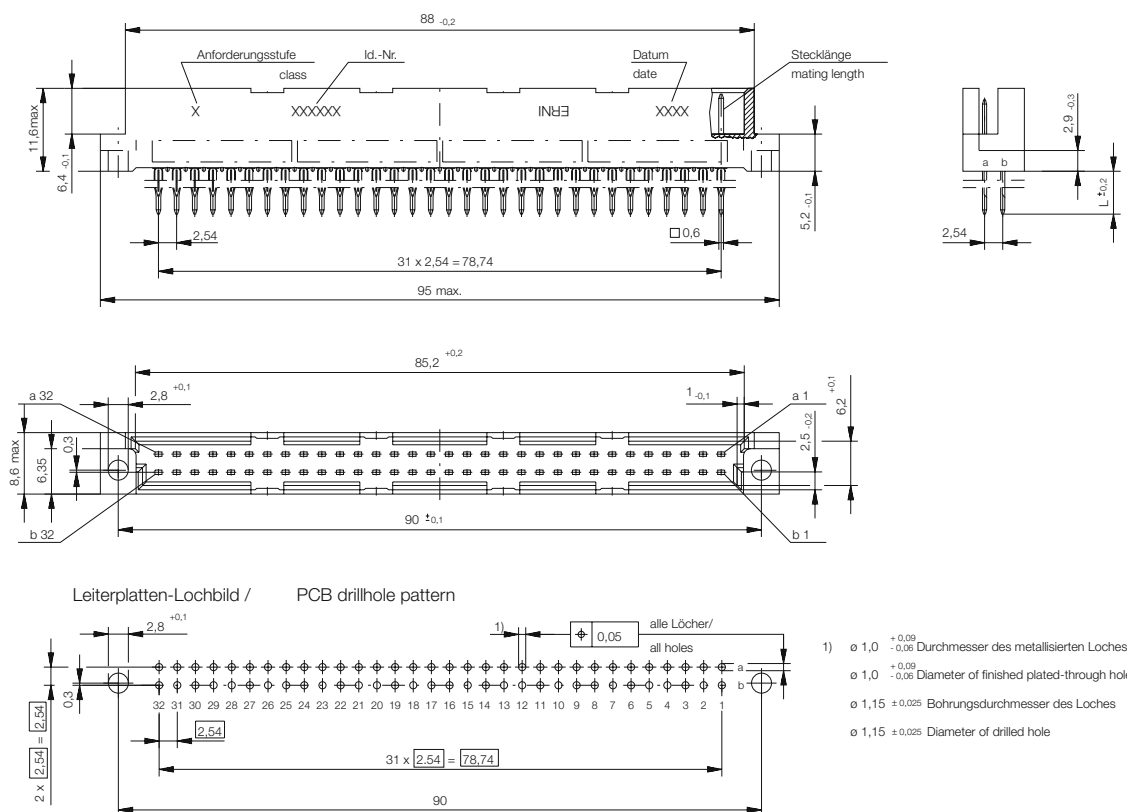
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
20	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	023368
20	Pressfit	17 mm	0.6 x 0.6 mm	2	3 mm	023366
						
20	Solder	4 mm	0.6 x 0.6 mm	2	—	004487
20	Solder	13 mm	0.6 x 0.6 mm	2	—	424204

DIN 41612 / IEC 60603-2 Connectors Type Q Male



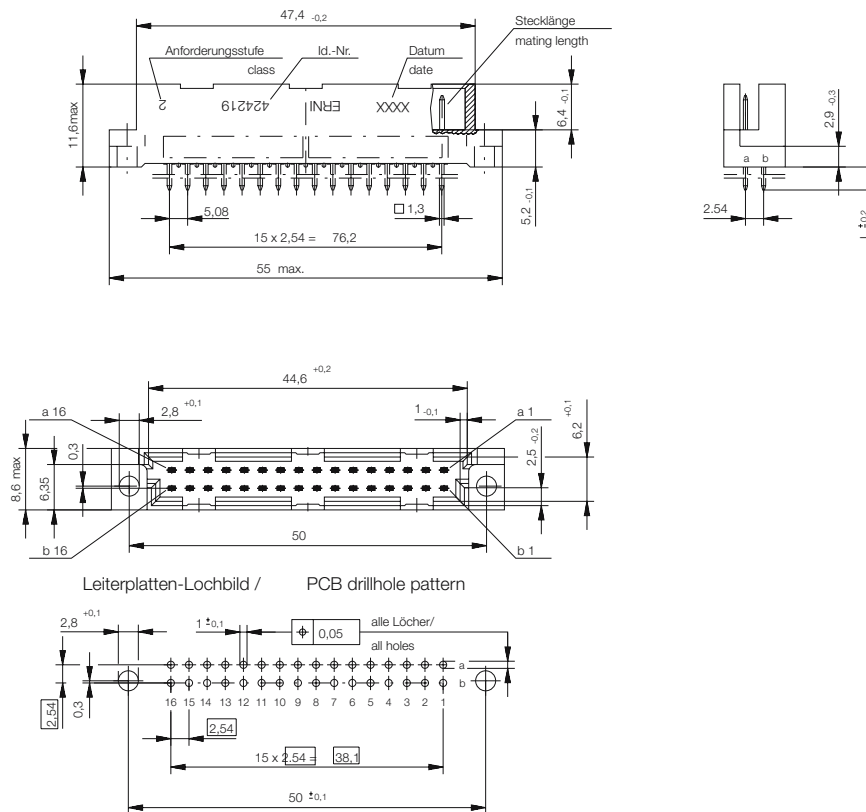
Dimensional Drawing Pressfit Type Q



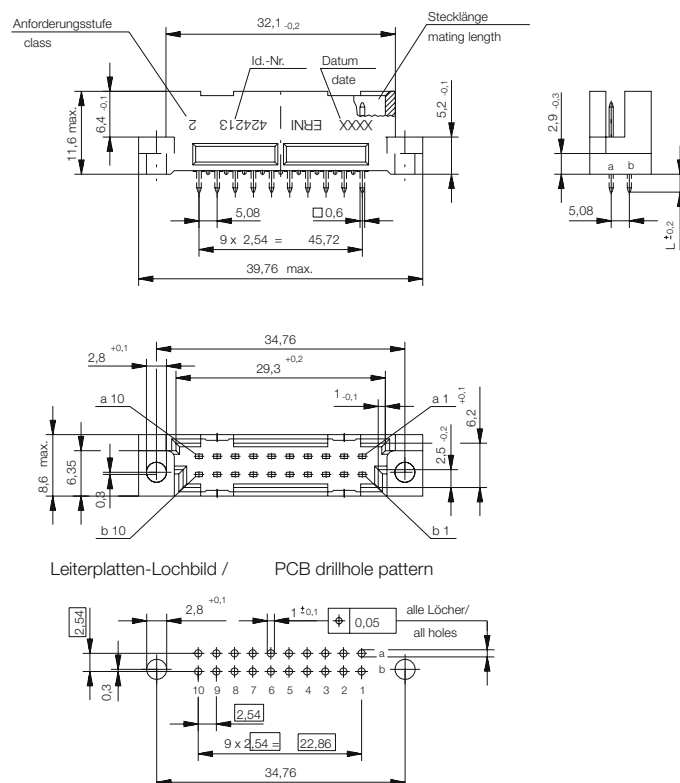
The drawing shows a PCB drillhole pattern with the following details:

- Top View:**
 - Overall width: 88 ±0.2
 - Overall length: 95 max.
 - Pin pitch: 2.54
 - Pin count: 31 x 2.54 = 157.48
 - Pin diameter: 1.3
 - Pin spacing from edge: 5.08
 - Labels: Anforderungsstufe (class), Id.-Nr. (XXXXXX), Datum (date), Stecklänge (mating length).
 - Dimensions: 11.6 max, 6.4 ±0.1, 5.2 ±0.1.
- Side View:**
 - Pin height: 2.9 ±0.3
 - Pin diameter: 1.3
 - Pin spacing from edge: 5.08
- Bottom View (Leiterplatten-Lochbild / PCB drillhole pattern):**
 - Overall width: 85.2 ±0.2
 - Overall length: 90 ±0.1
 - Pin pitch: 2.54
 - Pin diameter: 1.3
 - Pin spacing from edge: 5.08
 - Pin diameter: 0.05
 - Pin count: 31 x 2.54 = 78.74
 - Dimensions: 2.8 ±0.1, 1 ±0.1, 2.5 ±0.2, 6.2 ±0.1, 6.35, 0.3.

Dimensional Drawing Solder Type Q/2

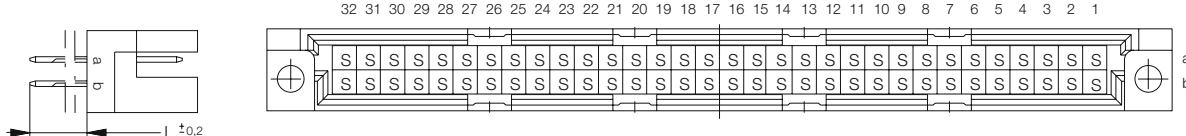


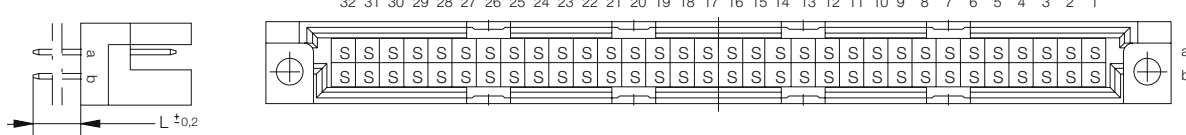
Dimensional Drawing Solder Type Q/3



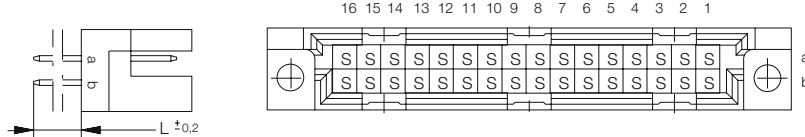
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
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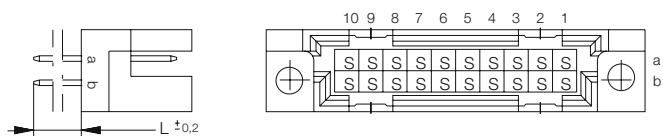
						
64	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	593952
64	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	2	2.5 mm	593964

						
64	Solder	4 mm	0.6 x 0.6 mm	1	—	593933
64	Solder	4 mm	0.6 x 0.6 mm	2	—	593934
64	Solder	13 mm	0.6 x 0.6 mm	1	—	593927
64	Solder	13 mm	0.6 x 0.6 mm	2	—	593928

Type Q/2

						
32	Solder	4 mm	0.6 x 0.6 mm	2	—	004483
32	Solder	13 mm	0.6 x 0.6 mm	2	—	424219

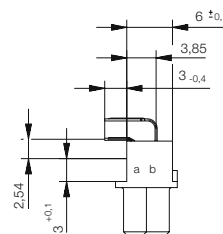
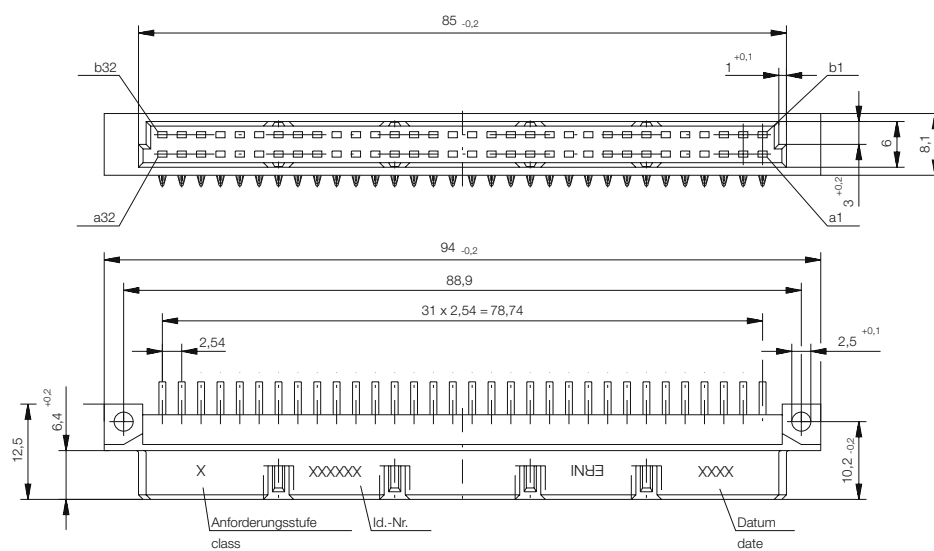
Type Q/3

						
20	Solder	4 mm	0.6 x 0.6 mm	2	—	004498
20	Solder	13 mm	0.6 x 0.6 mm	2	—	424213

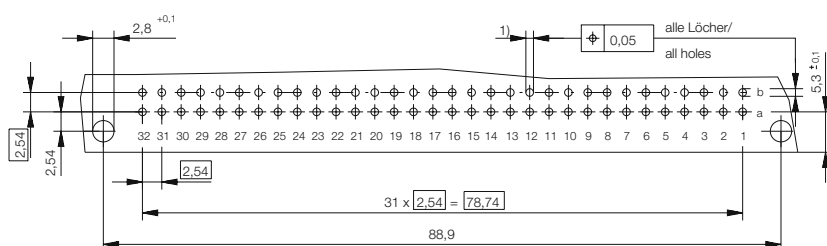
DIN 41612 / IEC 60603-2 Connectors Type Q Female



Dimensional Drawing Pressfit Type Q

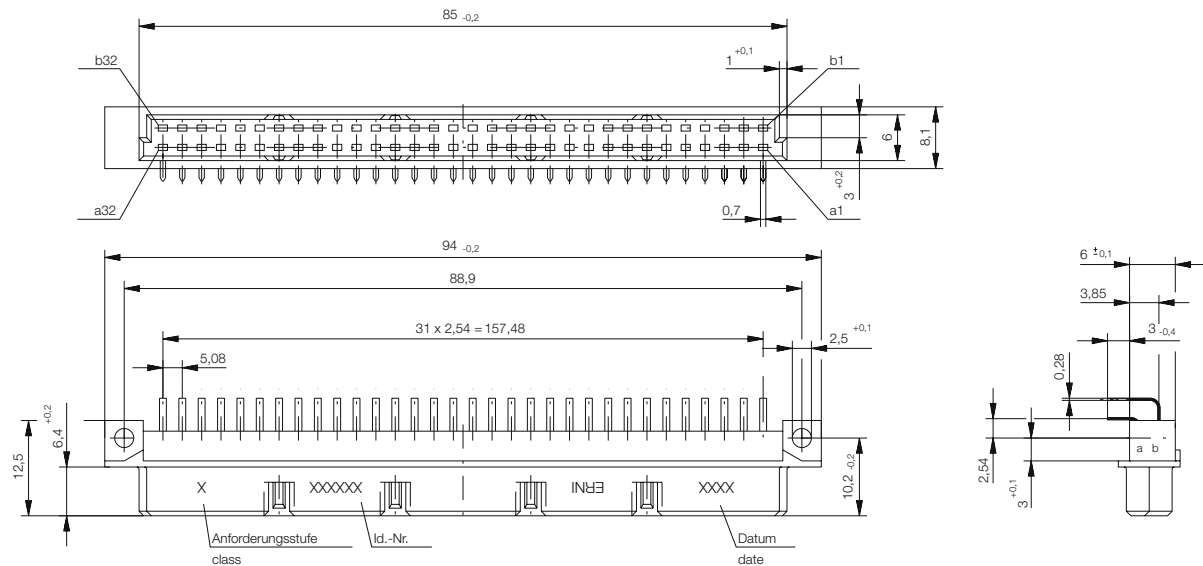


Leiterplatten-Lochbild / PCB drillhole pattern

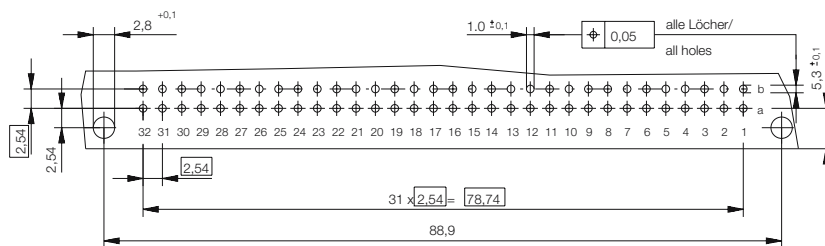


- 1) $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Durchmesser des metallisierten Loches
 $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Diameter of finished plated-through hole
 $\varnothing 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 $\varnothing 1,15 \pm 0,025$ Diameter of drilled hole

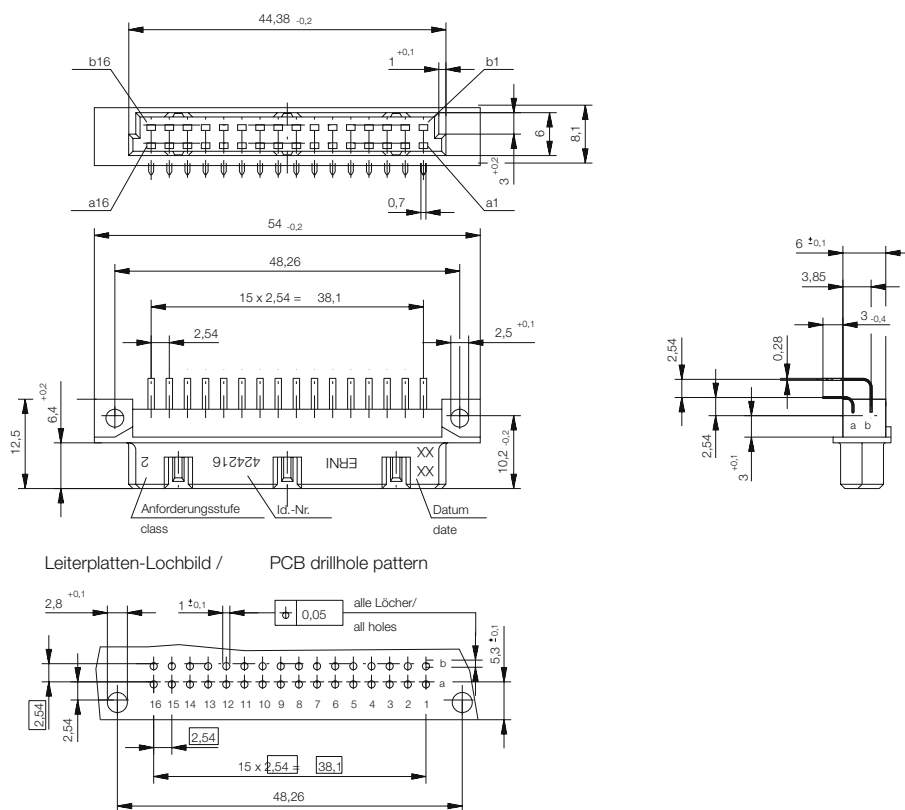
Dimensional Drawing Solder Type Q



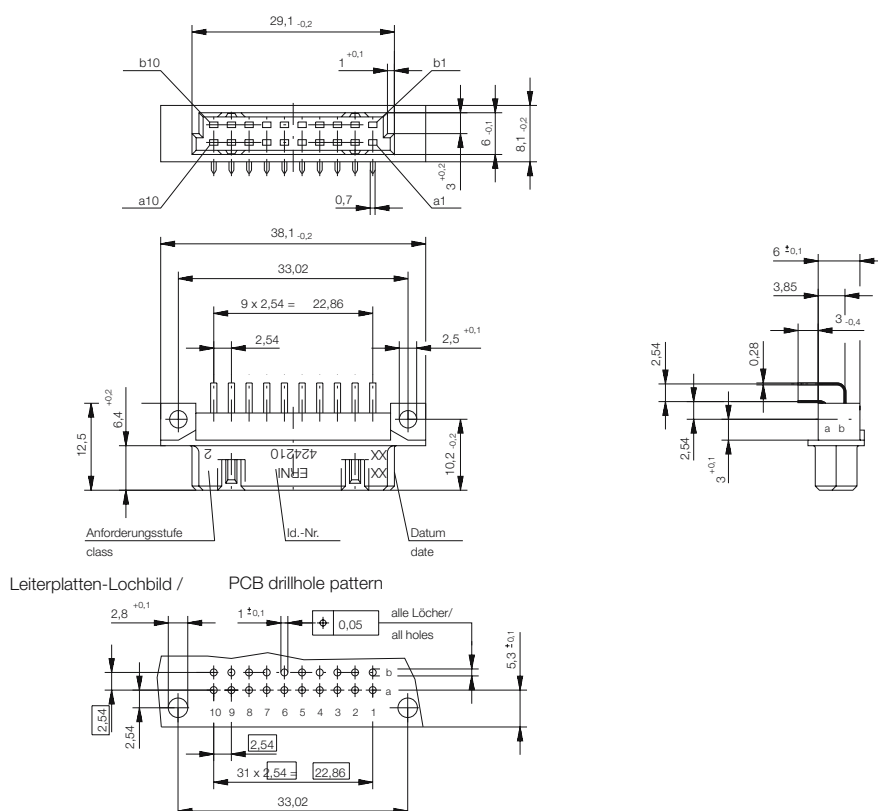
Leiterplatten-Lochbild / PCB drillhole pattern



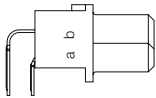
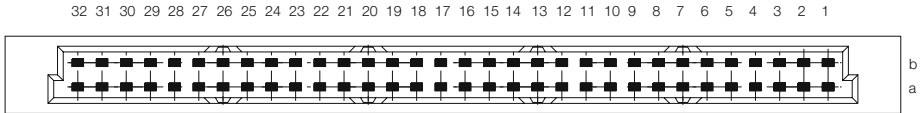
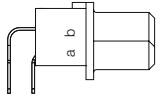
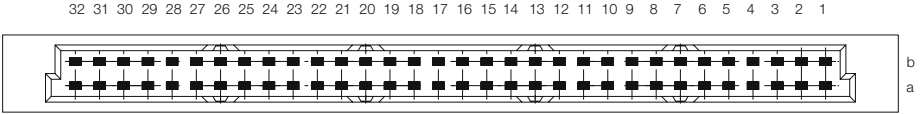
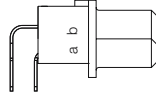
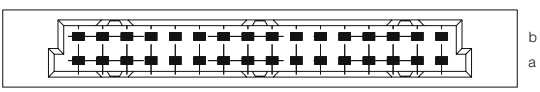
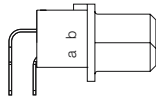
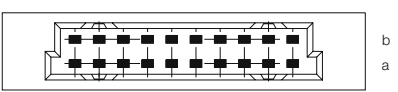
Dimensional Drawing Solder Type Q/2



Dimensional Drawing Solder Type Q/3



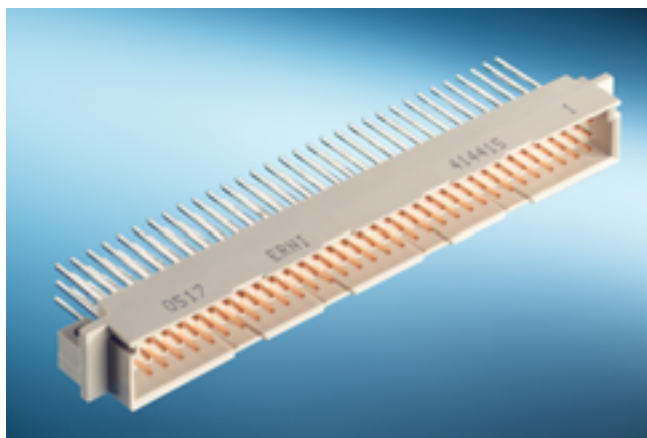
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Pressfit	3 mm	0.28 x 0.7 mm	2	1 mm	023087
						
	Solder	3 mm	0.28 x 0.7 mm	2	—	004514
						
	Solder	3 mm	0.28 x 0.7 mm	2	—	424216
						
	Solder	3 mm	0.28 x 0.7 mm	2	—	424210

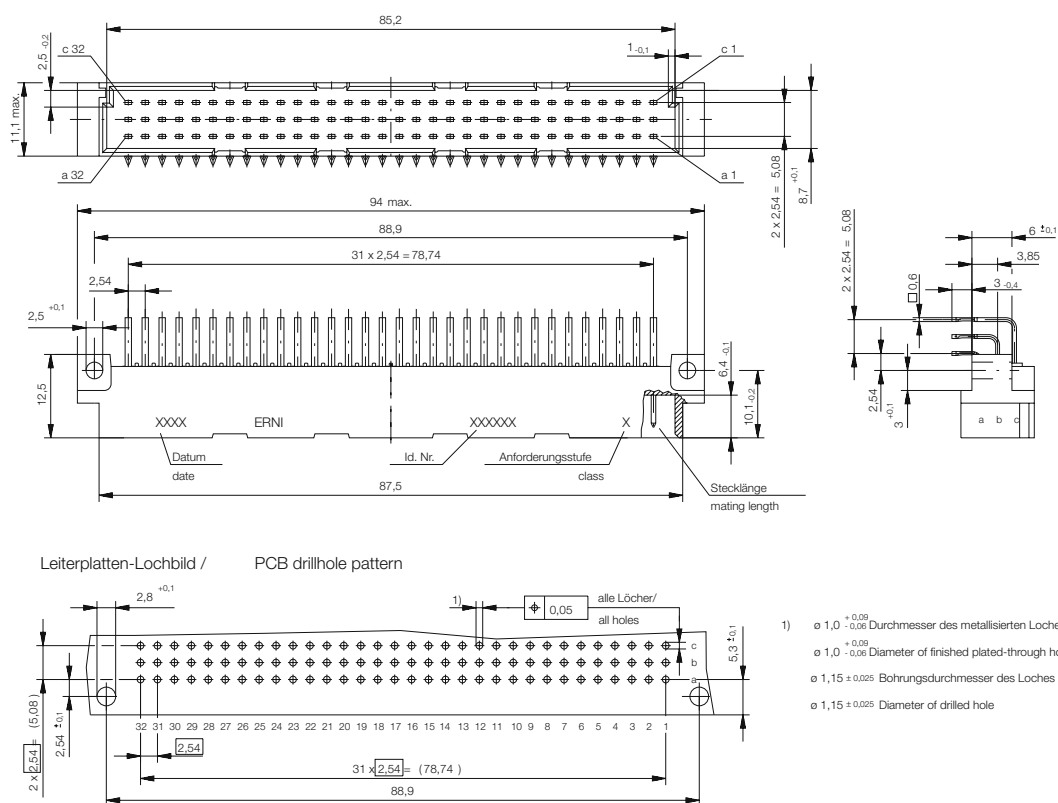
Type Q/2

Type Q/3

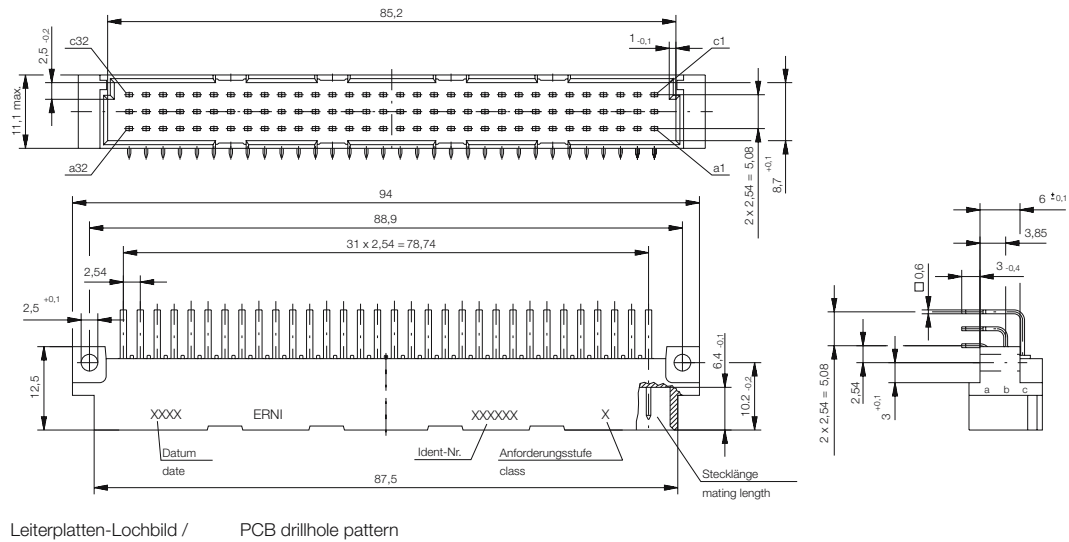
DIN 41612 / IEC 60603-2 Connectors Type C Male



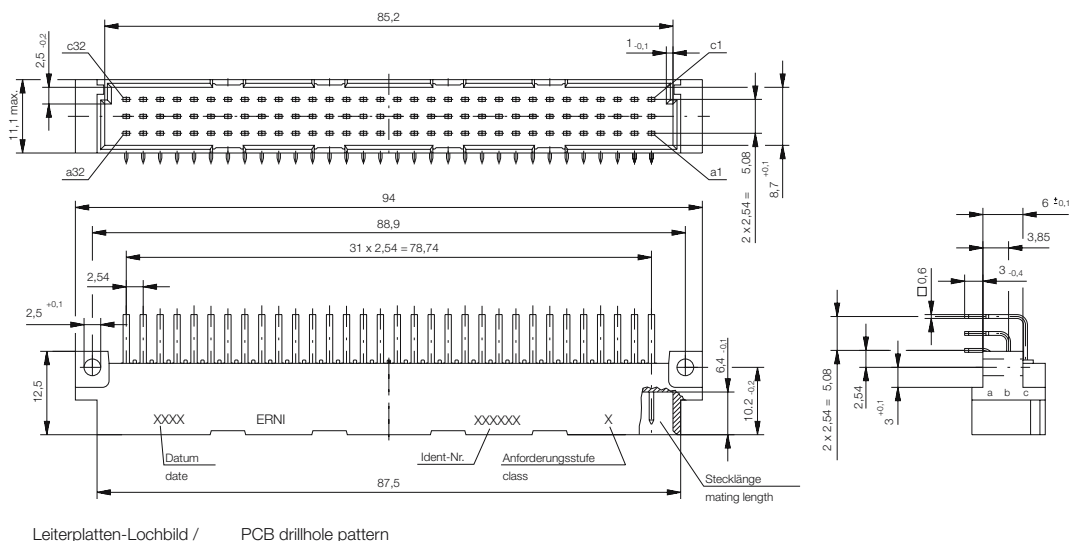
Dimensional Drawing Pressfit



Dimensional Drawing Solder



Dimensional Drawing THR

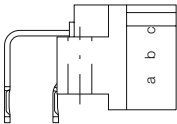
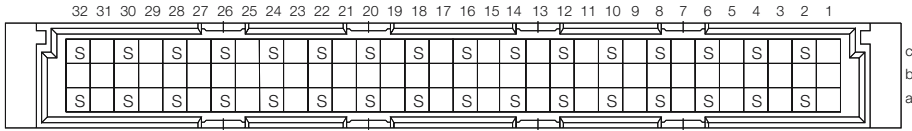
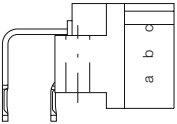
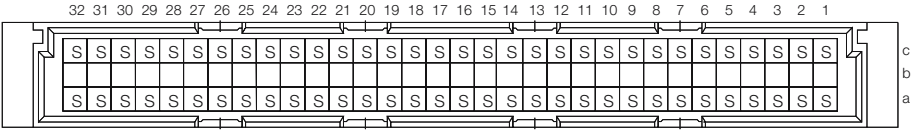
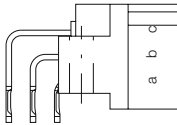
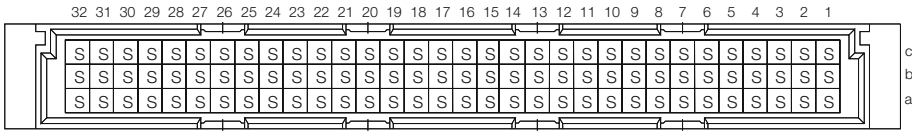


DIN 41612 / IEC 60603-2 Connectors

Type C Male

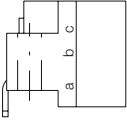
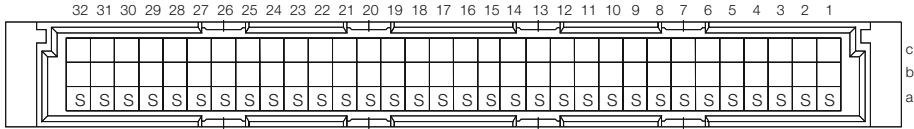
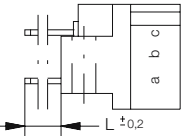
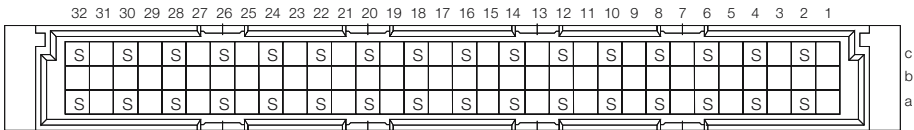
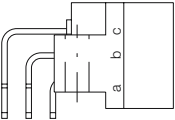
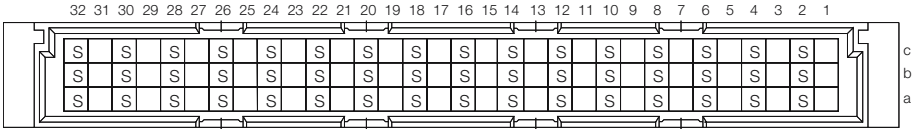


Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013254
						
	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013132
64	Pressfit *	3 mm	0.6 x 0.6 mm	2	1.5 mm	063795
						
	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013131
96	Pressfit *	3 mm	0.6 x 0.6 mm	2	1.5 mm	104552

* For flat press-in tool.

Ordering Information

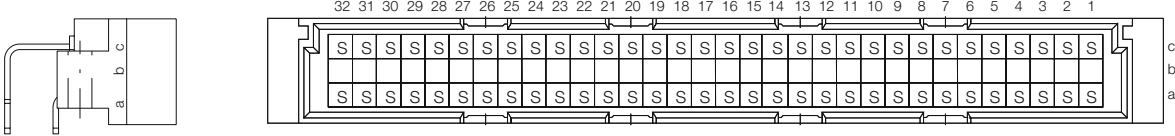
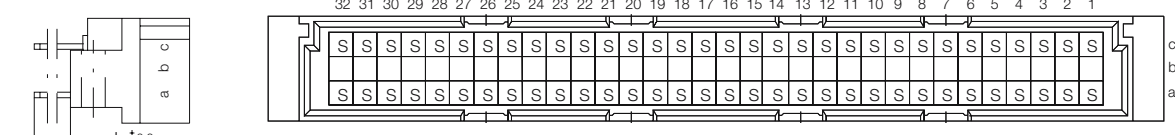
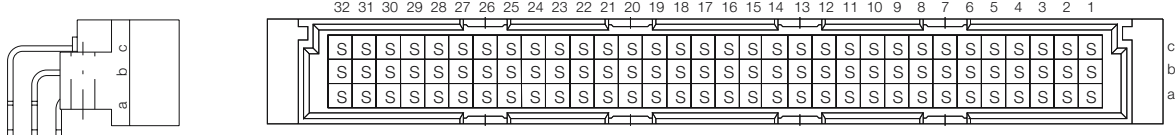
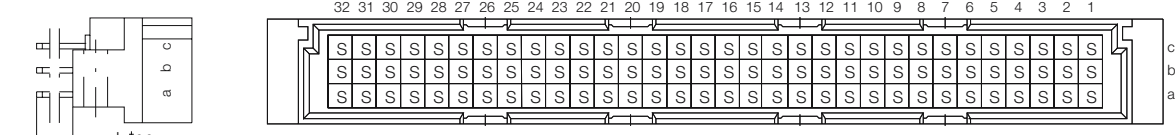
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Solder	3 mm	0.6 x 0.6 mm	2	—	533404
	Solder	3 mm	0.6 x 0.6 mm	1	—	533203
	Solder	3 mm	0.6 x 0.6 mm	2	—	533403
32	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	023783
						
	Solder	3.8 mm	0.6 x 0.6 mm	2	—	414401
	Solder	12 mm	0.6 x 0.6 mm	1	—	414403
	Solder	12 mm	0.6 x 0.6 mm	2	—	414404
						
	Solder	3 mm	0.6 x 0.6 mm	2	—	533423
48	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	123751

DIN 41612 / IEC 60603-2 Connectors

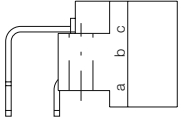
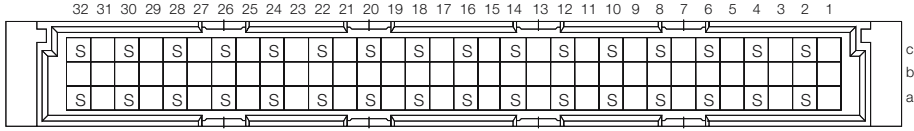
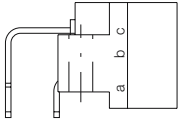
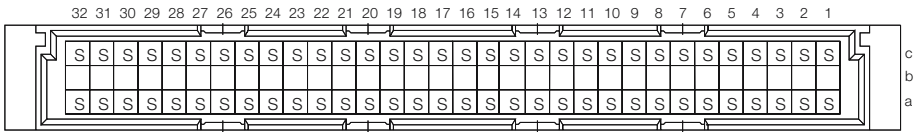
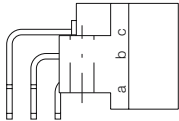
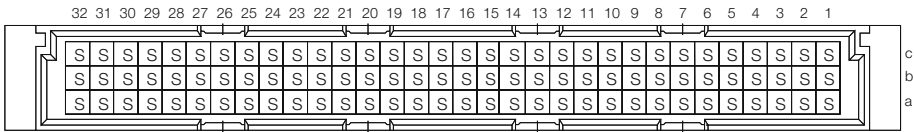
Type C Male



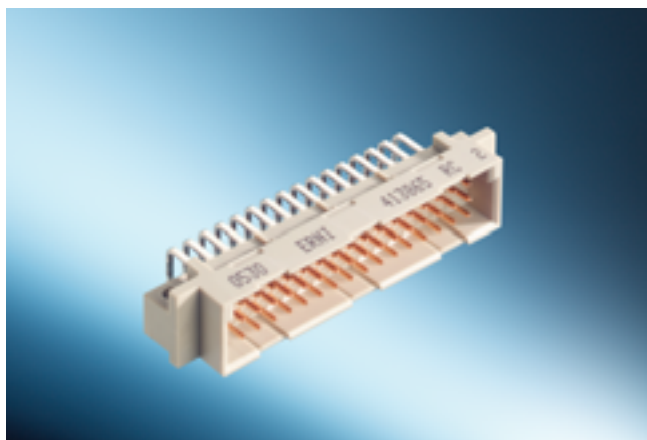
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
64	Solder	3 mm	0.6 x 0.6 mm	1	—	533201
64	Solder	3 mm	0.6 x 0.6 mm	2	—	533401
64	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	004413
						
64	Solder	3.8 mm	0.6 x 0.6 mm	1	—	414406
64	Solder	3.8 mm	0.6 x 0.6 mm	2	—	414407
64	Solder	12 mm	0.6 x 0.6 mm	1	—	414409
64	Solder	12 mm	0.6 x 0.6 mm	2	—	414410
						
96	Solder	3 mm	0.6 x 0.6 mm	1	—	533202
96	Solder	3 mm	0.6 x 0.6 mm	2	—	533402
96	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	434325
						
96	Solder	3.8 mm	0.6 x 0.6 mm	1	—	414412
96	Solder	3.8 mm	0.6 x 0.6 mm	2	—	414413
96	Solder	12 mm	0.6 x 0.6 mm	1	—	414415
96	Solder	12 mm	0.6 x 0.6 mm	2	—	414416

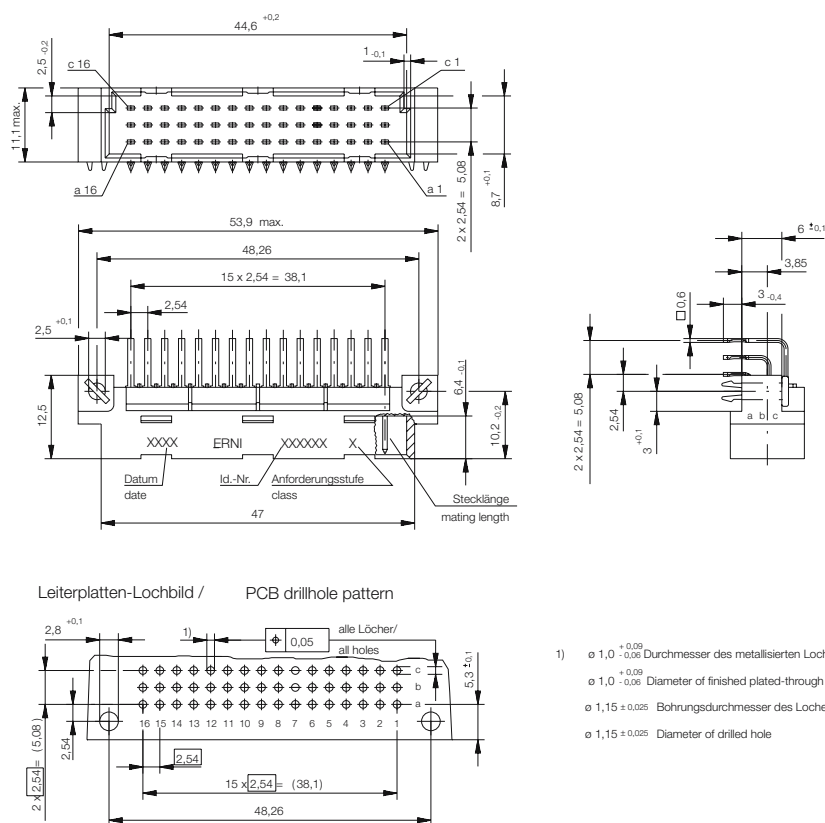
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	THR	3 mm	0.6 x 0.6 mm	2	—	223346
						
	THR	3 mm	0.6 x 0.6 mm	2	—	063515
64	THR with Clip	3 mm	0.6 x 0.6 mm	2	—	164944
						
	THR	3 mm	0.6 x 0.6 mm	2	—	134581
96	THR with Clip	3 mm	0.6 x 0.6 mm	2	—	144705

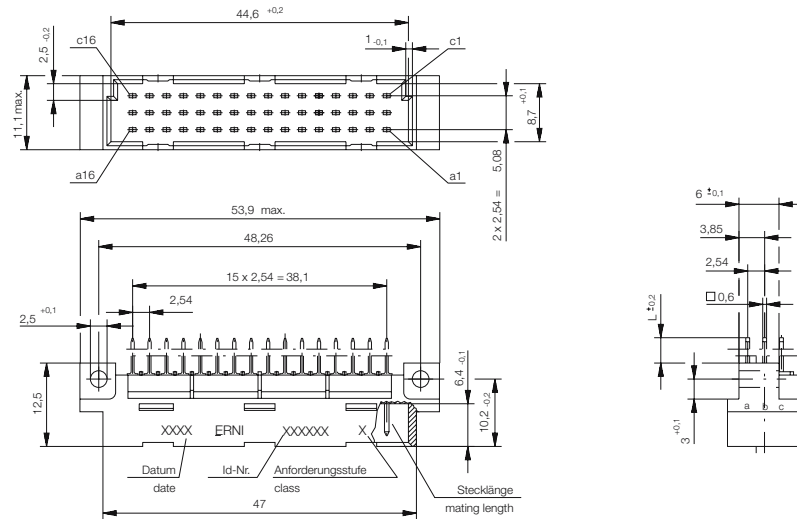
DIN 41612 / IEC 60603-2 Connectors Type C/2 Male



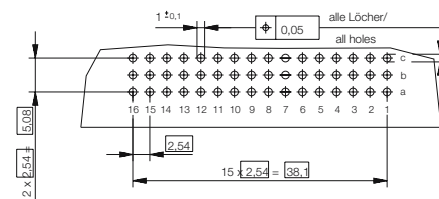
Dimensional Drawing Pressfit



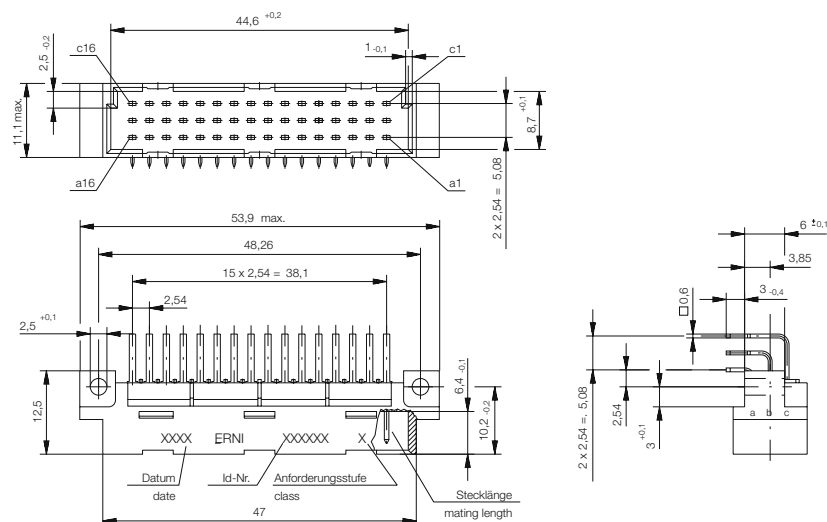
Dimensional Drawing Solder



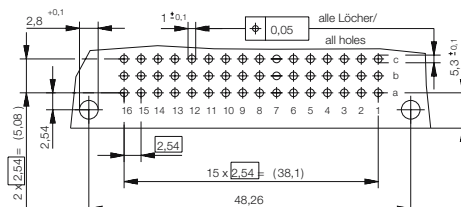
Leiterplatten-Lochbild / PCB drillhole pattern



Dimensional Drawing THR



Leiterplatten-Lochbild / PCB drillhole pattern

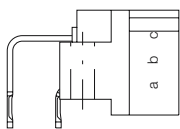
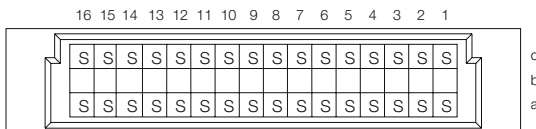
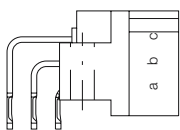
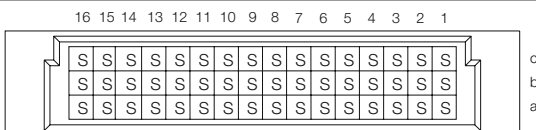
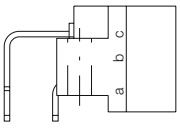
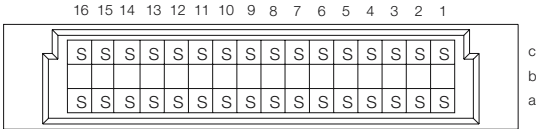
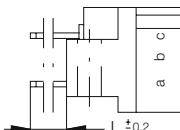
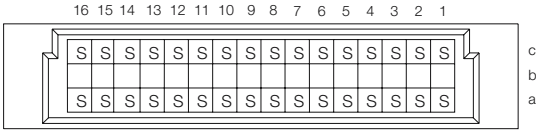


DIN 41612 / IEC 60603-2 Connectors

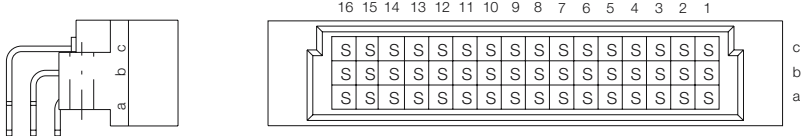
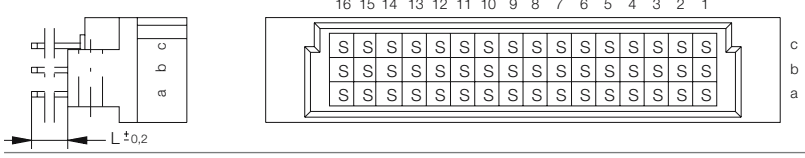
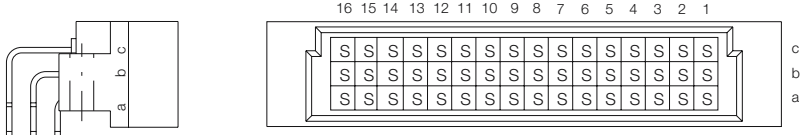
Type C/2 Male



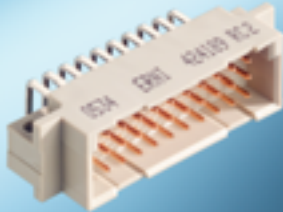
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Pressfit	3 mm		2	1.5 mm	043582
	Pressfit	3 mm		2	1.5 mm	013136
	Solder	3 mm		1	—	413858
	Solder	3 mm		2	—	413859
	Solder with Clip	3 mm		2	—	123717
	Solder	3.8 mm		1	—	594633
	Solder	3.8 mm		2	—	594634
	Solder	12 mm		1	—	594635
	Solder	12 mm		2	—	594636

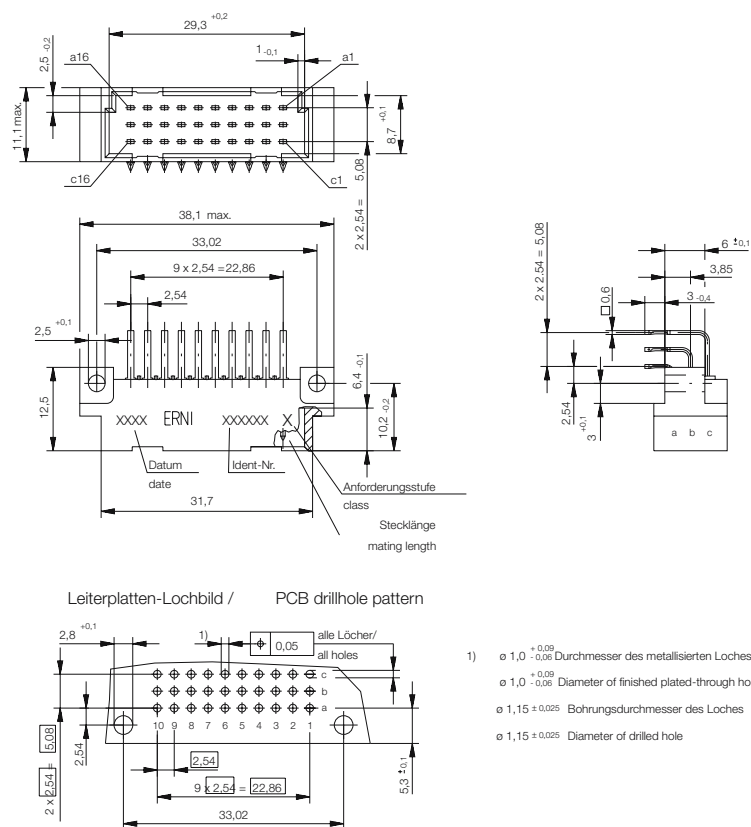
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
48	Solder	3 mm	0.6 x 0.6 mm	1	—	413864
48	Solder	3 mm	0.6 x 0.6 mm	2	—	413865
48	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	434329
						
48	Solder	3.8 mm	0.6 x 0.6 mm	1	—	594400
48	Solder	3.8 mm	0.6 x 0.6 mm	2	—	594638
48	Solder	12 mm	0.6 x 0.6 mm	1	—	594640
48	Solder	12 mm	0.6 x 0.6 mm	2	—	594641
						
48	THR	3 mm	0.6 x 0.6 mm	2	—	154954
48	THR with Clip	3 mm	0.6 x 0.6 mm	—	—	123601

Type C/3 Male



Dimensional Drawing Pressfit



Technical drawing of a 16-pin D-sub connector. The drawing includes top, side, and bottom views with the following dimensions and labels:

- Top View:**
 - Overall width: 29.3 mm (+0.2)
 - Pin pitch: 2.54 mm
 - Overall height: 11.1 mm max.
 - Pin height: 6.4 mm (+0.1)
 - Pin diameter: 1.0 mm (+0.1)
 - Pin positions: a16, a1, c16, c1
- Side View:**
 - Overall height: 10.2 mm (+0.2)
 - Pin height: 6.4 mm (+0.1)
- Bottom View:**
 - Overall width: 38.1 mm max.
 - Pin pitch: 2.54 mm
 - Pin positions: 9 x 2.54 = 22.86 mm
 - Pin diameter: 1.0 mm (+0.1)
 - Pin positions: xxxxx, xxxxxxx, x
 - Labels: Datum date, Ident-Nr., Anforderungsstufe class
 - Overall width: 31.7 mm

[illegible]

The technical drawing illustrates the dimensions of a DIN 9137 connector. The top view shows a rectangular component with a total width of 29,3 ±0,2 mm and a central pin pitch of 1,0 ±0,1 mm. The height is 8,7 ±0,1 mm. A mounting tab on the left has a width of 2,5 ±0,2 mm and a thickness of 11,1 max. mm. The bottom view shows the connector's profile with a total length of 38,1 max. mm and a central pin array length of 33,02 mm. The pin pitch is 2,54 mm, resulting in 9 x 2,54 = 22,86 mm. The overall height is 10,2 ±0,2 mm. The drawing also indicates the mating length (Stecklänge) and provides fields for marking: Datum (date), Id.-Nr. (part number), and Anforderungsstufe (class).

[illegible]

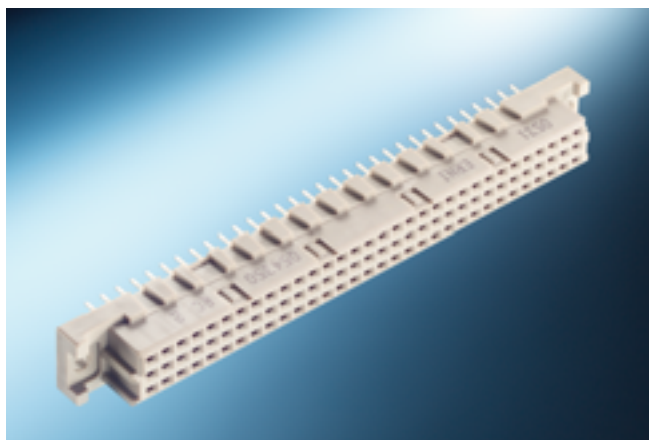
DIN 41612 / IEC 60603-2 Connectors

Type C/3 Male

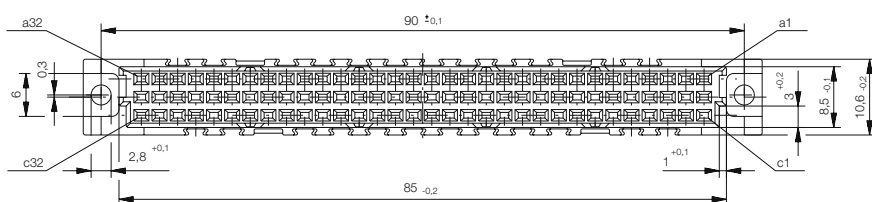
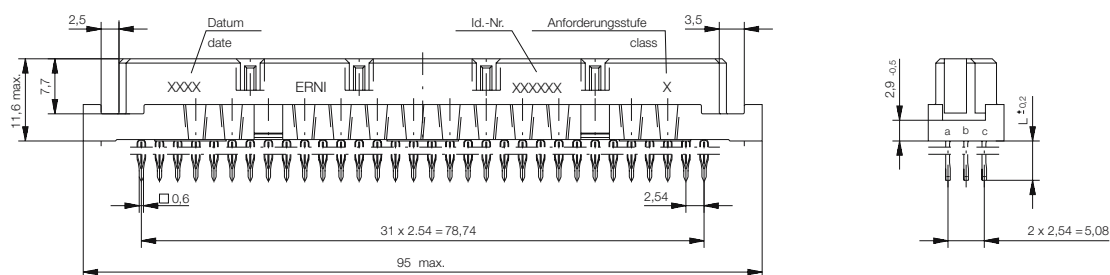


Ordering Information

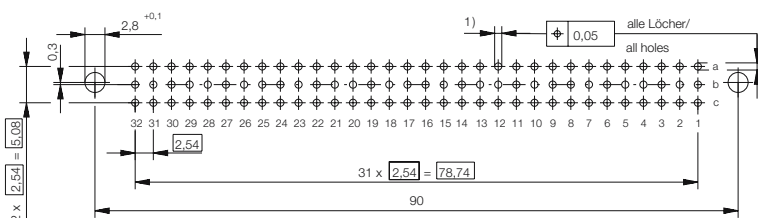
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
30	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013134
20	Solder	3 mm	0.6 x 0.6 mm	2	—	004362
30	Solder	3 mm	0.6 x 0.6 mm	1	—	424188
30	Solder	3 mm	0.6 x 0.6 mm	2	—	424189
30	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	123589
30	THR	3 mm	0.6 x 0.6 mm	2	—	154956
30	THR with Clip	3 mm	0.6 x 0.6 mm	2	—	154957



Dimensional Drawing Pressfit

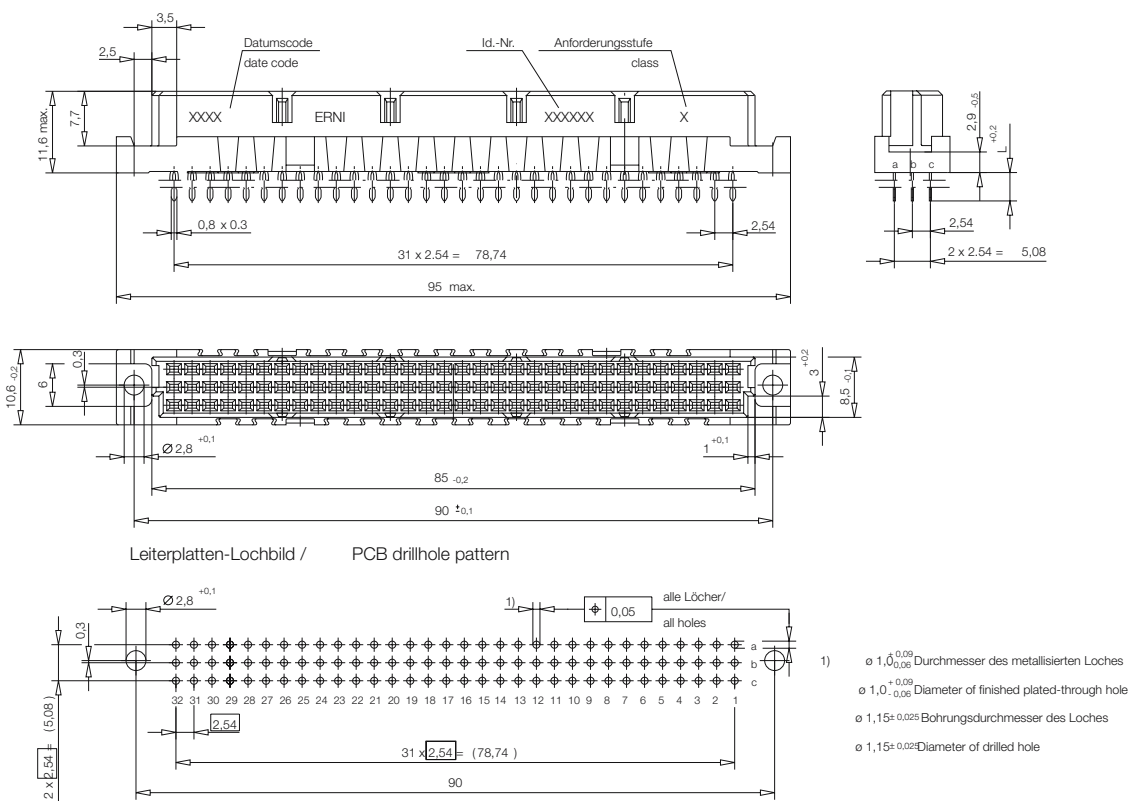


Leiterplatten-Lochbild / PCB drillhole pattern

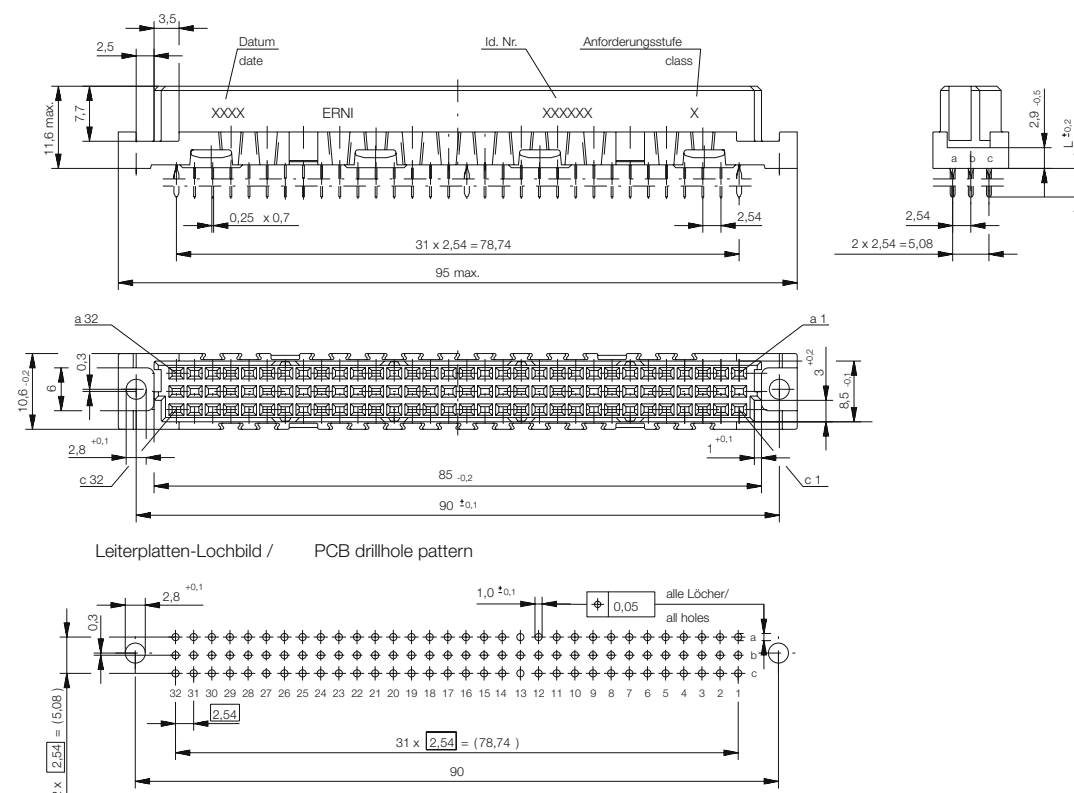


- 1) $\phi 1.0$ ± 0.09 / -0.06 Durchmesser des metallisierten Loches
- $\phi 1.0$ ± 0.09 / -0.06 Diameter of finished plated-through hole
- $\phi 1.15 \pm 0.025$ Bohrungsdurchmesser des Loches
- $\phi 1.15 \pm 0.025$ Diameter of drilled hole

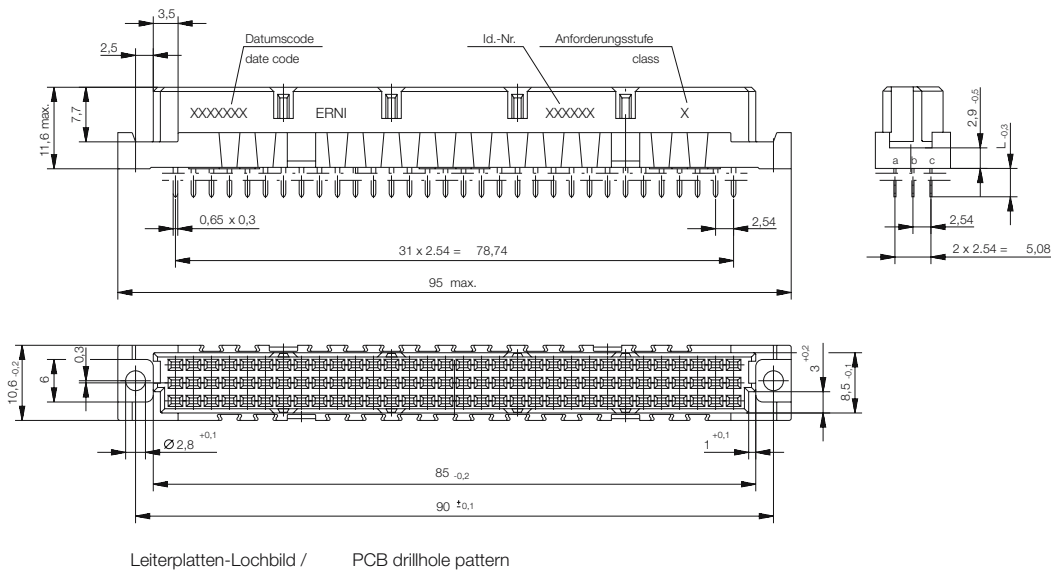
Dimensional Drawing Pressfit New Design



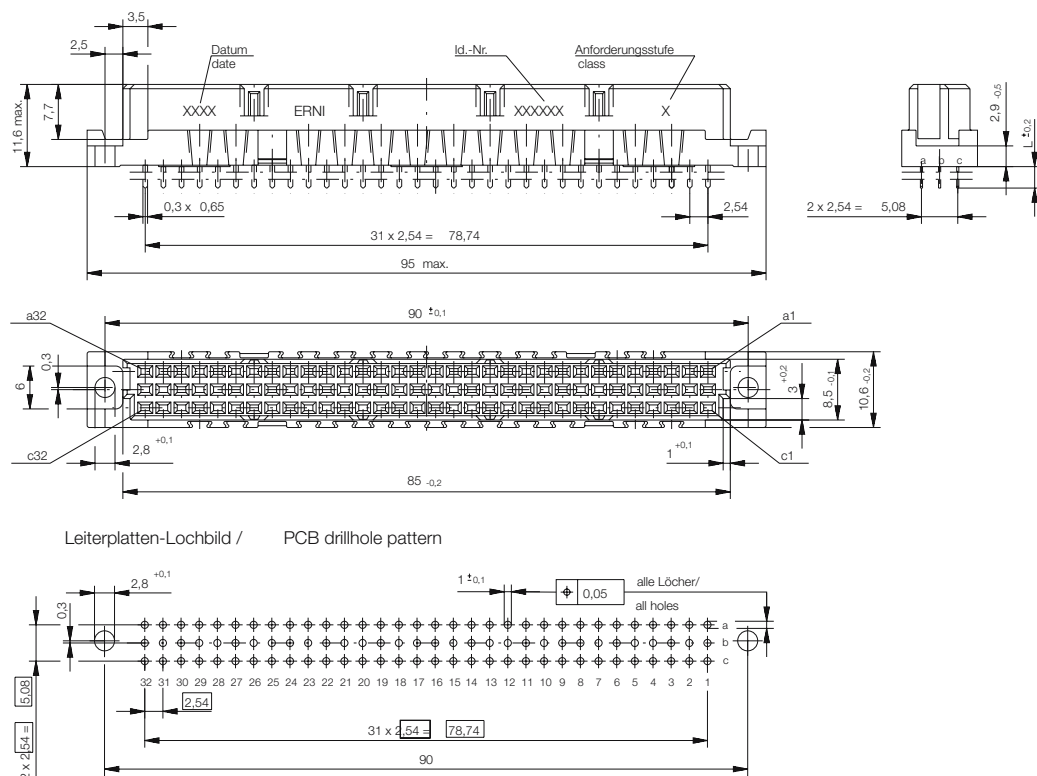
Dimensional Drawing Solder



Dimensional Drawing Solder New Design



Dimensional Drawing THR



DIN 41612 / IEC 60603-2 Connectors

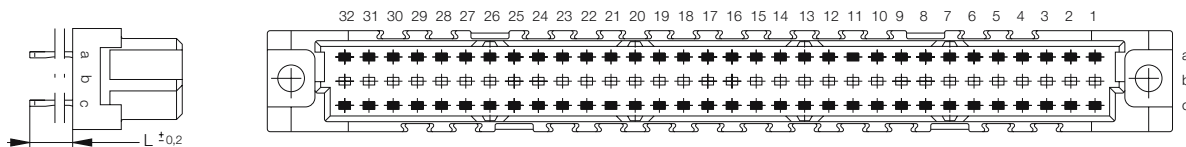
Type C Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
32	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	043135
32	Pressfit	17 mm	0.6 x 0.6 mm	1	2.5 mm	023623
48	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	043124
48	Pressfit New Design	4 mm	0.65 x 0.3 mm	2	—	234069

Ordering Information

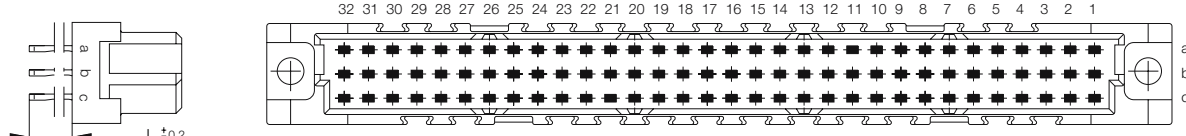
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
64	Pressfit	2.9 mm	0.65 x 0.3 mm	2	2 mm	063511
64	Pressfit	4.5 mm	0.65 x 0.3 mm	2	2 mm	063232
64	Pressfit w/o Flange	4.5 mm	0.65 x 0.3 mm	2	2 mm	063233
64	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	913133
64	Pressfit w/o Flange	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	913660
64	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	023397
64	Pressfit New Design w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	244126
64	Pressfit	17 mm	0.6 x 0.6 mm	2	2.5 mm	913132
64	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	2.5 mm	913134
64	Pressfit New Design	17 mm	0.6 x 0.6 mm	2	—	244294
64	Pressfit New Design w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	224410

DIN 41612 / IEC 60603-2 Connectors

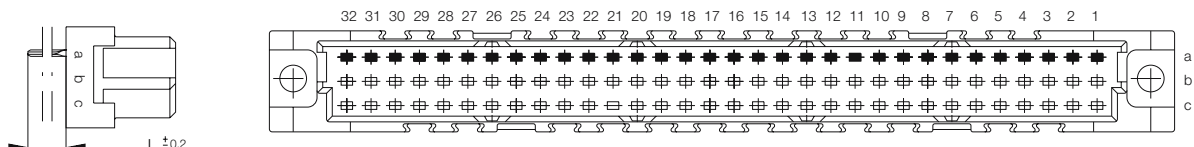
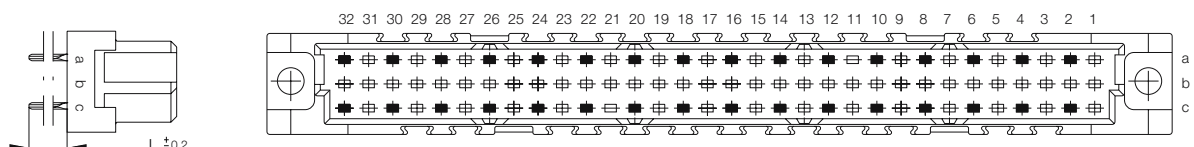
Type C Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
96	Pressfit	2.9 mm	0.65 x 0.3 mm	2	2 mm	063512
96	Pressfit New Design	4 mm	0.8 x 0.3 mm	2	–	204752
96	Pressfit	4.5 mm	0.65 x 0.3 mm	2	2 mm	053595
96	Pressfit w/o Flange	4.5 mm	0.65 x 0.3 mm	2	2 mm	054430
96	Pressfit	5.5 mm	0.6 x 0.6 mm	1	2.5 mm	013159
96	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	913110
96	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	1	2.5 mm	013808
96	Pressfit New Design w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	–	224412
96	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	013964
96	Pressfit	17 mm	0.6 x 0.6 mm	1	2.5 mm	004707
96	Pressfit	17 mm	0.6 x 0.6 mm	2	2.5 mm	913111
96	Pressfit New Design	17 mm	0.6 x 0.6 mm	2	–	234516
96	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	1	2.5 mm	023387
96	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	2.5 mm	913135
96	Pressfit New Design w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	–	244295

Ordering Information

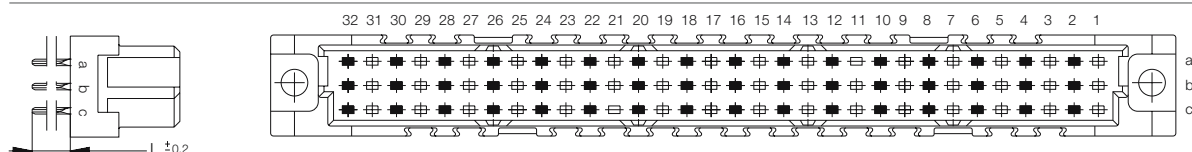
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Solder	4 mm	0.25 x 0.7 mm	2	—	033636
32	Solder	13 mm	0.6 x 0.6 mm	2	—	543404
32	Solder New Design	13 mm	0.6 x 0.6 mm	2	—	244296
						
32	Solder	2.5 mm	0.25 x 0.7 mm	2	—	023071
32	Solder	3.7 mm	0.6 x 0.6 mm	2	—	043017
32	Solder	4 mm	0.25 x 0.7 mm	1	—	004985
32	Solder	4 mm	0.25 x 0.7 mm	2	—	004767
32	Solder	13 mm	0.6 x 0.6 mm	1	—	543203
32	Solder	13 mm	0.6 x 0.6 mm	2	—	543403
32	Solder New Design	13 mm	0.6 x 0.6 mm	2	—	244297
32	Solder w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	023337
32	Solder New Design w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	244298
32	Solder w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	593404
32	Solder New Design w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	244299

DIN 41612 / IEC 60603-2 Connectors

Type C Female

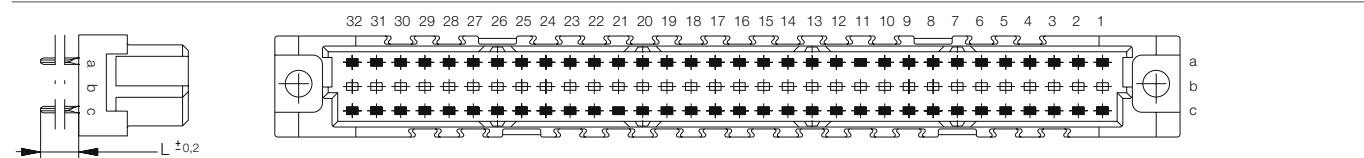


Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
48	Solder	4 mm	0.25 x 0.7 mm	1	—	033627
48	Solder New Design with Clip	4 mm	0.65 x 0.3 mm	2	—	234432
48	Solder	4 mm	0.25 x 0.7 mm	2	—	033628
48	Solder	13 mm	0.6 x 0.6 mm	2	—	594668
48	Solder New Design	13 mm	0.6 x 0.6 mm	2	—	244300

Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
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64	Solder w. kinked Legs	2.9 mm	0.65 x 0.3 mm	2	—	063543
64	Solder	4 mm	0.25 x 0.7 mm	1	—	594076
64	Solder New Design	4 mm	0.65 x 0.3 mm	2	—	224411
64	Solder New Design with Clip	4 mm	0.65 x 0.3 mm	2	—	224471
64	Solder	4.5 mm	0.65 x 0.3 mm	2	—	064188
64	Solder with Clip	4.5 mm	0.65 x 0.3 mm	2	—	063727
64	Solder w. kinked Legs	4.5 mm	0.65 x 0.3 mm	2	—	064218
64	Solder	13 mm	0.6 x 0.6 mm	1	—	543201
64	Solder	13 mm	0.6 x 0.6 mm	2	—	543401
64	Solder New Design	13 mm	0.6 x 0.6 mm	2	—	244301
64	Solder w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	013962
64	Solder New Design w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	244302
64	Solder w. Transfer Zone	17 mm	0.6 x 0.6 mm	1	—	593441
64	Solder w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	593405
64	Solder New Design w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	244303

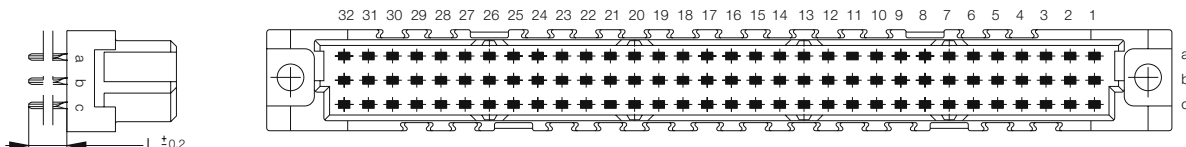
DIN 41612 / IEC 60603-2 Connectors

Type C Female



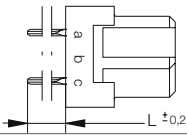
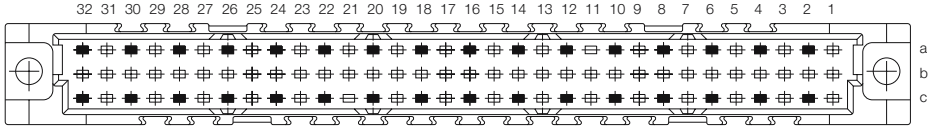
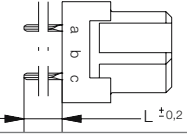
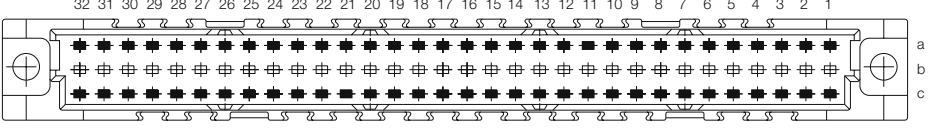
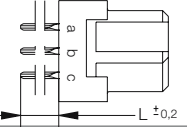
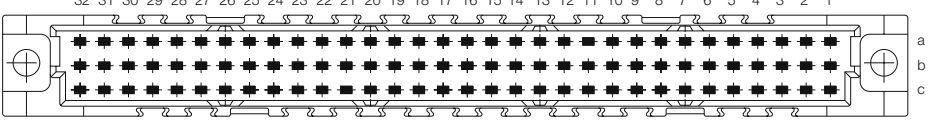
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
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96	Solder	2.9 mm	0.65 x 0.3 mm	2	—	063647
96	Solder w. kinked Legs	2.9 mm	0.65 x 0.3 mm	1	—	123887
96	Solder w. kinked Legs	2.9 mm	0.65 x 0.3 mm	2	—	063518
96	Solder	4 mm	0.25 x 0.7 mm	1	—	594073
96	Solder New Design	4 mm	0.65 x 0.3 mm	2	—	214836
96	Solder	4.5 mm	0.65 x 0.3 mm	2	—	054350
96	Solder w. kinked Legs	4.5 mm	0.65 x 0.3 mm	2	—	063349
96	Solder	13 mm	0.6 x 0.6 mm	1	—	543202
96	Solder	13 mm	0.6 x 0.6 mm	2	—	543402
96	Solder New Design	13 mm	0.6 x 0.6 mm	2	—	244304
96	Solder w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	013905
96	Solder New Design w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	—	244305
96	Solder	17 mm	0.6 x 0.6 mm	2	—	594672
96	Solder New Design	17 mm	0.6 x 0.6 mm	2	—	244306
96	Solder w. Transfer Zone	17 mm	0.6 x 0.6 mm	1	—	593443
96	Solder w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	593406
96	Solder New Design w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	—	244307

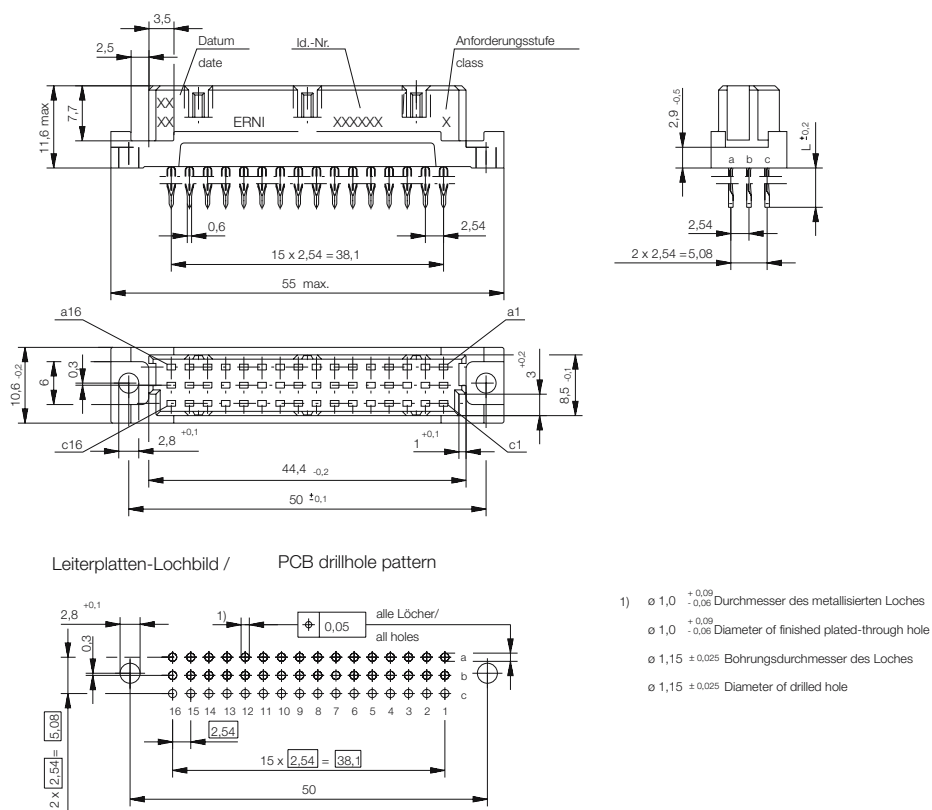
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	THR	2.9 mm		2	—	223368
	THR	2.9 mm		2	—	164945
64	THR with Clip	2.9 mm	0.3 x 0.65 mm	2	—	164946
	THR	2.9 mm		2	—	144743
96	THR with Clip	2.9 mm	0.3 x 0.65 mm	2	—	154953

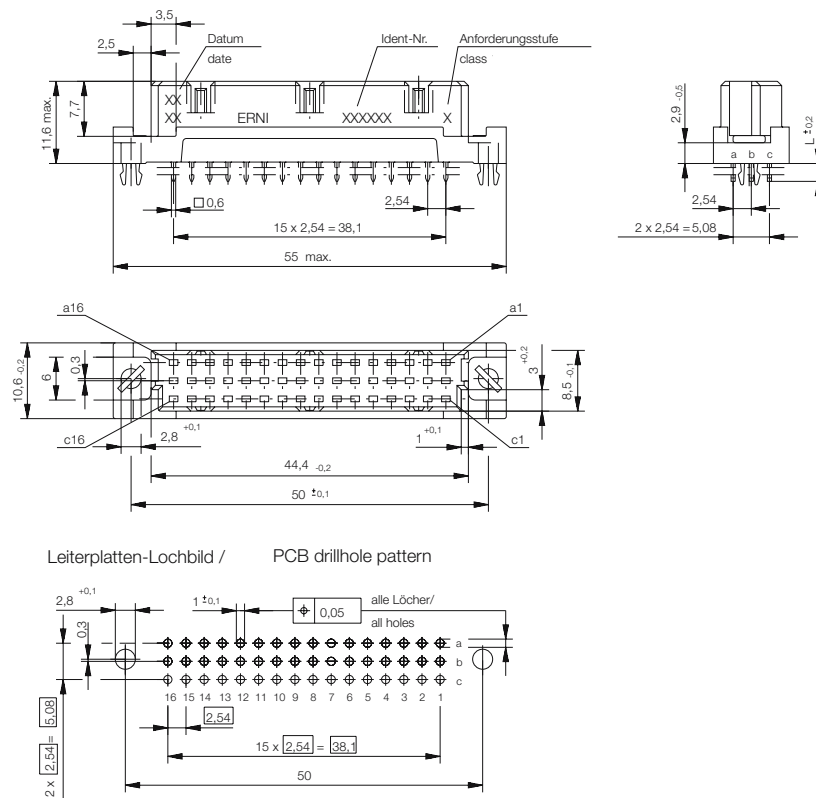
DIN 41612 / IEC 60603-2 Connectors Type C/2 Female



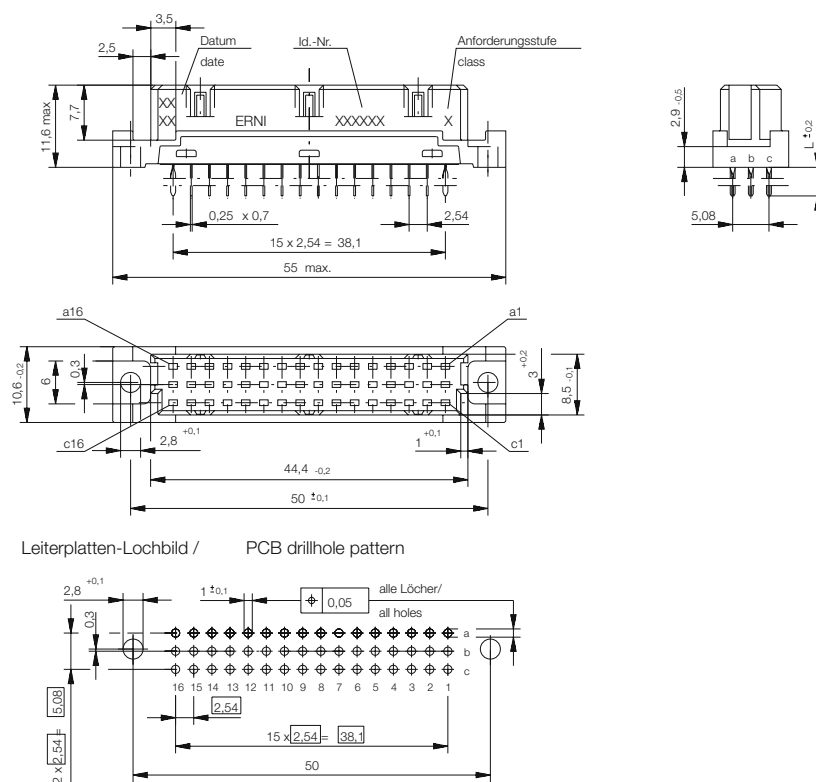
Dimensional Drawing Pressfit



Dimensional Drawing Solder



Dimensional Drawing THR

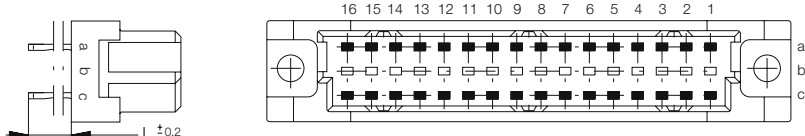
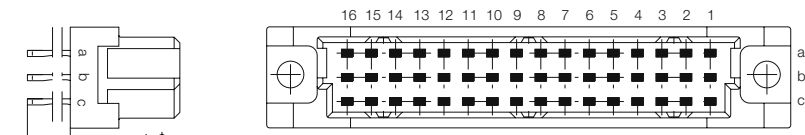
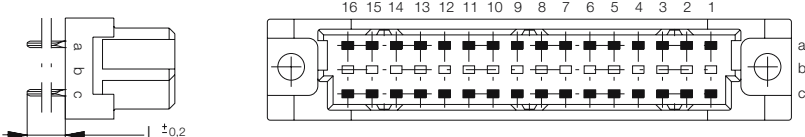


DIN 41612 / IEC 60603-2 Connectors

Type C/2 Female

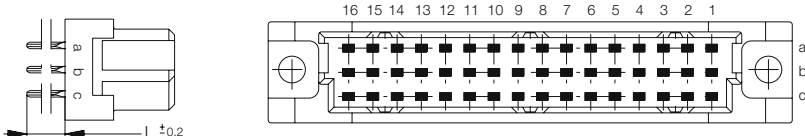
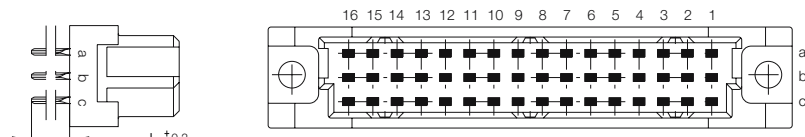


Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	913654
32	Pressfit *	13 mm	0.6 x 0.6 mm	2	3 mm	023398
						
48	Pressfit	3.7 mm	0.6 x 0.6 mm	2	2 mm	043566
48	Pressfit	5.5 mm	0.6 x 0.6 mm	1	2.5 mm	123094
48	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	023761
48	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	043499
48	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	2.5 mm	033547
						
32	Solder	2.5 mm	0.25 x 0.7 mm	2	—	004816
32	Solder	4 mm	0.25 x 0.7 mm	1	—	594085
32	Solder	4 mm	0.25 x 0.7 mm	2	—	594086
32	Solder	13 mm	0.6 x 0.6 mm	2	—	414327

* For contact supporting press-in tool.

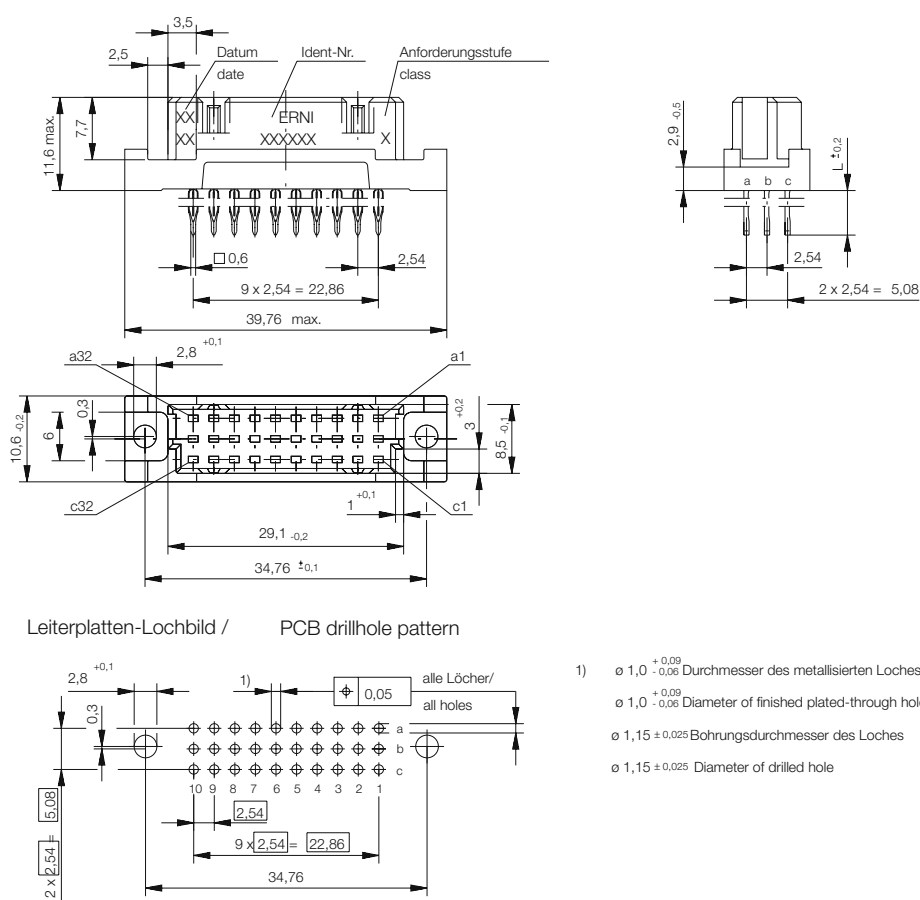
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
48	Solder	2.5 mm	0.25 x 0.7 mm	1	—	043323
48	Solder	2.5 mm	0.25 x 0.7 mm	2	—	003442
48	Solder w/o Flange	2.5 mm	0.25 x 0.7 mm	2	—	123255
48	Solder	3.7 mm	0.6 x 0.6 mm	2	—	913620
48	Solder w/o Flange	3.7 mm	0.6 x 0.6 mm	2	—	943224
48	Solder	4 mm	0.25 x 0.7 mm	1	—	594082
48	Solder	4 mm	0.25 x 0.7 mm	2	—	594083
48	Solder with Clip	4 mm	0.25 x 0.7 mm	2	—	063425
48	Solder	13 mm	0.6 x 0.6 mm	1	—	414804
48	Solder	13 mm	0.6 x 0.6 mm	2	—	413957
48	Solder	17 mm	0.6 x 0.6 mm	2	—	594651
						
48	THR with Clip	2.5 mm	0.6 x 0.6 mm	2	—	144711

DIN 41612 / IEC 60603-2 Connectors Type C/3 Female

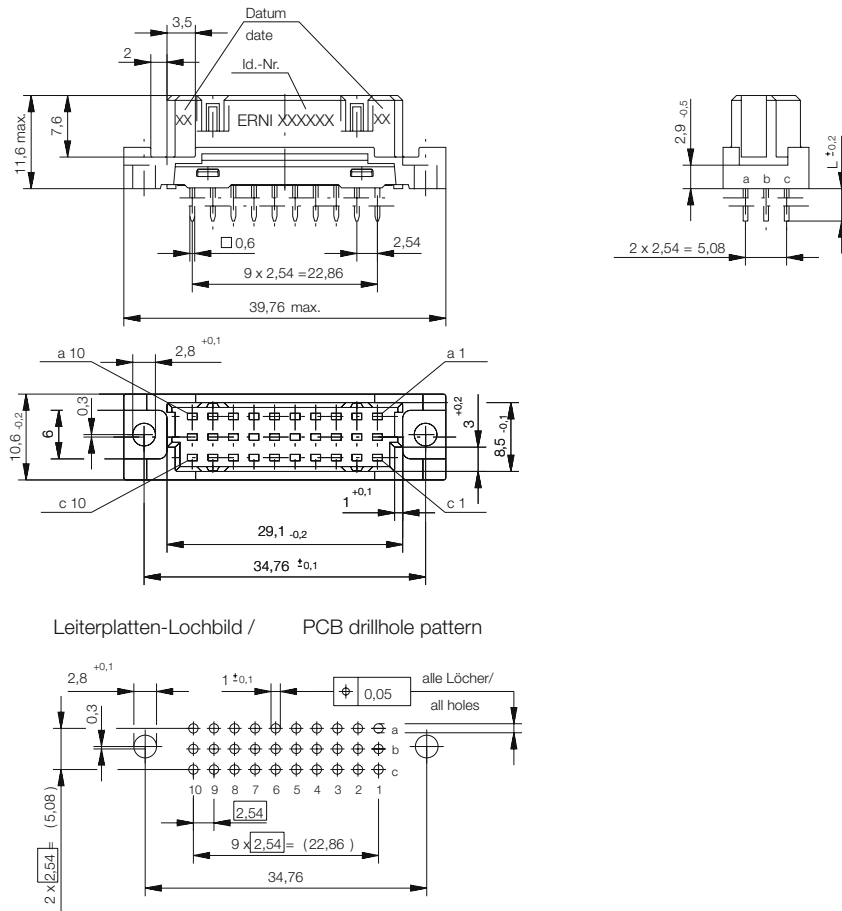


Dimensional Drawing Pressfit



- 1) $\varnothing 1,0 \pm 0,06$ Durchmesser des metallisierten Loches
 $\varnothing 1,0 \pm 0,06$ Diameter of finished plated-through hole
 $\varnothing 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 $\varnothing 1,15 \pm 0,025$ Diameter of drilled hole

Dimensional Drawing Solder

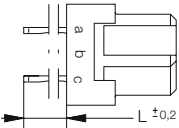
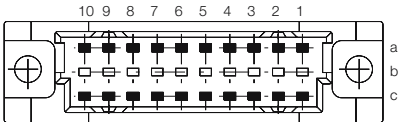
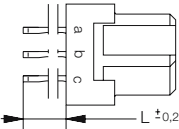
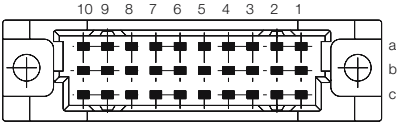
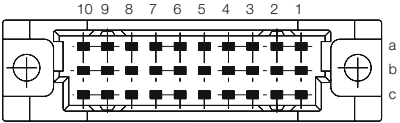
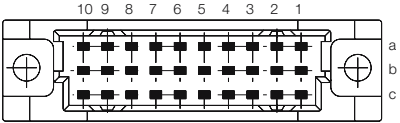
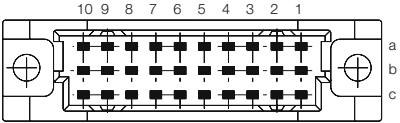
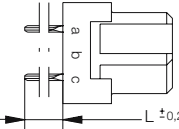
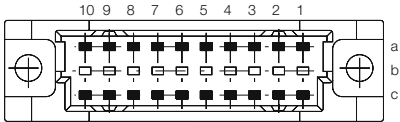
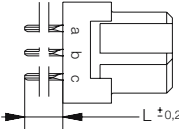
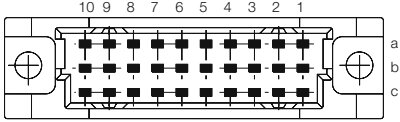
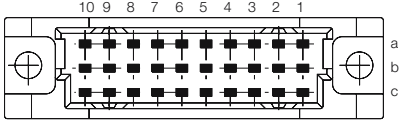


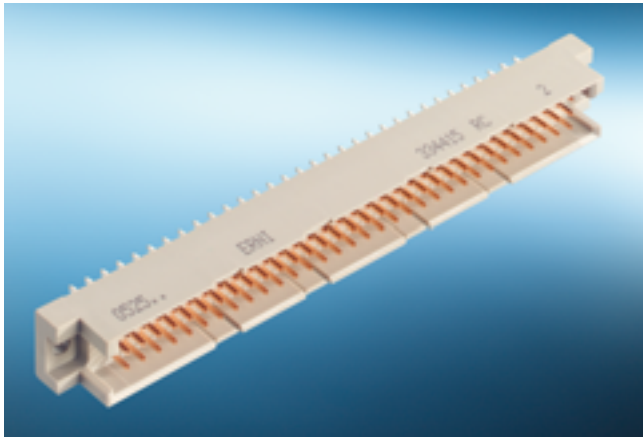
DIN 41612 / IEC 60603-2 Connectors

Type C/3 Female

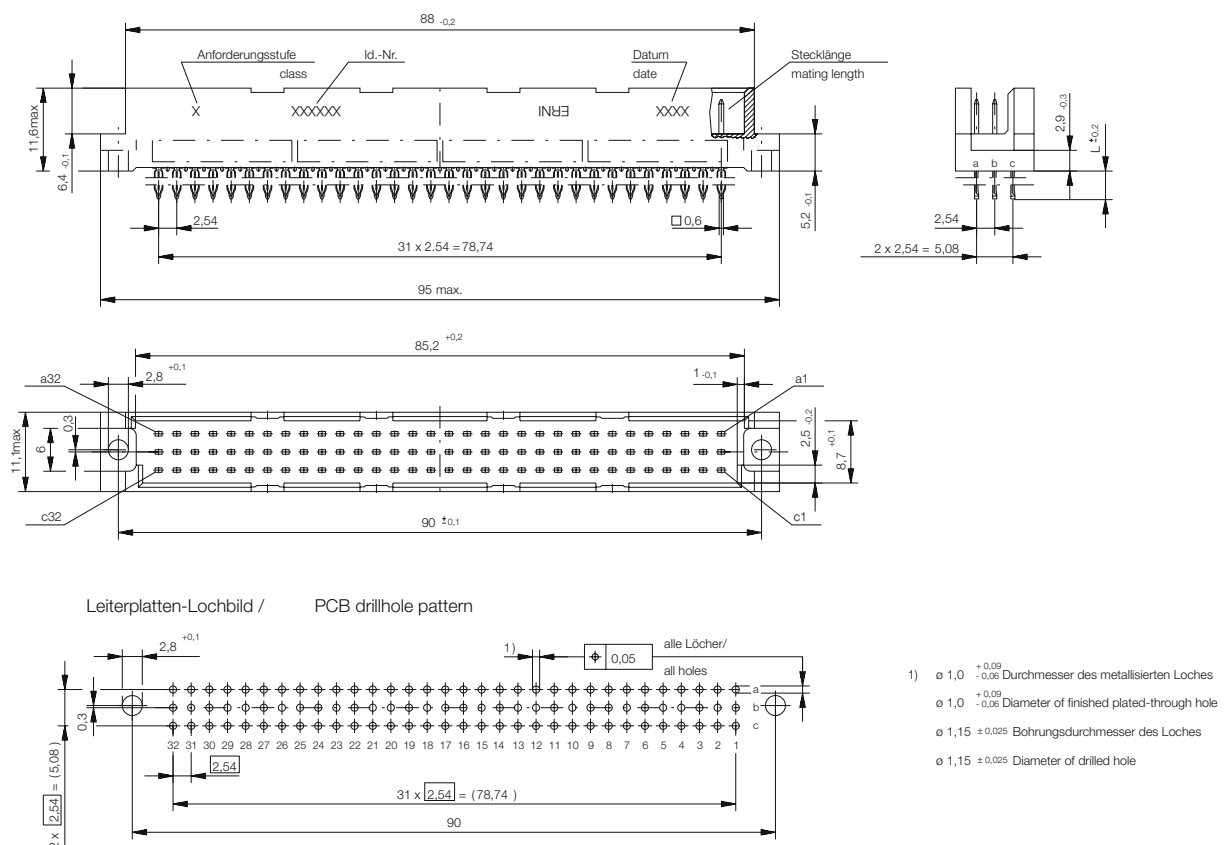


Ordering Information

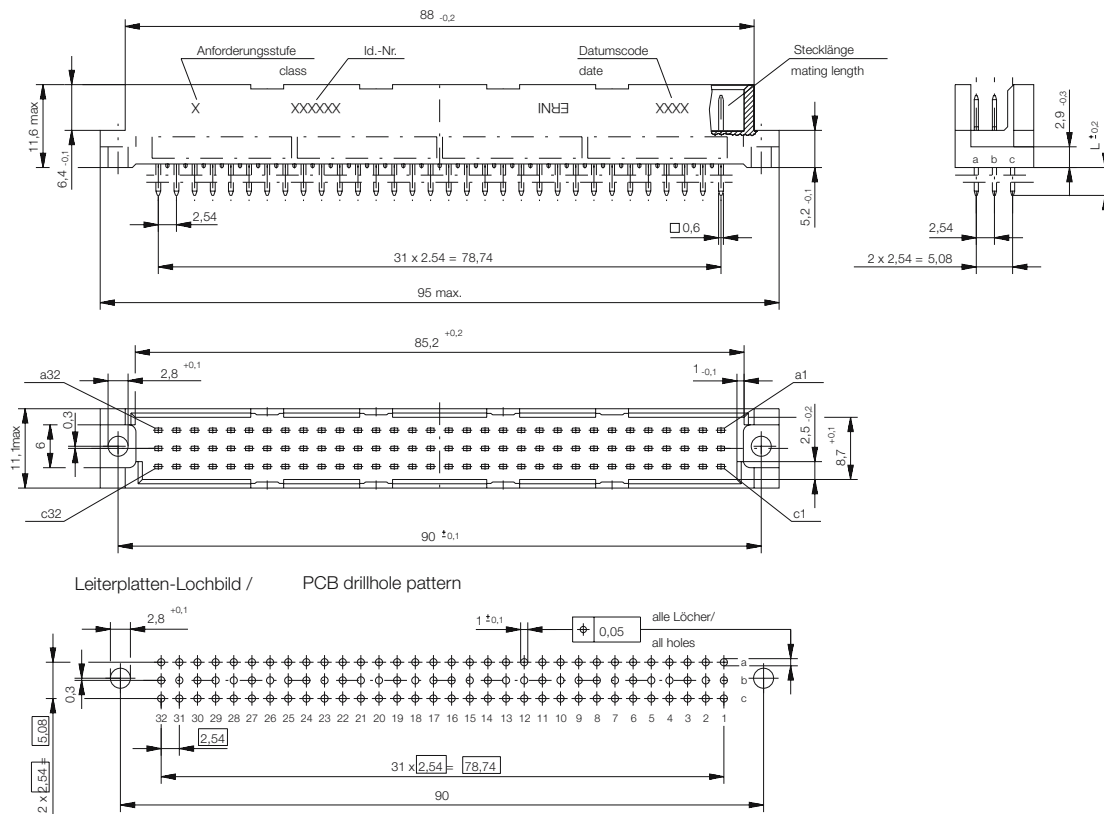
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
 20	Pressfit	5.5 mm	 0.6 x 0.6 mm	2	2.5 mm	043592
 30	Pressfit	3.7 mm	 0.6 x 0.6 mm	2	2 mm	063310
	Pressfit	5.5 mm	 0.6 x 0.6 mm	2	2.5 mm	033120
	Pressfit w/o Flange	5.5 mm	 0.6 x 0.6 mm	2	2.5 mm	043131
	Pressfit w. Transfer Zone	13 mm	 0.6 x 0.6 mm	2	2.5 mm	043414
 20	Solder	4 mm	 0.6 x 0.6 mm	2	—	004495
 30	Solder	4 mm	 0.6 x 0.6 mm	2	—	004492
30	Solder	13 mm	 0.6 x 0.6 mm	2	—	424186



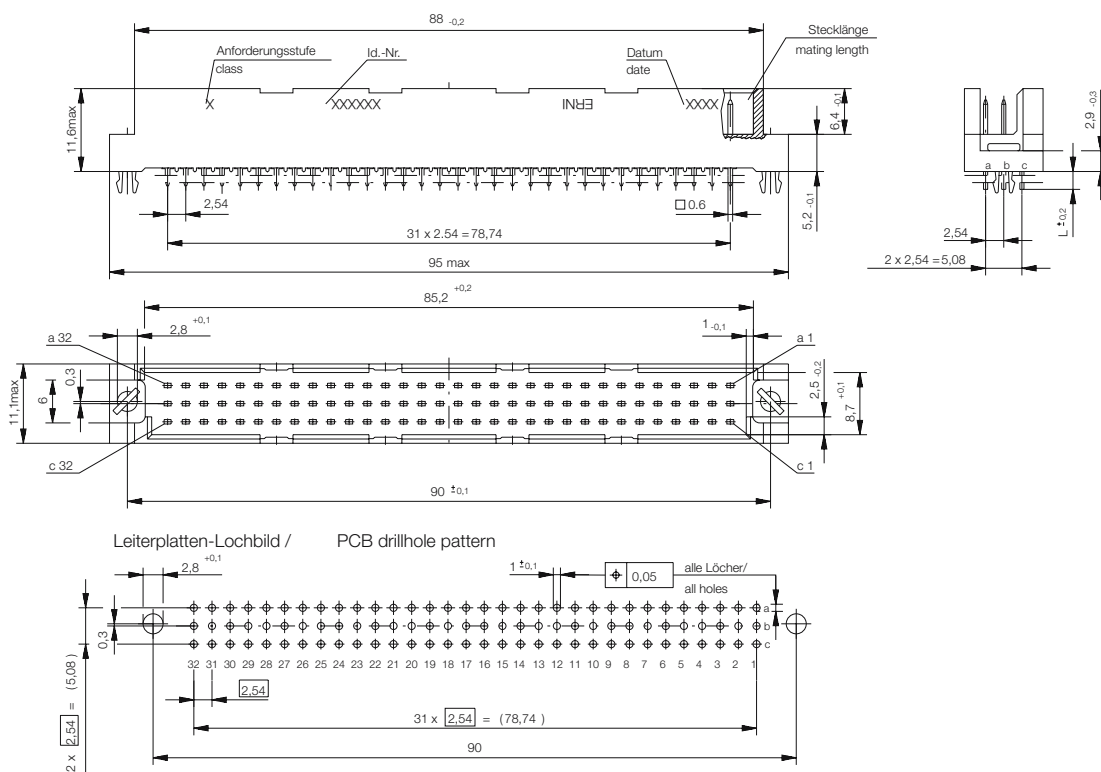
Dimensional Drawing Pressfit



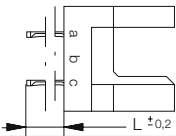
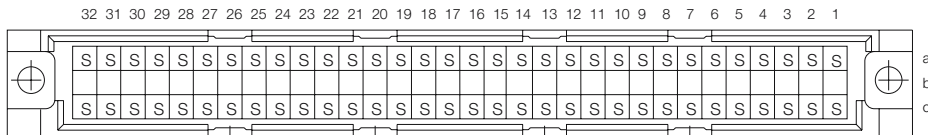
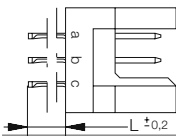
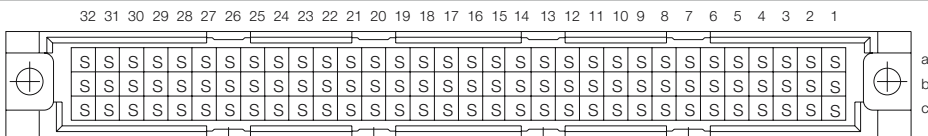
Dimensional Drawing Solder



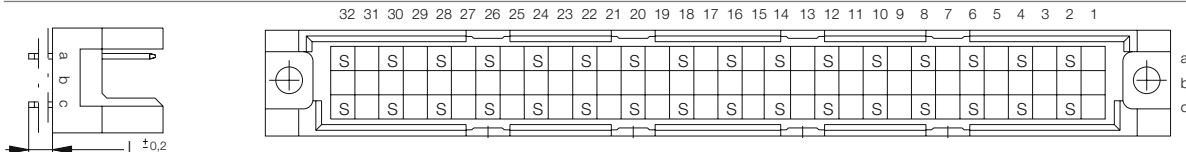
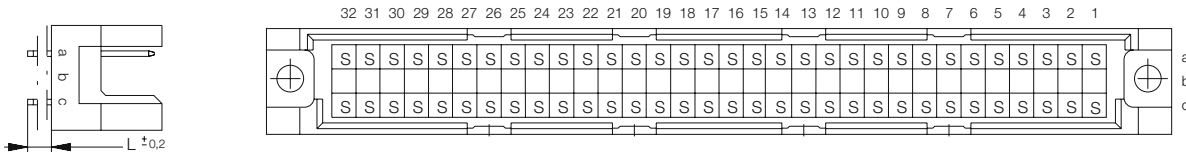
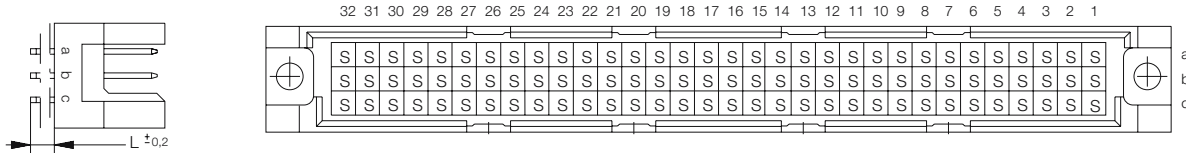
Dimensional Drawing THR



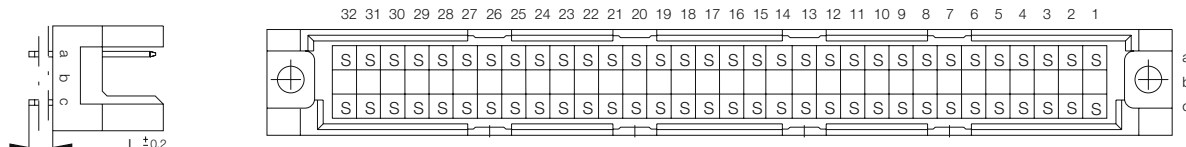
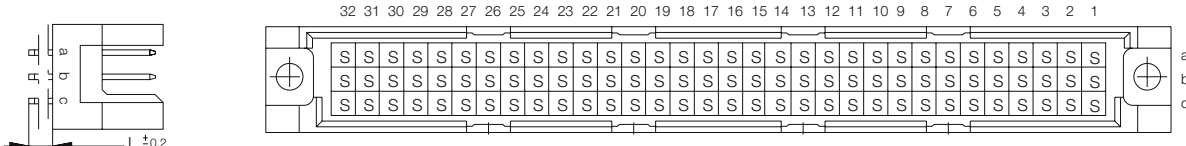
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
 						
64	Pressfit	6 mm	0.6 x 0.6 mm	1	2.5 mm	593410
64	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	593411
64	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	033477
64	Pressfit	20 mm	0.6 x 0.6 mm	2	2.5 mm	414688
64	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	2	2.5 mm	414700
 						
96	Pressfit	6 mm	0.6 x 0.6 mm	1	2.5 mm	593413
96	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	593414
96	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	033586
96	Pressfit	20 mm	0.6 x 0.6 mm	1	2.5 mm	414690
96	Pressfit	20 mm	0.6 x 0.6 mm	2	2.5 mm	414691
96	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	1	2.5 mm	414702
96	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	2	2.5 mm	414703

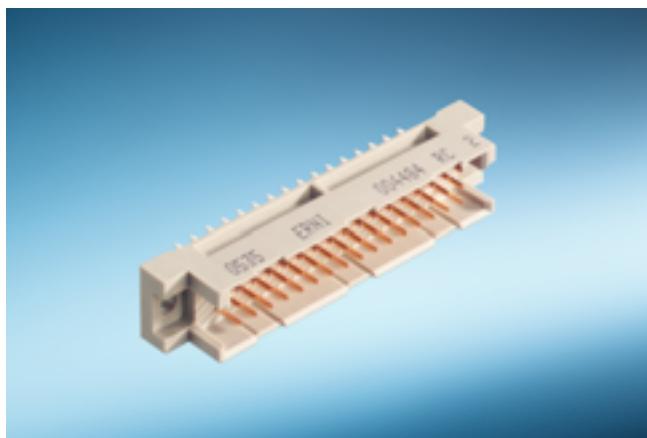
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Solder	4 mm	0.6 x 0.6 mm	1	—	304225
32	Solder	4 mm	0.6 x 0.6 mm	2	—	304425
32	Solder	13 mm	0.6 x 0.6 mm	1	—	304221
32	Solder	13 mm	0.6 x 0.6 mm	2	—	304421
						
64	Solder	4 mm	0.6 x 0.6 mm	1	—	334214
64	Solder	4 mm	0.6 x 0.6 mm	2	—	334414
64	Solder	13 mm	0.6 x 0.6 mm	1	—	334210
64	Solder	13 mm	0.6 x 0.6 mm	2	—	334410
						
96	Solder	4 mm	0.6 x 0.6 mm	1	—	334215
96	Solder	4 mm	0.6 x 0.6 mm	2	—	334415
96	Solder	13 mm	0.6 x 0.6 mm	1	—	334211
96	Solder	13 mm	0.6 x 0.6 mm	2	—	334411

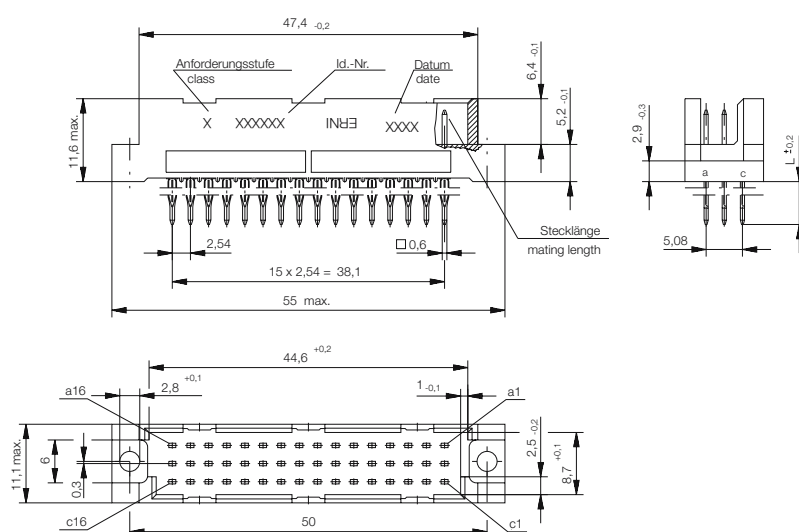
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
64	THR	2.5 mm	0.6 x 0.6 mm	2	–	194576
64	THR with Clip	2.5 mm	0.6 x 0.6 mm	2	–	194578
						
96	THR	2.5 mm	0.6 x 0.6 mm	2	–	164306
96	THR with Clip	2.5 mm	0.6 x 0.6 mm	2	–	154961

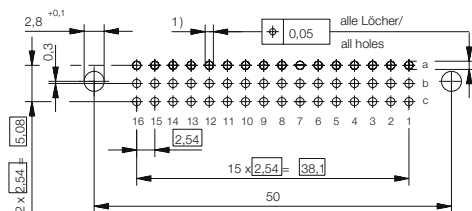
DIN 41612 / IEC 60603-2 Connectors Type R/2 Male



Dimensional Drawing Pressfit

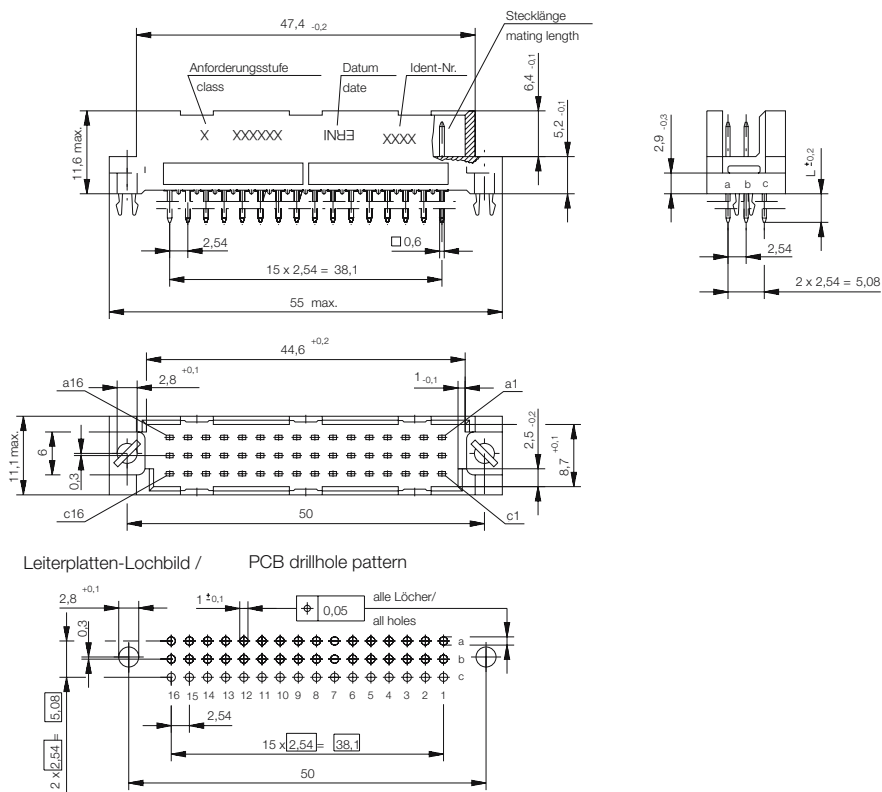


Leiterplatten-Lochbild / PCB drillhole pattern

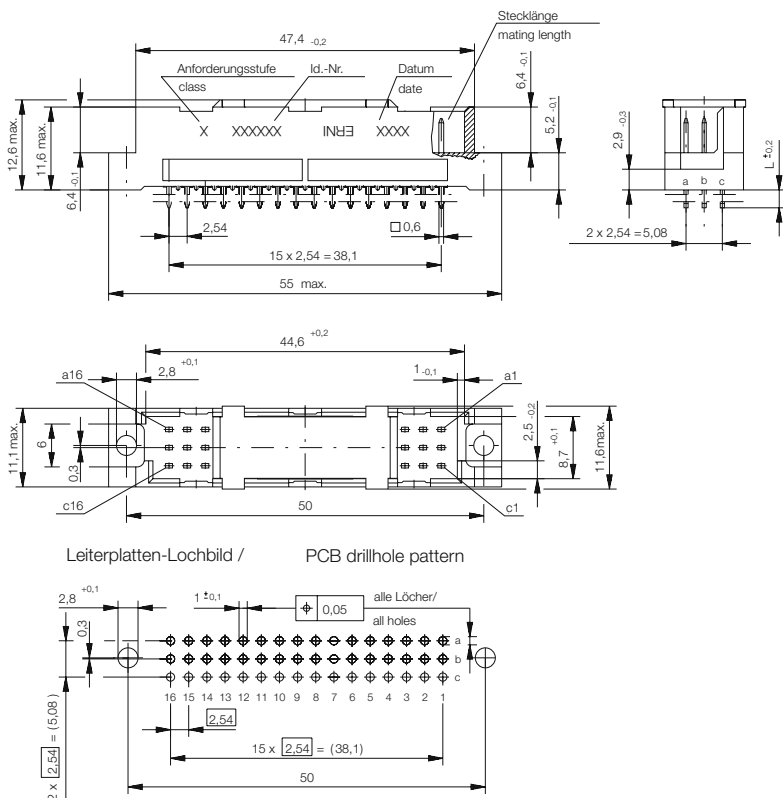


- $\phi 1,0 \pm 0,09$ Durchmesser des metallisierten Loches
 - $\phi 1,0 \pm 0,06$ Diameter of finished plated-through hole
 - $\phi 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 - $\phi 1,15 \pm 0,025$ Diameter of drilled hole

Dimensional Drawing Solder



Dimensional Drawing THR



DIN 41612 / IEC 60603-2 Connectors

Type R/2 Male

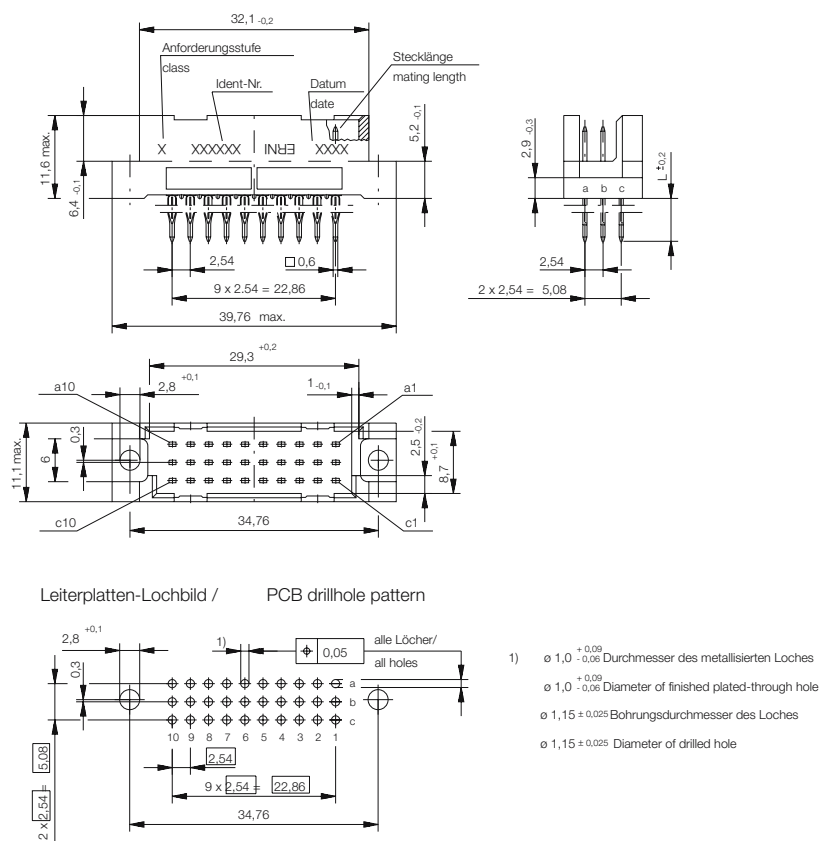


Ordering Information

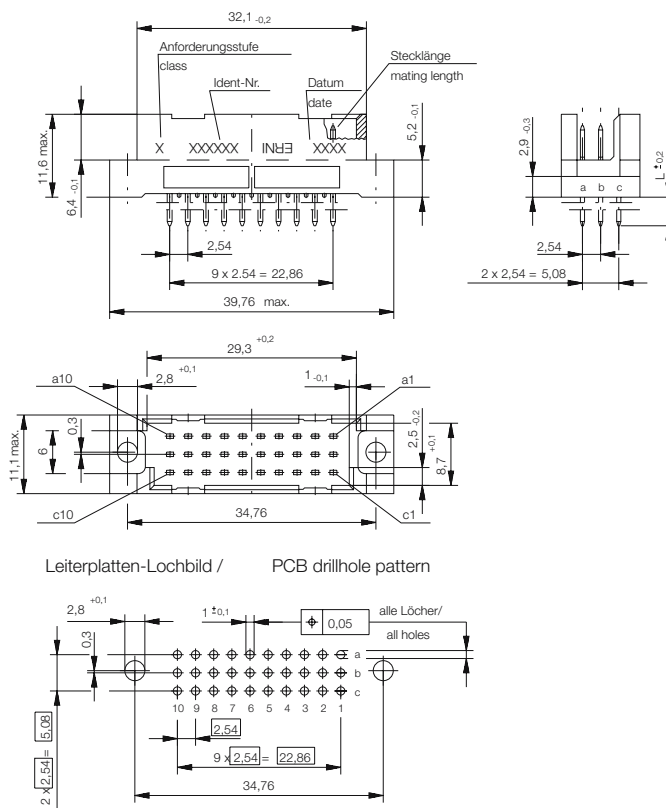
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
32	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	004502
48	Pressfit	6 mm	0.6 x 0.6 mm	1	2.5 mm	063865
48	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	004480
48	Pressfit	13 mm	0.6 x 0.6 mm	1	2.5 mm	123633
48	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	2	2.5 mm	004993
32	Solder	4 mm	0.6 x 0.6 mm	2	—	004485
48	Solder	4 mm	0.6 x 0.6 mm	2	—	004484
48	Solder with Clip	4 mm	0.6 x 0.6 mm	2	—	063277
48	Solder	13 mm	0.6 x 0.6 mm	2	—	424201
48	THR	2.5 mm	0.6 x 0.6 mm	2	—	154964
48	THR with Clip	2.5 mm	0.6 x 0.6 mm	2	—	144710



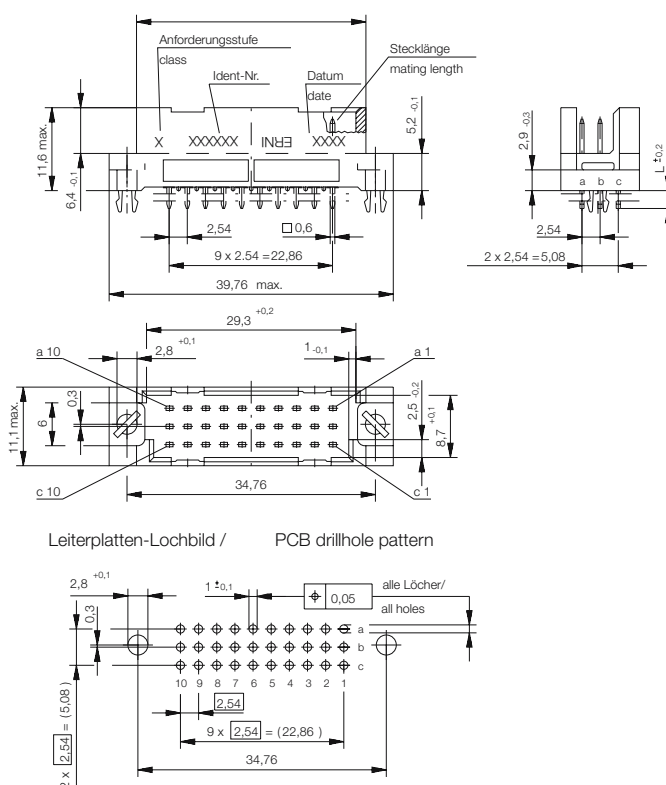
Dimensional Drawing Pressfit



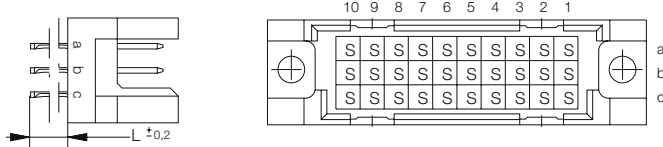
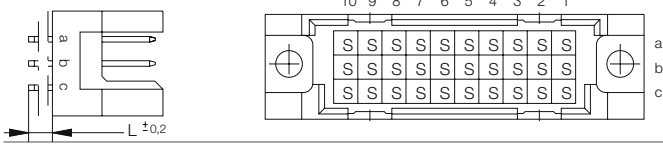
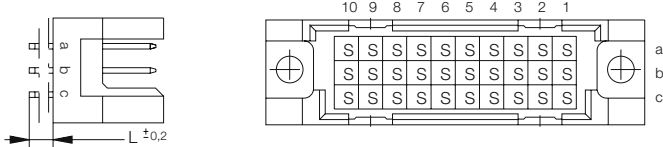
Dimensional Drawing Solder



Dimensional Drawing THR



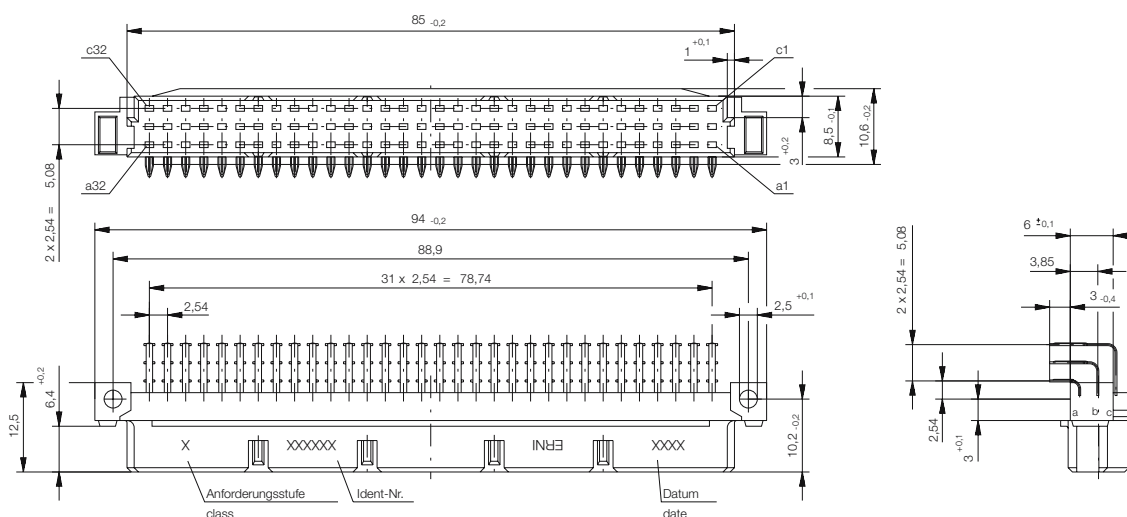
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
30	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	433780
30	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	2	2.5 mm	023426
						
30	Solder	4 mm	0.6 x 0.6 mm	2	—	004500
30	Solder	13 mm	0.6 x 0.6 mm	2	—	424195
						
30	THR with Clip	2.5 mm	0.6 x 0.6 mm	2	—	144708

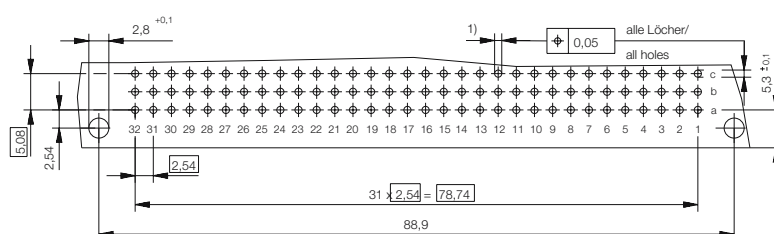
DIN 41612 / IEC 60603-2 Connectors Type R Female



Dimensional Drawing Pressfit

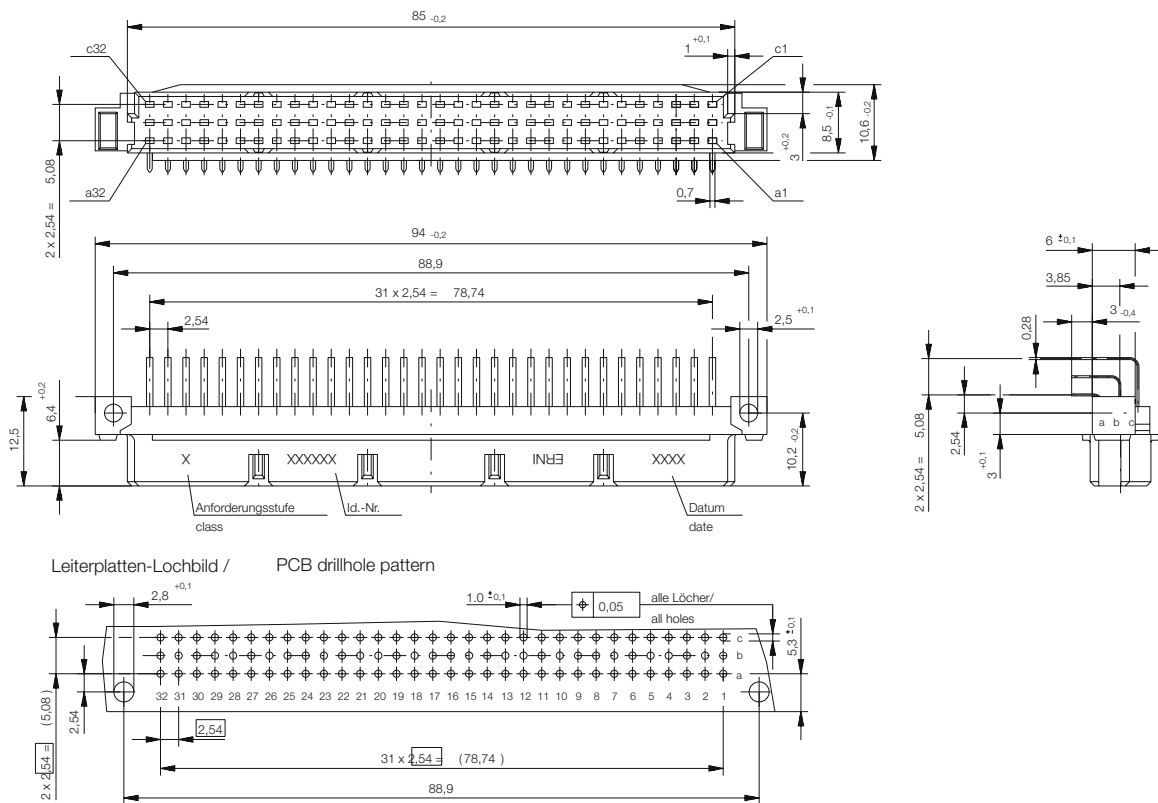


Leiterplatten-Lochbild / PCB drillhole pattern

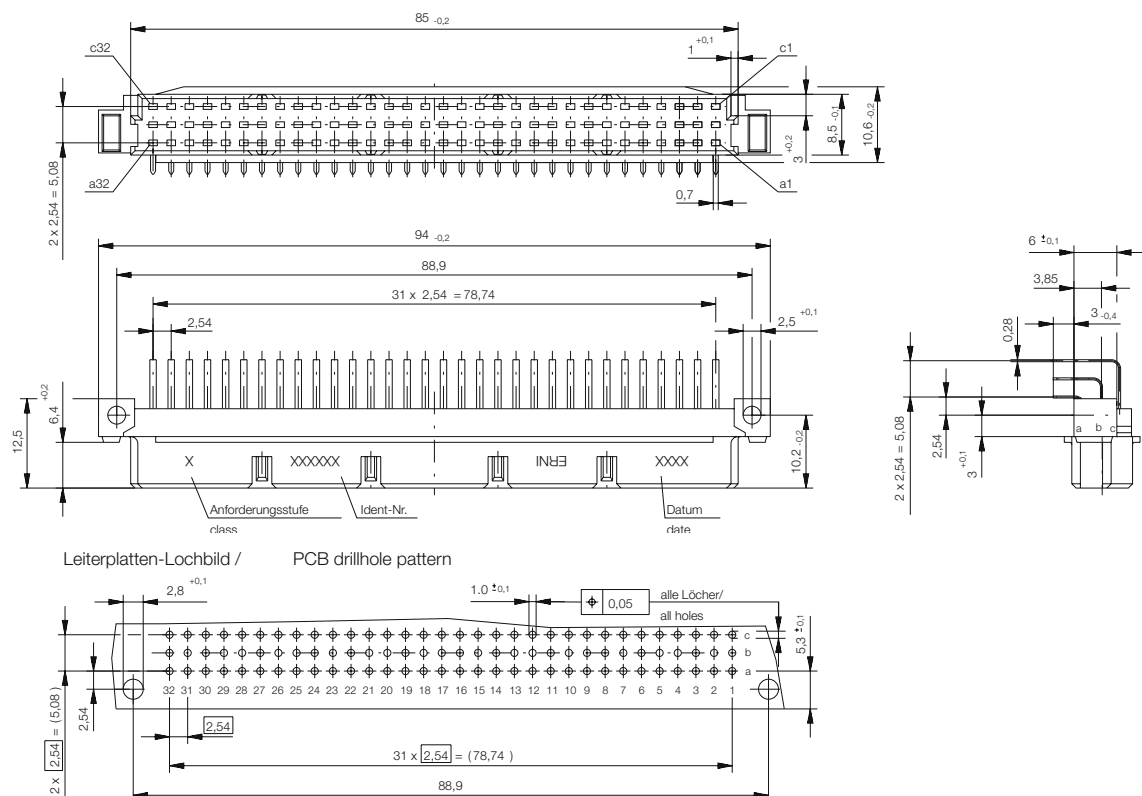


- $\varnothing 1,0 \pm 0,09$ Durchmesser des metallisierten Loches
- $\varnothing 1,0 \pm 0,09$ Diameter of finished plated-through hole
- $\varnothing 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
- $\varnothing 1,15 \pm 0,025$ Diameter of drilled hole

Dimensional Drawing Solder



Dimensional Drawing THR

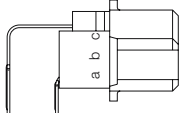
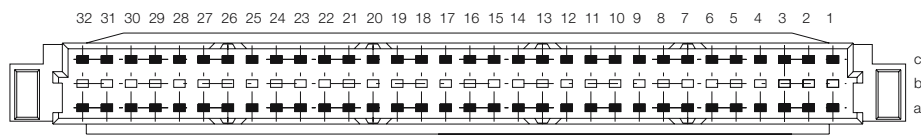
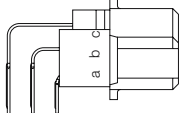
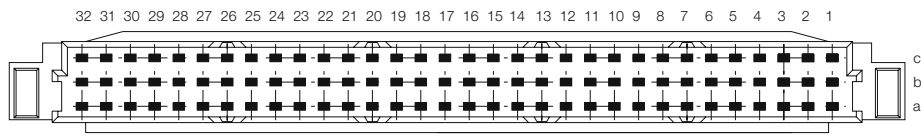
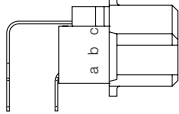
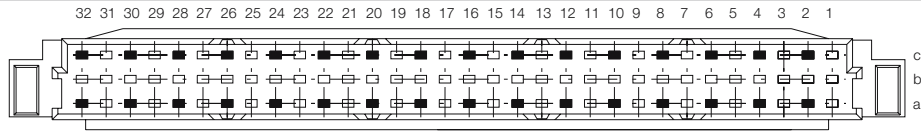
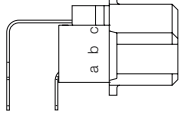
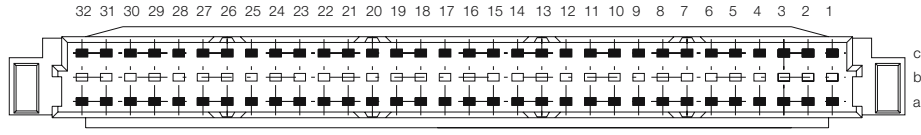
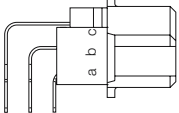
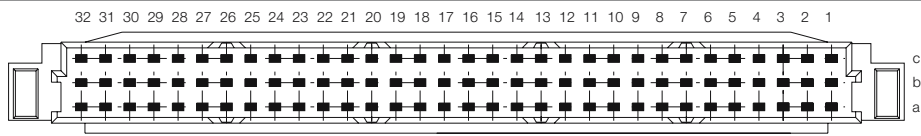


DIN 41612 / IEC 60603-2 Connectors

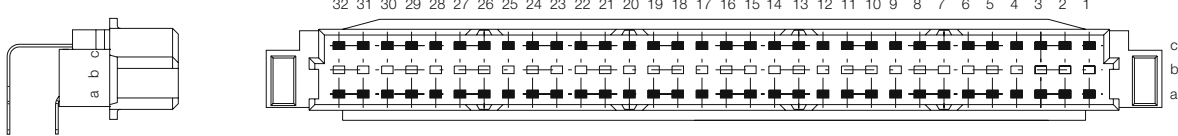
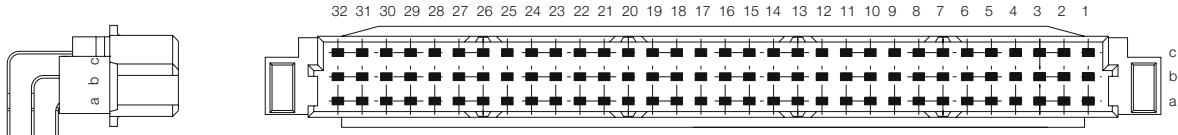
Type R Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Pressfit	3 mm		2	1 mm	023093
	Pressfit	3 mm		2	1 mm	013952
	Solder	3 mm		2	—	023039
	Solder	3 mm		2	—	004519
64	Solder with Clip	3 mm	0.28 x 0.7 mm	2	—	023503
	Solder	3 mm		1	—	004515
96	Solder	3 mm	0.28 x 0.7 mm	2	—	004516
96	Solder with Clip	3 mm	0.28 x 0.7 mm	2	—	023784

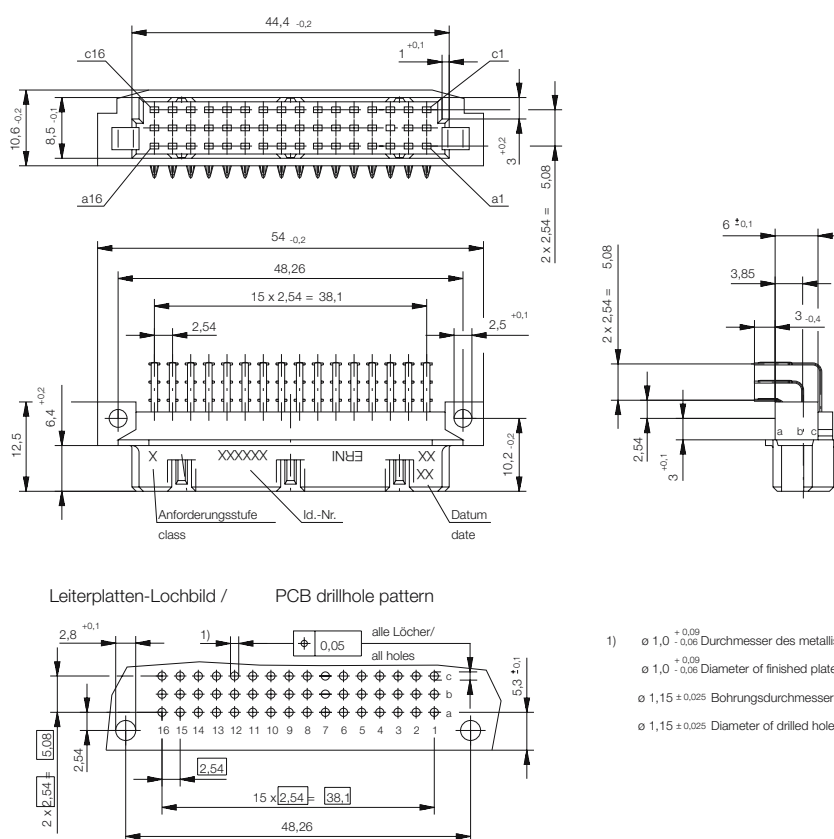
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
64	THR	3 mm	0.28 x 0.7 mm	2	—	194577
64	THR with Clip	3 mm	0.28 x 0.7 mm	2	—	194579
						
96	THR	3 mm	0.28 x 0.7 mm	2	—	154962
96	THR with Clip	3 mm	0.28 x 0.7 mm	2	—	154963

DIN 41612 / IEC 60603-2 Connectors Type R/2 Female



Dimensional Drawing Pressfit

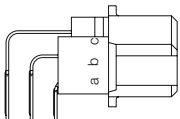
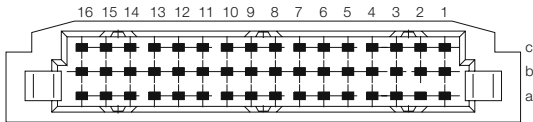
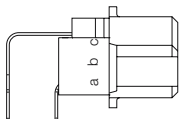
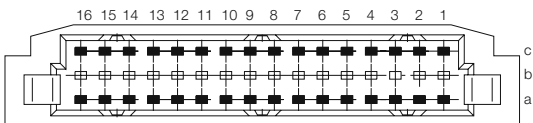
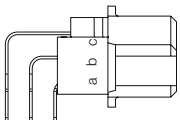
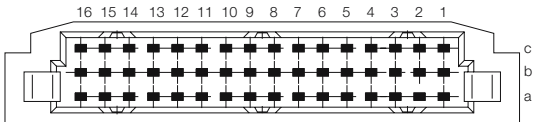
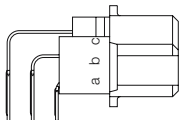
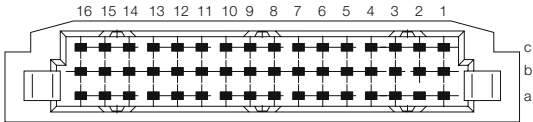


DIN 41612 / IEC 60603-2 Connectors

Type R/2 Female

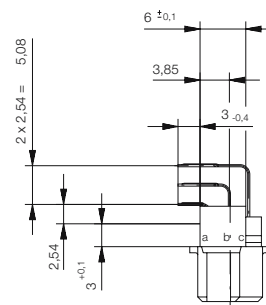
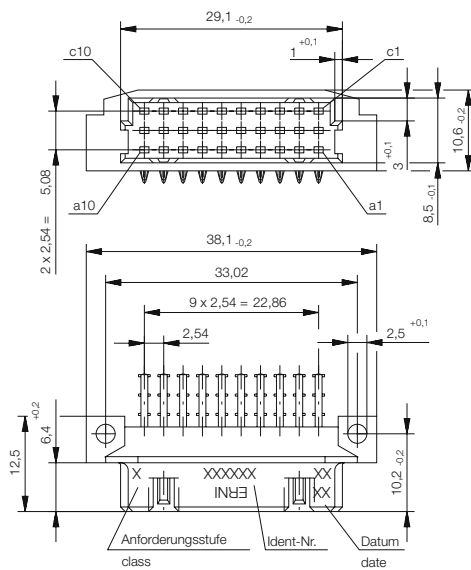


Ordering Information

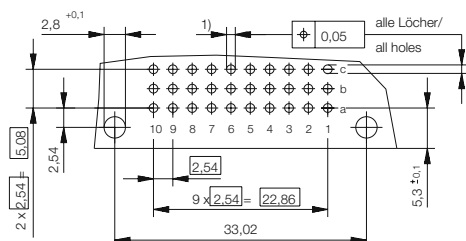
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Pressfit	3 mm		2	1 mm	023091
	Solder	3 mm		2	—	013211
	Solder	3 mm		1	—	424197
48	Solder	3 mm	0.28 x 0.7 mm	2	—	424198
	THR	3 mm		2	—	154965
48	THR with Clip	3 mm	0.28 x 0.7 mm	—	—	123581



Dimensional Drawing Pressfit



Leiterplatten-Lochbild / PCB drillhole pattern

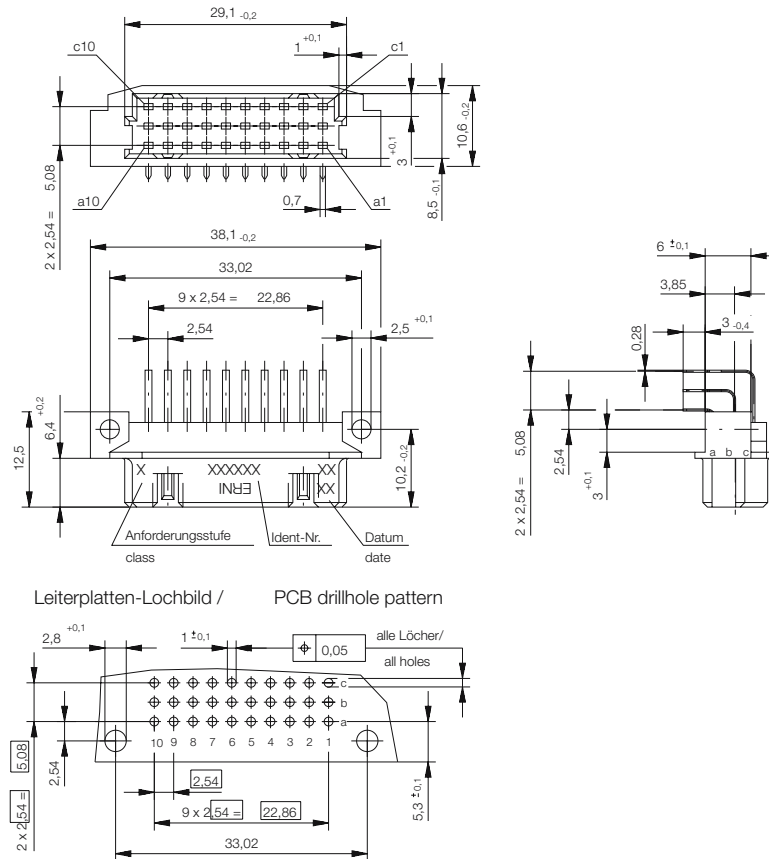


- 1) $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Durchmesser des metallisierten Loches
 $\varnothing 1,0 \begin{smallmatrix} +0,09 \\ -0,06 \end{smallmatrix}$ Diameter of finished plated-through hole
- $\varnothing 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 $\varnothing 1,15 \pm 0,025$ Diameter of drilled hole

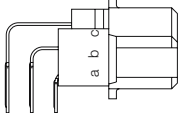
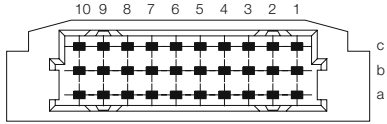
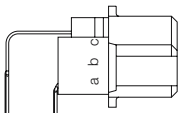
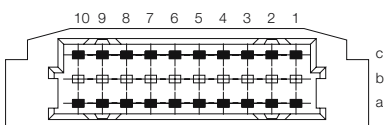
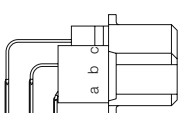
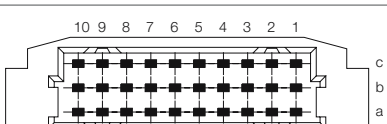
DIN 41612 / IEC 60603-2 Connectors Type R/3 Female



Dimensional Drawing Solder

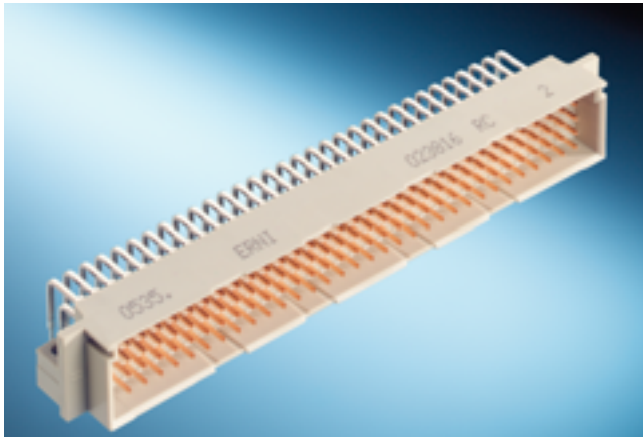


Ordering Information

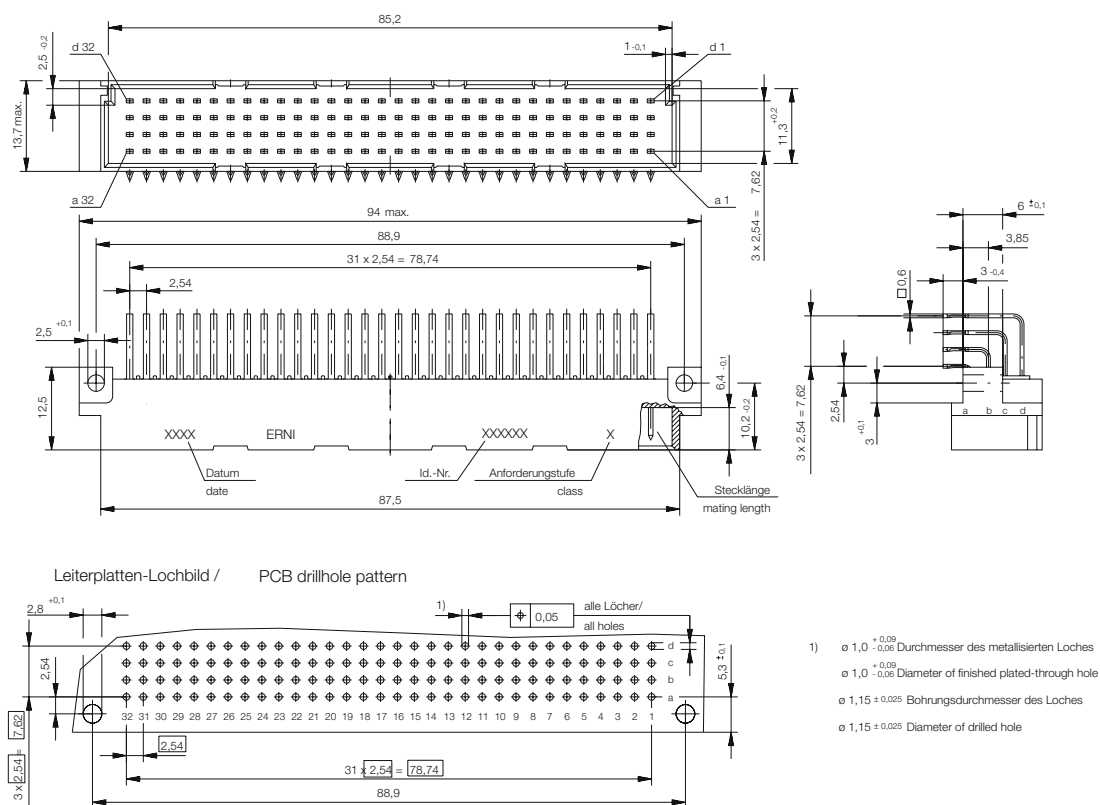
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
		3 mm	0.6 x 0.6 mm	1 mm	2	013953
		3 mm	0.28 x 0.7 mm	2	–	004991
		3 mm	0.28 x 0.7 mm	1	–	424191
30	Solder	3 mm	0.28 x 0.7 mm	2	–	424192

DIN 41612 / IEC 60603-2 Connectors

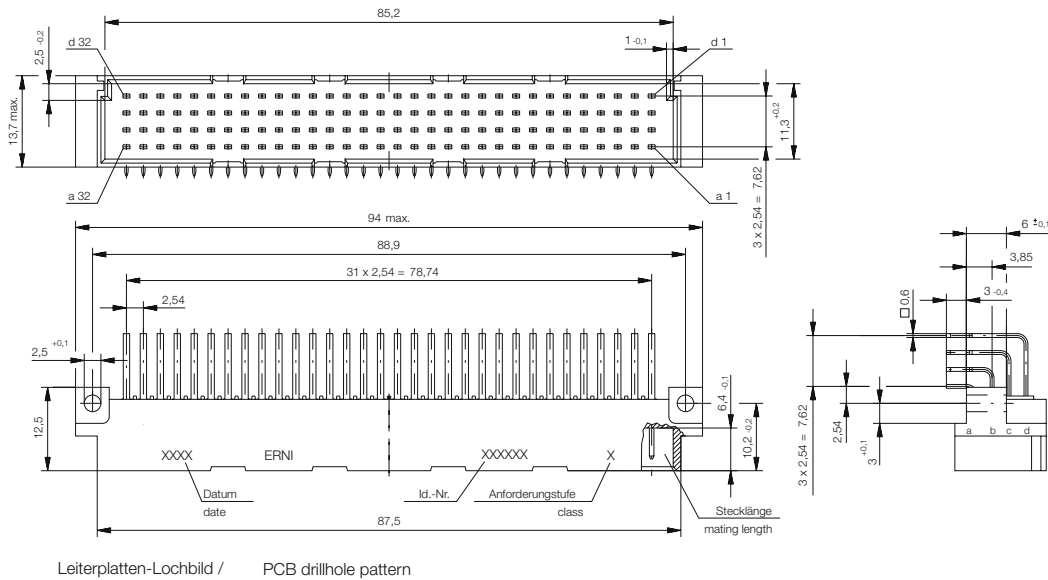
Type CD Male



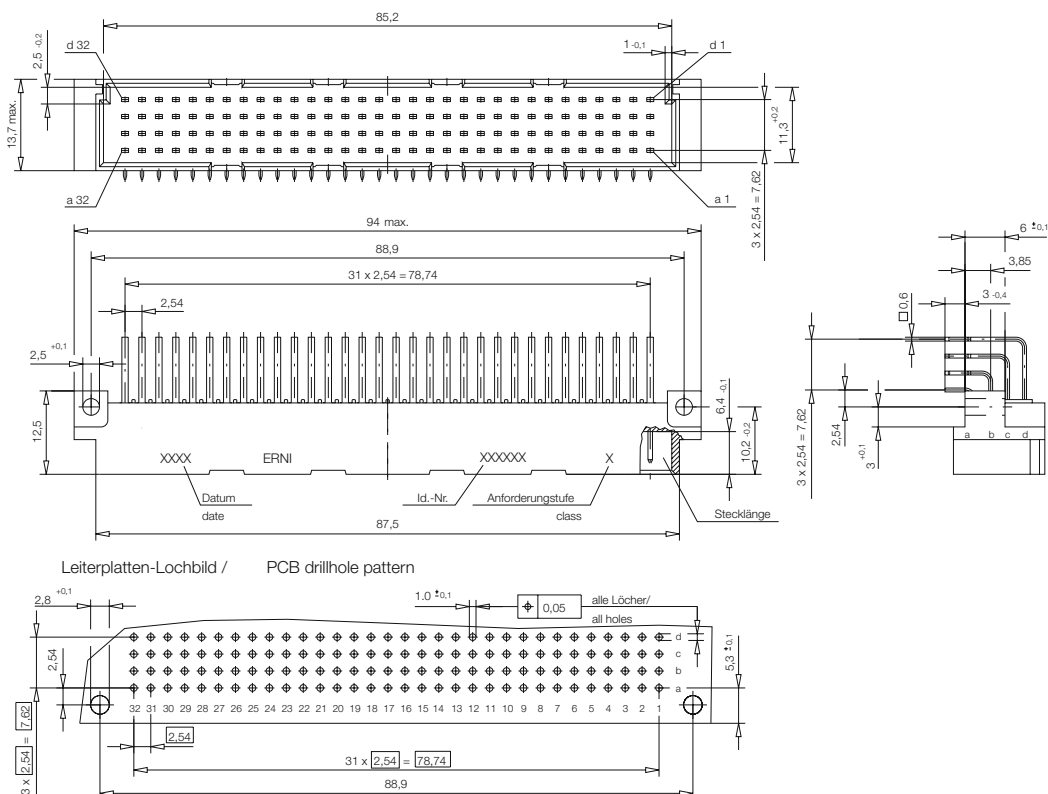
Dimensional Drawing Pressfit



Dimensional Drawing Solder



Dimensional Drawing THR

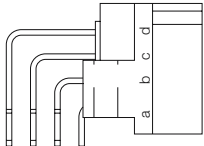
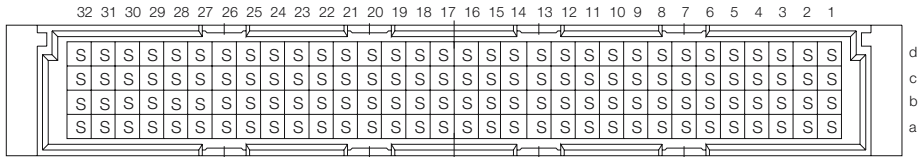
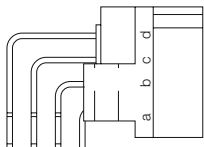
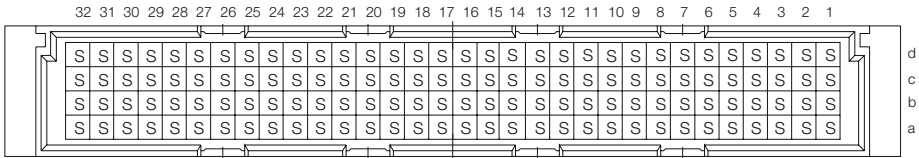
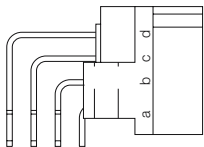
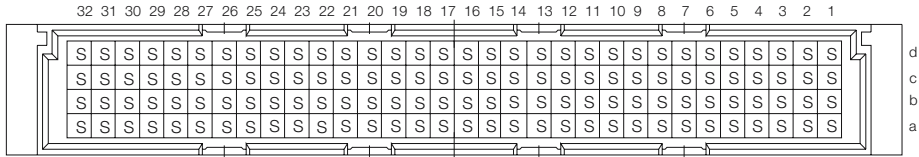


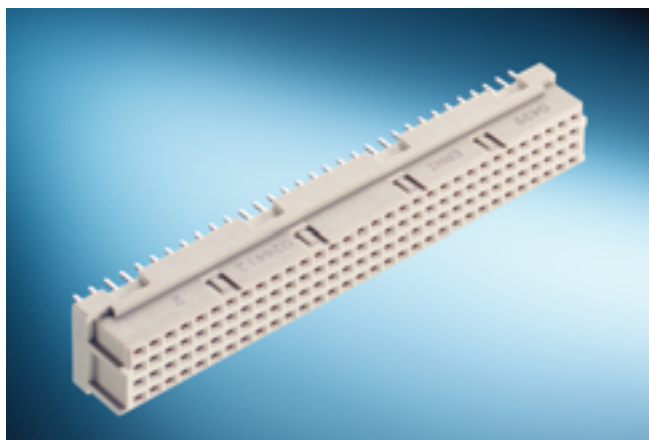
DIN 41612 / IEC 60603-2 Connectors

Type CD Male

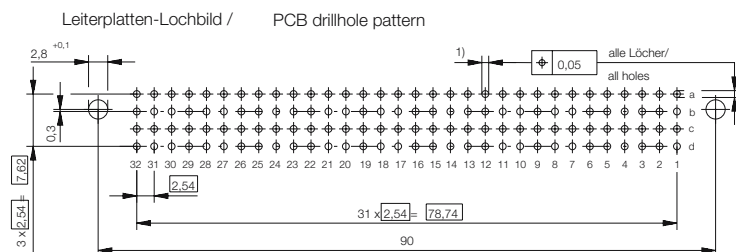
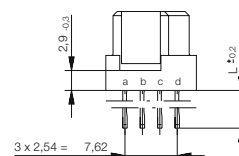
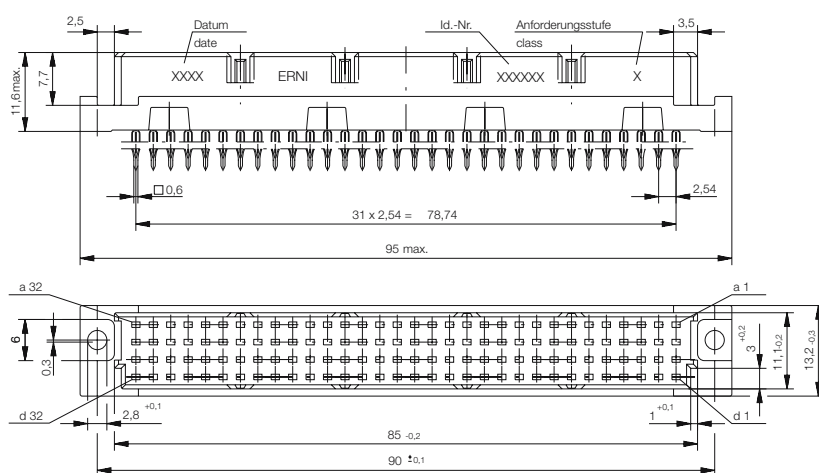


Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Pressfit	3 mm		2	1.5 mm	033436
	Solder	3 mm		1	—	033298
128	Solder	3 mm	0.6 x 0.6 mm	2	—	023816
128	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	913767
	THR	3 mm		2	—	144713
128	THR with Clip	3 mm	0.6 x 0.6 mm	2	—	154959

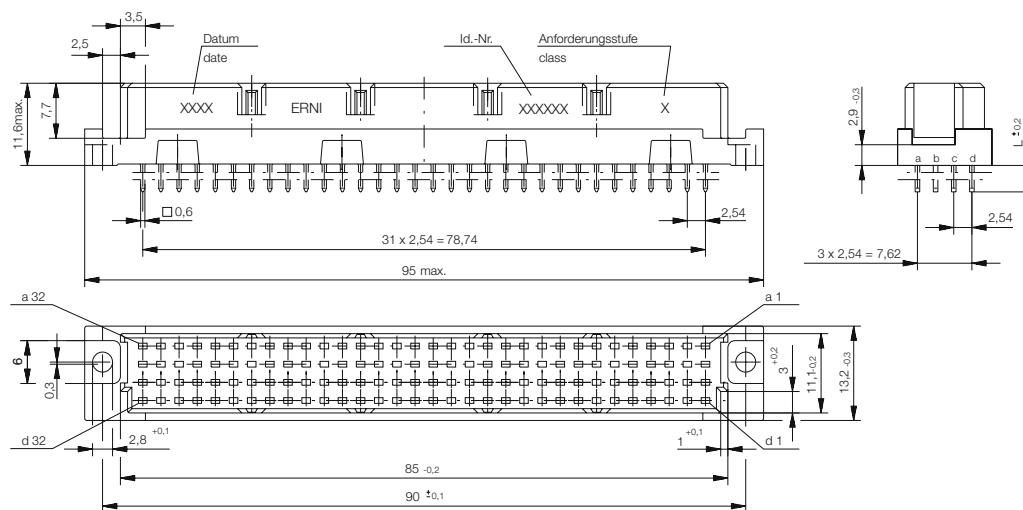


Dimensional Drawing Pressfit

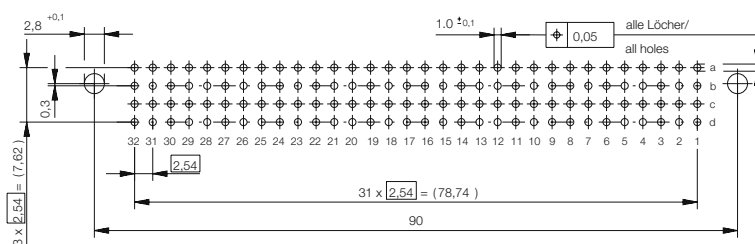


- $\phi 1.0 \pm 0.09$ Durchmesser des metallisierten Loches
 - $\phi 1.0 \pm 0.06$ Diameter of finished plated-through hole
 - $\phi 1.15 \pm 0.025$ Bohrungsdurchmesser des Loches
 - $\phi 1.15 \pm 0.02$ Diameter of drilled hole

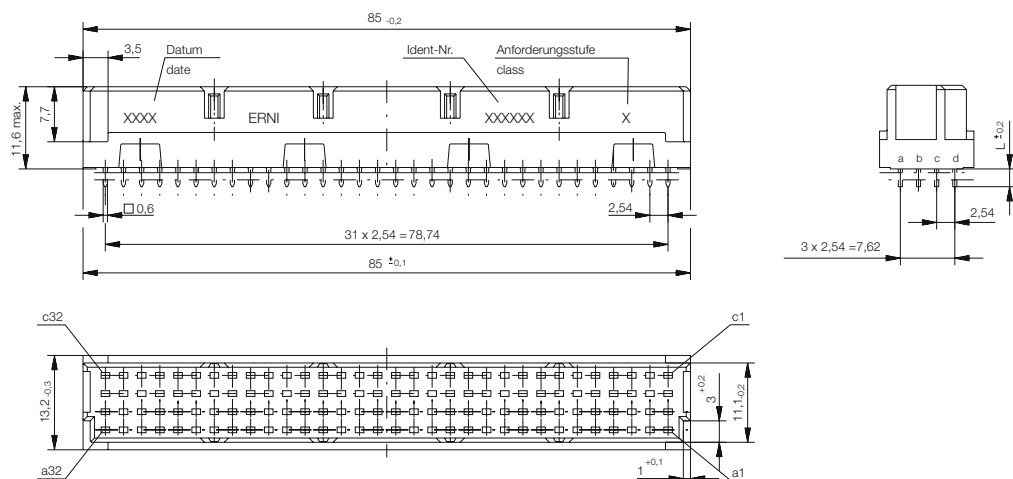
Dimensional Drawing Solder



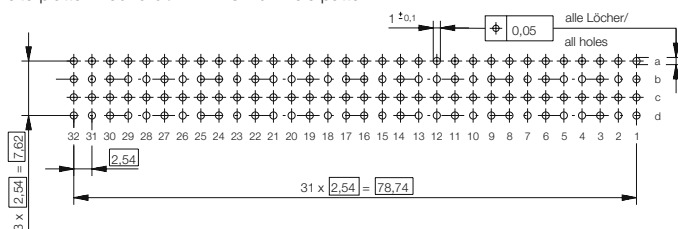
Leiterplatten-Lochbild / PCB drillhole pattern



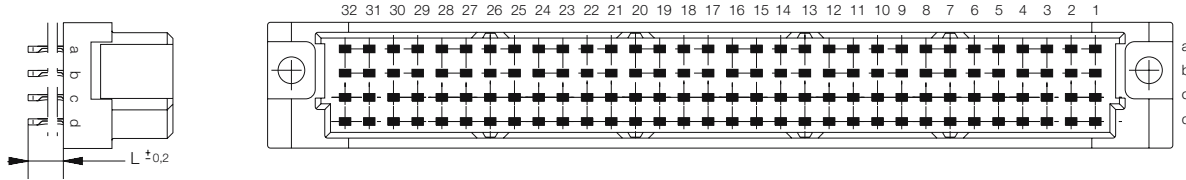
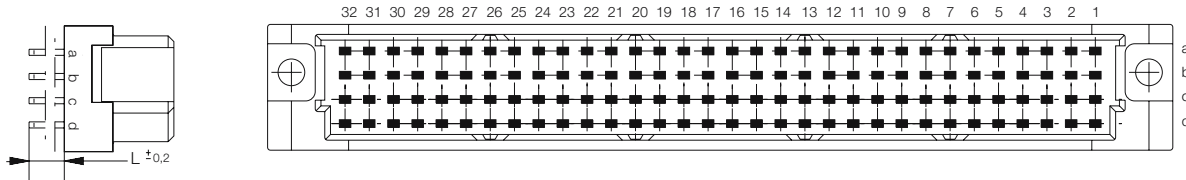
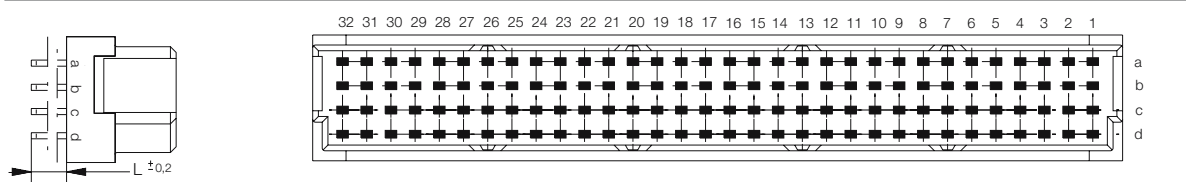
Dimensional Drawing THR



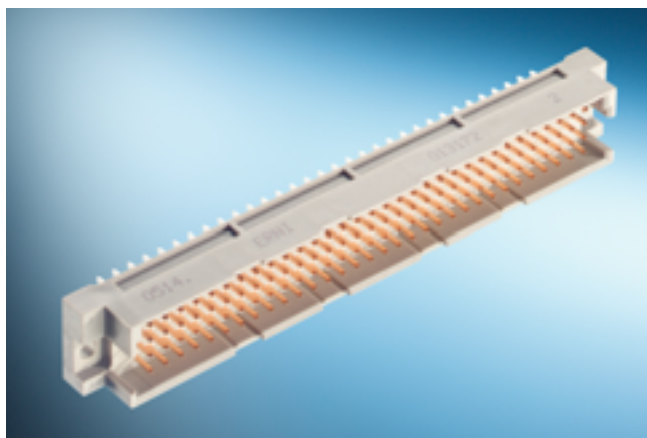
Leiterplatten-Lochbild / PCB drillhole pattern



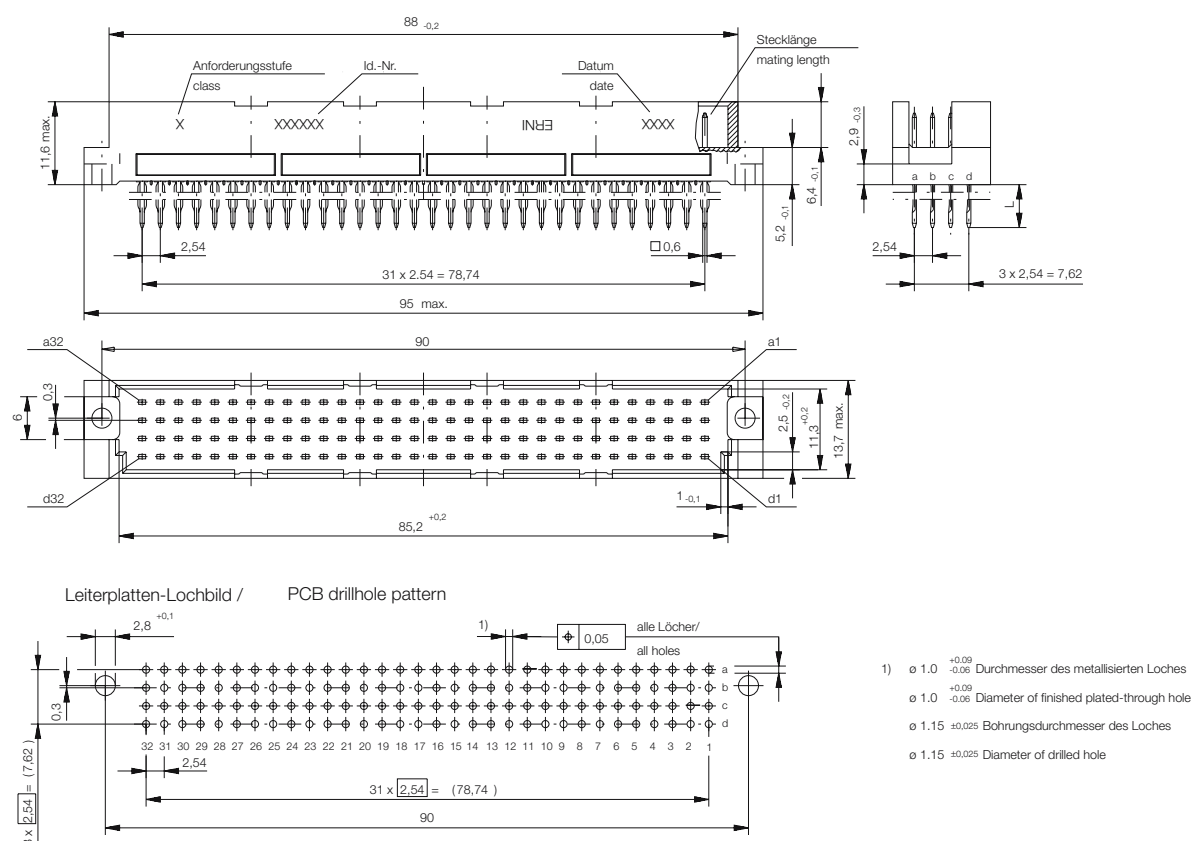
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
128	Pressfit	4.5 mm	0.65 x 0.3 mm	2	2 mm	064809
128	Pressfit	5.5 mm	0.6 x 0.6 mm	1	2.5 mm	913658
128	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	033035
128	Pressfit w/o Flange	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	023742
128	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	033223
128	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	2.5 mm	033104
						
128	Solder	3.7 mm	0.6 x 0.6 mm	1	—	033299
128	Solder	3.7 mm	0.6 x 0.6 mm	2	—	023762
128	Solder w/o Flange	3.7 mm	0.6 x 0.6 mm	2	—	024412
128	Solder with Clip	3.7 mm	0.6 x 0.6 mm	2	—	063426
128	Solder w. kinked Legs	4.5 mm	0.65 x 0.3 mm	2	—	064810
						
128	THR w/o Flange	2.5 mm	0.6 x 0.6 mm	2	—	144714

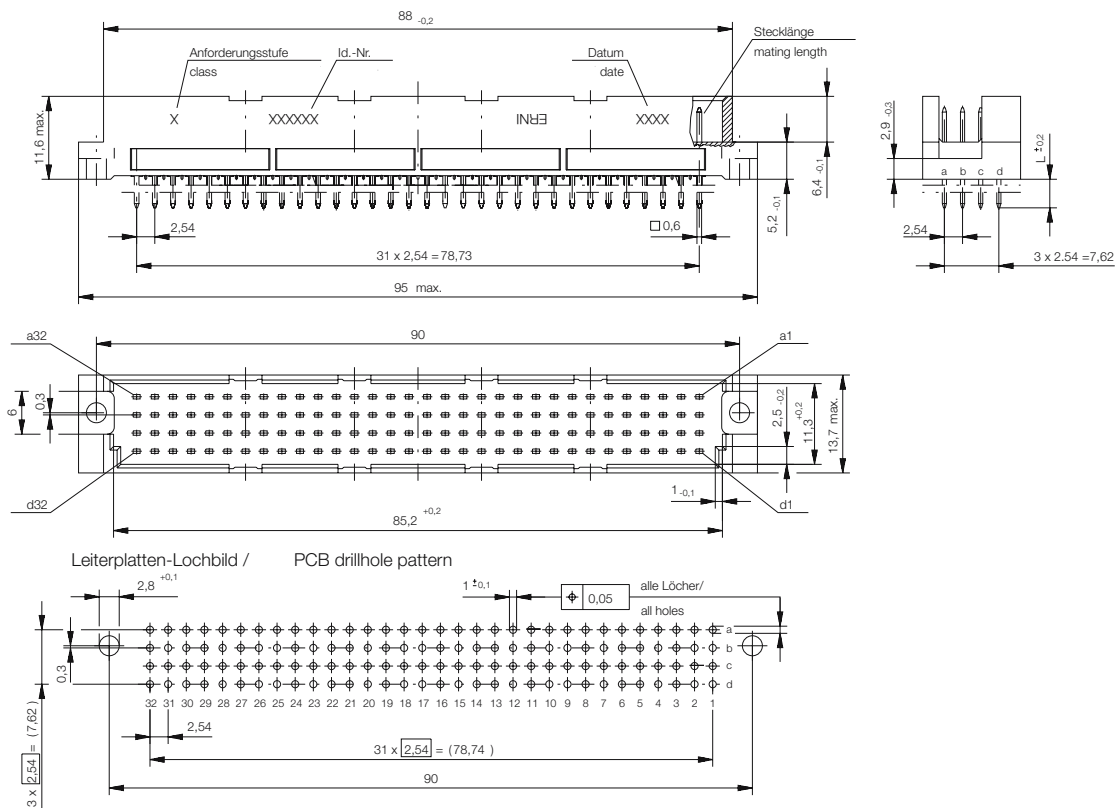
DIN 41612 / IEC 60603-2 Connectors Type RD Male



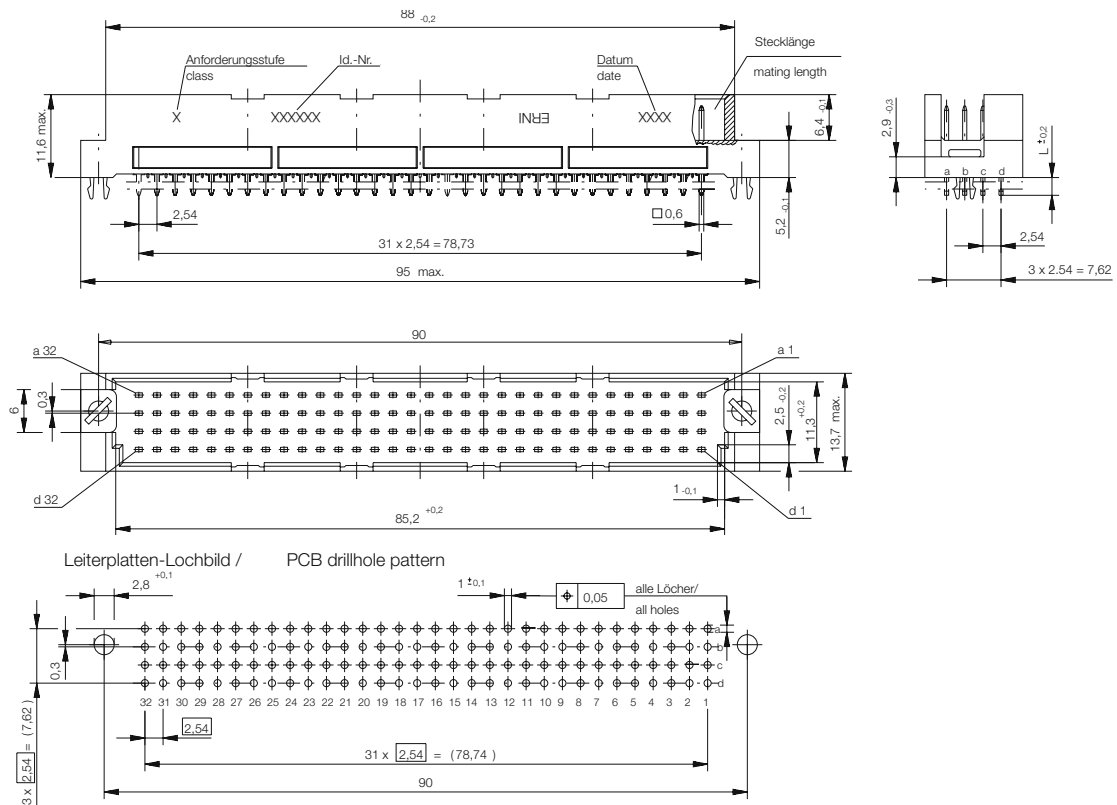
Dimensional Drawing Pressfit



Dimensional Drawing Solder



Dimensional Drawing THR

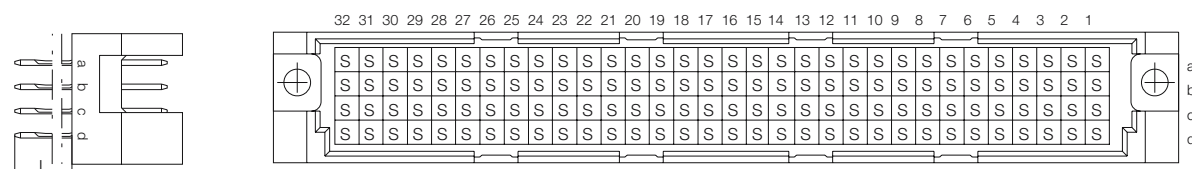
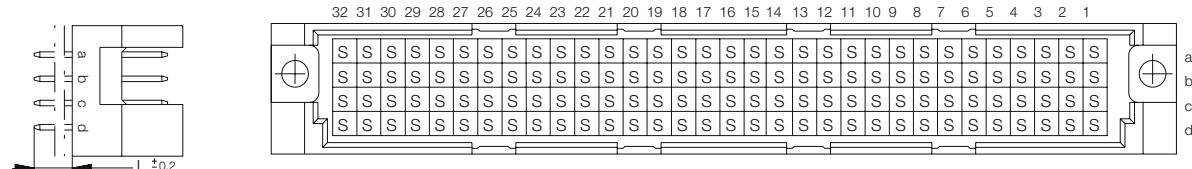
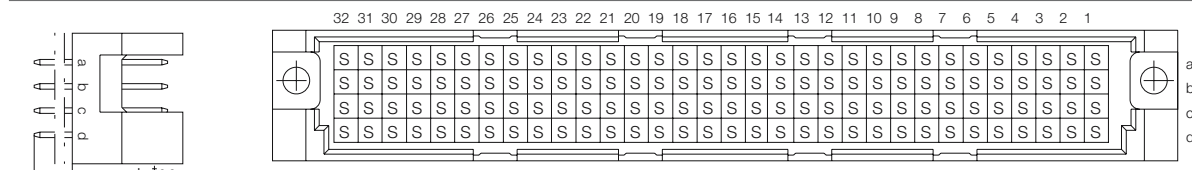


DIN 41612 / IEC 60603-2 Connectors

Type RD Male



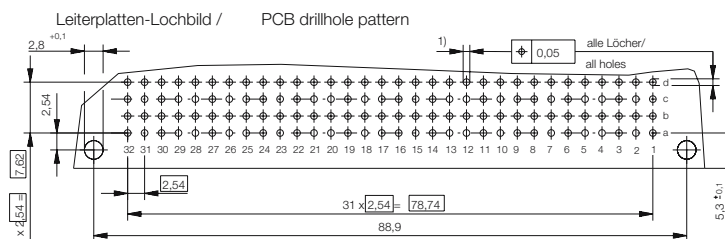
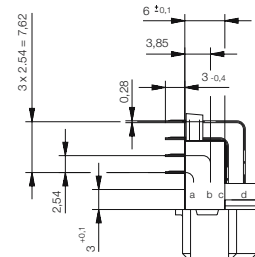
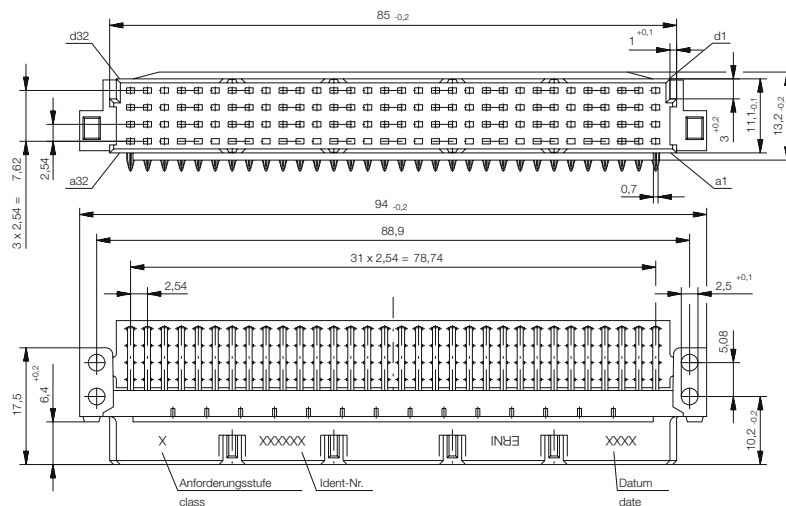
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
128	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	013178
128	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	2	2.5 mm	013154
						
128	Solder	4 mm	0.6 x 0.6 mm	1	—	013171
128	Solder	4 mm	0.6 x 0.6 mm	2	—	013172
128	Solder	13 mm	0.6 x 0.6 mm	1	—	013174
128	Solder	13 mm	0.6 x 0.6 mm	2	—	013175
						
128	THR with Clip	2.5 mm	0.6 x 0.6 mm	2	—	154970



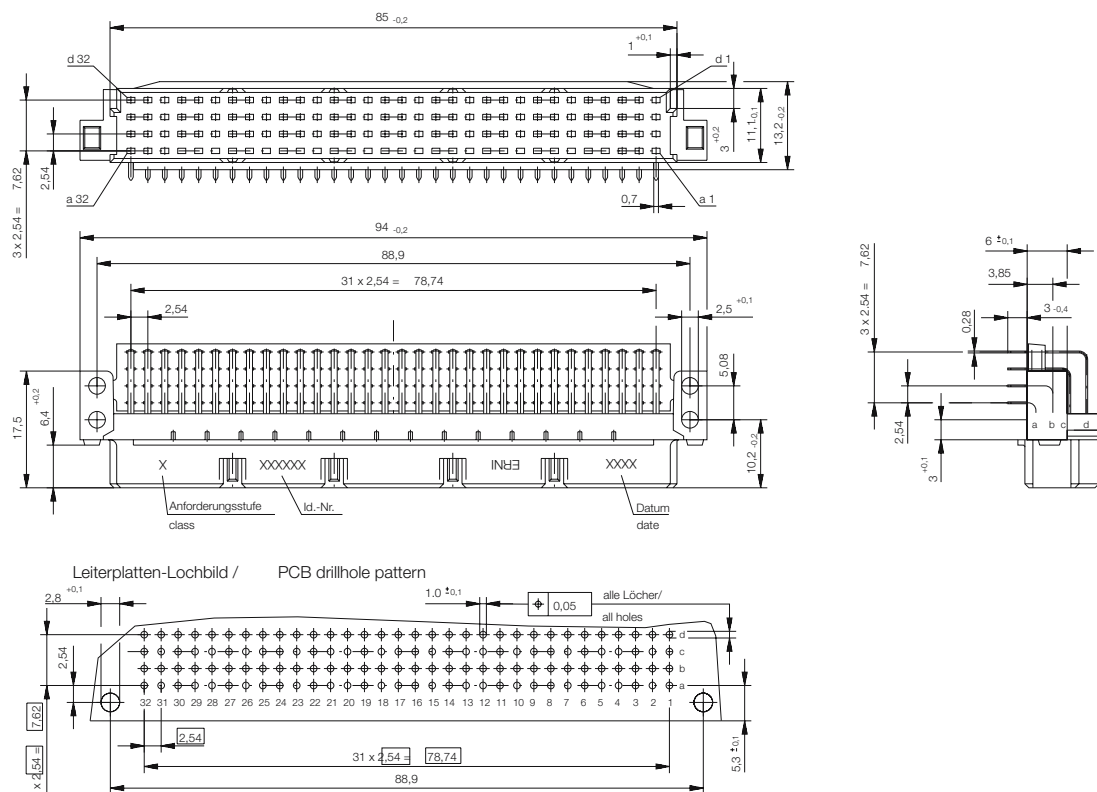
Size RD 128 female connectors are provided with locating strip. This plastic component is attached to the extended mounting flanges and serves to guide the pins accurately. The extended mounting flanges have two mounting holes at a pitch of 5.08mm. The length of the mounting flanges provides improved support for the connector on the PC board.

Dimensional Drawing Pressfit

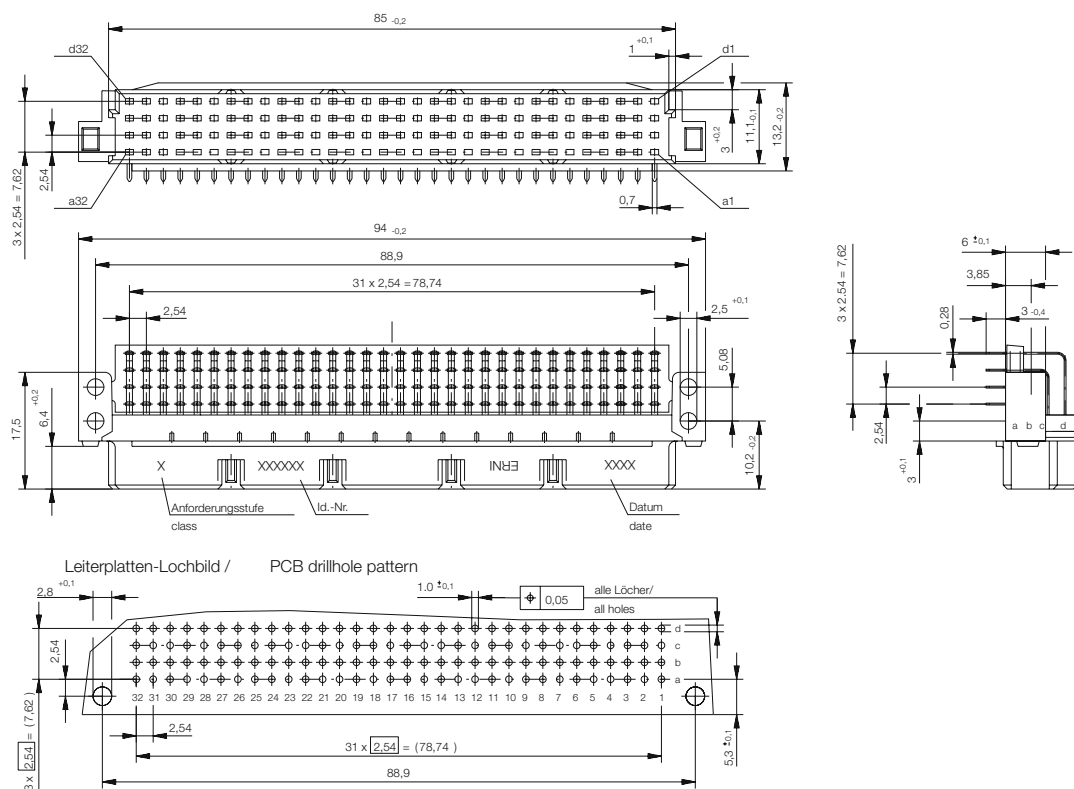


- 1) $\varnothing 1.0^{+0.09}_{-0.06}$ Durchmesser des metallisierten Loches
 $\varnothing 1.0^{+0.09}_{-0.06}$ Diameter of finished plated-through hole
 $\varnothing 1.15 \pm 0.025$ Bohrungsdurchmesser des Loches
 $\varnothing 1.15 \pm 0.025$ Diameter of drilled hole

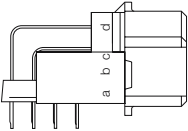
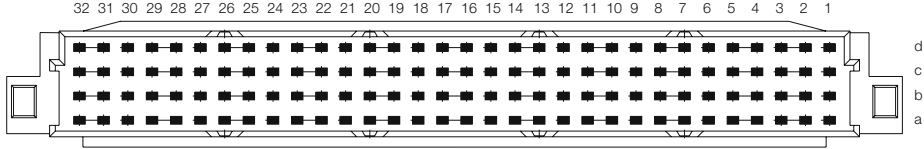
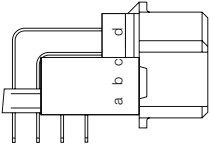
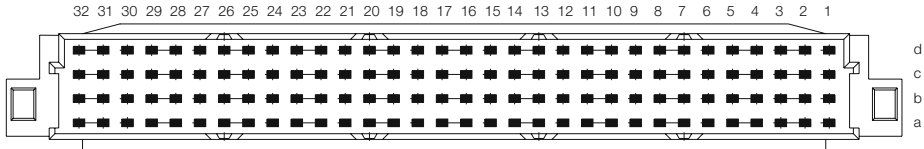
Dimensional Drawing Solder



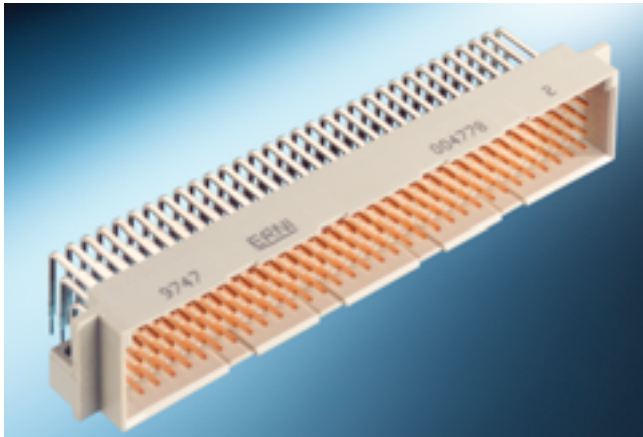
Dimensional Drawing THR



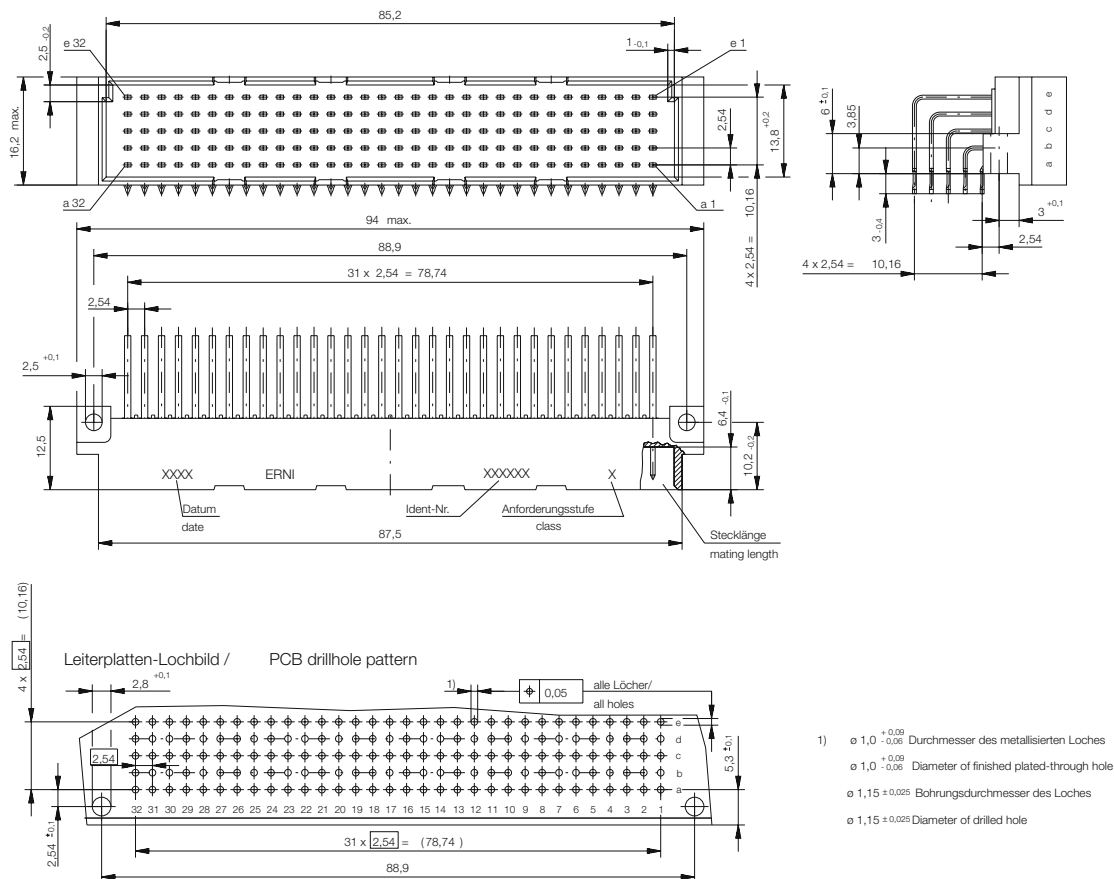
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Pressfit	3 mm	0.28 x 0.7 mm	2	1 mm	013156
	Solder	3 mm	0.28 x 0.7 mm	1	—	013183
128	Solder	3 mm	0.28 x 0.7 mm	2	—	013184
						
	THR with Clip	3 mm	0.28 x 0.7 mm	2	—	154971

Type E 160 / E 80 Male

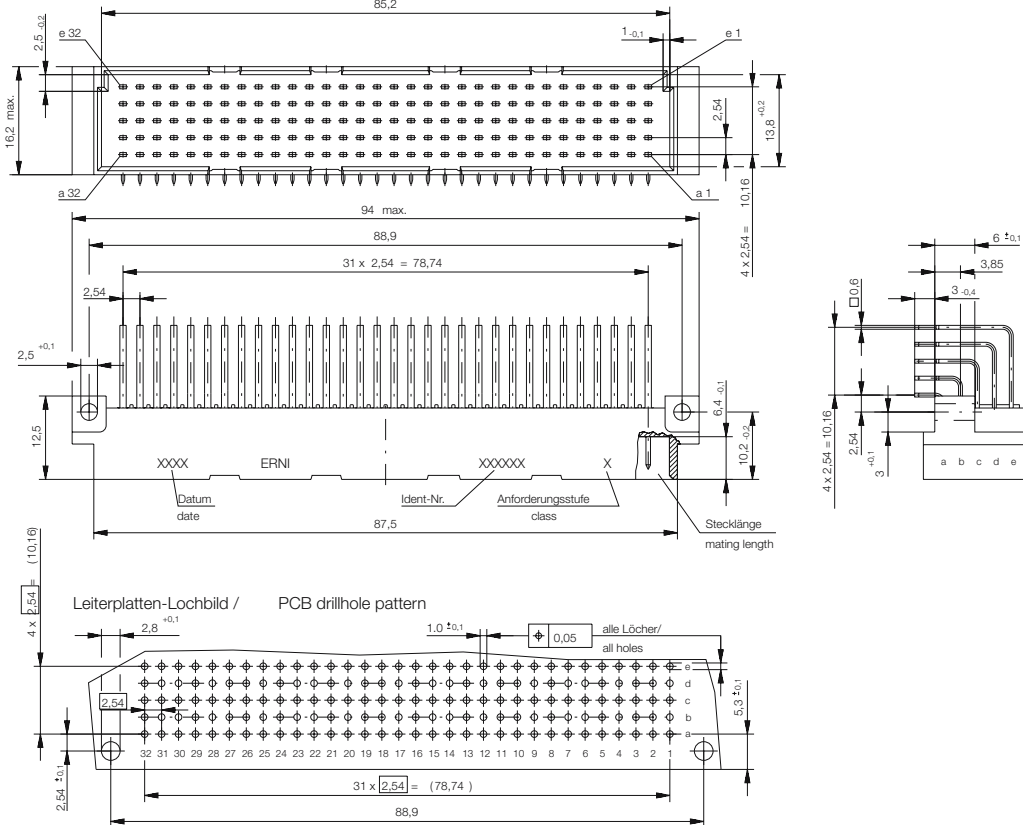


Dimensional Drawing Pressfit Type E 160

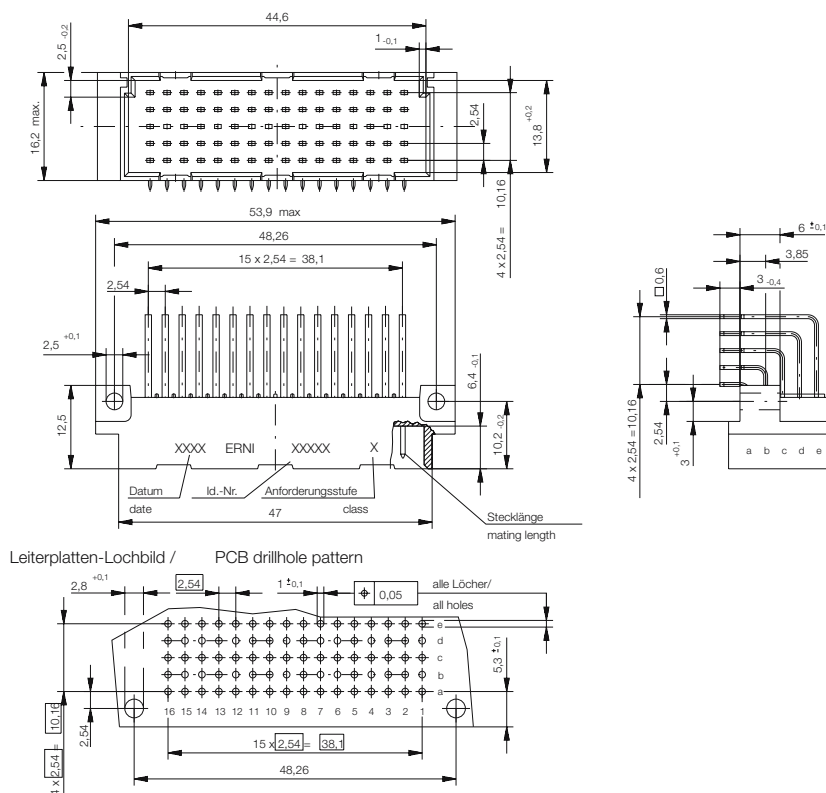


- 1) $\phi 1,0^{+0,09}_{-0,06}$ Durchmesser des metallisierten Loches
 $\phi 1,0^{+0,09}_{-0,06}$ Diameter of finished plated-through hole
 $\phi 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 $\phi 1,15 \pm 0,025$ Diameter of drilled hole

Dimensional Drawing Solder Type E 160



Dimensional Drawing Solder Type E 80

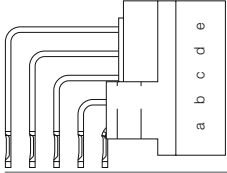
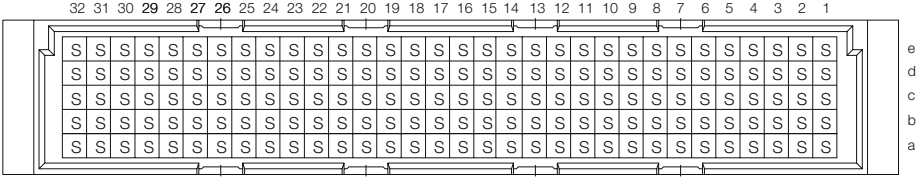
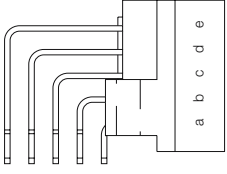
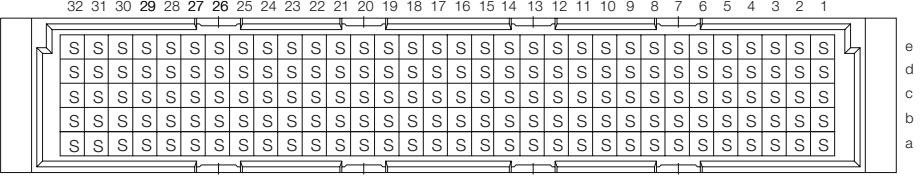
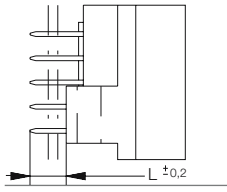
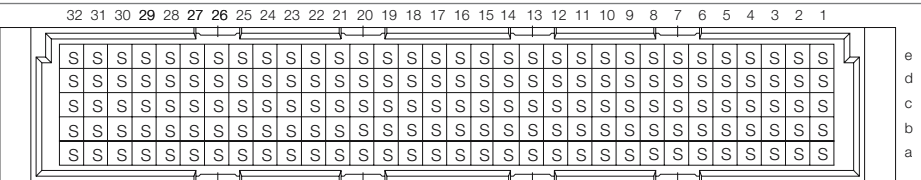


DIN 41612 / IEC 60603-2 Connectors

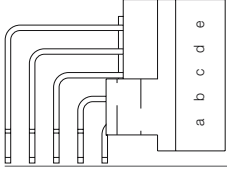
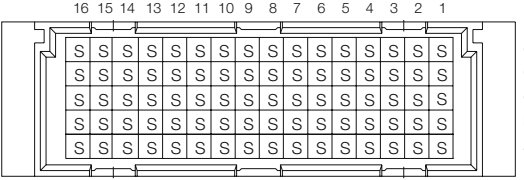
Type E 160 Male

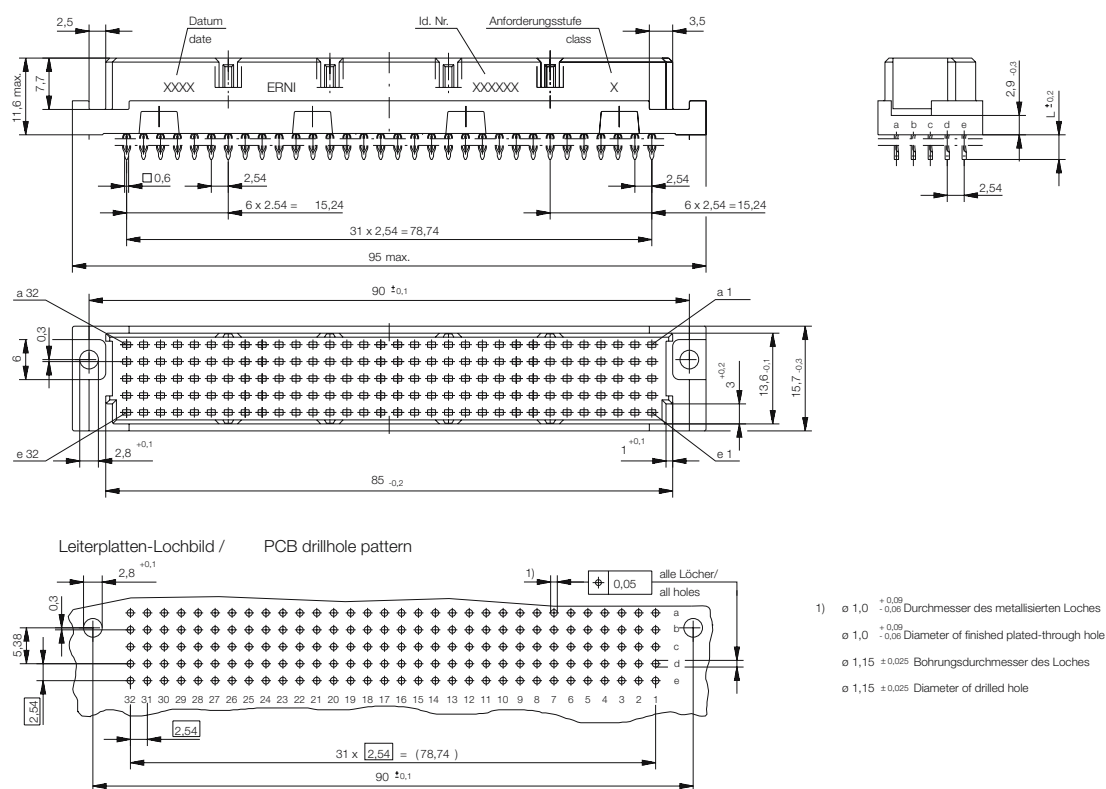


Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Pressfit	3 mm	0.6 x 0.6 mm	2	1.5 mm	013096
	Solder	3 mm	0.6 x 0.6 mm	1	—	004777
	Solder	3 mm	0.6 x 0.6 mm	2	—	004778
160	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	913615
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	004777
	Solder	3 mm	0.6 x 0.6 mm	2	—	004778
	Solder with Clip	3 mm	0.6 x 0.6 mm	2	—	913615
						
	Solder	3.8 mm	0.6 x 0.6 mm	2	—	013058
	Solder	3 mm	0.6 x 0.6 mm	1	—	004777
	Solder	3 mm	0.6 x 0.6 mm	2	—	004778

Type E 80 Male

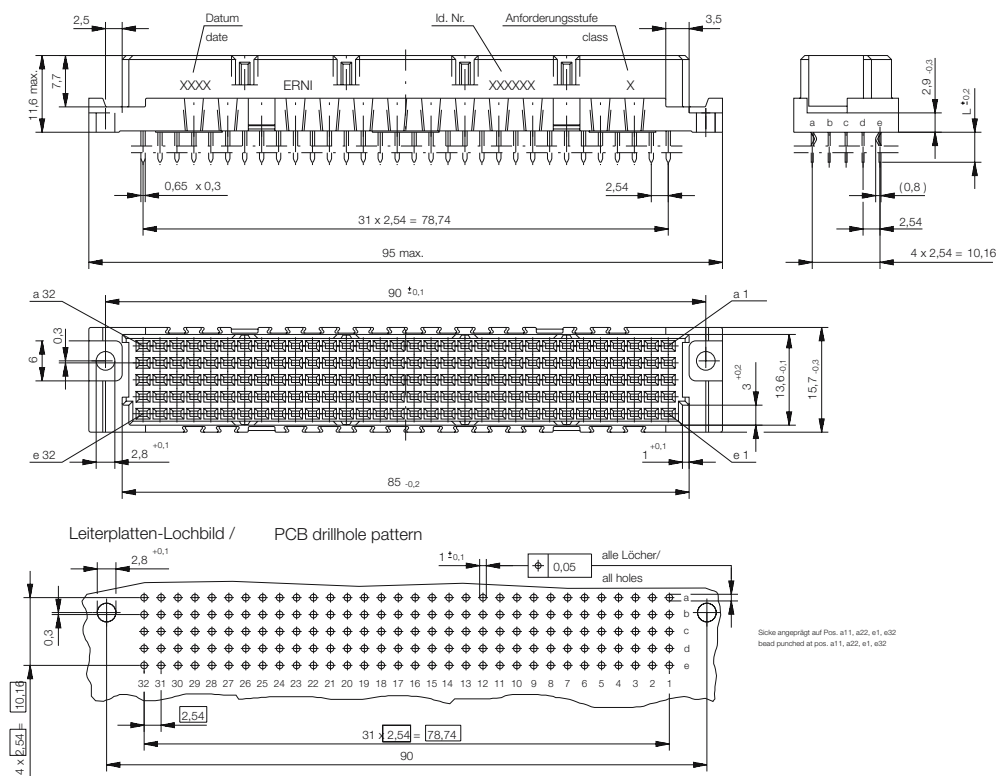
						
	Solder	3 mm	0.6 x 0.6 mm	2	—	033704
	Solder	3 mm	0.6 x 0.6 mm	1	—	004777
	Solder	3 mm	0.6 x 0.6 mm	2	—	004778



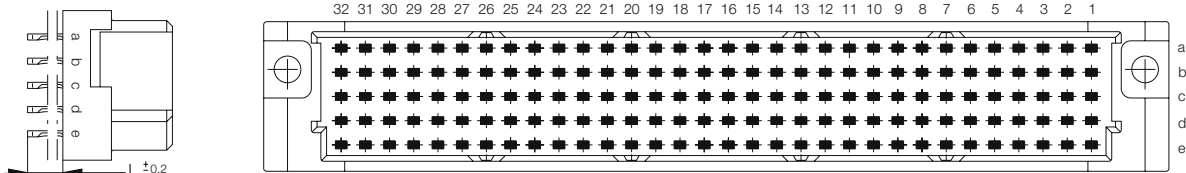
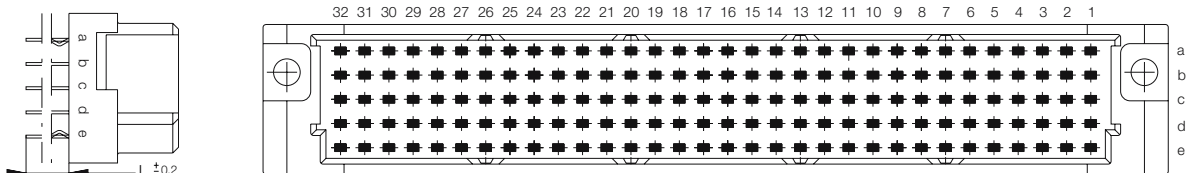
DIN 41612 / IEC 60603-2 Connectors Type E 160 Female



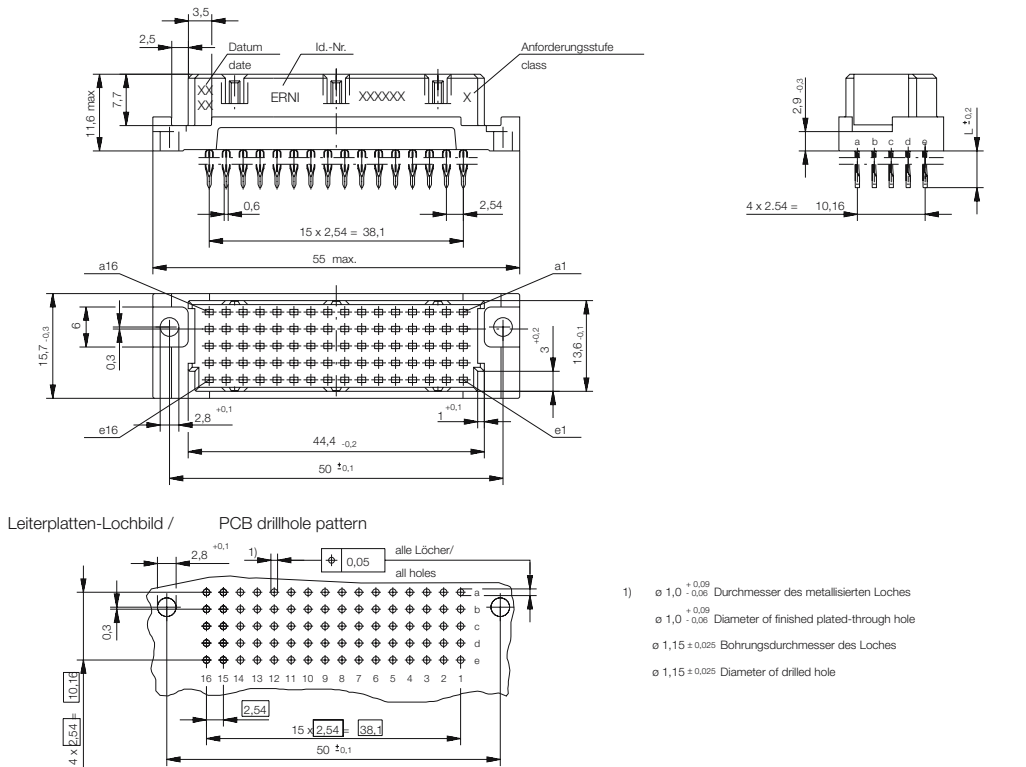
Dimensional Drawing Solder



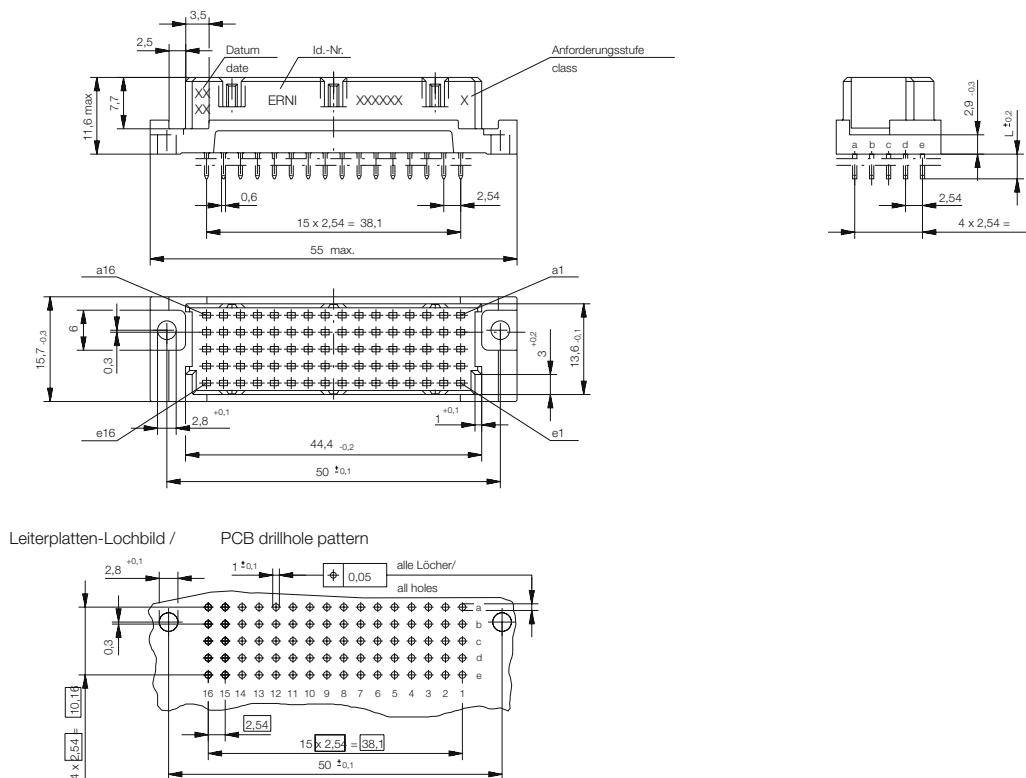
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
160	Pressfit w/o Flange	4.5 mm	0.65 x 0.3 mm	2	2 mm	064814
160	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	1	2.5 mm	023407
160	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	013315
160	Pressfit	17 mm	0.6 x 0.6 mm	2	2.5 mm	004886
160	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	1	2.5 mm	023405
160	Pressfit w. Transfer Zone	17 mm	0.6 x 0.6 mm	2	2.5 mm	004887
						
160	Solder w. kinked Legs	4.5 mm	0.65 x 0.3 mm	2	—	064813

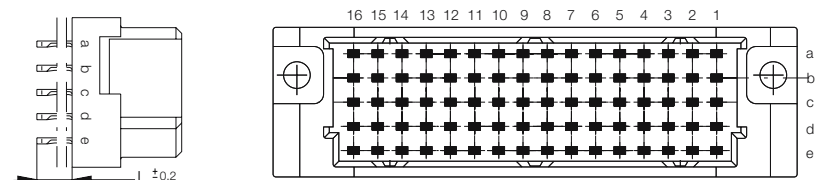
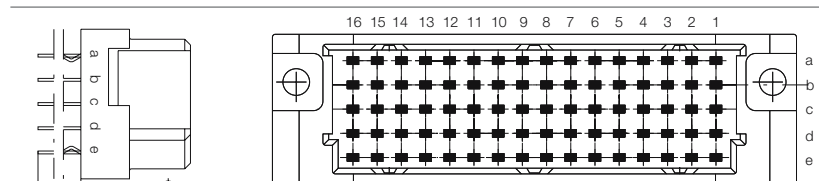
Dimensional Drawing Pressfit



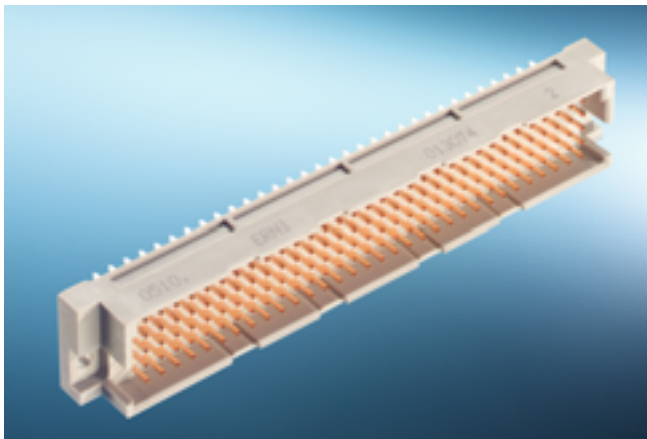
Dimensional Drawing Solder



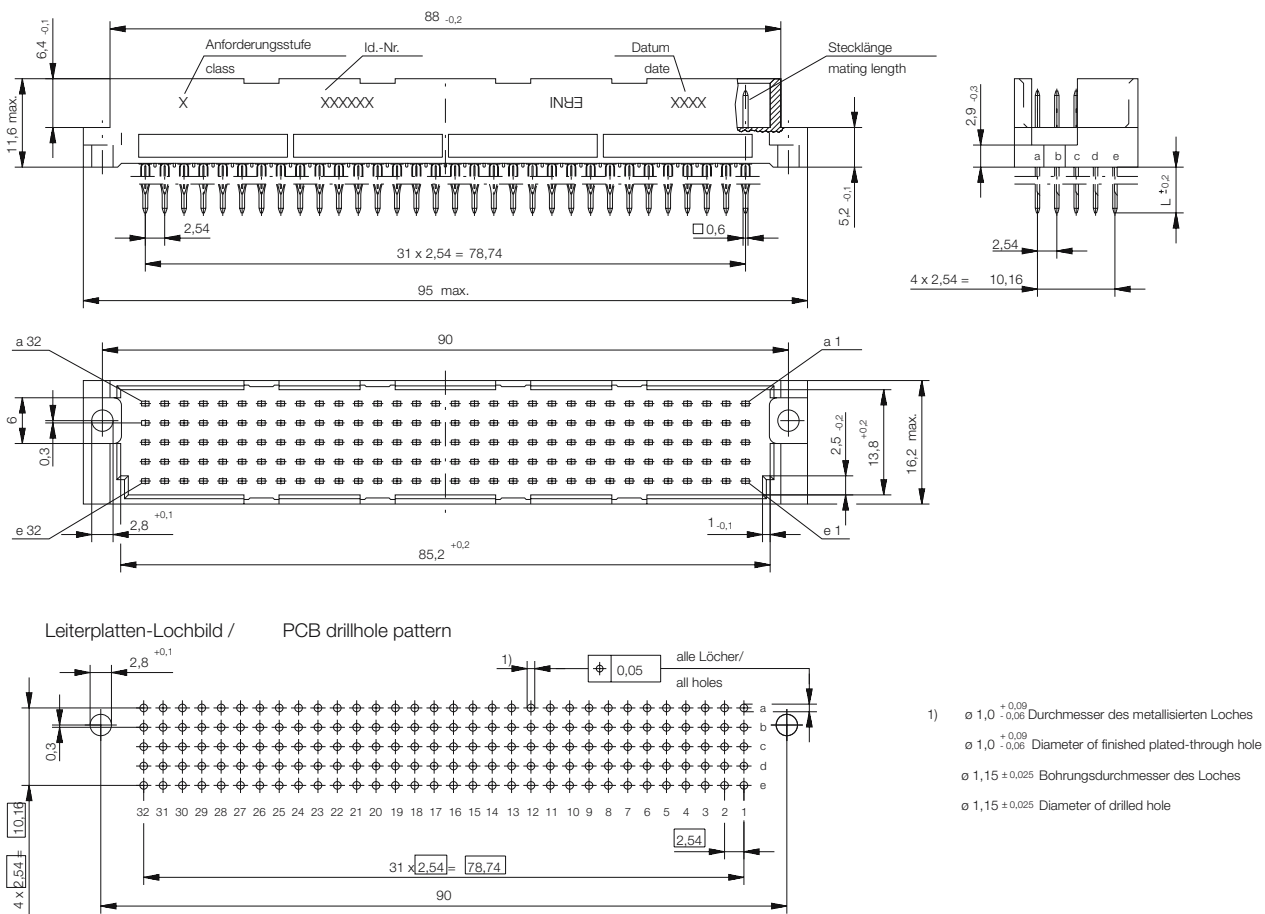
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
80	Pressfit	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	033707
80	Pressfit w/o Flange	5.5 mm	0.6 x 0.6 mm	2	2.5 mm	033706
80	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	3 mm	123874
						
80	Solder	3.7 mm	0.6 x 0.6 mm	2	—	043193
80	Solder with Clip	3.7 mm	0.6 x 0.6 mm	2	—	043270

Type TE Male



Dimensional Drawing Pressfit



[illegible]

DIN 41612 / IEC 60603-2 Connectors

Type TE Male

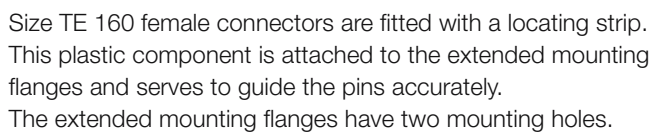


Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
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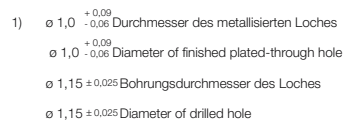
	Pressfit	6 mm	0.6 x 0.6 mm	1	2.5 mm	013160
	Pressfit	6 mm	0.6 x 0.6 mm	2	2.5 mm	013161
	Pressfit	20 mm	0.6 x 0.6 mm	2	2.5 mm	013164
	Pressfit w. Transfer Zone	20 mm	0.6 x 0.6 mm	2	2.5 mm	013155

	Solder	4 mm	0.6 x 0.6 mm	1	—	013073
	Solder	4 mm	0.6 x 0.6 mm	2	—	013074
	Solder	13 mm	0.6 x 0.6 mm	2	—	013071



The length of the mounting flanges provides improved "hold down" support for the connector during soldering process.

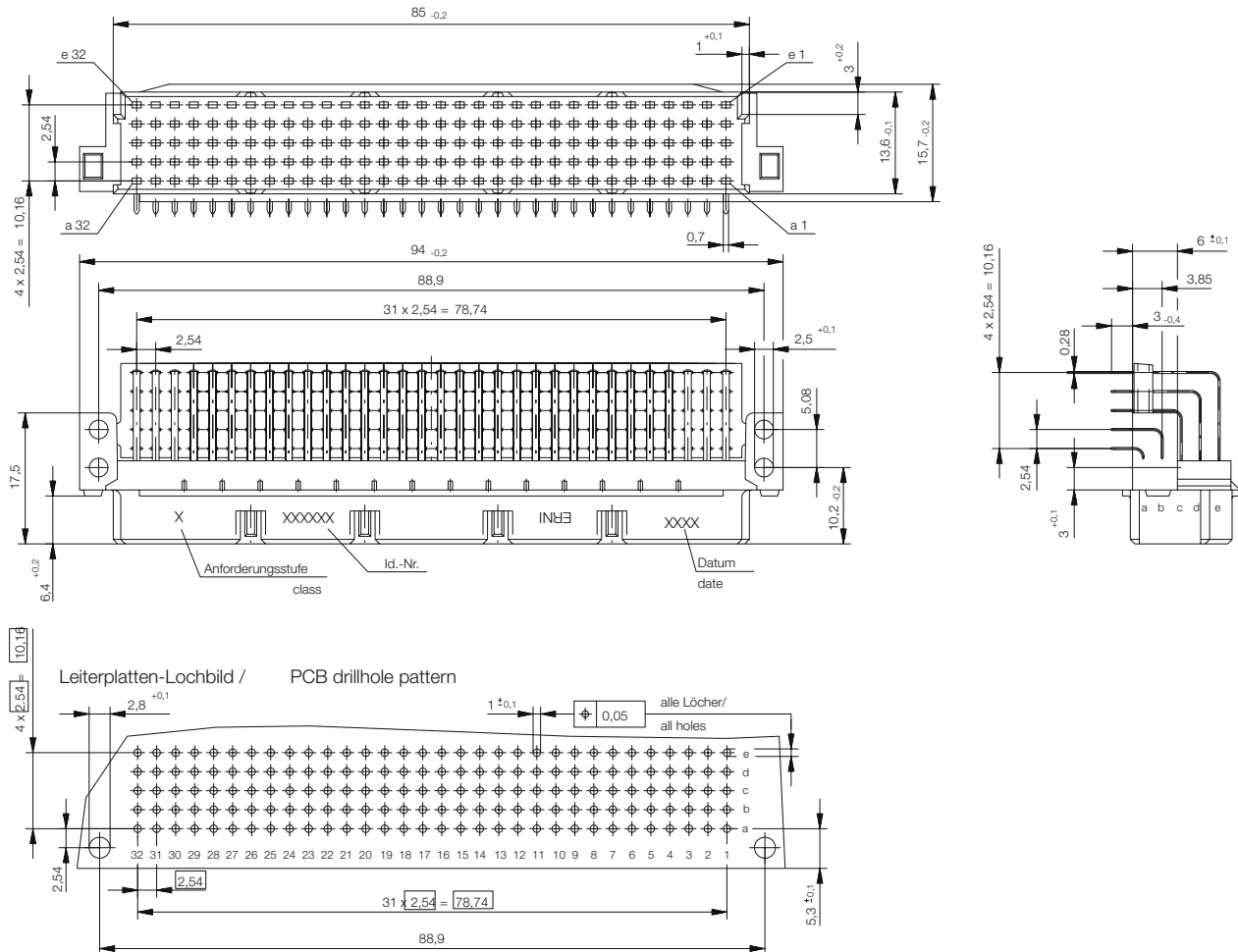
Dimensional Drawing Pressfit



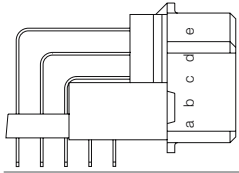
DIN 41612 / IEC 60603-2 Connectors Type TE Female



Dimensional Drawing Solder



Ordering Information

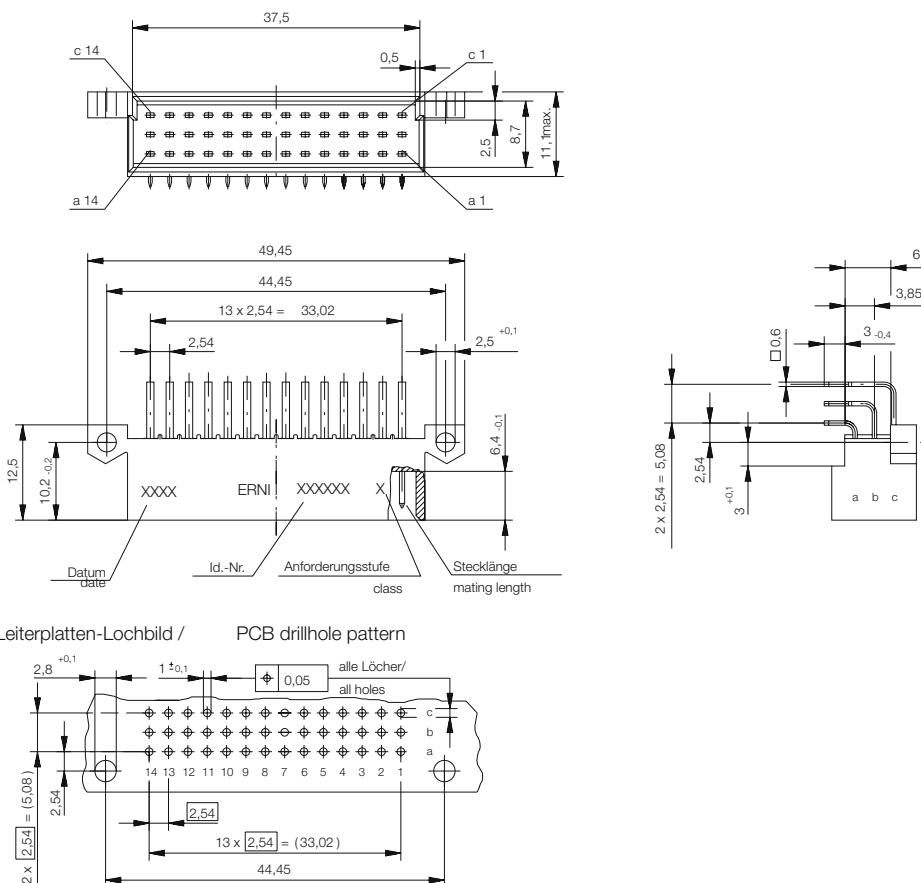
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Pressfit	3 mm	0.28 x 0.7 mm	2	1 mm	013157
	Solder	3 mm	0.28 x 0.7 mm	1	—	013166
160	Solder	3 mm	0.28 x 0.7 mm	2	—	013167

DIN 41612 / IEC 60603-2 Connectors Eurocard Center Connector

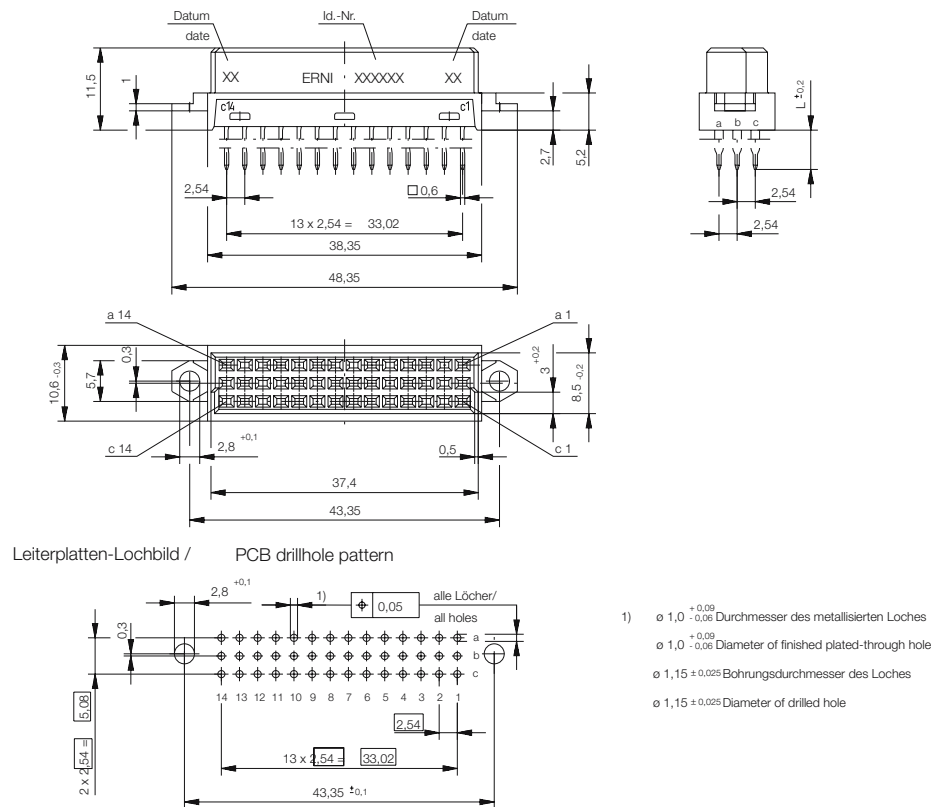


These Eurocard Center connectors fit precisely between two connectors mounted on a standard double Eurocard. The connector mounting flanges are standardized so that the Eurocard Center Connectors can be combined with sizes B, C, D, E, E160, M and H11 male connectors and with the size Q and R inverted female connectors according to DIN 41612/IEC 60603-2.

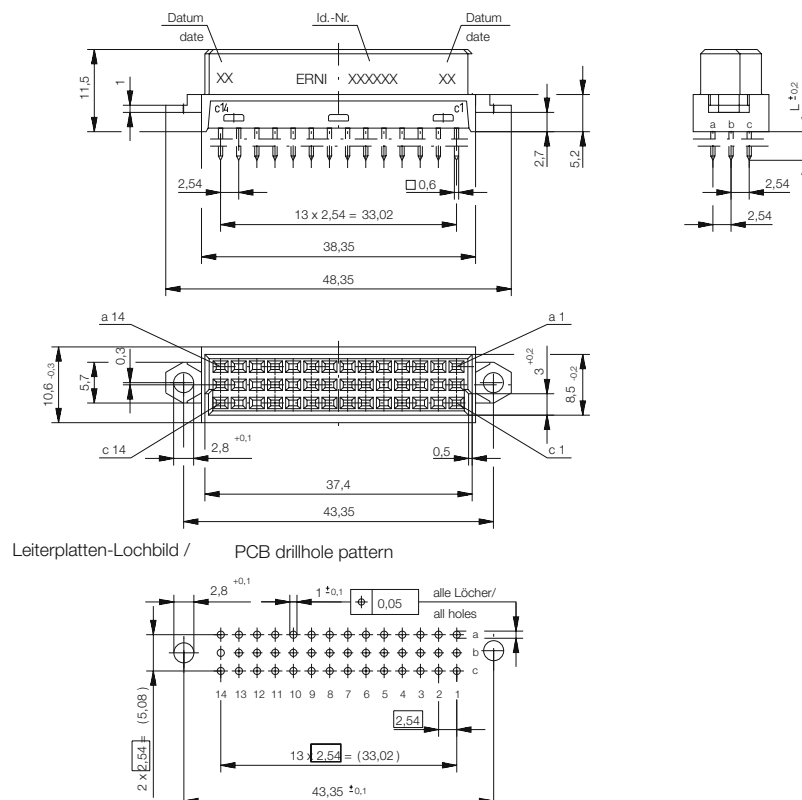
Dimensional Drawing Male Solder



Dimensional Drawing Female Pressfit



Dimensional Drawing Female Solder

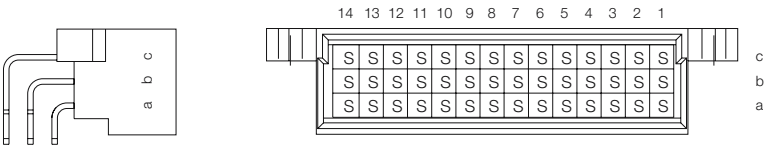


DIN 41612 / IEC 60603-2 Connectors

Eurocard Center Connector Male

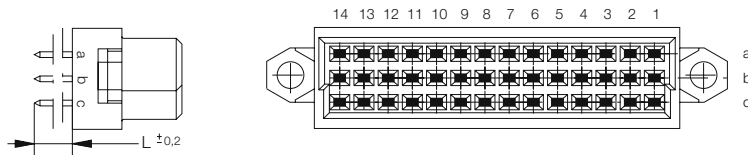


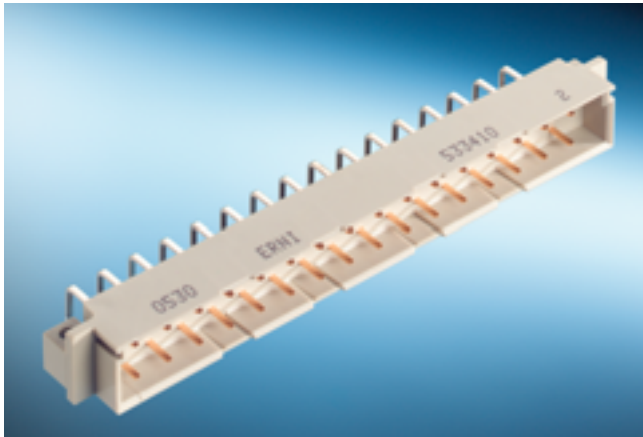
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
42	Solder	3 mm	0.6 x 0.6 mm	1	–	433590
42	Solder	3 mm	0.6 x 0.6 mm	2	–	433591

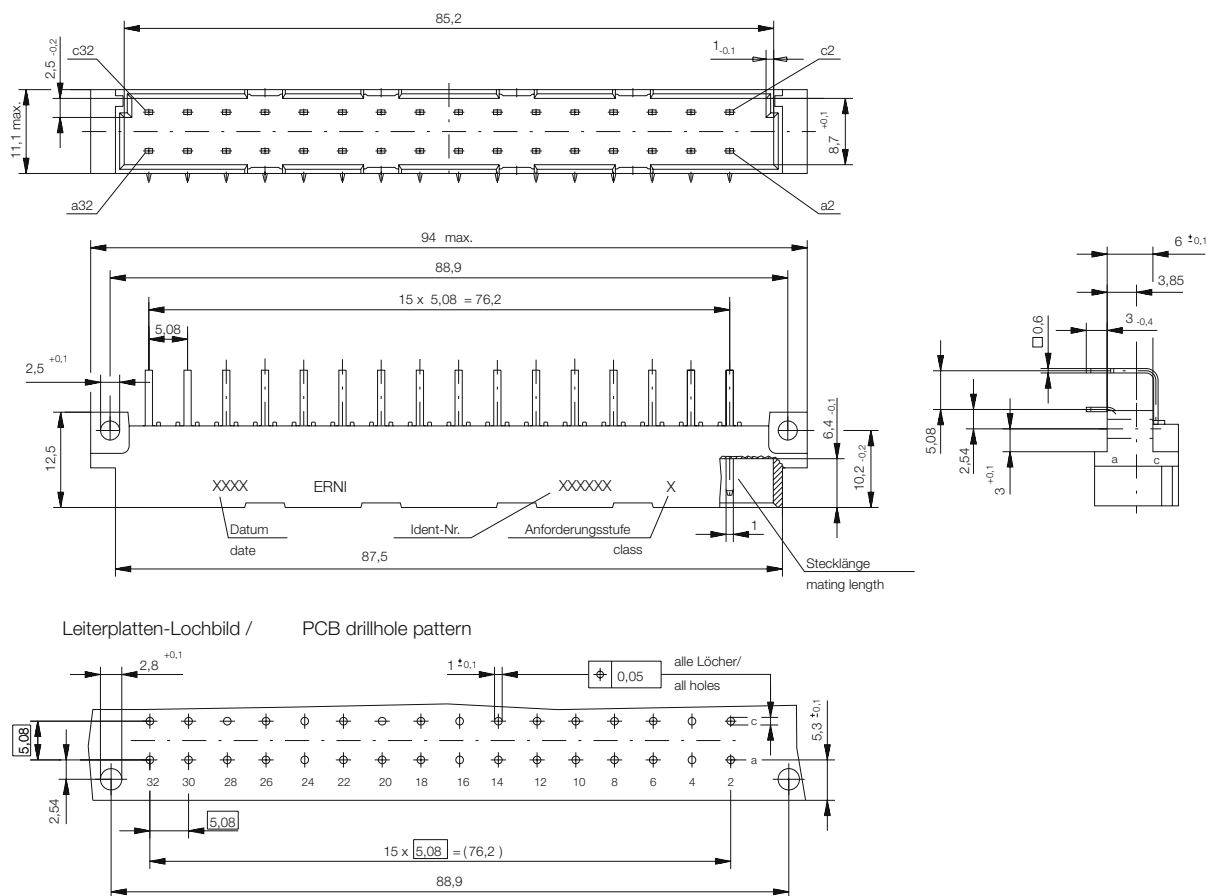
Eurocard Center Connector Female

Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
42	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	004289
42	Solder	4 mm	0.6 x 0.6 mm	2	–	004286



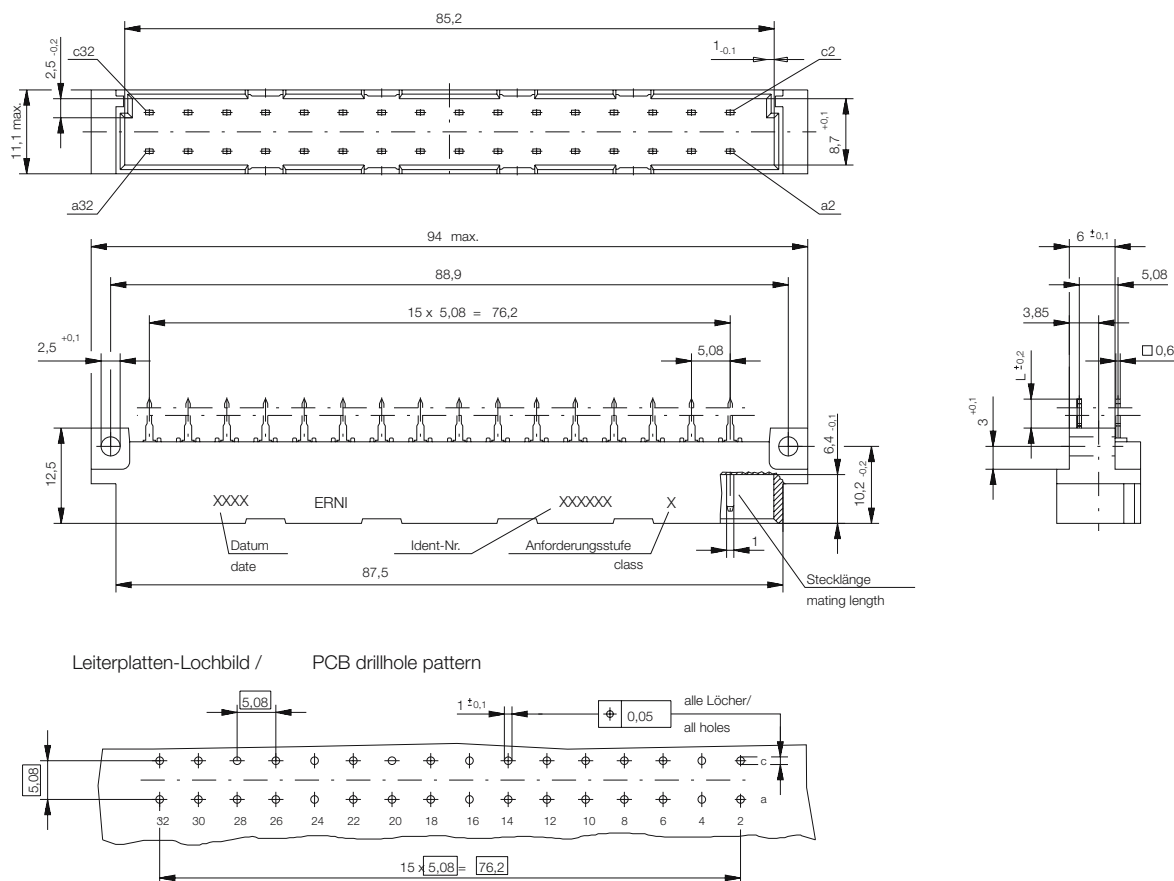
Dimensional Drawing Solder



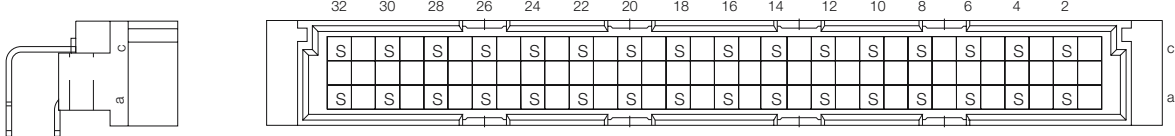
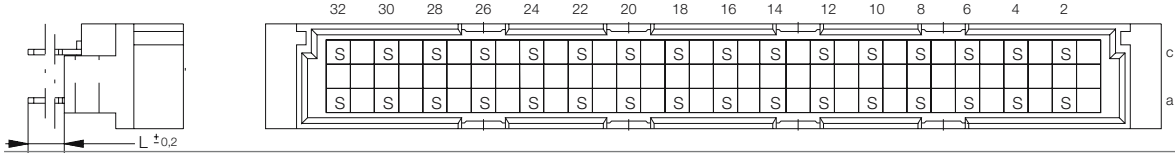
DIN 41612 / IEC 60603-2 Connectors Type D Male



Dimensional Drawing Solder



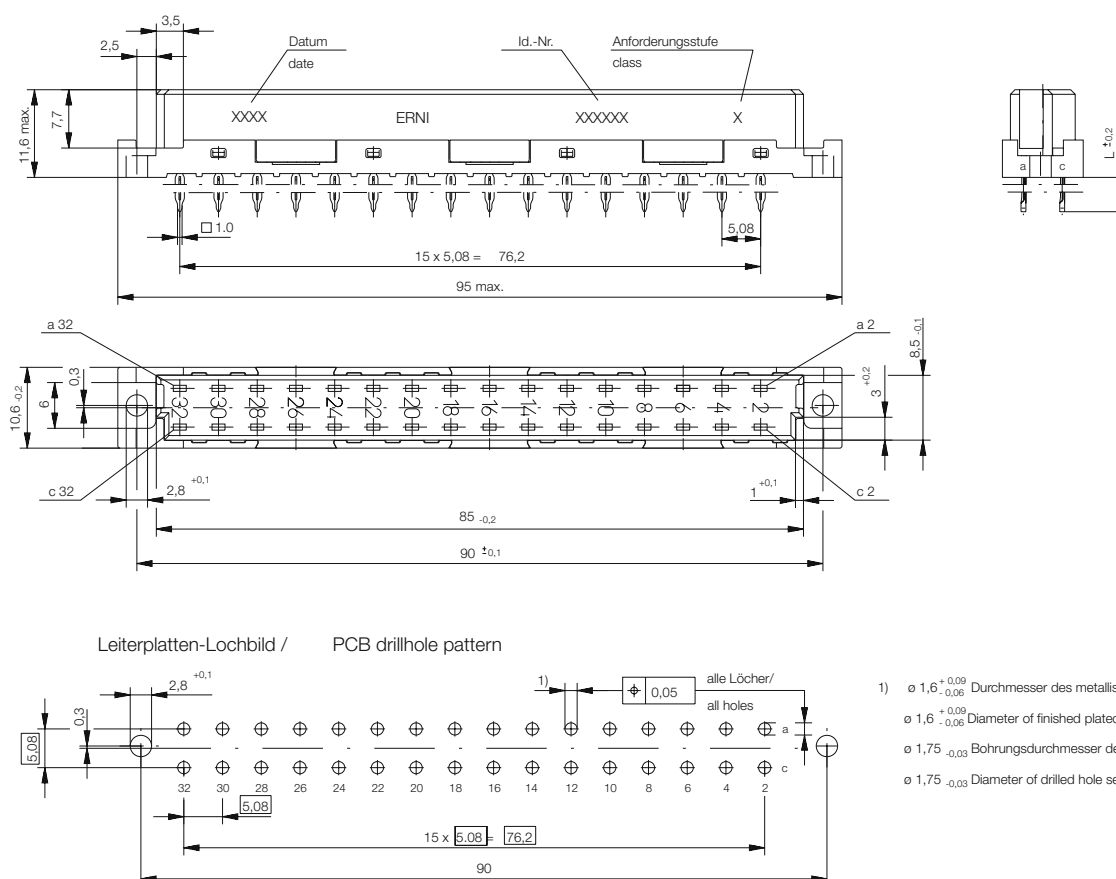
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Solder	3 mm	1.0 x 0.6 mm	1	—	533210
32	Solder	3 mm	1.0 x 0.6 mm	2	—	533410
						
32	Solder	3.8 mm	1.0 x 0.6 mm	2	—	594096

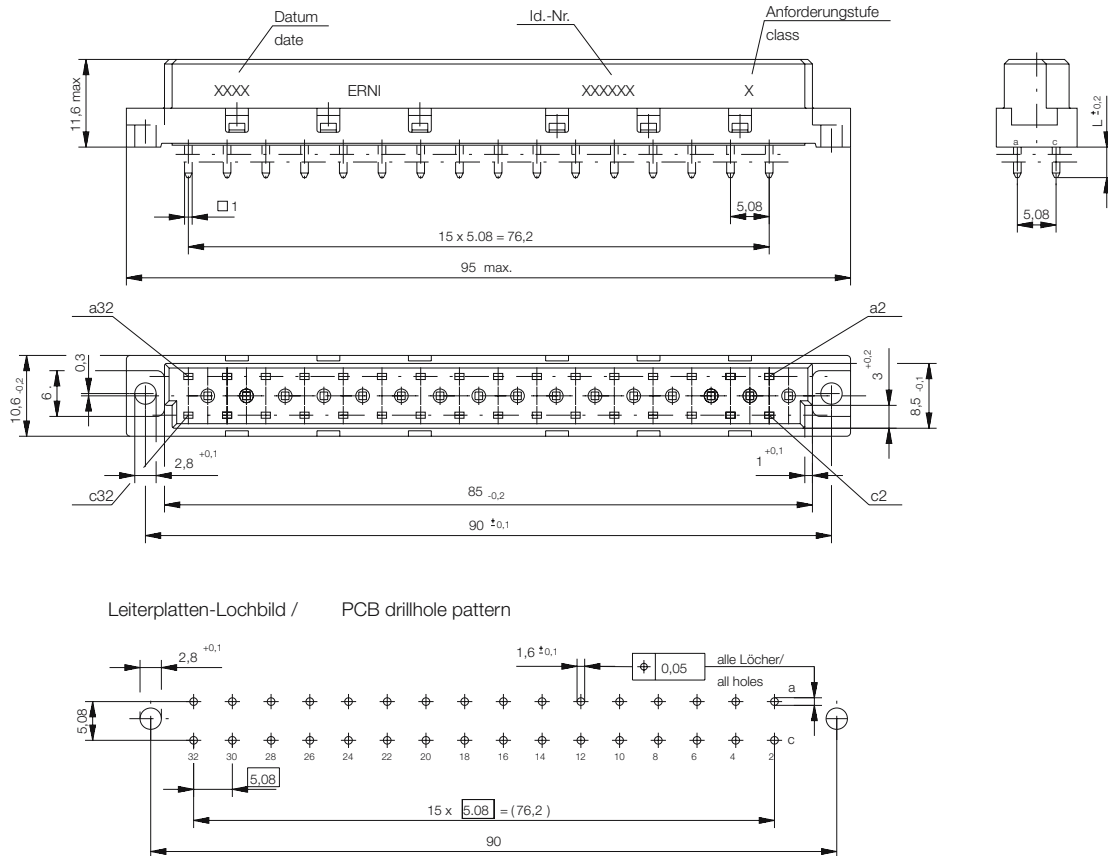
DIN 41612 / IEC 60603-2 Connectors Type D Female



Dimensional Drawing Pressfit



Dimensional Drawing Solder

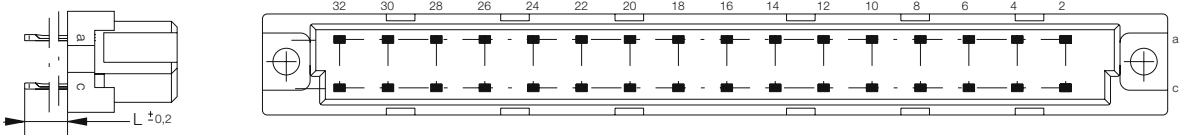


DIN 41612 / IEC 60603-2 Connectors

Type D Female

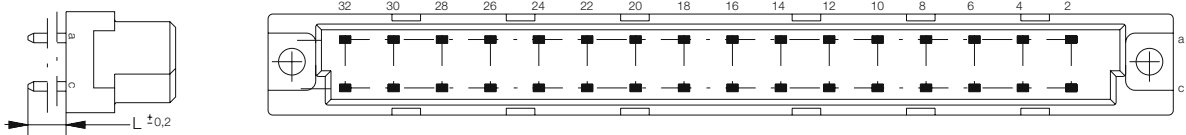


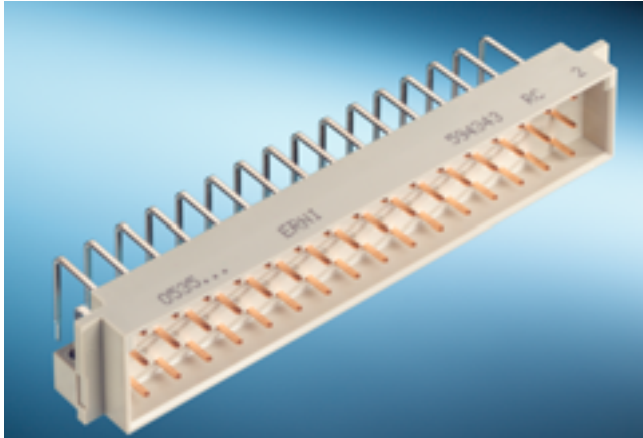
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Pressfit	4.5 mm	0.6 x 0.6 mm	2	3 mm	033427
32	Pressfit*	6 mm	1 x 1 mm	1	2.5 mm	424803
32	Pressfit*	6 mm	1 x 1 mm	2	2.5 mm	424804
32	Pressfit* w/o Flange	6 mm	1 x 1 mm	1	2.5 mm	004427
32	Pressfit*	13 mm	1 x 1 mm	1	2.5 mm	013025
32	Pressfit*	26 mm	1 x 1 mm	1	2.5 mm	424797
32	Pressfit*	26 mm	1 x 1 mm	2	2.5 mm	424798
32	Pressfit* w. Transfer Zone	26 mm	1 x 1 mm	2	2.5 mm	424801

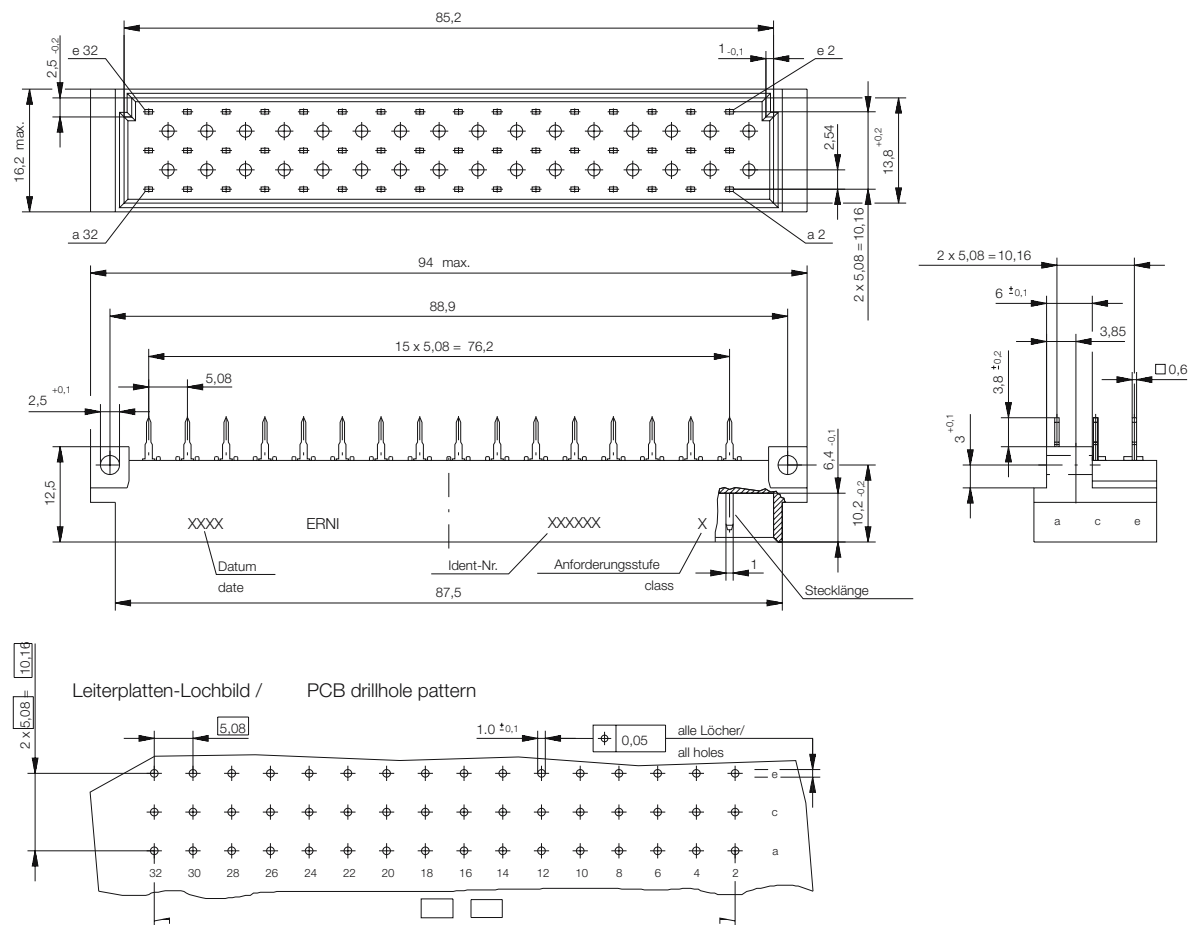
* For contact supporting press-in tool.

Ordering Information

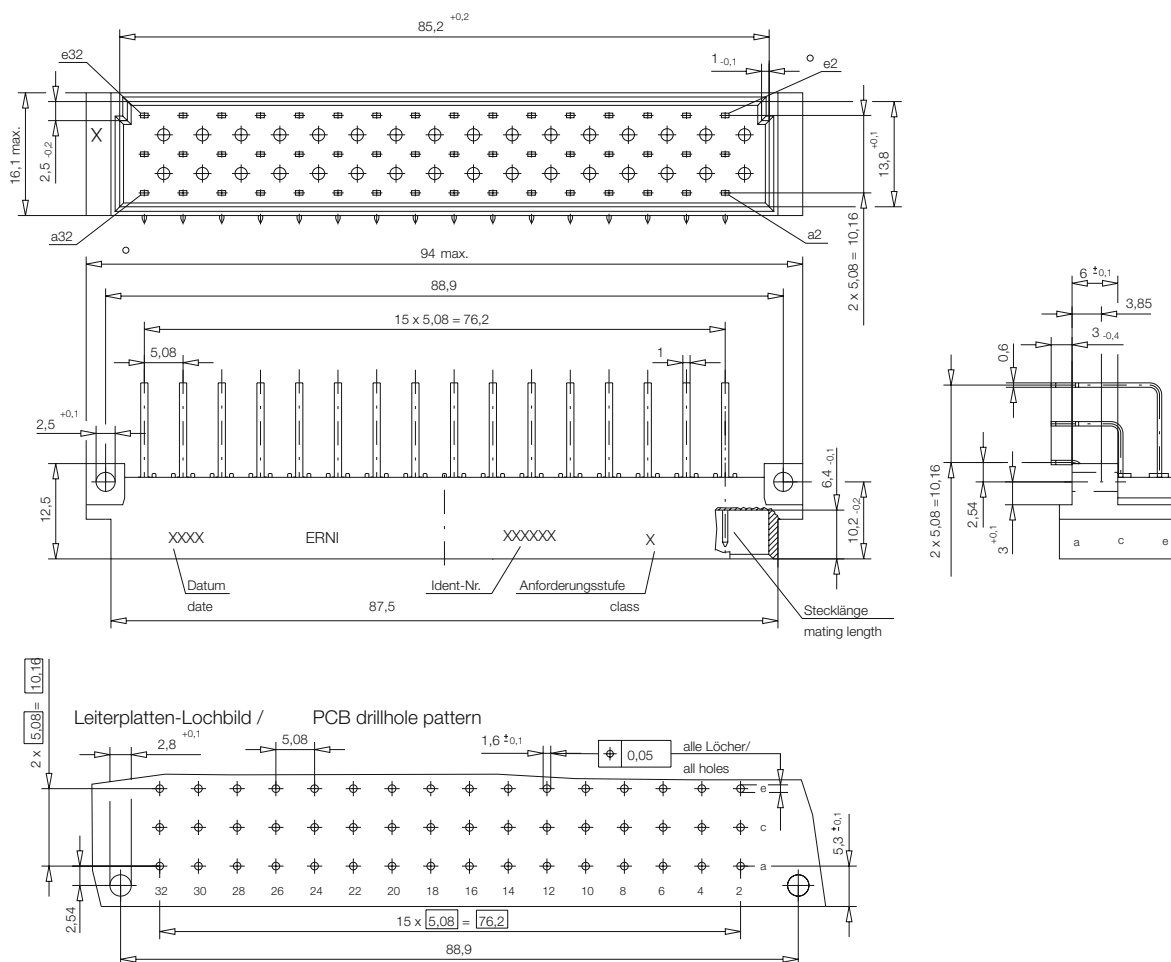
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Solder	4 mm	1 x 1 mm	1	—	594569
32	Solder	4 mm	1 x 1 mm	2	—	594570
32	Solder	4.5 mm	0.6 x 0.6 mm	2	—	033428
32	Solder	4.5 mm	1.2 x 0.6 mm	2	—	033579
32	Solder	20 mm	1 x 1 mm	1	—	594566
32	Solder	20 mm	1 x 1 mm	2	—	594567



Dimensional Drawing Solder



Dimensional Drawing Solder

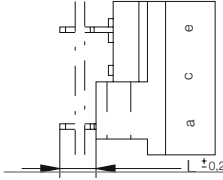
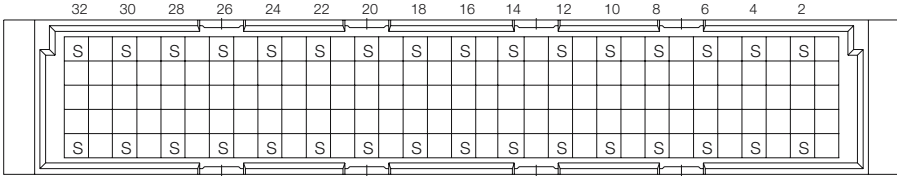
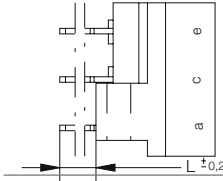
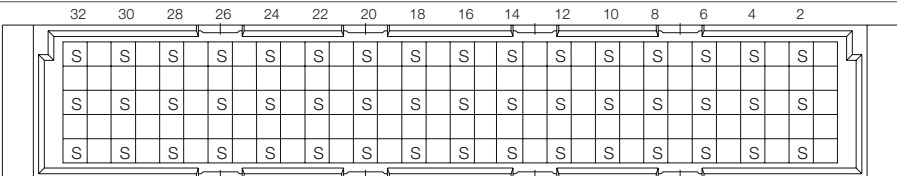
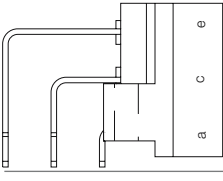
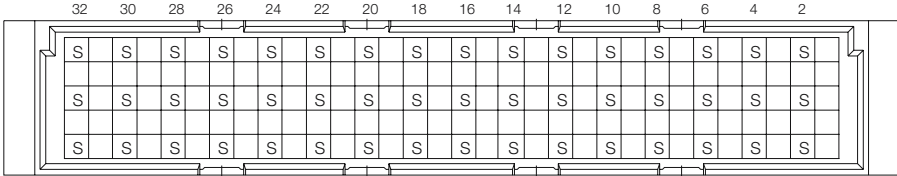


DIN 41612 / IEC 60603-2 Connectors

Type E Male

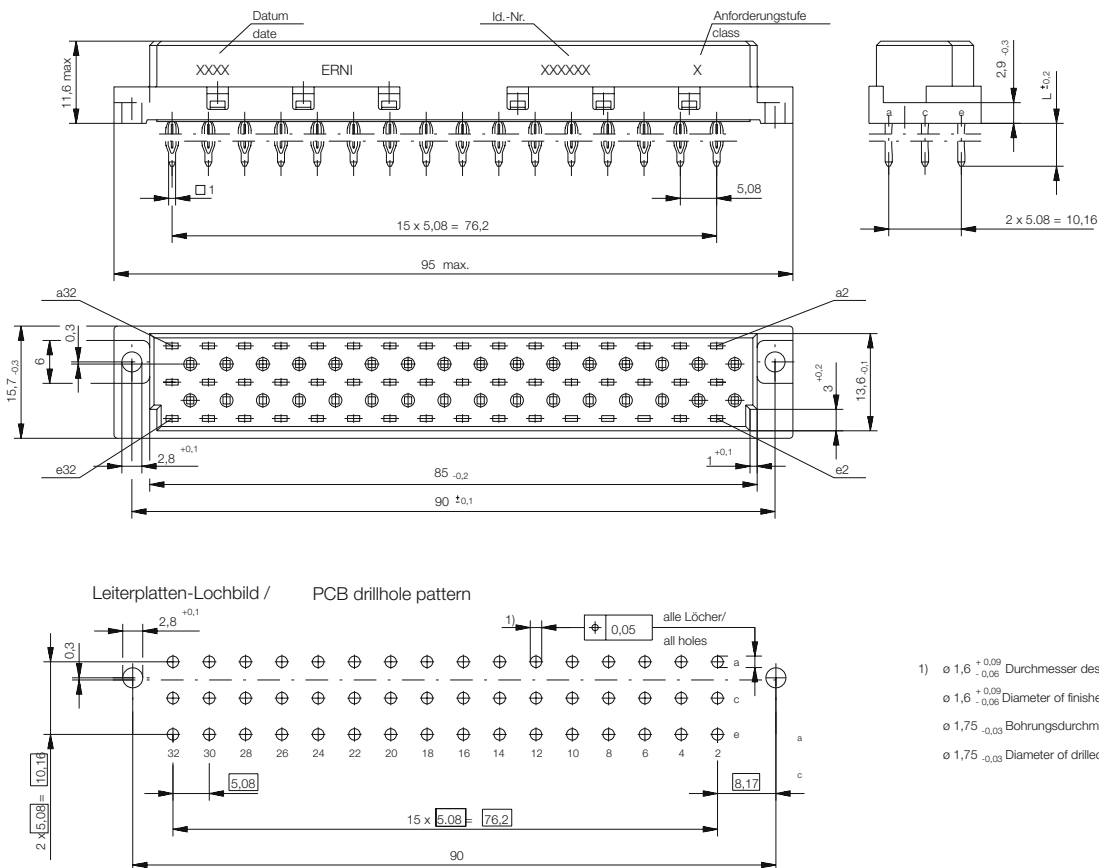


Ordering Information

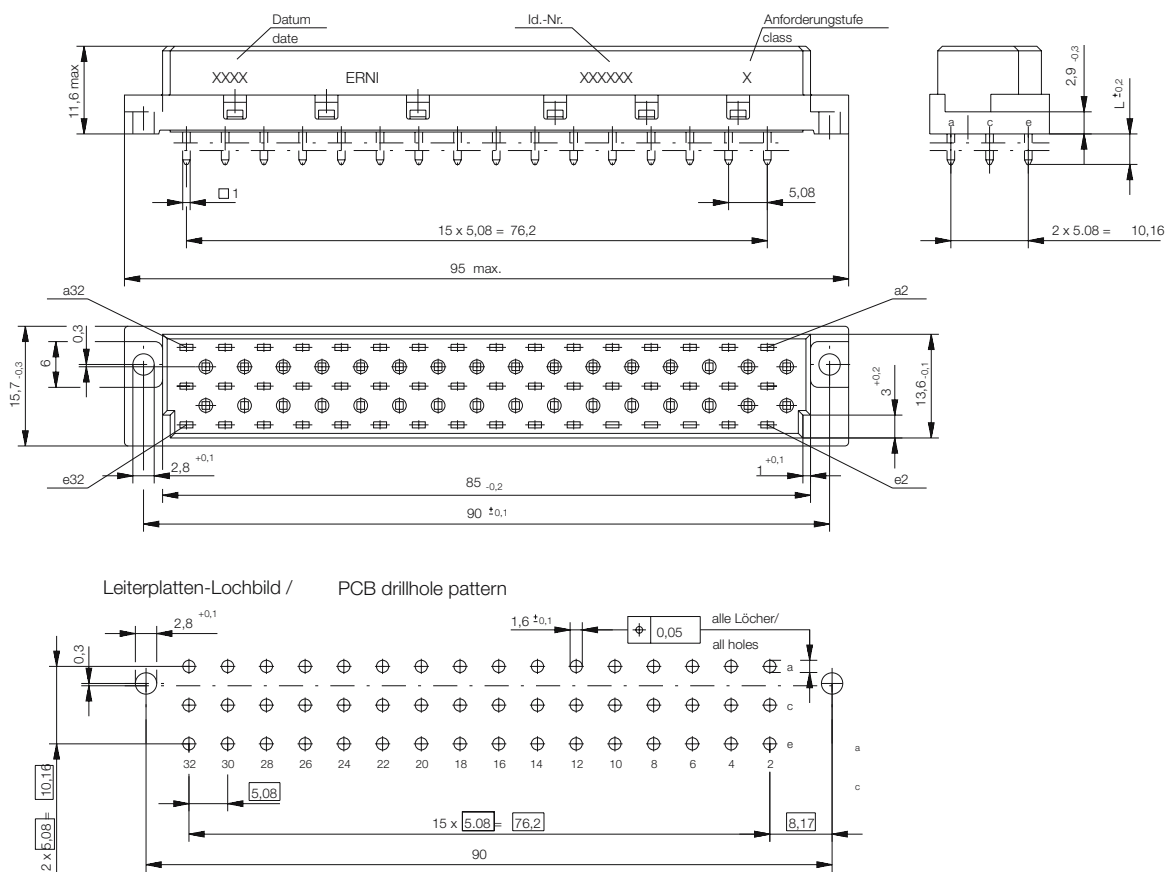
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Solder	3 mm		2	—	013414
	Solder	3.8 mm		2	—	063300
	Solder	3 mm		1	—	594802
48	Solder	3 mm	1.0 x 0.6 mm	2	—	594343



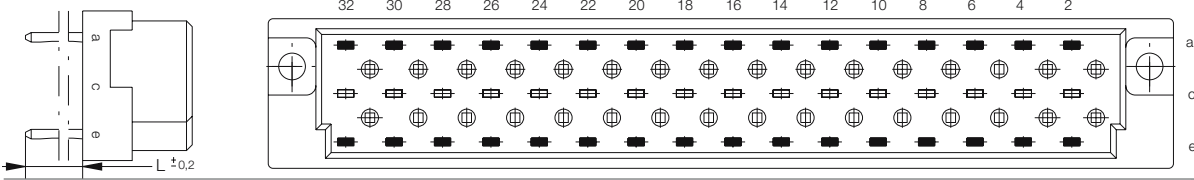
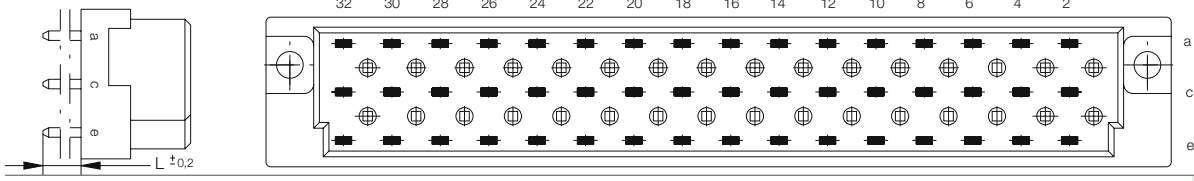
Dimensional Drawing Pressfit



Dimensional Drawing Solder



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
32	Pressfit*	6 mm	1 x 1 mm	2	2.5 mm	004177
						
48	Pressfit	4.5 mm	0.6 x 0.6 mm	2	3 mm	063465
48	Pressfit*	6 mm	1 x 1 mm	1	2.5 mm	424812
48	Pressfit*	6 mm	1 x 1 mm	2	2.5 mm	424813
48	Pressfit*	13 mm	1 x 1 mm	1	2.5 mm	013026
48	Pressfit w. Transfer Zone	13 mm	0.6 x 0.6 mm	2	2.5 mm	043064
48	Pressfit*	26 mm	1 x 1 mm	1	2.5 mm	424806
48	Pressfit*	26 mm	1 x 1 mm	2	2.5 mm	424807
48	Pressfit* w. Transfer Zone	26 mm	1 x 1 mm	2	2.5 mm	424810

* For contact supporting press-in tool.

DIN 41612 / IEC 60603-2 Connectors

Type E Female



Ordering Information

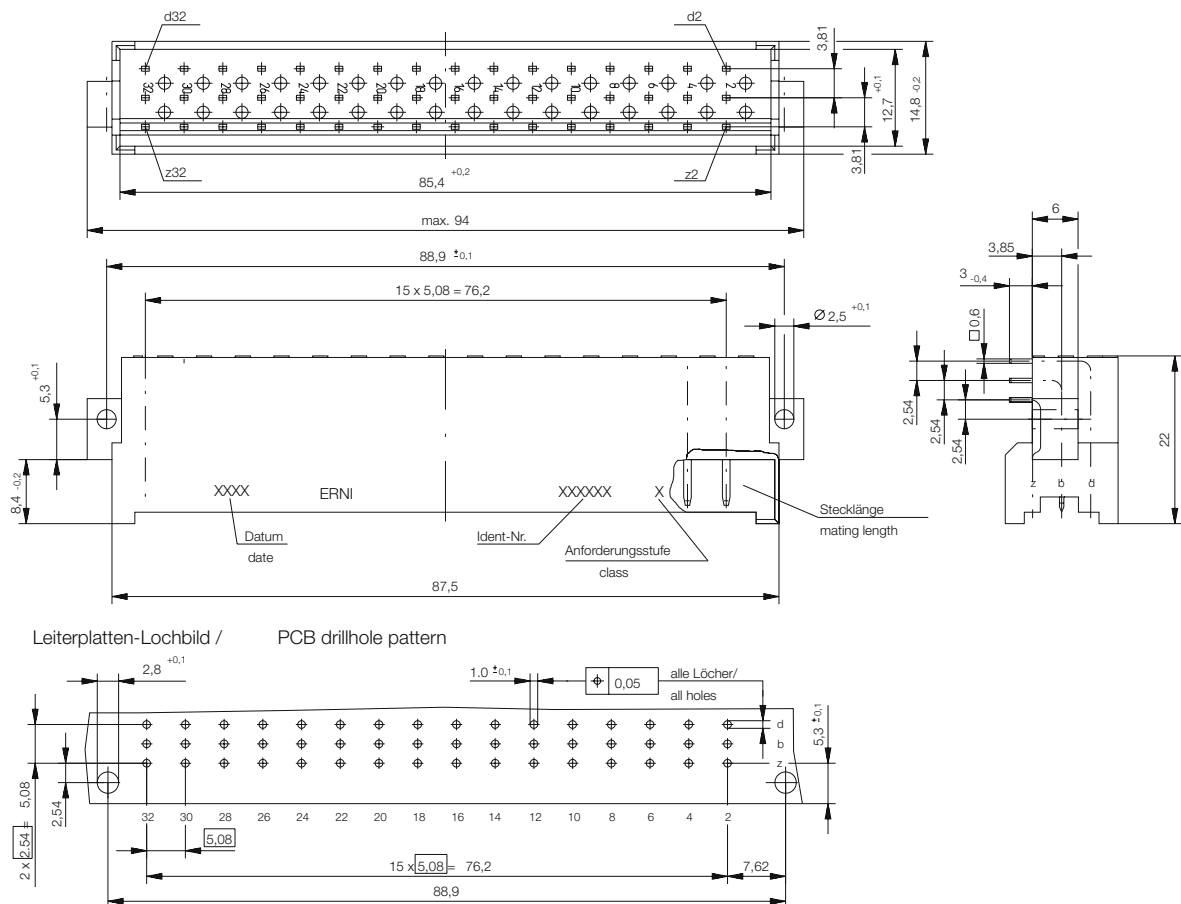
No. of Pins	Termination	Term. Length	Pin Dimensions																Class	Pressfit Zone	Part Number
			32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2			
			a	c	e																
32	Solder	4 mm	1 x 1 mm																2	—	013653

			32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2			
			a	c	e																
48	Solder	4 mm	1 x 1 mm																1	—	594578
48	Solder	4 mm	1 x 1 mm																2	—	594579
48	Solder	4.5 mm	0.6 x 0.6 mm																2	—	063048
48	Solder	4.5 mm	1.2 x 0.6 mm																2	—	063046
48	Solder	20 mm	1 x 1 mm																1	—	594575
48	Solder	20 mm	1 x 1 mm																2	—	594576
48	Solder w. Transfer Zone	26 mm	1 x 1 mm																2	—	003382

			32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2			
			a	c	e																
48	Solder	9 mm	0.8 x 2.4 mm																1	—	594880
48	Solder	8 mm	0.6 x 2.0 mm																2	—	063049



Dimensional Drawing Solder

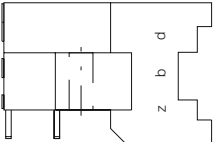
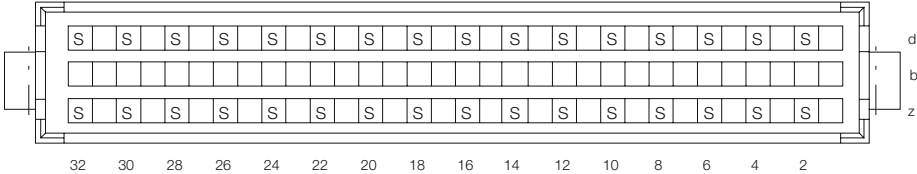
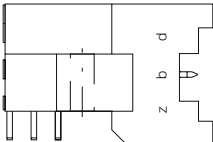
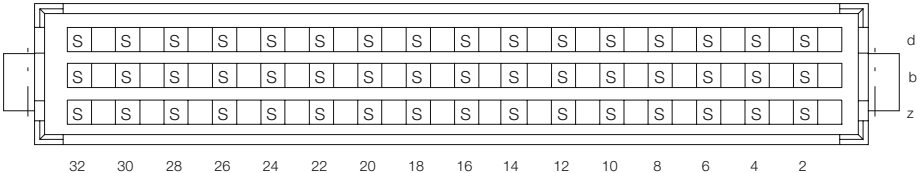


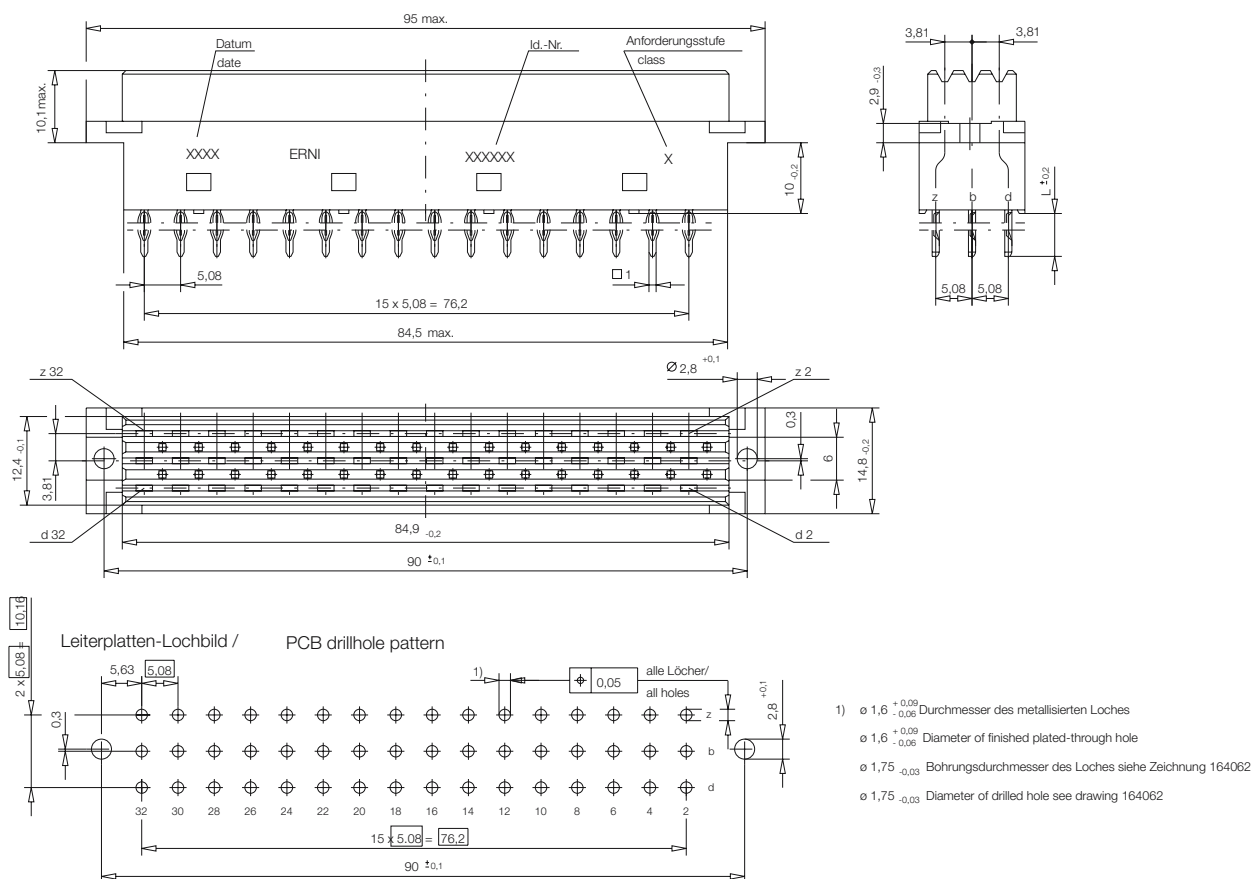
DIN 41612 / IEC 60603-2 Connectors

Type F Male

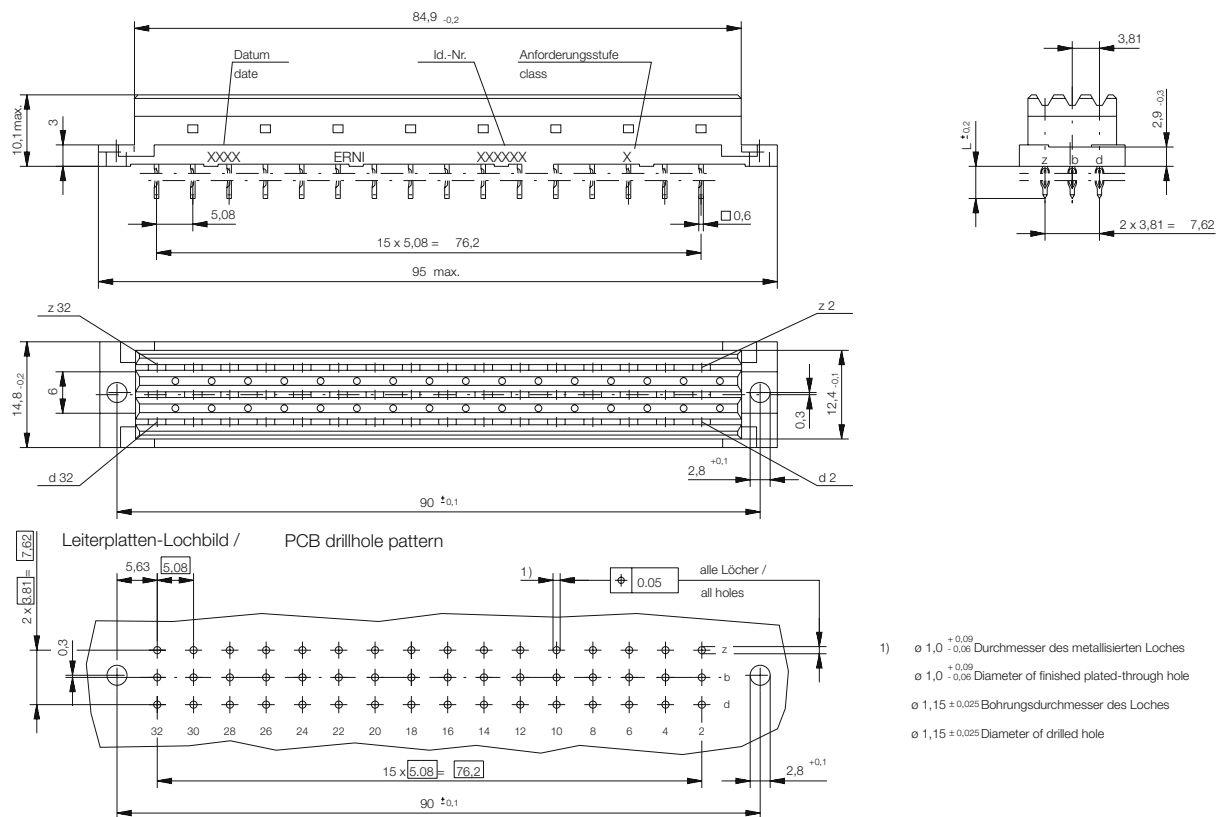


Ordering Information

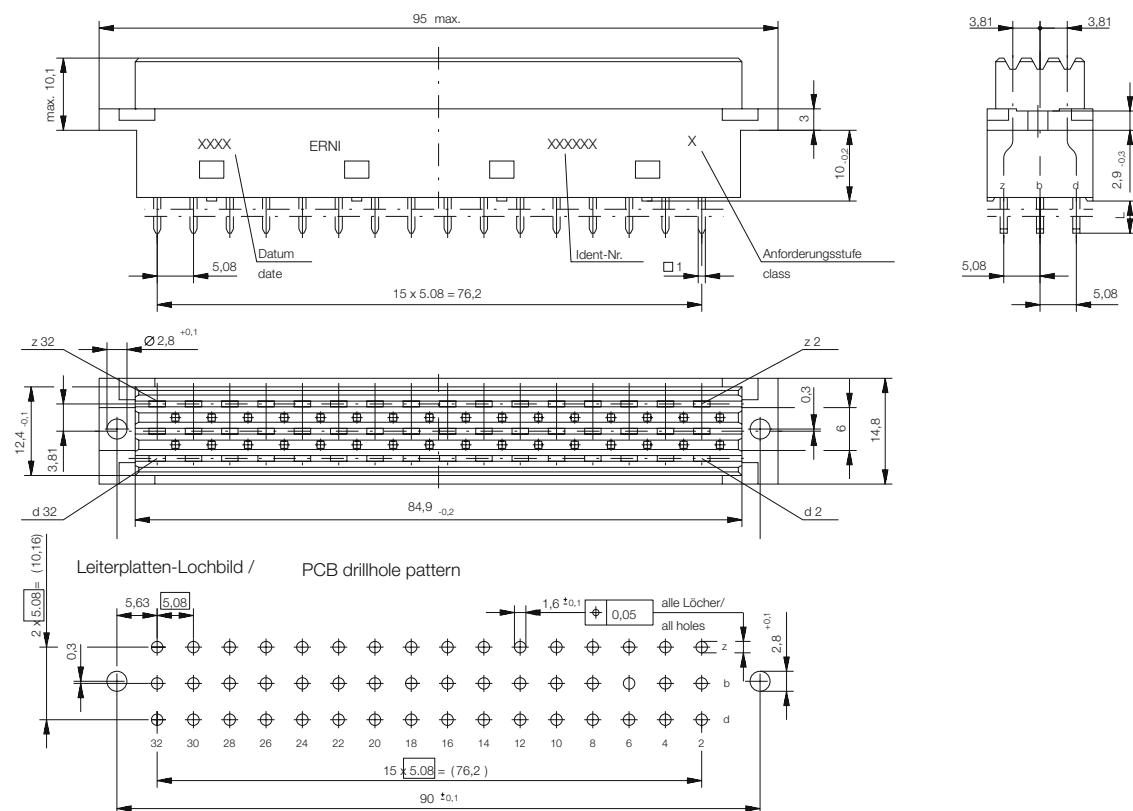
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
 						
32	Solder	3 mm	0.6 x 0.6 mm	1	–	303284
32	Solder	3 mm	0.6 x 0.6 mm	2	–	303484
 						
48	Solder	3 mm	0.6 x 0.6 mm	1	–	334203
48	Solder	3 mm	0.6 x 0.6 mm	2	–	334403



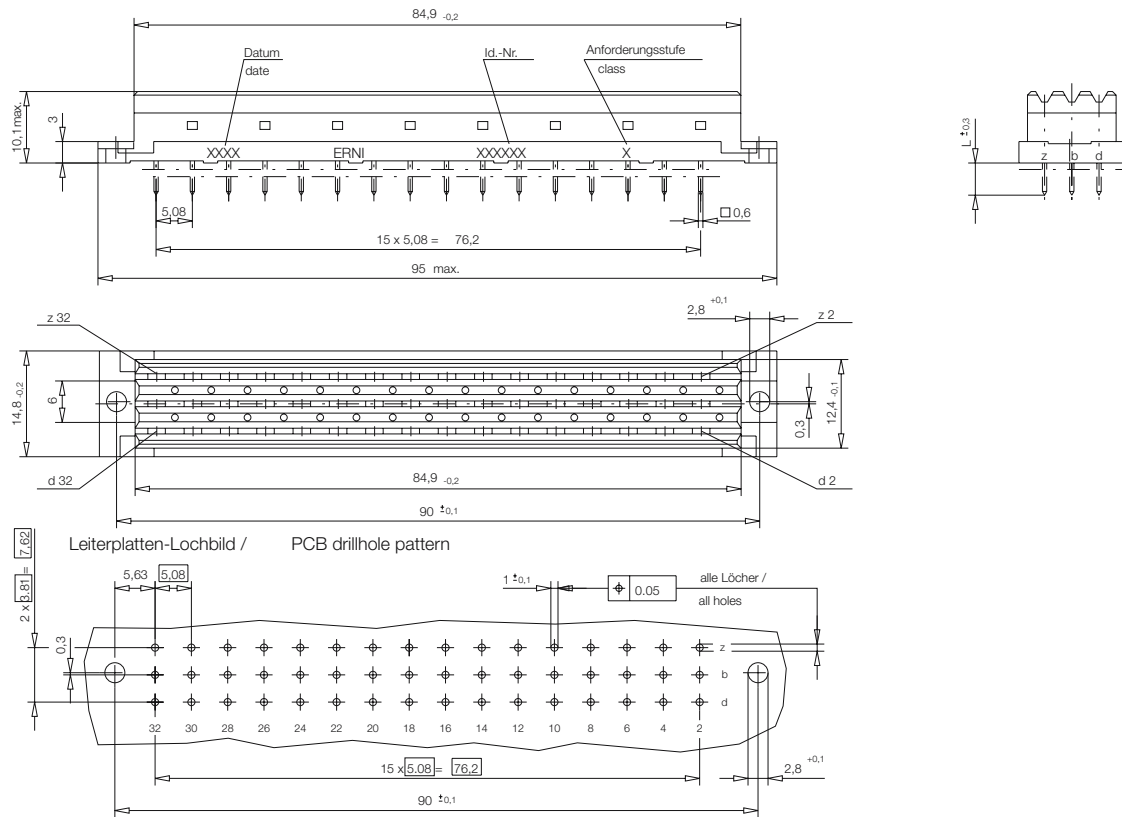
Dimensional Drawing Pressfit Type F flat



Dimensional Drawing Solder Type F



Dimensional Drawing Solder Type F flat



DIN 41612 / IEC 60603-2 Connectors

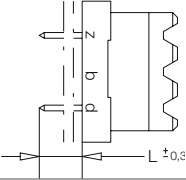
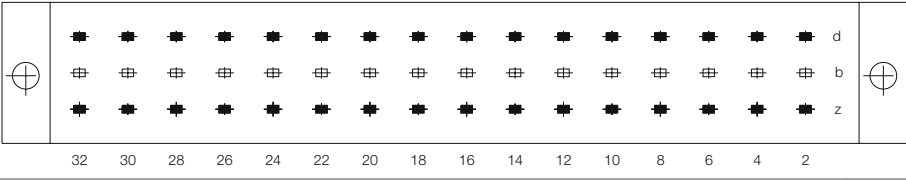
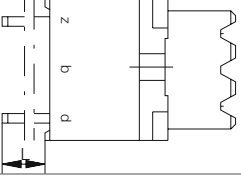
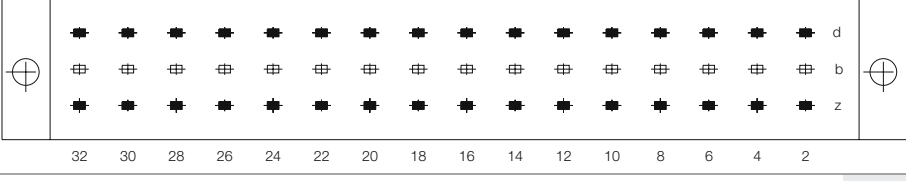
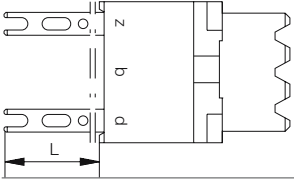
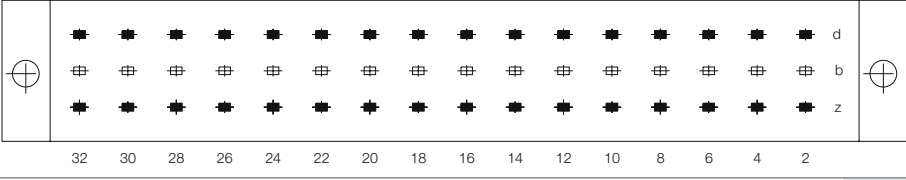
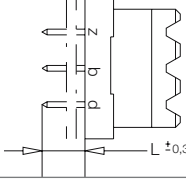
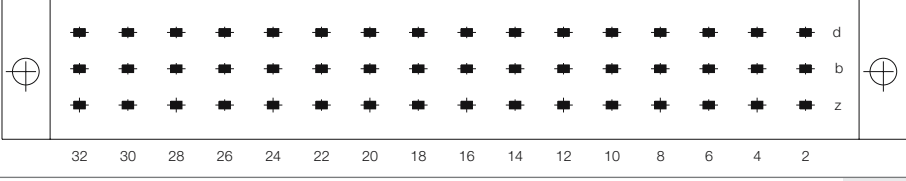
Type F Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Pressfit	4.5 mm		2	2 mm	063358
	Pressfit	4.5 mm		2	2 mm	054756
	Pressfit	6 mm		1	2.5 mm	013970
	Pressfit	6 mm		2	2.5 mm	594491
	Pressfit	22 mm		1	2.5 mm	593990
	Pressfit	22 mm		2	2.5 mm	593991

Ordering Information

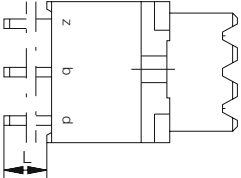
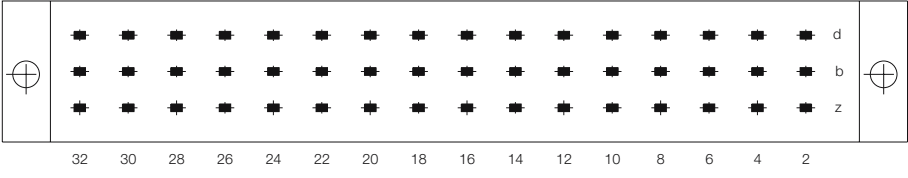
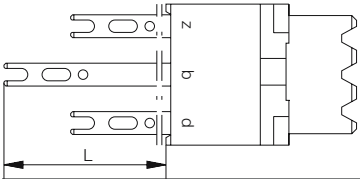
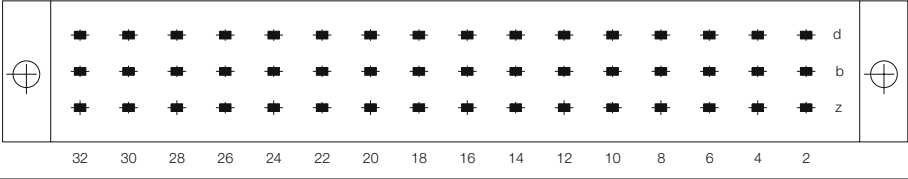
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Solder	4.5 mm		2	—	063357
	Solder	4.5 mm		2	—	314425
32	Solder	22 mm	1 x 1 mm	2	—	314404
	Solder	10 mm		1	—	314447
	Solder	4.5 mm		2	—	054755

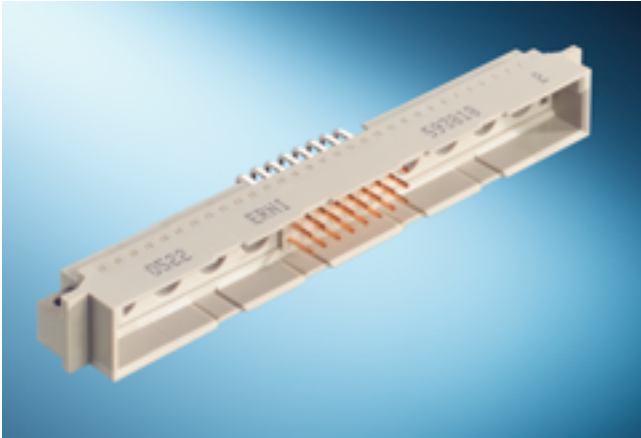
DIN 41612 / IEC 60603-2 Connectors

Type F Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
 						
48	Solder	4.5 mm	1 x 1 mm	1	—	344265
48	Solder	4.5 mm	1 x 1 mm	2	—	344465
48	Solder	22 mm	1 x 1 mm	1	—	344234
48	Solder	22 mm	1 x 1 mm	2	—	344434
 						
48	Solder	z, d = 10.0 mm	0.8 x 2.4 mm	1	—	344451

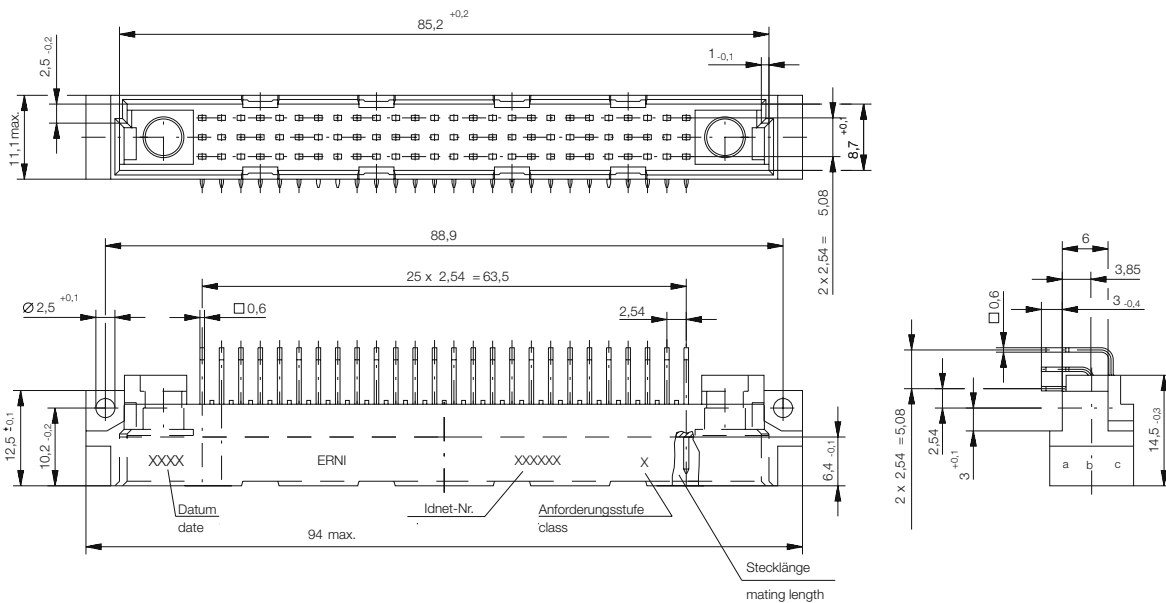


The Type M mixed connector series based on a 100" (2.54mm) pitch in accordance with the DIN41612/IEC 60603-2 specification. This series of connectors is designed to accommodate a variety of coaxial and high current contacts which are also used in other popular connector systems such as the 2mm Hard Metric Type M connectors.

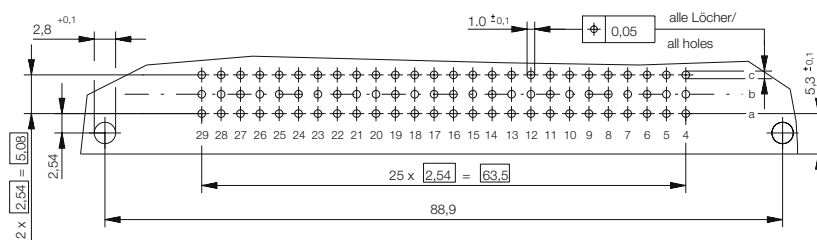
The male and female connectors have 2, 4, 6, 8 or 10 empty "cavities" to accommodate the special contacts.

The versatility of mixing both signal and either high current or coax contacts increases the usage of this connector in telecommunication and data processing applications.

Dimensional Drawing Solder



Leiterplatten-Lochbild / PCB drillhole pattern

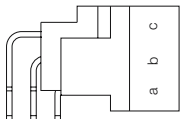
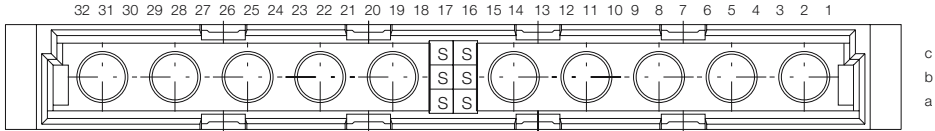
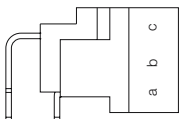
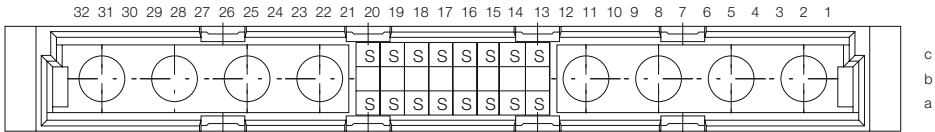
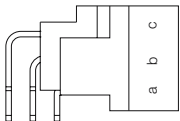
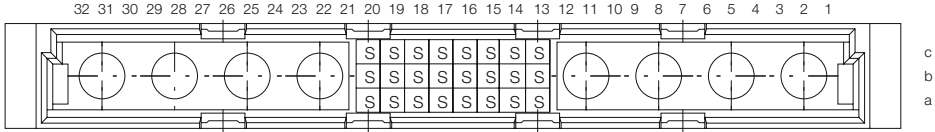
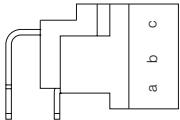
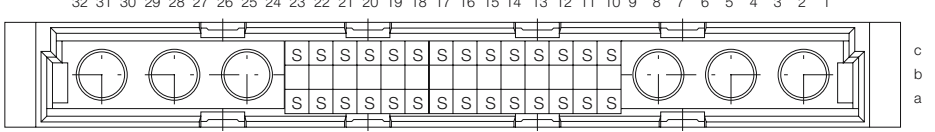
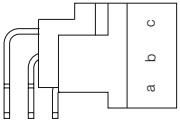
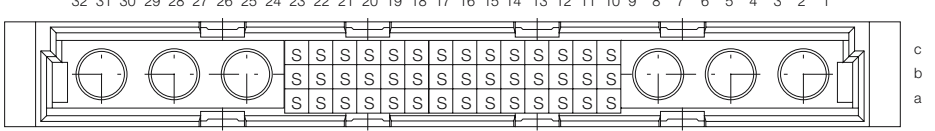


DIN 41612 / IEC 60603-2 Connectors

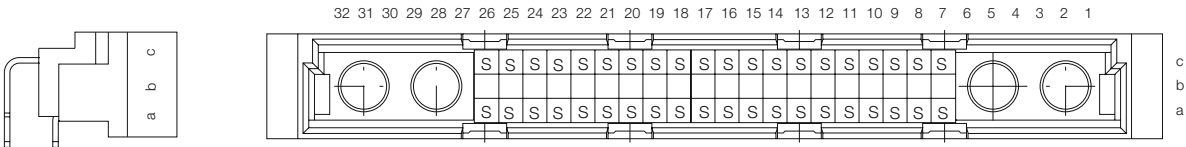
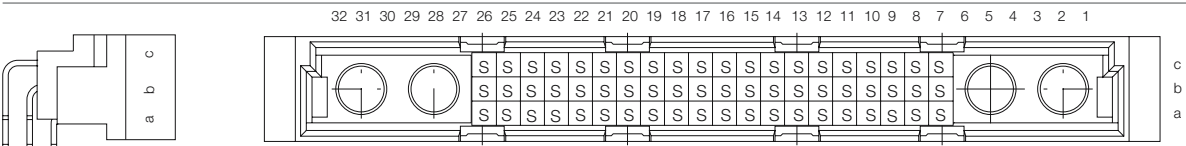
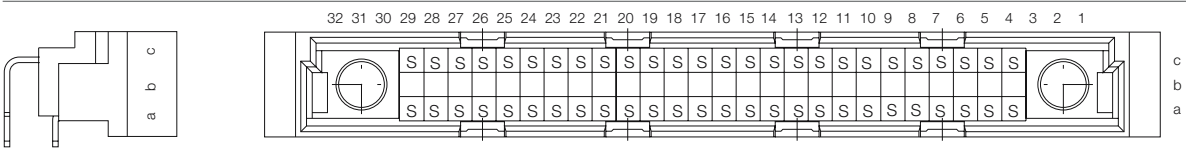
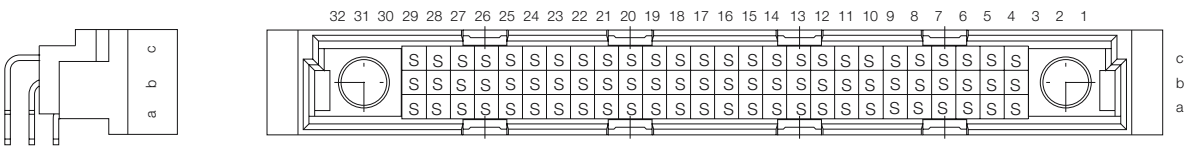
Type M Male



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	024201
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	594165
16-8	Solder	3 mm	0.6 x 0.6 mm	2	—	594166
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	593817
24-8	Solder	3 mm	0.6 x 0.6 mm	2	—	593818
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	594162
28-6	Solder	3 mm	0.6 x 0.6 mm	2	—	594163
						
	Solder	3 mm	0.6 x 0.6 mm	1	—	593814
42-6	Solder	3 mm	0.6 x 0.6 mm	2	—	593815

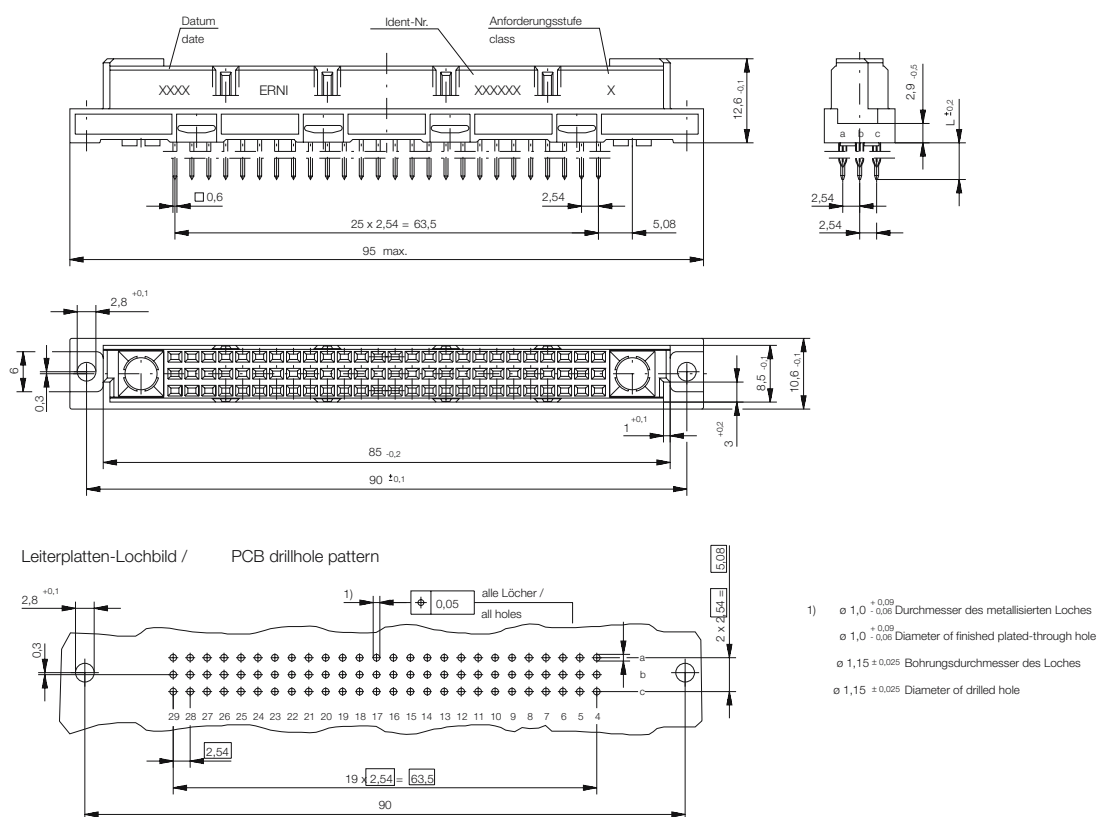
Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
40-4	Solder	3 mm	0.6 x 0.6 mm	1	—	594159
40-4	Solder	3 mm	0.6 x 0.6 mm	2	—	594160
						
60-4	Solder	3 mm	0.6 x 0.6 mm	1	—	593811
60-4	Solder	3 mm	0.6 x 0.6 mm	2	—	593812
						
52-2	Solder	3 mm	0.6 x 0.6 mm	2	—	594157
						
78-2	Solder	3 mm	0.6 x 0.6 mm	1	—	593808
78-2	Solder	3 mm	0.6 x 0.6 mm	2	—	593809

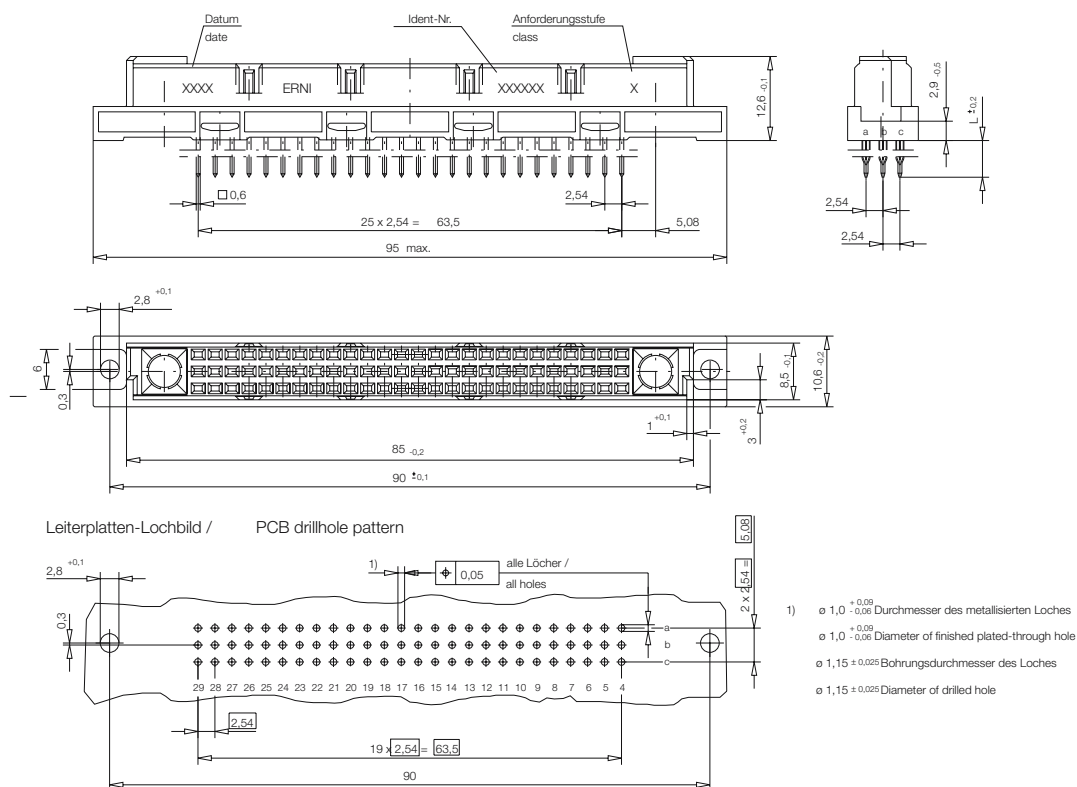
DIN 41612 / IEC 60603-2 Connectors Type M Female



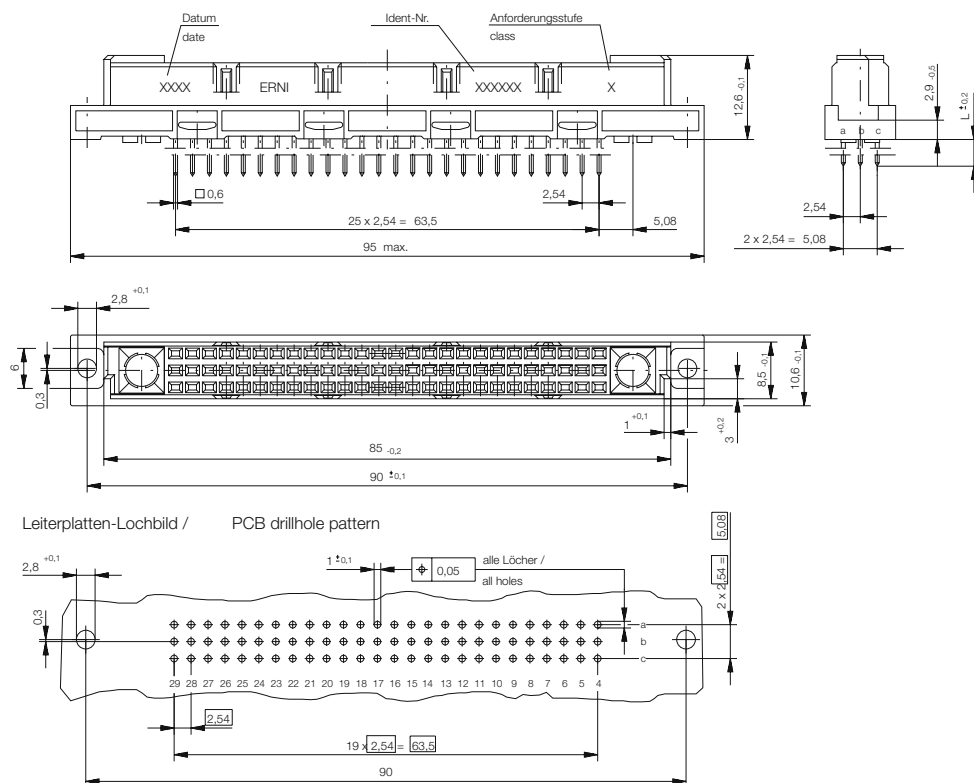
Dimensional Drawing Pressfit



Dimensional Drawing Pressfit Modified



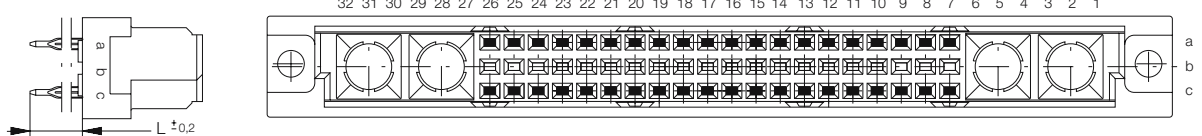
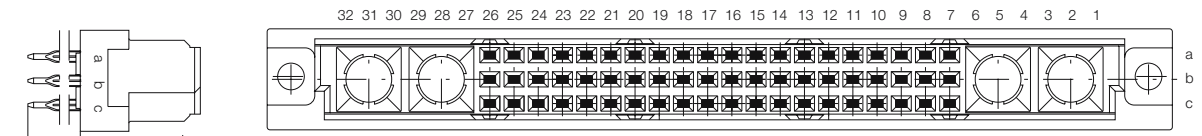
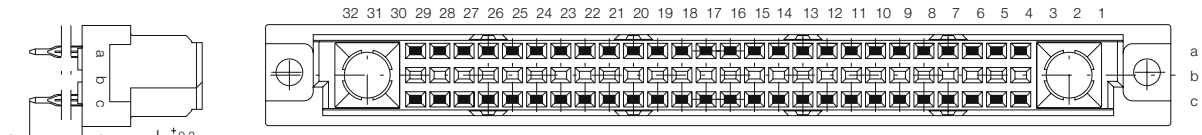
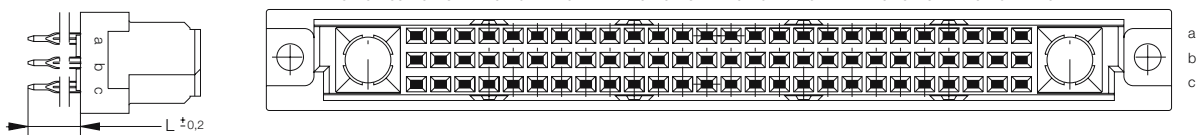
Dimensional Drawing Solder



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
6-10	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	023446
6-10	Pressfit	17 mm	0.6 x 0.6 mm	2	3 mm	023434
6-10	Pressfit Modified	5.5 mm	0.6 x 0.6 mm	2	3 mm	063569
24-8	Pressfit	5.5 mm	0.6 x 0.6 mm	1	3 mm	594805
24-8	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	593806
24-8	Pressfit	17 mm	0.6 x 0.6 mm	2	3 mm	593794
24-8	Pressfit Modified	5.5 mm	0.6 x 0.6 mm	2	3 mm	034789
28-6	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	594151
42-6	Pressfit	5.5 mm	0.6 x 0.6 mm	1	3 mm	593802
42-6	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	593803
42-6	Pressfit	17 mm	0.6 x 0.6 mm	2	3 mm	593791
42-6	Pressfit Modified	5.5 mm	0.6 x 0.6 mm	2	3 mm	043438

Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
40-4	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	594148
						
60-4	Pressfit	5.5 mm	0.6 x 0.6 mm	1	3 mm	593799
60-4	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	593800
60-4	Pressfit	17 mm	0.6 x 0.6 mm	1	3 mm	593787
60-4	Pressfit	17 mm	0.6 x 0.6 mm	2	3 mm	593788
60-4	Pressfit Modified	5.5 mm	0.6 x 0.6 mm	2	3 mm	034792
						
52-2	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	594145
						
78-2	Pressfit	5.5 mm	0.6 x 0.6 mm	2	3 mm	593797
78-2	Pressfit	17 mm	0.6 x 0.6 mm	1	3 mm	593784
78-2	Pressfit	17 mm	0.6 x 0.6 mm	2	3 mm	593785

DIN 41612 / IEC 60603-2 Connectors

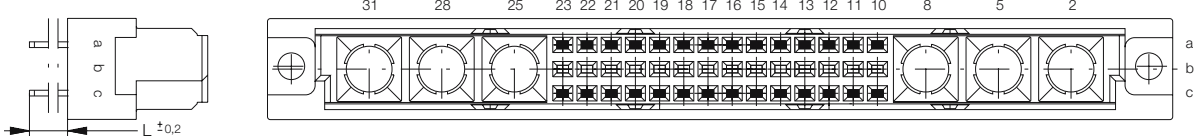
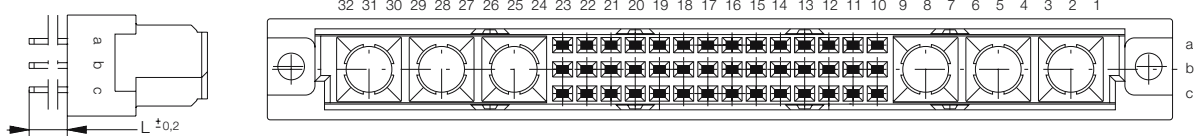
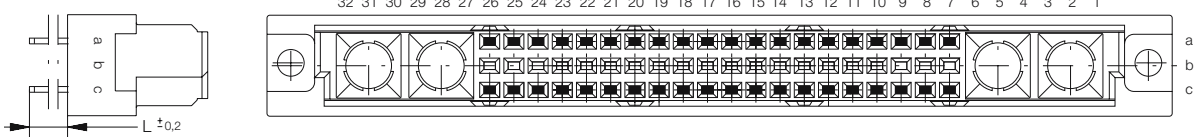
Type M Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
6-10	Solder	4 mm	0.6 x 0.6 mm	1	—	023632
6-10	Solder	13 mm	0.6 x 0.6 mm	1	—	024200
6-10	Solder	13 mm	0.6 x 0.6 mm	2	—	023631
16-8	Solder	4 mm	0.6 x 0.6 mm	1	—	594129
16-8	Solder	4 mm	0.6 x 0.6 mm	2	—	594130
16-8	Solder	13 mm	0.6 x 0.6 mm	2	—	594118
24-8	Solder	4 mm	0.6 x 0.6 mm	1	—	593781
24-8	Solder	4 mm	0.6 x 0.6 mm	2	—	593782
24-8	Solder	13 mm	0.6 x 0.6 mm	1	—	593769
24-8	Solder	13 mm	0.6 x 0.6 mm	2	—	593770

Ordering Information

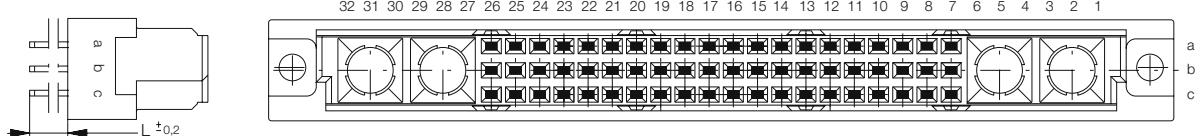
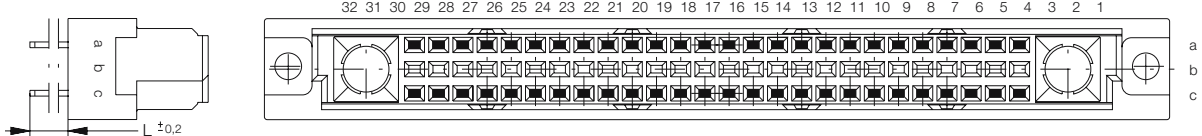
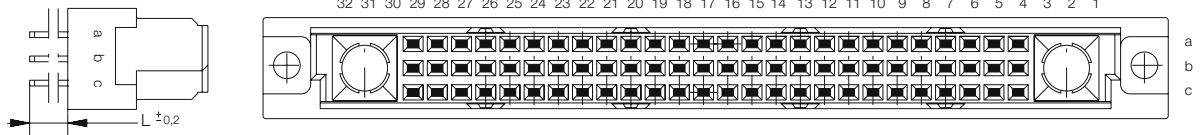
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
28-6	Solder	4 mm	0.6 x 0.6 mm	1	—	594126
28-6	Solder	4 mm	0.6 x 0.6 mm	2	—	594127
28-6	Solder	13 mm	0.6 x 0.6 mm	1	—	594114
28-6	Solder	13 mm	0.6 x 0.6 mm	2	—	594115
						
42-6	Solder	4 mm	0.6 x 0.6 mm	1	—	593778
42-6	Solder	4 mm	0.6 x 0.6 mm	2	—	593779
42-6	Solder	13 mm	0.6 x 0.6 mm	1	—	593766
42-6	Solder	13 mm	0.6 x 0.6 mm	2	—	593767
						
40-4	Solder	4 mm	0.6 x 0.6 mm	1	—	594123
40-4	Solder	4 mm	0.6 x 0.6 mm	2	—	594124
40-4	Solder	13 mm	0.6 x 0.6 mm	2	—	594112

DIN 41612 / IEC 60603-2 Connectors

Type M Female



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
60-4	Solder	4 mm	0.6 x 0.6 mm	1	—	593775
60-4	Solder	4 mm	0.6 x 0.6 mm	2	—	593776
60-4	Solder	13 mm	0.6 x 0.6 mm	1	—	593763
60-4	Solder	13 mm	0.6 x 0.6 mm	2	—	593764
						
52-2	Solder	4 mm	0.6 x 0.6 mm	2	—	594121
52-2	Solder	13 mm	0.6 x 0.6 mm	2	—	594109
						
78-2	Solder	4 mm	0.6 x 0.6 mm	1	—	593772
78-2	Solder	4 mm	0.6 x 0.6 mm	2	—	593773
78-2	Solder	13 mm	0.6 x 0.6 mm	1	—	593760
78-2	Solder	13 mm	0.6 x 0.6 mm	2	—	593761



DIN 41612 / IEC 60603-2 Connectors Special Contacts for Type M Male and Female

Special Contacts, Electrical and Mechanical Specifications

Coaxial Contacts		Standard
Technical Specifications		
Temperature Range	DIN EN 60068-1	-55/125 °C
Wave impedance		50 Ω and 75 Ω
Dielectric withstanding voltage 50 Hz	IEC 60512-2 Test 4a	750 V
Insulation resistance	IEC 60512-2 Test 3a	$\geq 10^{10} \Omega$
Volume resistance		
Inner conductor	DIN 41640-5 Test 2b	$\leq 6 \text{ m}\Omega$
Outer conductor		$\leq 3 \text{ m}\Omega$
Frequency range		max. 3 GHz
Reflection factor	DIN 47275-3	max. 0.05 to 1 GHz max. 0.07 to 4 GHz max. 0.10 to 10 GHz
Materials		
Outer Conductor		Cu Alloy
Female contact		Cu Be hardened
Insulation part		PTFE
Crimp Sleeve		Cu

PERFORMANCE CLASSES

Class 1 Meets the requirements of DIN 41626. Internal conductor and external conductor gold-plated. Performance class 1 ≥ 500 mating cycles. Class 2 As per performance class 1 but performance class 2 ≥ 400 mating cycles.

High Current Contacts		Standard
Technical Specifications		
Temperature Range	DIN EN 60068-1	-55/125 °C
Current-Carrying Capacity	DIN 41640-3 Test 5b	30 A at 70° C
Dielectric withstanding voltage 50 Hz	IEC 60512-2 Test 4a	2500 V
Volume resistance	DIN 41640-5 Test 2b	$\leq 1 \text{ m}\Omega$
Materials		
Male Contact		Cu Alloy
Female Contact		Cu Be hardened

PERFORMANCE CLASSES

Class 1 Meets the requirements of DIN 41626. Contacts are gold-plated. Performance class 1 ≥ 500 mating cycles. Class 2 As per performance class 1 but performance class 2 ≥ 400 mating cycles.

DIN 41612 / IEC 60603-2 Connectors

Special Contacts for Type M Male and Female



These special contacts, available in both Coax and High Current are inserted into the empty cavities provided in the Type M connector. The special contacts must be ordered separately as they are typically crimped or soldered onto the cable before insertion into the connector housing.

The coax contacts are available in 50 and 75 Ω in both right angle and straight configurations. ERNI offers contacts that can be crimped or soldered to cable or even soldered directly onto the PC board.

The high current contacts are available for 10, 20 and 40 amps. They can be soldered directly to the board or soldered or crimped to cable. Again, they are offered in both right angle or straight. Special high current versions are also available to assemble into the board. The pressfit contacts are designed to be used with the modified female connectors and to sit flush on the board.

Both the coax and high current contacts are simply snapped into the housing. No special tooling is required for insertion with the exception of the pressfit high current contact. A pressfit tool is required to press the entire assembly with the power contact into the board. An extraction tool is available if it would become necessary to remove any one of the special contacts.

Coaxial Male Contacts For DIN Backplane Connectors

Part-No.	RATING	CLASS	DESCRIPTION	CABLE	
053400	50 ohm	1	Straight, double braided	RG316 DB	
594213	50 ohm	1	Straight	RG174/U, RG188A/U, RG316/U	
053408	75 ohm	1	Straight	RG179B/U, RG187A/U	
594215	50 ohm	1	Right Angle	RG174/U, RG188A/U, RG316/U	
913549	50 ohm	2	Right Angle for .125" panel	RG174/U, RG188A/U, RG316/U	
064757	50 ohm	1	Right Angle, thick back-plane, double braided	RG316 DB	
064312*	50 ohm	2	Straight, 3 leg (sits flush on PCB)	PCB	

* To be used with Modified Female Connector Housings Type M.

Coaxial Female Contacts For DIN Daughter Card Connectors

Part-No.	RATING	CLASS	DESCRIPTION	CABLE	
053395	50 ohm	1	Straight, double braided	RG316 DB	
594207	50 ohm	1	Straight	RG174/U, RG188A/U, RG316/U	
053410	75 ohm	1	Straight	RG179B/U, RG187A/U	
594209	50 ohm	1	Right Angle	RG174/U, RG188A/U, RG316/U	
053412	70 ohm	1	Right Angle	RG179B/U, RG 187A/U	
594211	50 ohm	1	Right Angle, 5 leg	PCB	
123211	75 ohm	1	Right Angle, 5 leg	PCB	



DIN 41612 / IEC 60603-2 Connectors Special Contacts for Type M Male and Female

High Current Female Contacts For DIN Backplane Connectors

Part-No.	RATING	CLASS	DESCRIPTION	CABLE	
594172	10 amp	1	Solder	Awg 16-20	
594174	20 amp	1	Solder	Awg 12-16	
594176	40 amp	1	Solder	Awg 8-12	
594178	10 amp	1	Crimp	Awg 16-20	
594180	20 amp	1	Crimp	Awg 12-16	
594182	40 amp	1	Crimp	Awg 8-12	
913637	40 amp	2	Straight, 1 leg, 5.5 mm diameter	PCB	

Pressfit High Current Contacts For DIN Backplane Connectors

Part-No.	RATING	CLASS	Description	Plated PCB Hole Diameter	Drilled PCB Hole Diameter
034190	20 amp	2	Straight, FD	3.0 +.04 / - .06	3.1 + 0 / - .03
044639*	40 amp	2	Straight, Pressfit	3.5 +.04 / - .06	3.6 + 0 / - .03

* To be used with Modified Female Connector Housings Type M.

High Current Male Contacts For DIN Daughter Card Connectors

Part-No.	RATING	CLASS	DESCRIPTION	CABLE	
594221	10 amp	1	Solder	Awg 16-20	
594223	20 amp	1	Solder	Awg 12-16	
594225	40 amp	1	Solder	Awg 8-12	
594227	10 amp	1	Crimp	Awg 16-20	
594229	20 amp	1	Crimp	Awg 12-16	
594231	40 amp	1	Crimp	Awg 8-12	
594170	10 amp	1	Right Angle, 1 leg	PCB	
594168	40 amp	1	Right Angle, 4 leg, .200" sq. FTPT	PCB	
913716	40 amp	2	Right Angle, 4 leg, EMLB	PCB	

Additional High Current contacts in Performance Class 2 on request

DIN 41612 / IEC 60603-2 Connectors

Special Contacts for Type M Male and Female



Tooling

High Current Contacts

Hand tool for crimp contacts
Contact Locator

Part-No. **594184**
Part-No. **914004**



Coaxial Contacts

Hand tools for crimp contacts
Insert for crimping tools

Part-No. **594219**
Part-No. **594220**



Extraction Tool For Coaxial And High Current Contacts

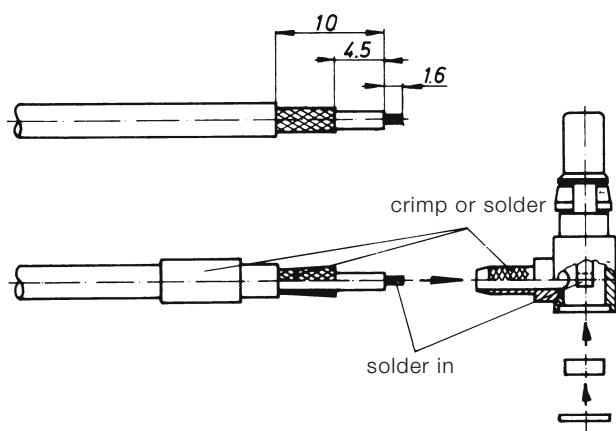
For replacing special contacts in
male or female connectors
Replacement inserts for press-out tool

Part-No. **594233**
Part-No. **433222**

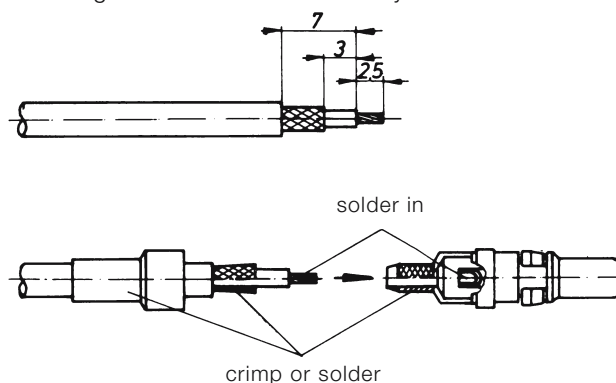


Assembly Instructions For Cable Connections

For Angled Coaxial Contact Assembly

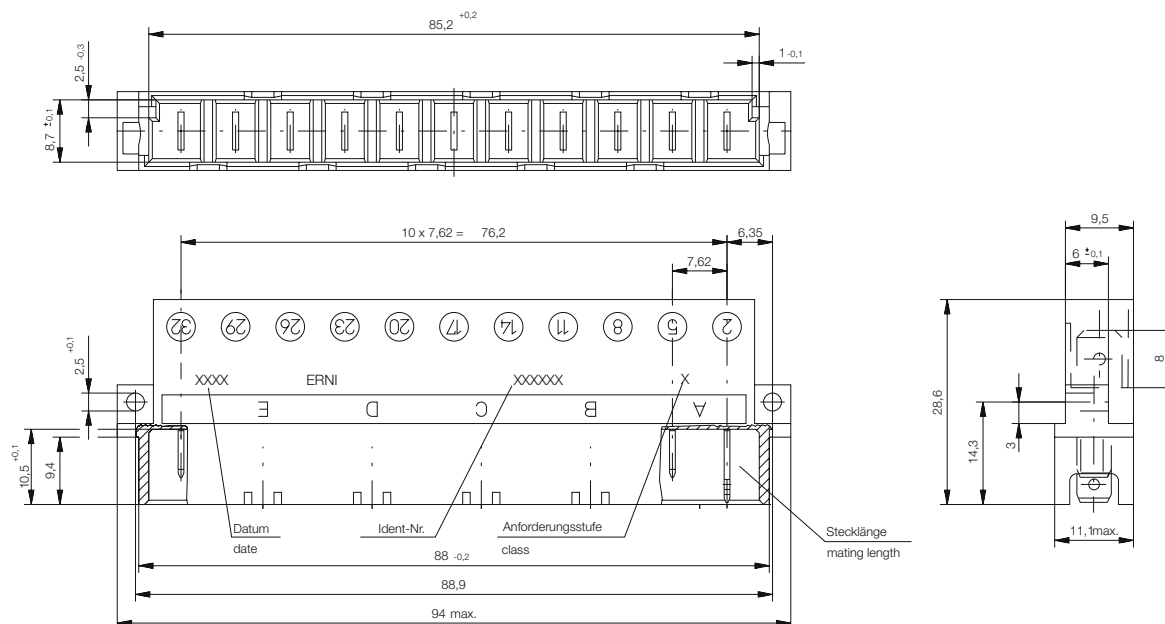


For Straight Coaxial Contact Assembly

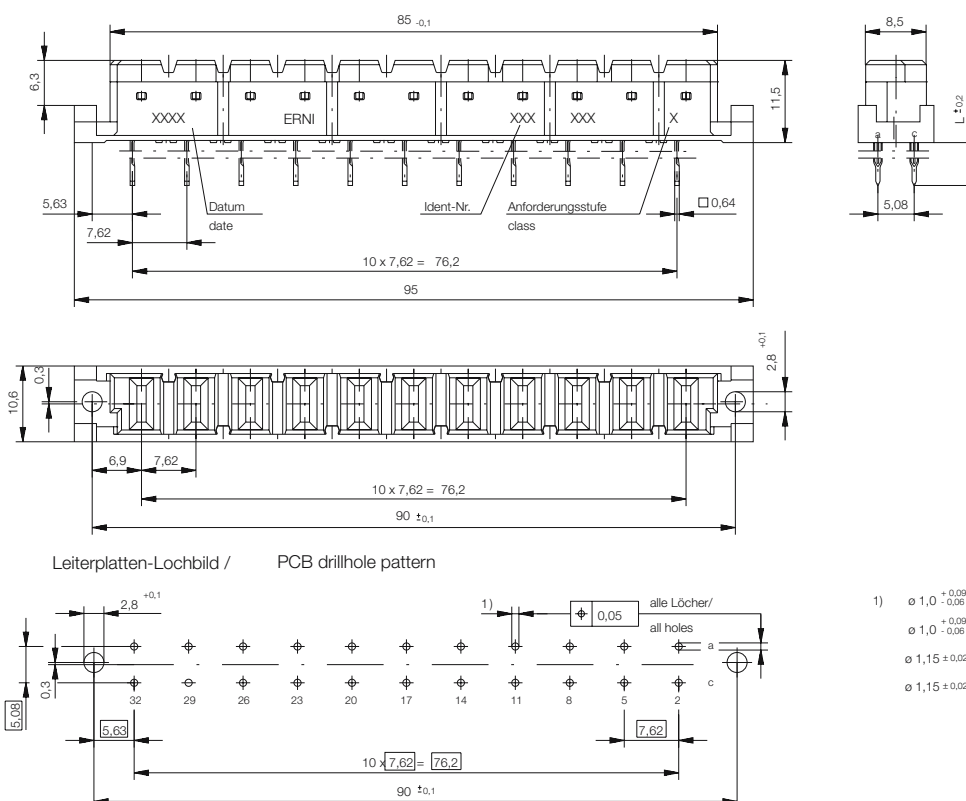




Dimensional Drawing Faston Male

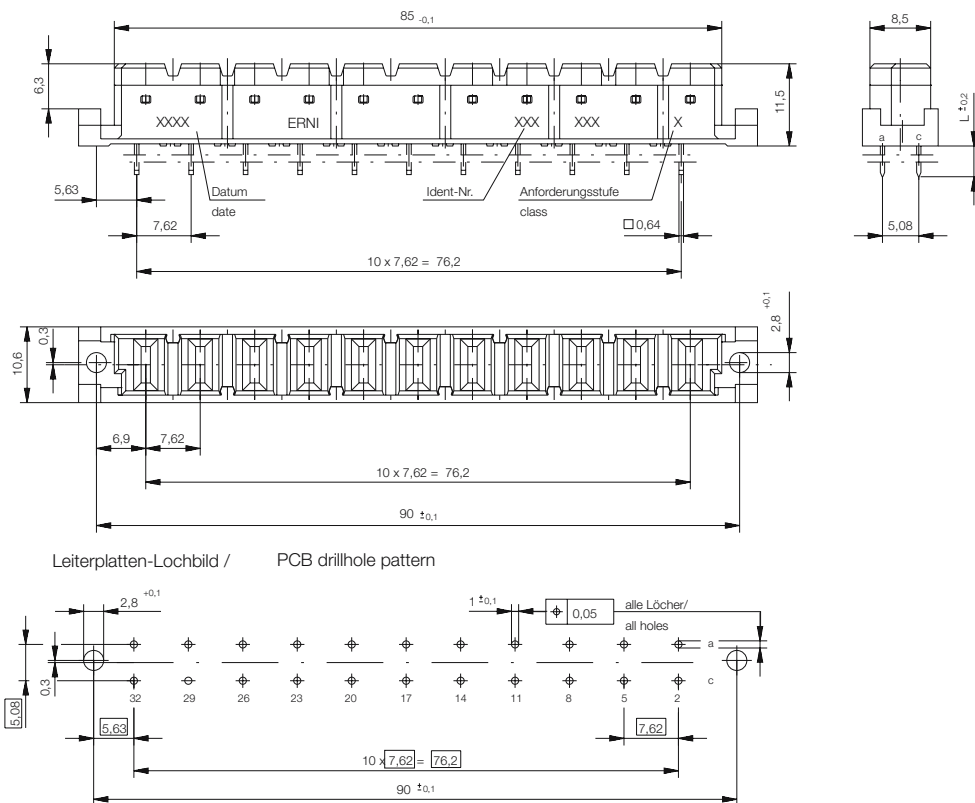


Dimensional Drawing Pressfit Female

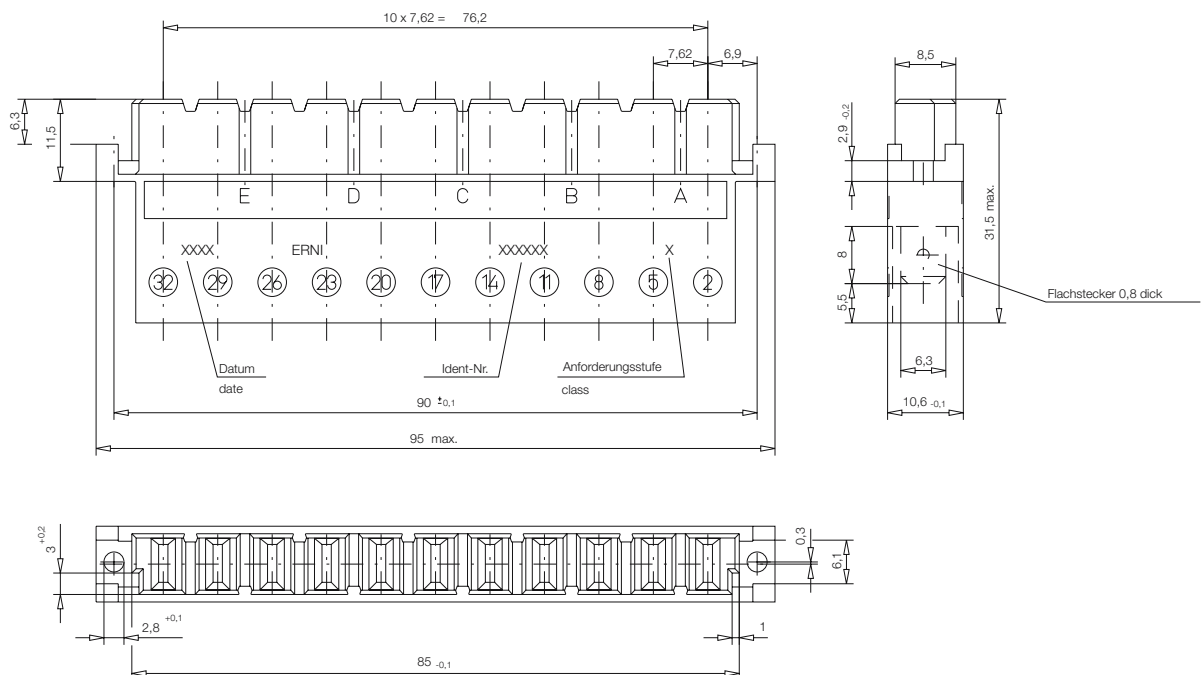


- 1) $\phi 1,0^{+0,09}_{-0,06}$ Durchmesser des metallisierten Loches
 $\phi 1,0^{+0,09}_{-0,06}$ Diameter of finished plated-through hole
 $\phi 1,15 \pm 0,025$ Bohrungsdurchmesser des Loches
 $\phi 1,15 \pm 0,025$ Diameter of drilled hole

Dimensional Drawing Solder Female



Dimensional Drawing Faston Female

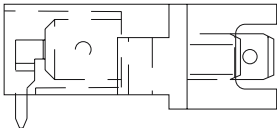
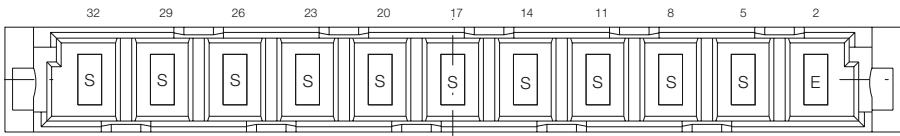
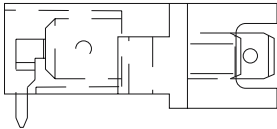
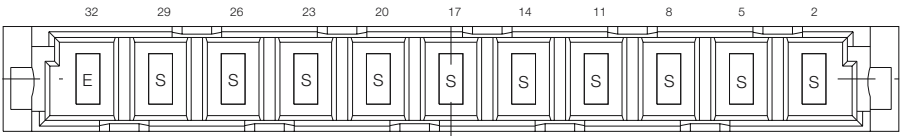
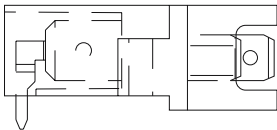
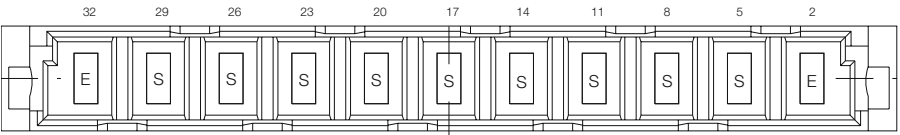
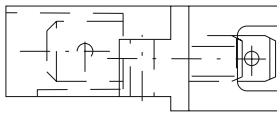
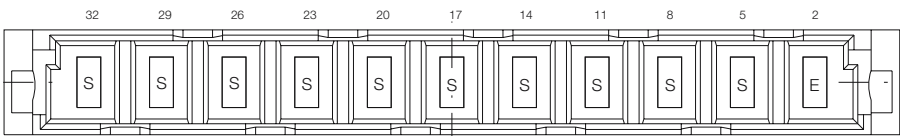
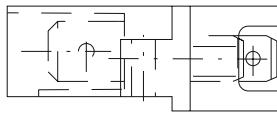
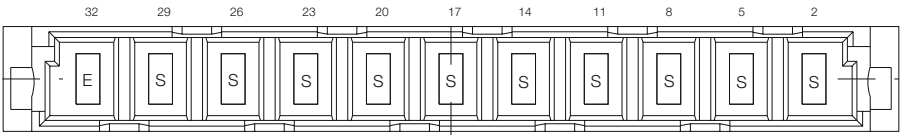
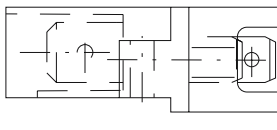
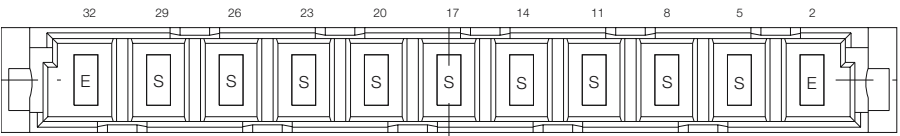


DIN 41612 / IEC 60603-2 Connectors

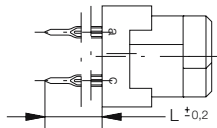
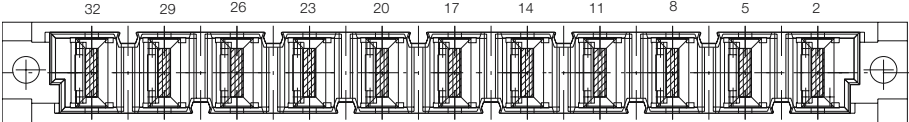
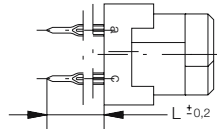
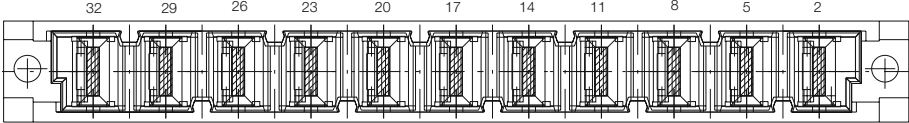
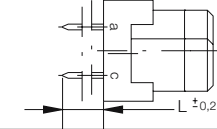
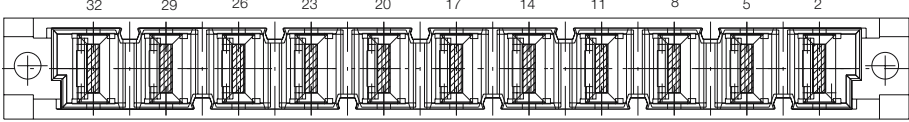
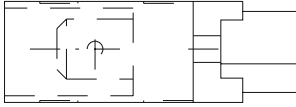
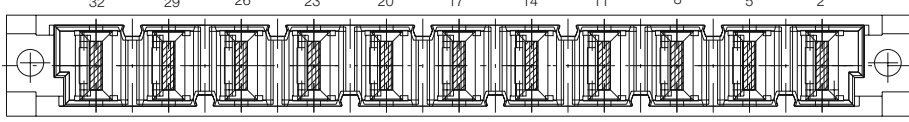
Type H11 Male

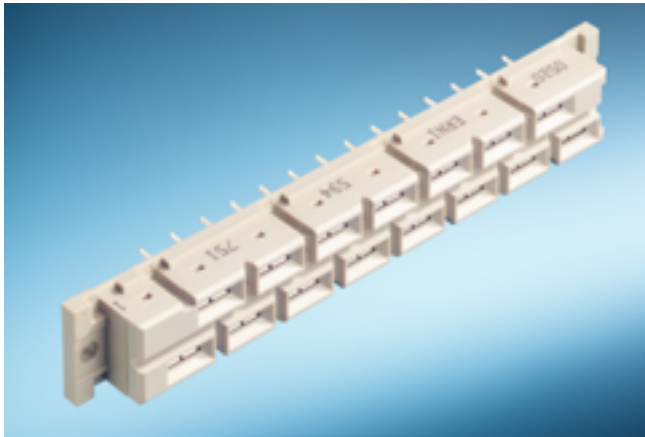


Ordering Information

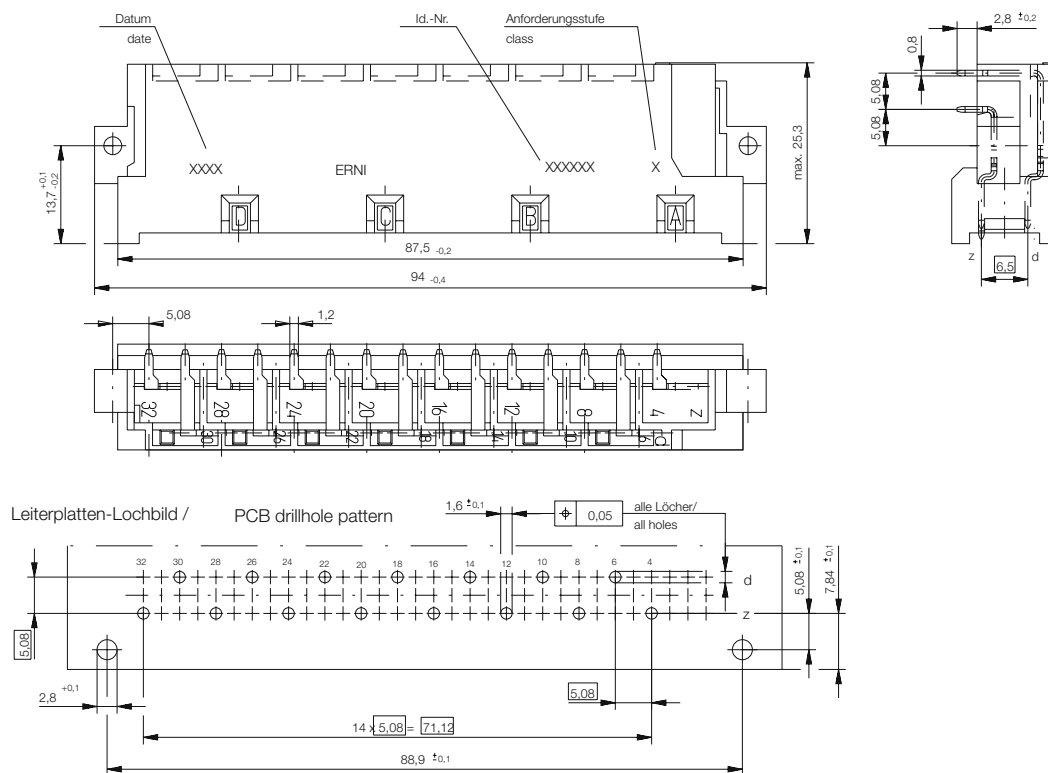
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Solder	3.5 mm		1	—	233232
	Solder	3.5 mm		1	—	233230
	Solder	3.5 mm		1	—	233235
	Faston	8 mm		1	—	233233
	Faston	8 mm		1	—	233226
	Faston	8 mm		1	—	233234

Ordering Information

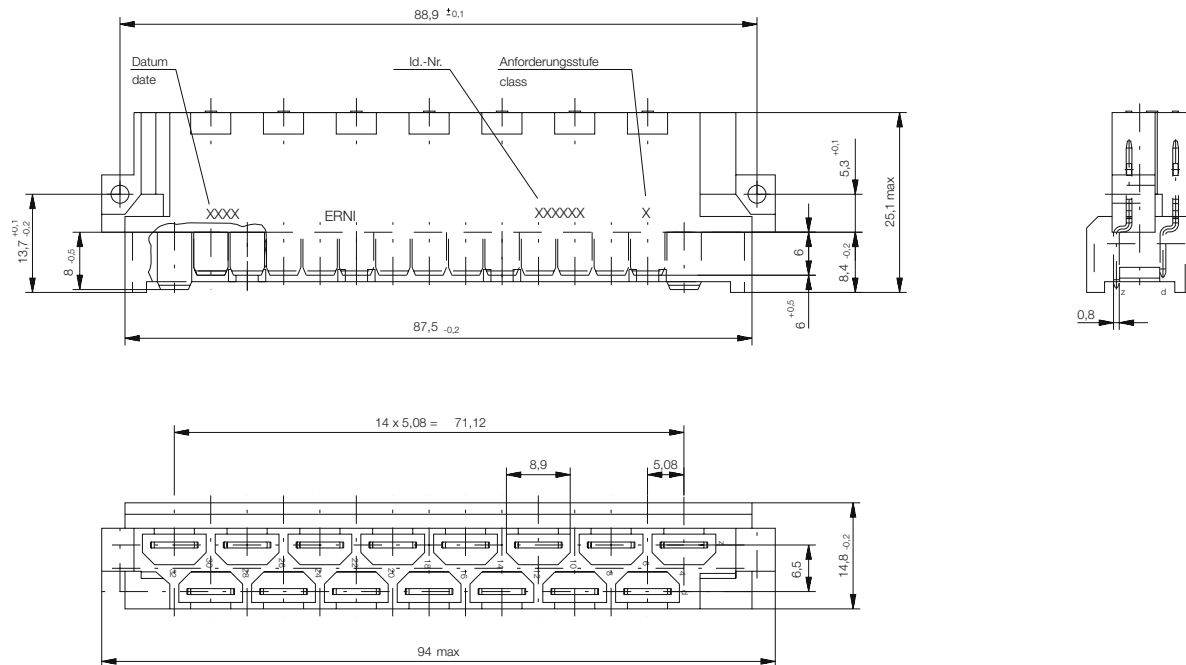
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
11						
	Pressfit	4 mm	0.6 x 0.6 mm	1	2.5 mm	913738
						
	Pressfit	6 mm	0.6 x 0.6 mm	1	2.5 mm	424655
11						
	Solder	4.3 mm	0.6 x 0.6 mm	1	—	424654
11						
	Faston	8 mm	6.3 x 0.8 mm	1	—	243246



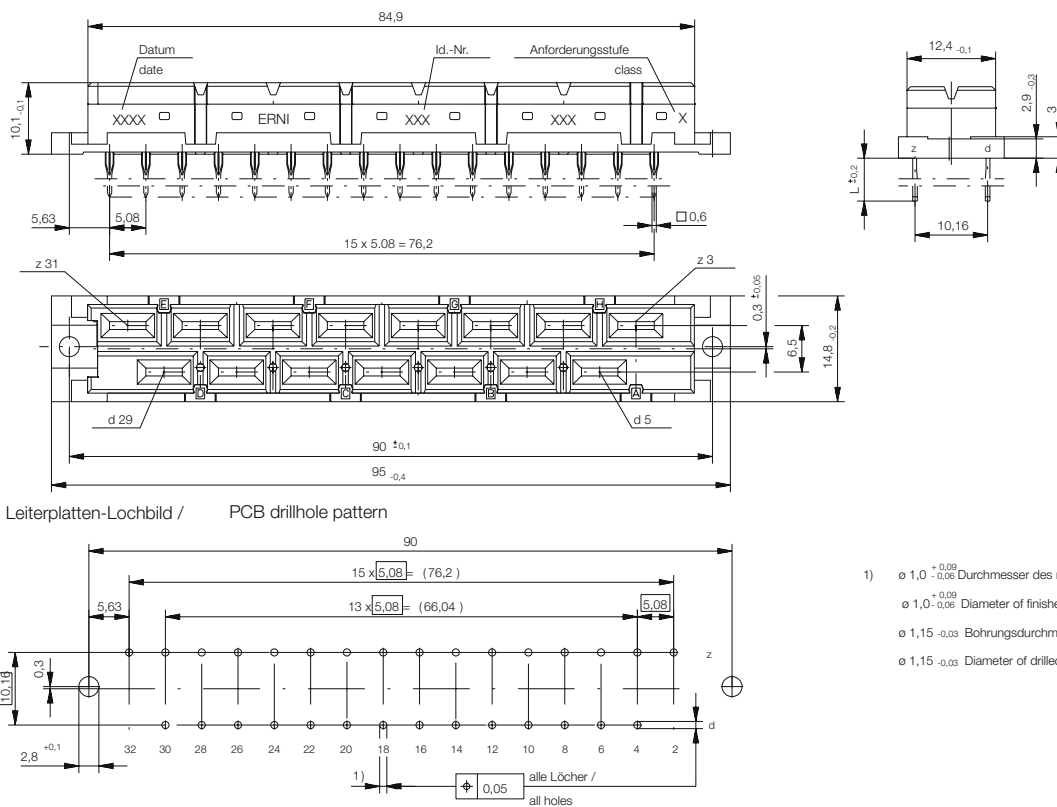
Dimensional Drawing Solder Male



Dimensional Drawing Faston Male

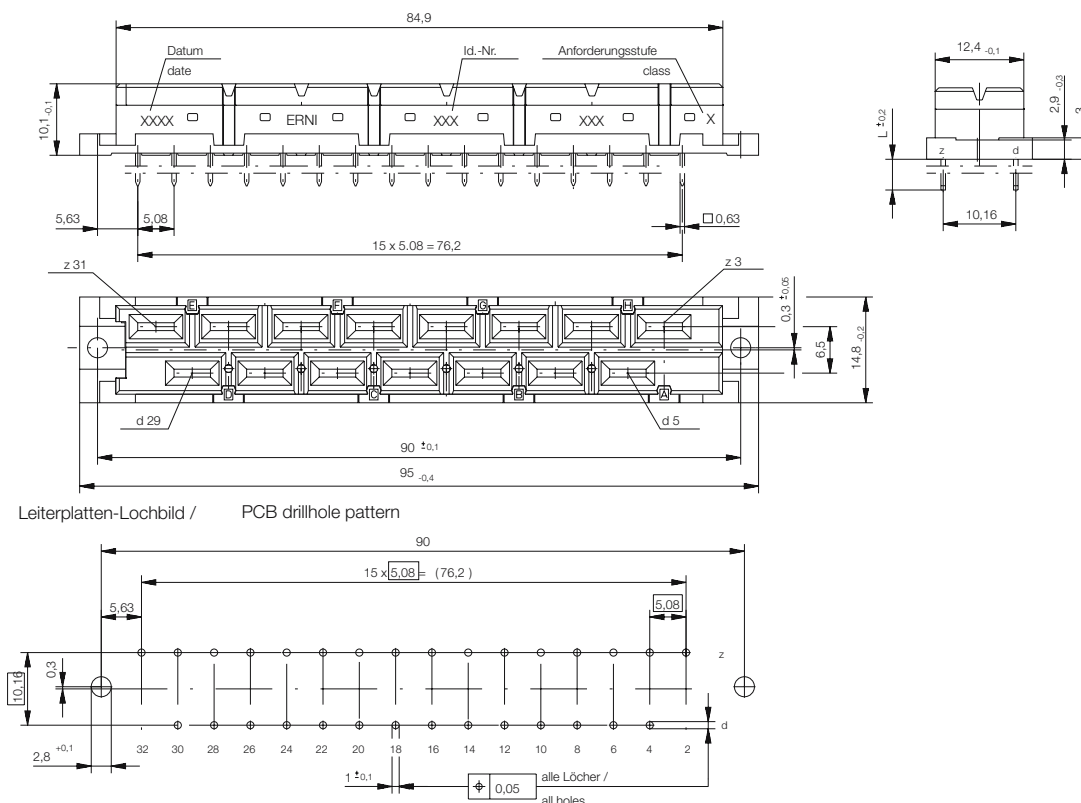


Dimensional Drawing Pressfit Female

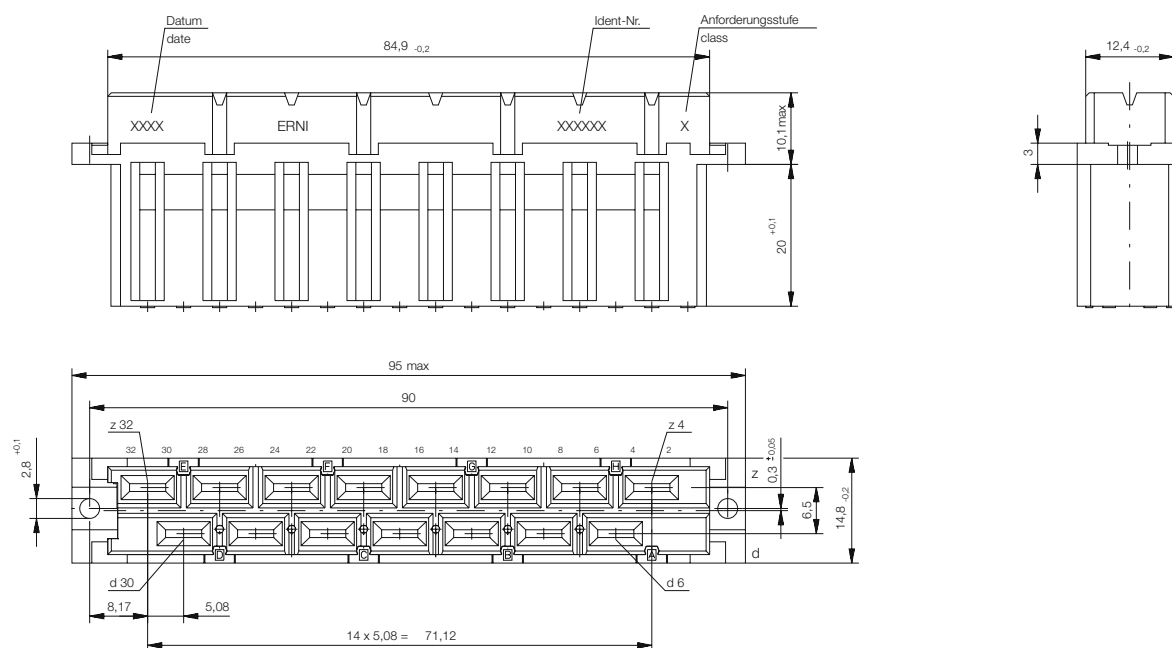


- 1) $\varnothing 1,0 \pm 0,09$ Durchmesser des metallisierten Loches
 $\varnothing 1,0 \pm 0,06$ Diameter of finished plated-through hole
 $\varnothing 1,15 \pm 0,03$ Bohrungsdurchmesser des Loches siehe Zeichnung 164062
 $\varnothing 1,15 \pm 0,03$ Diameter of drilled hole see drawing 164062

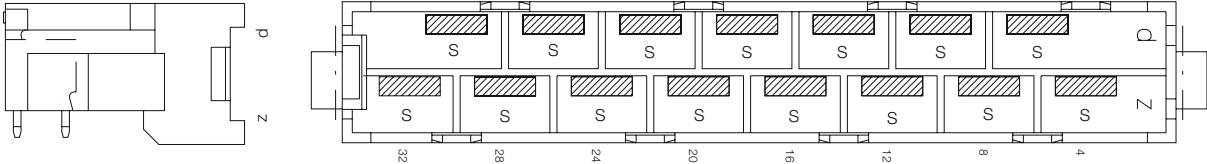
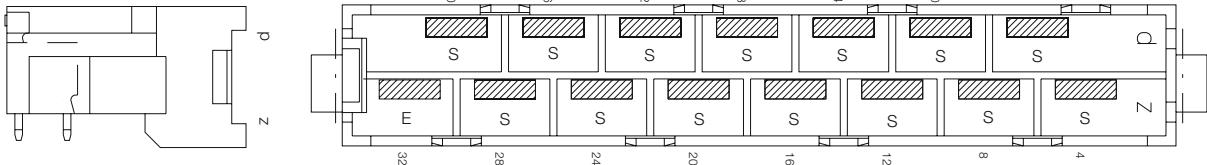
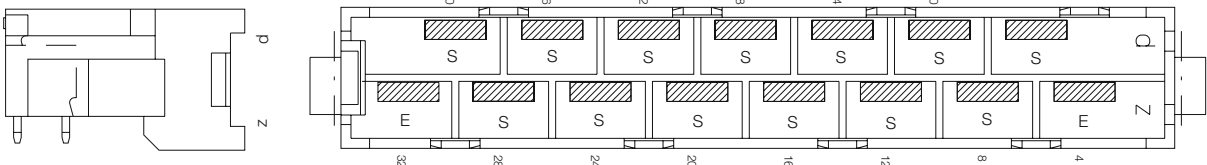
Dimensional Drawing Solder Female



Dimensional Drawing Faston Female



Ordering Information

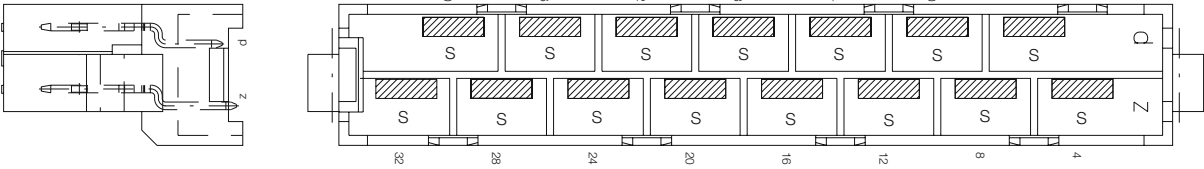
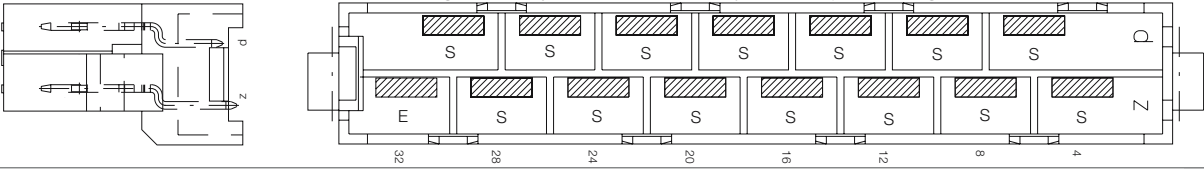
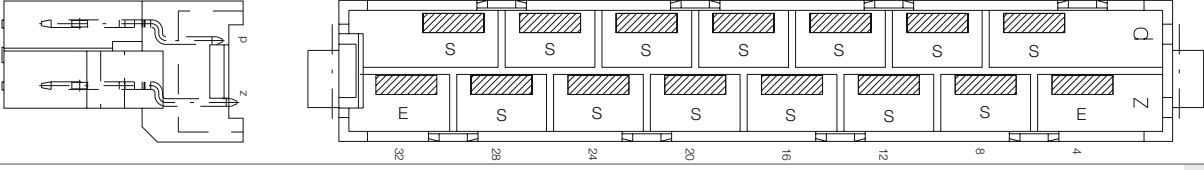
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
15	Solder	2.8mm	0.8 x 1.2 mm	1	—	
						413638
15	Solder	2.8mm	0.8 x 1.2 mm	1	—	
						414575
15	Solder	2.8mm	0.8 x 1.2 mm	1	—	
						413169

DIN 41612 / IEC 60603-2 Connectors

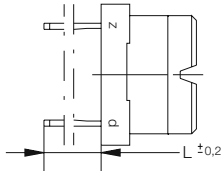
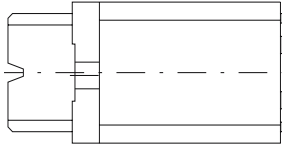
Type H15 Male



Ordering Information

No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
15	Faston	26 mm	6.3 x 0.8 mm	1	—	
						413637
15	Faston	8 mm	6.3 x 0.8 mm	1	—	
						414574
15	Faston	8 mm	6.3 x 0.8 mm	1	—	
						413168

Ordering Information

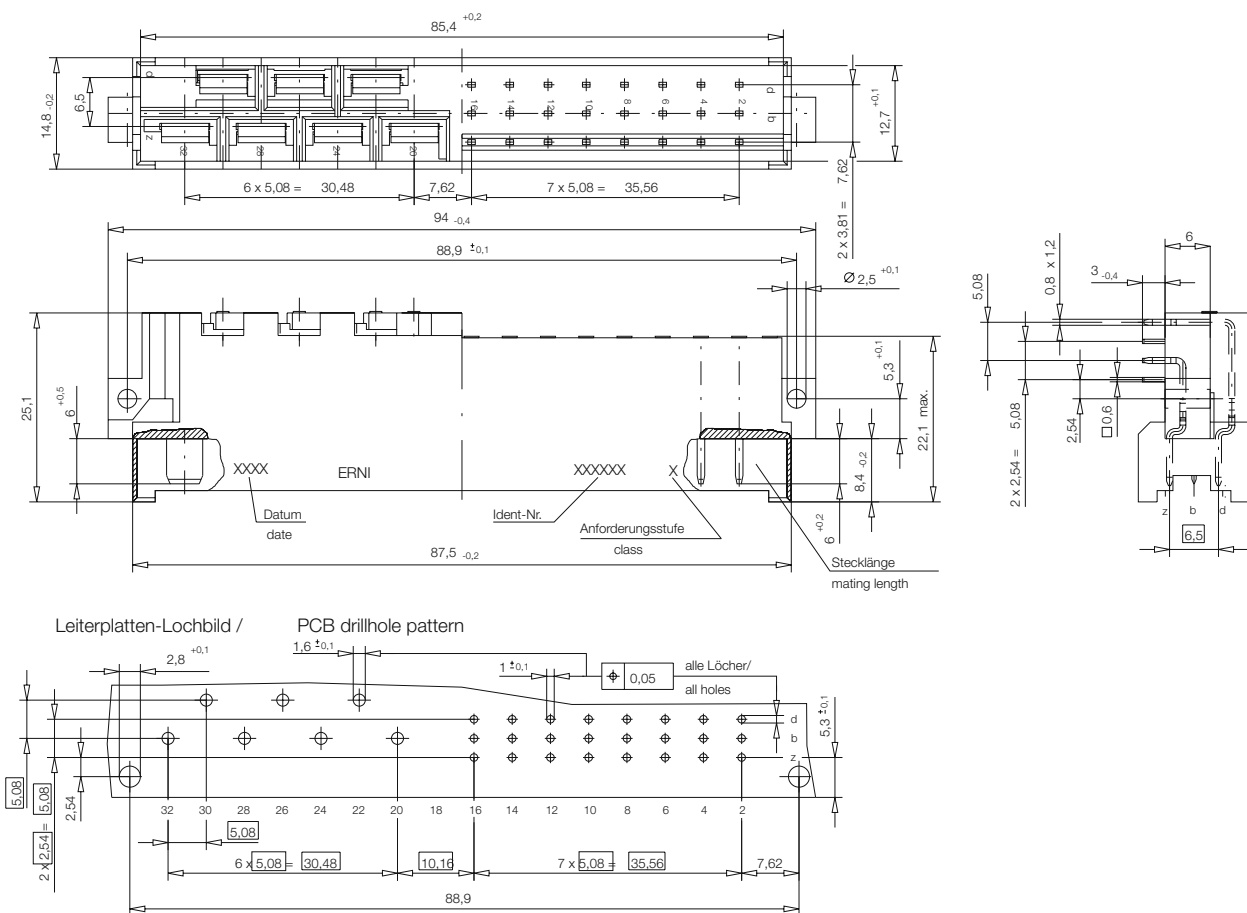
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	Pressfit	6 mm	0.6 x 0.6 mm	1	2.5 mm	594752
	Solder	4.3 mm	1.2 x 0.6 mm	1	—	594750
	Solder	4.3 mm	0.6 x 0.6 mm	1	—	594751
	Faston			1	—	413170



Size H7/F24 connectors have integral coding using coding pins. The male connectors have drill centering recesses which require the complete hole to be drilled for coding pin loading. The coding pins from the male connectors can then be inserted into the complementary holes predrilled in the female connectors.

The 7 high-current contacts of H7/F24 connectors are hard silver plated and their electrical and mechanical performance conforms to performance level 1. The 24 signal contacts are conform to standard size F. The contacts are gold plated in accordance to their performance levels, the terminals are tin-plated.

Dimensional Drawing Solder Male



Technical drawing of a PCB drillhole pattern, showing top, side, and detail views with dimensions and labels.

Top View Dimensions:

- Overall length: 85,4 $\pm 0,2$
- Overall width: 14,8 $\pm 0,2$
- Left edge features: 6,5, 14,8 $\pm 0,2$
- Internal spacing: 6 x 5,08 = 30,48, 7,62, 7 x 5,08 = 35,56
- Right edge features: 12,7 $\pm 0,1$, 7,62

Side View Dimensions:

- Overall height: 25,1 $\pm 0,3$
- Internal height: 6 $\pm 0,3$
- Bottom edge features: 88,9 $\pm 0,1$, 2 x 3,81 = 7,62 $\pm 0,1$, $\varnothing 2,5$ $\pm 0,1$, 5,3 $\pm 0,1$, 22,1 max.

Labels and Markings:

- XXXX
- ERNI
- Datum date
- Ident-Nr.
- Anforderungsstufe class
- Stecklänge mating length

Detail View Dimensions:

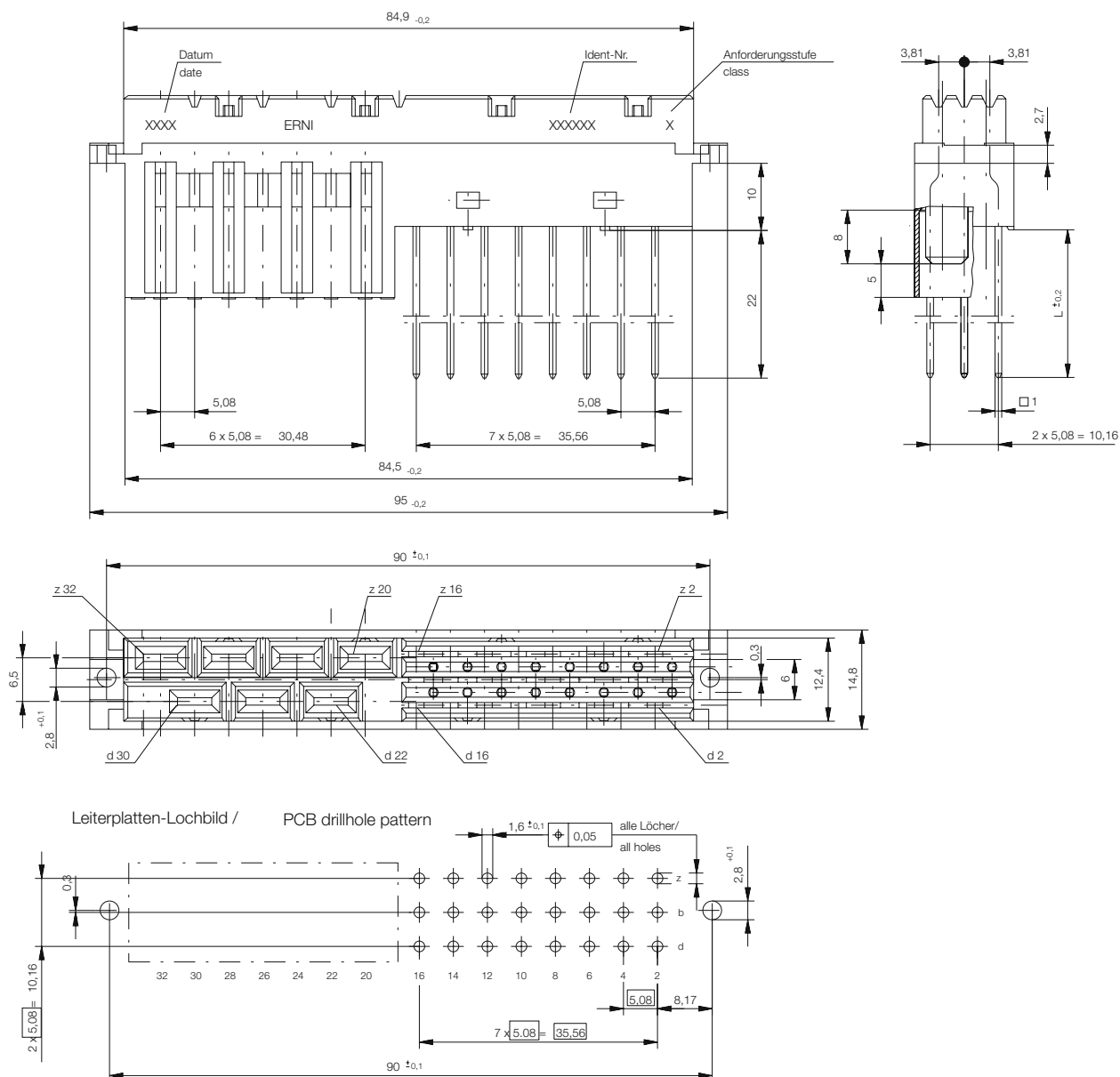
- Overall width: 6
- Internal spacing: 3 $\pm 0,4$, 2,54, 0,6
- Bottom edge features: 6,5

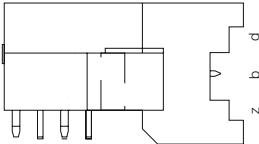
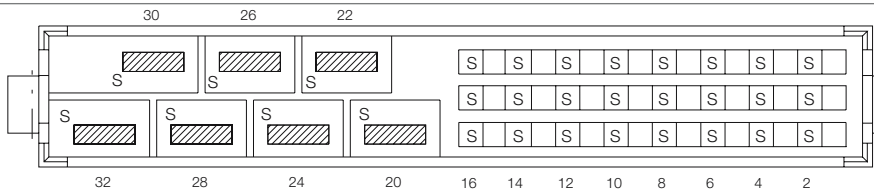
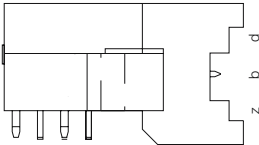
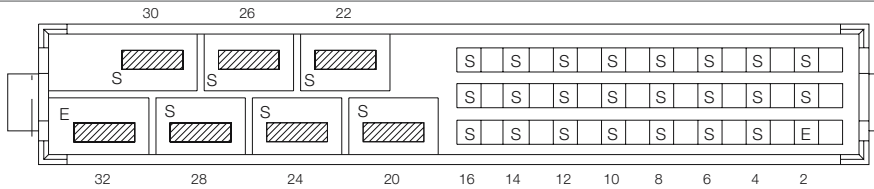
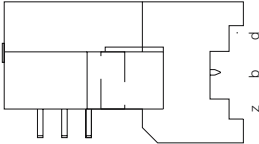
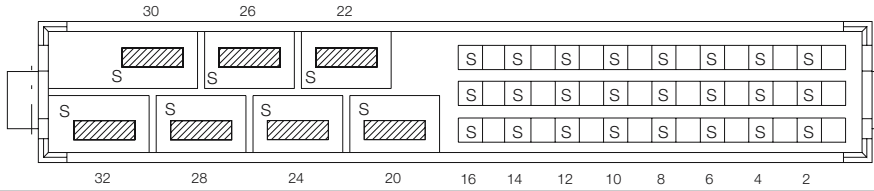
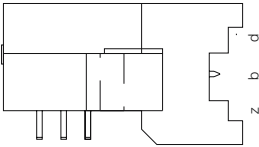
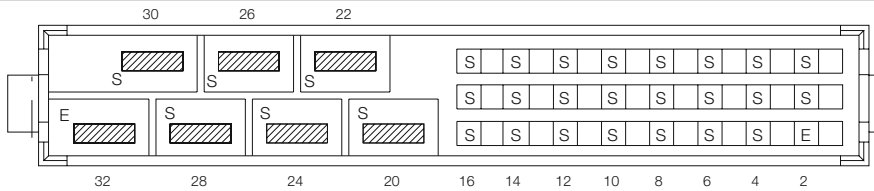
Leiterplatten-Lochbild / PCB drillhole pattern

Dimensions and labels for the drillhole pattern:

- Overall length: 88,9
- Overall width: 2,8 $\pm 0,1$
- Left edge features: 5,08, 2,54
- Internal spacing: 32, 30, 28, 26, 24, 22, 20, 16, 14, 12, 10, 8, 6, 4, 2
- Right edge features: 1 $\pm 0,1$, $\varnothing 0,05$ alle Löcher / all holes, 5,3 $\pm 0,1$
- Bottom edge features: 7 x 5,08 = 35,56, 7,62

Dimensional Drawing Solder Female



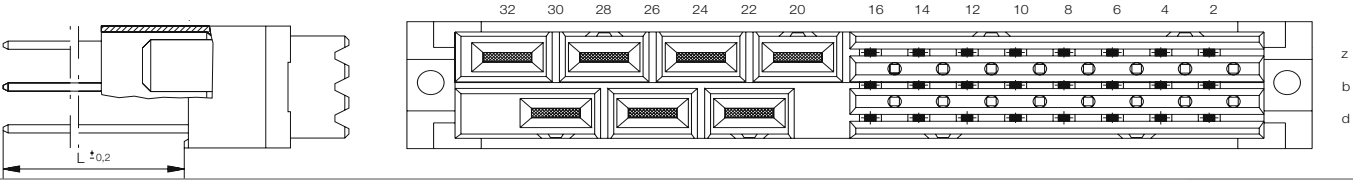
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
7-24	Solder	3 mm	H: 0.8 x 1.2 mm; F: 0.6 x 0.6 mm	1	—	413640
7-24	Solder	3 mm	H: 0.8 x 1.2 mm; F: 0.6 x 0.6 mm	2	—	593254
						
7-24	Solder	3 mm	H: 0.8 x 1.2 mm; F: 0.6 x 0.6 mm	1	—	413172
7-24	Solder	3 mm	H: 0.8 x 1.2 mm; F: 0.6 x 0.6 mm	2	—	593250
						
7-24	Faston/Solder	3 mm	H: 6.3 x 0.8 mm; F: 0.6 x 0.6 mm	2	—	593252
						
7-24	Faston/Solder	3 mm	H: 6.3 x 0.8 mm; F: 0.6 x 0.6 mm	1	—	413171
7-24	Faston/Solder	3 mm	H: 6.3 x 0.8 mm; F: 0.6 x 0.6 mm	2	—	593248

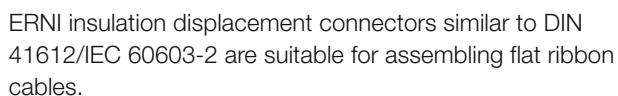
DIN 41612 / IEC 60603-2 Connectors

Type H7/F24 Female



Ordering Information

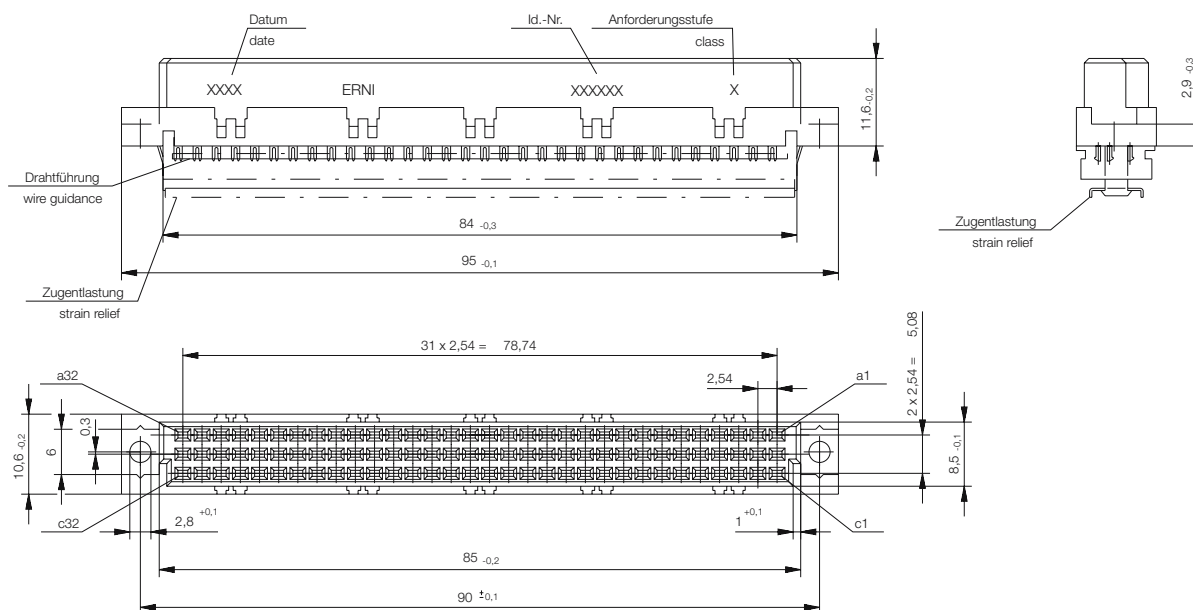
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
						
7-24	Faston/Solder	22 mm	H: 6.3 x 0.8 mm; F: 1 x 1 mm	1	–	413173
7-24	Faston/Solder	22 mm	H: 6.3 x 0.8 mm; F: 1 x 1 mm	2	–	593256



- Female connectors size C, 64-pin, rows a c.
- Female connectors size C, 96-pin, rows a b c.

The flat ribbon cable fixed to the cable guide is pressed onto the insulation displacement contacts of the female connector using an easy to use tool (pliers or hand lever press). A reliable connection is made through a double insulation displacement contact. The pointed ends puncture the insulation material of the flat cable and make contact with the conductors at high pressure.

Dimensional Drawing

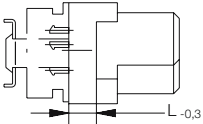
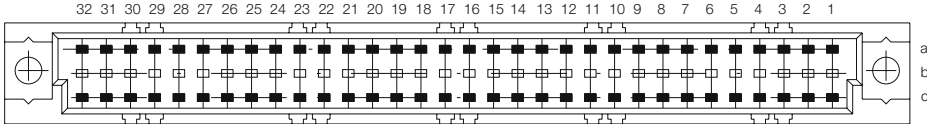
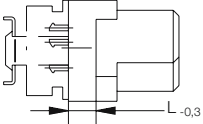
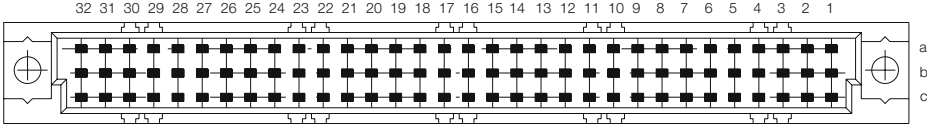


DIN 41612 / IEC 60603-2 Connectors

Insulation Displacement Connector (IDC)



Ordering Information

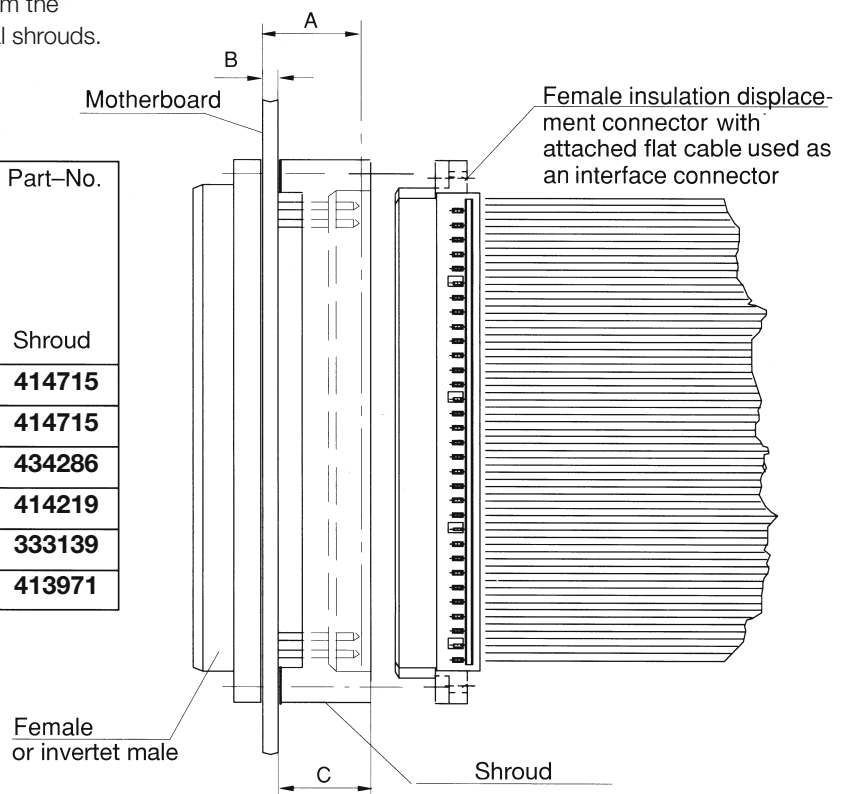
No. of Pins	Termination	Term. Length	Pin Dimensions	Class	Pressfit Zone	Part Number
	IDC	—		2	—	594470
	IDC	—		1	—	123905

Application example for DIN-IDC connectors

For the use of female connectors with insulation displacement contacts as interface connectors from the wiring side of the rack ERNI has developed special shrouds. These Shrouds are available in various heights.

(All dimensions in mm)

Connector Type	Contact length	PCB thickness	Shroud height	Part-No.
	A	B	C	Shroud
C, R	13	1,6	12,5	414715
	13	2,4	12,5	414715
	13	3,2	11,4	434286
	17	2,4	16,0	414219
	17	3,2	15,2	333139
	20	3,2	18,2	413971



The female insulation displacement connector can be screwed to the shroud with a cheese-head tapping screw B2.2 x 9.5 DIN 7971.

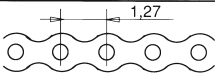
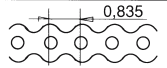


Ordering details tools

Description	Fig. no.	Part no.
Assembly tool with adjustable stop	1	473188

Description	Fig. no.	Part no.
Hand lever press	2	473200
Pliers with various accessories. Complete set in a case	3	424623

Ordering details for flat ribbon cables and accessories

Number of pins	Descriptions for flat ribbon cables	Length of a cable reel	Part. no. for 1 meter
64-pin 	grey with a red identification wire	61m	414068
	color coded	61m	414082
96-pin 	grey with a red identification wire	61m	913049

Description	Remarks	Part.no.
Tension relief clamp 	for a 96-row female connector size C	033055



General

Where the termination of interconnecting cables is required, crimp snap-in termination represents an efficient wiring method.

Crimp snap-in contacts are connected to the wires by use of suitable crimping tools. The contacts are supplied either singly or suspended from a strip.

Contacts efficiently assembled in this manner snap into the crimp snap-in mouldings provided, thus forming ready equipped connectors.

Crimp snap-in connectors are particularly suitable for flexible wiring with varying numbers of pins.

Hand tools or automatic crimping machines are available for crimping.

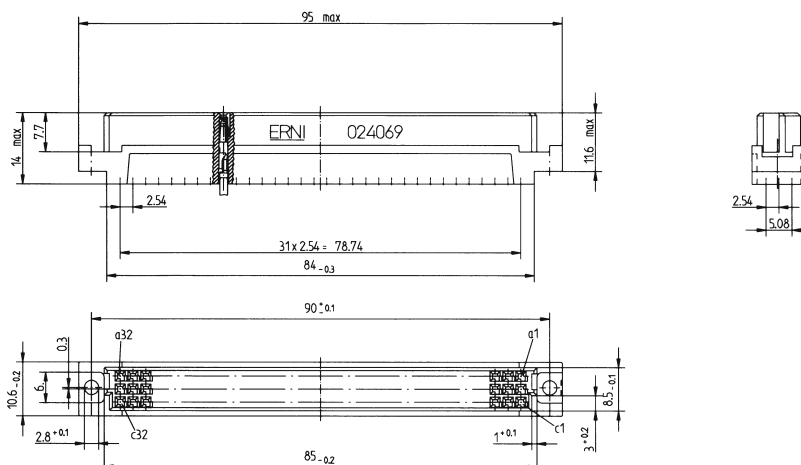
Main features

- Available housing sizes
 - size C with 96 contact cavities, rows abc
 - size C/2 with 48 contact cavities, rows abc
 - size E 160 with 160 contact cavities, rows abcde
 - Special and mixed designs
- Cantilever female contacts for constant contact resistance
- Approved female contact design in the mating zone
- Assembly with standard tools
- Suitable for the ERNI interface connector system (connector housings for DIN connectors on front panel and wiring sides)
- Suitable for wire of AWG 28 – 20
Wire cross section 0.08 – 0.56 mm²
- Contacts can be detached from the female connector moulding with a simple extraction tool.

Female connector housing size C, 96 contact cavities

Mating and installation conditions as per DIN 41612/IEC 60603-2

Dimensional drawings

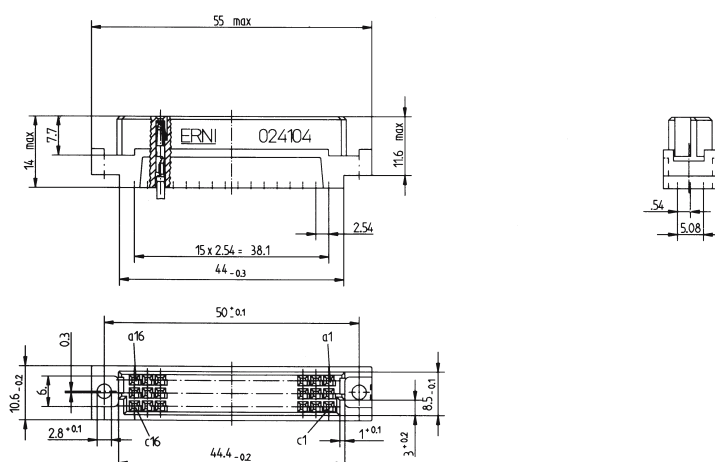


Ordering details

Description	Part no.
Empty housing size C-96	024069

Female connector housing size C/2, 48 contact cavities

Dimensional drawings

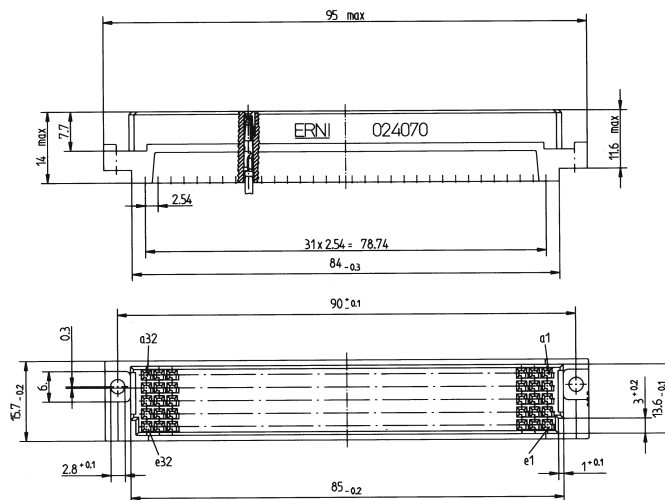


Ordering details

Description	Part no.
Empty housing size C/2-48	024104

Female connector housing size E 160, 160 contact cavities

Dimensional drawings



Ordering details

Description	Part no.
Empty housing size E160–160	024070

Application example for customized version



Interesting solutions arise in the application of crimp contacts.

We have developed a 70-pin female connector housing together with a well-known manufacturer of programmable controllers.

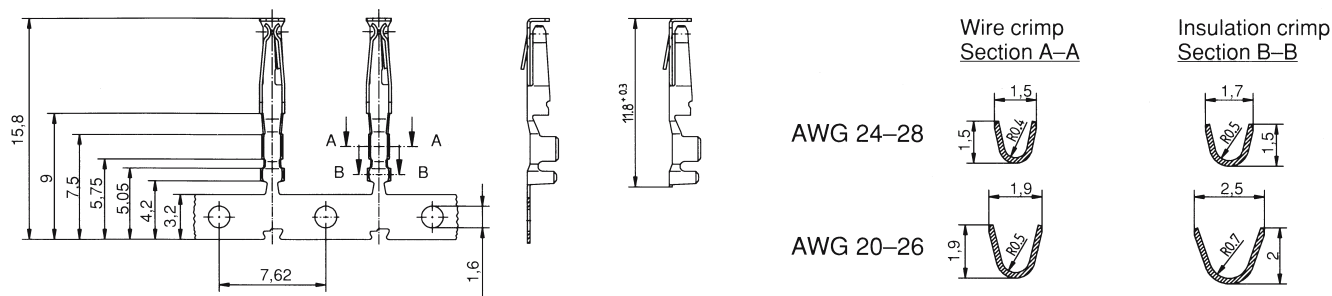
We wish to use this example to illustrate that we are constantly developing components in cooperation with our customers.

Perhaps your company also has applications which you may wish to discuss with one of our field sales engineers.



Crimp contacts for female connector housings

Dimensional drawings



Ordering details

Description	Wire cross section		Perform. level	Part. no. and size		
	AWG	mm ²		Contact reel 10.000 contacts	Contact reel 500 contacts	Loose contacts 100 per bag
Crimp contacts	24-28	0,22-0,08	207	014750	014749	014748
	20-26	0,56-0,14	207	014730	014729	014728

Crimp contacts from ERNI are characterized by their precision.

The two opposite spring legs guarantee a constant contact.

Precise positioning of the contacts in the female connector housing is achieved by using of the box-type design in the front zone of the contact.

A spring-loaded barb on the side locks the contacts in the female connector housing.

This locking can be undone easily with a small tool.



Assembly tools for DIN crimp connectors

Technical data and ordering details



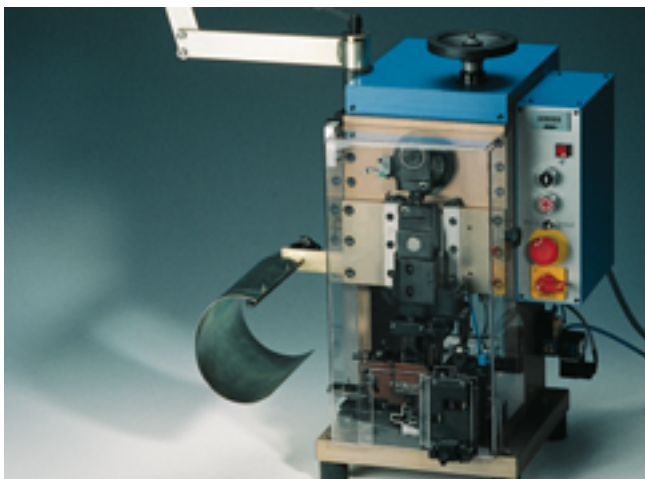
Hand tool for loose contacts AWG 20 – 28 0,56 – 0,08 mm ²	Part no.
	014374



Hand tool for contact reels with 500 contacts including reel holder and adjustable feed	Part no.
	014375



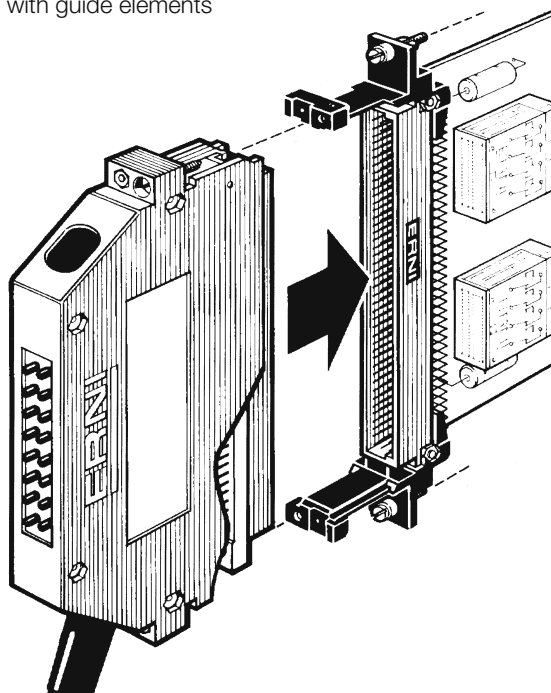
Disassembly tool for all AWG ranges	Part no.
	471555



Crimp presses are available for the automated crimping. Please refer to our ERNI-team when purchasing this press.	Part no.

The interface connector system from ERNI for the front panel and wiring sides

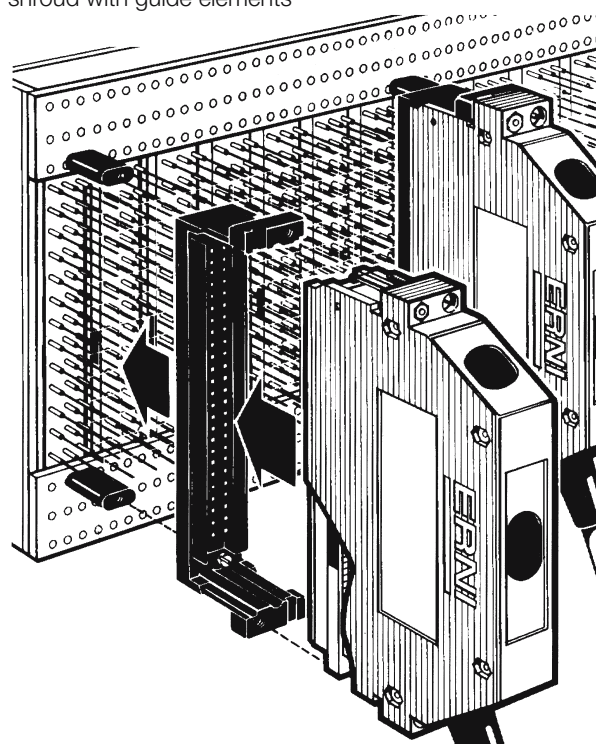
Front panel with guide elements



The female connector housings of size C, C/2 and E 160 fit into the cable connector housings of series KSG 173 and KSG 193.

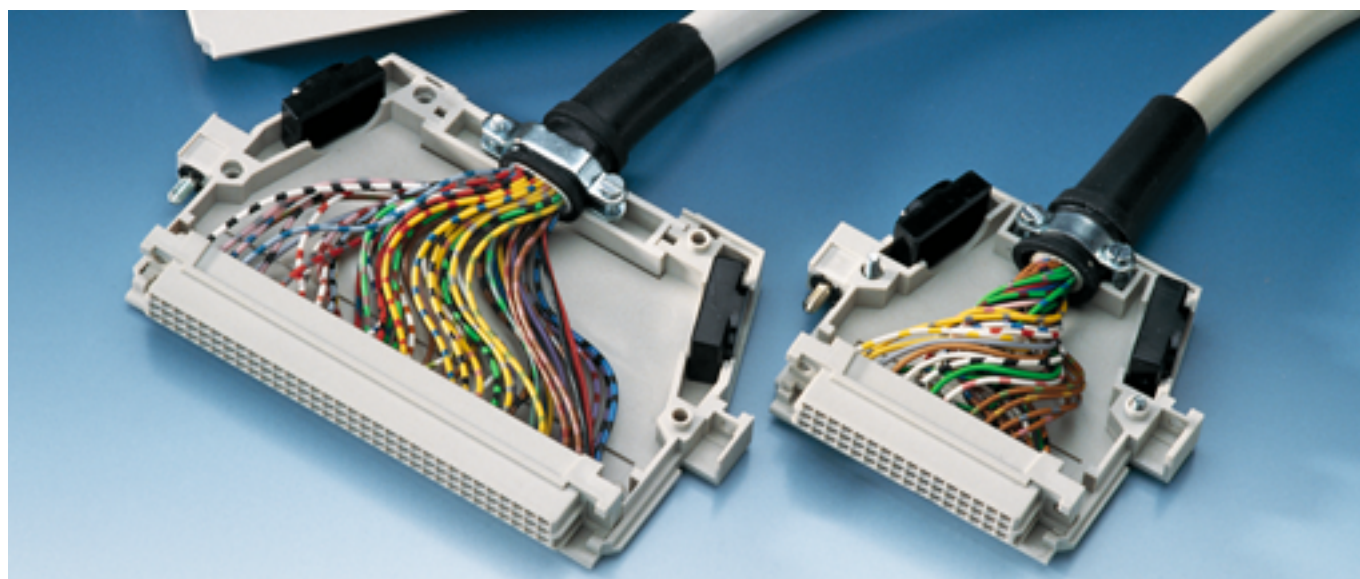
For installation on the front of the rack there are guide elements for mounting in the front panel and guide elements which can be mounted on the rack without a front panel.

Wiring side shroud with guide elements



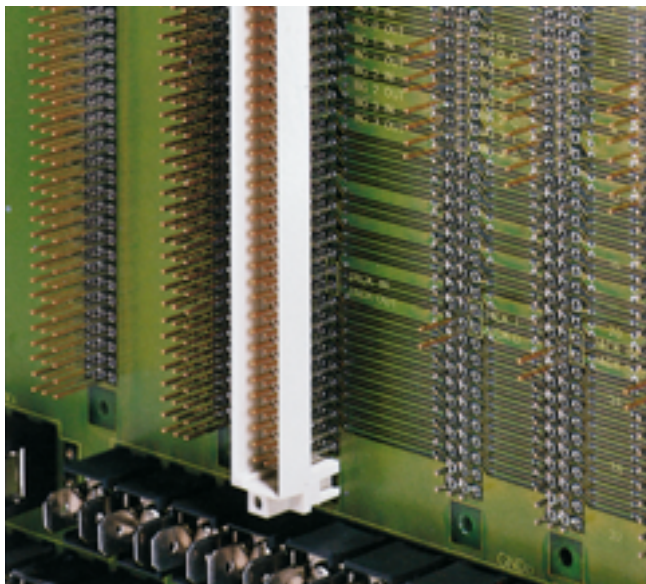
Interface connection is possible from the wiring side with guide elements and shroud.

Do ask for our technical documentation or contact one of our offices or field sales engineers.



Shroud

for mounting on PC Boards
with connectors size C, R, CD 128, RD 128, E 160, TE 160



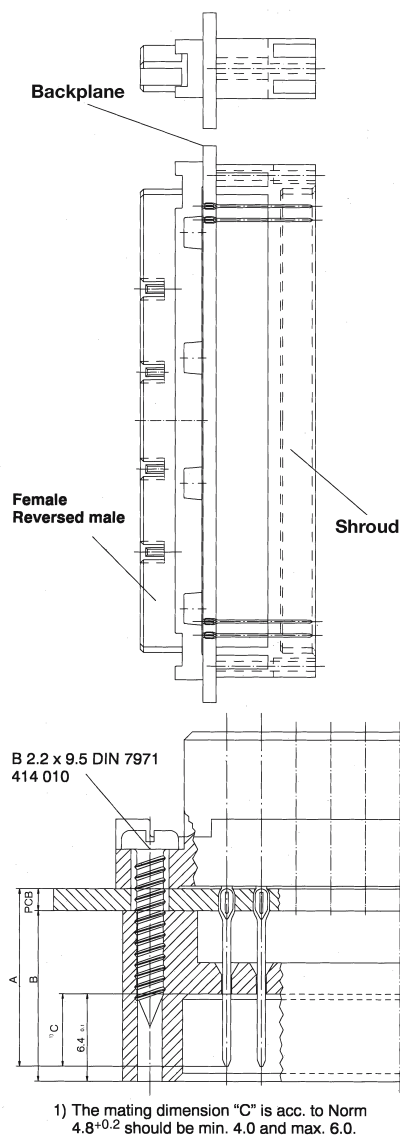
Interface on the wiring side of a control system with the aid of interface connectors play an important role in signal transfer. One of the many advantages of the press-fit technique ist that the interface connection to the wiring side can be made easily. This connection to the wiring side of a PC Board loaded with press-fit connectors can be accomplished by simply mounting shrouds to the rear (wiring) side. ERNI has developed shrouds with varying heights for the C, R, CD 128, RD 128, E 160 and TE 160 sizes. For more information on the ERNI shrouds, please contact your field sales engineers.

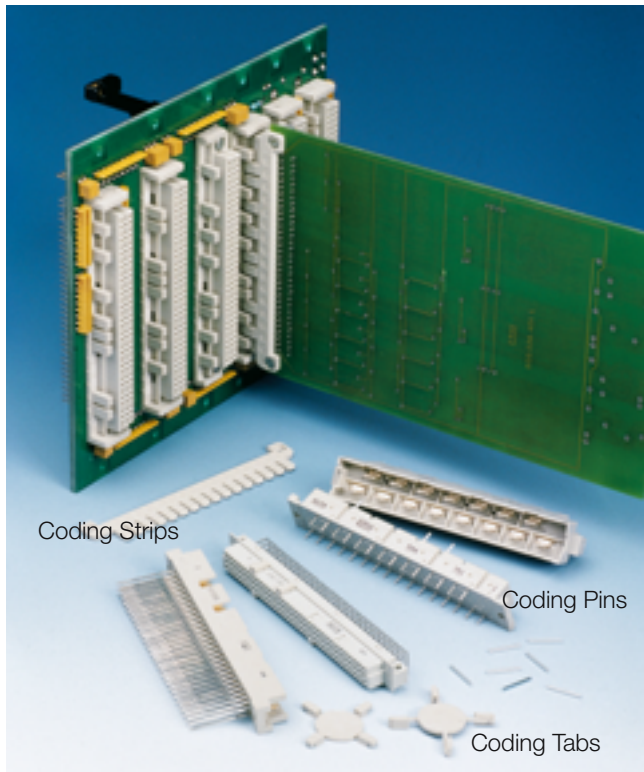
Ordering Information

(All dimensions in mm)

PCB thickness	Mating area	Total height	Contact length	Part-No. Shroud			
				E 160 TE 160	CD 128 RD 128	C 96 R 96	C/2-48 R/2-48
LP	C	B	A				
2.4	6.0	11.0	13	064729	064728	433215	034798
3.2	5.2						
2.4	5.6	11.4	13	064586	064584	434286	034797
3.2	4.8						
1.6	6.0	11.8	13	064708	064713	013275	034702
2.4	5.2						
3.2	4.4						
1.6	5.3	12.5	13	064585	064583	414715	034799
2.4	4.5						
1.6	4.2	13.6	13	064709	064714	014145	034796
2.4	5.8	15.2	17	064710	064715	333139	034800
3.2	5.0						
1.6	5.8	16.0	17	064711	064716	414219	034801
2.4	5.0						
3.2	4.2						
2.4	5.8	18.2	20	064712	064717	413971	034802
3.2	5.0						

Please consider sufficient overlapping length.





General

In order to ensure proper coding of a DIN 41612 connector and thus protect the valuable components within an electronic device, ERNI offers a variety of coding systems.

- Coding with Coding **Strips**

Separate coding strips are attached directly to each connector half with no additional modular space required in the 19" rack system.

- Integrated Coding with Coding **Tabs**

The coding tabs are plugged into side slots on the female connector while corresponding notch areas on the male connector are removed with coding pliers.

- Integrated Coding with Coding **Pins**

The coding pins are inserted into the predrilled holes on the female connector and drill holes are required on the recess hole points on the male connector at the corresponding locations.

Determining the number of coding possibilities

To maintain connector integrity, the maximum recommended number of coding possibilities is based on using only 1/2 the total available coding slots. For example, in the case of using the coding strips where there are 16 available coding tabs per strip, no more than 8 of the tabs should be removed.

Under this system, the following table Shows the number of coding possibilities for each of the three coding systems.

Connector Style	Coding Strips			Coding Tabs	Coding Pins
	Female and Inverse Male Connectors ¹⁾				
	F	FL	UE	Female Connectors	Female Connectors
B/3, C/3, Q/3, R/3	–	–	–	6	–
B/2, C/2, Q/2, R/2	–	–	–	20	–
B	12870	12870	12870	70	–
C	12870	12870	12870	70	–
D	12870	12870	12870	20	12870
E	12870	12870	12870	–	>12870
F	–	–	–	–	>12870
H11	12870	12870	–	252	–
H15	–	–	–	70	20
H7/F24	–	–	–	–	70
M	12870	12870	12870	70	–
P	–	–	–	70	–
Q, R	12870	12870	12870	70	–
CD128, RD128, E160, TE160	12870	12870	12870	70	–

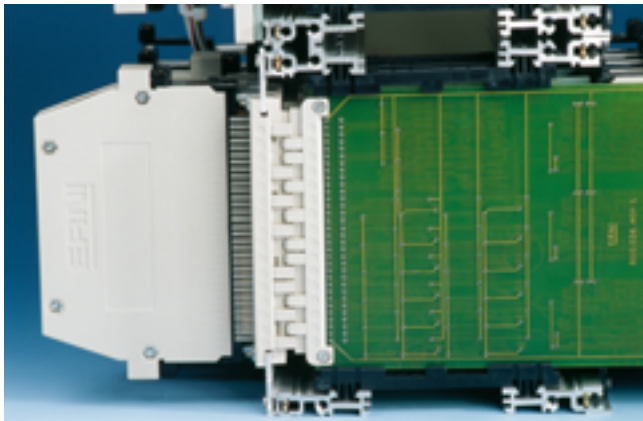
¹⁾ Male connectors and inverse female connectors require coding bar "M"

Coding Strips

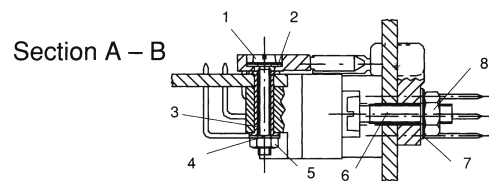
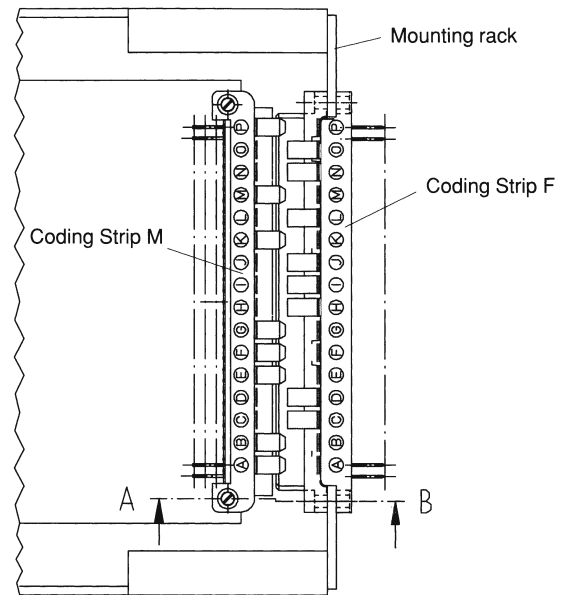
Coding Strip style F

Female connectors B, C, D, E, H11, M, CD128, E160
Inverse Male connectors Q, R, RD128, TE160

For use with female connectors or inverse male connectors as per DIN 41612 in a 19" rack mounting scheme.



Coding Strip F mounted in a 19" sub-rack.



See table on page 197 for reference.

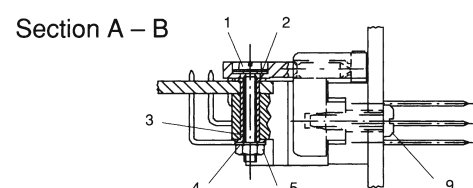
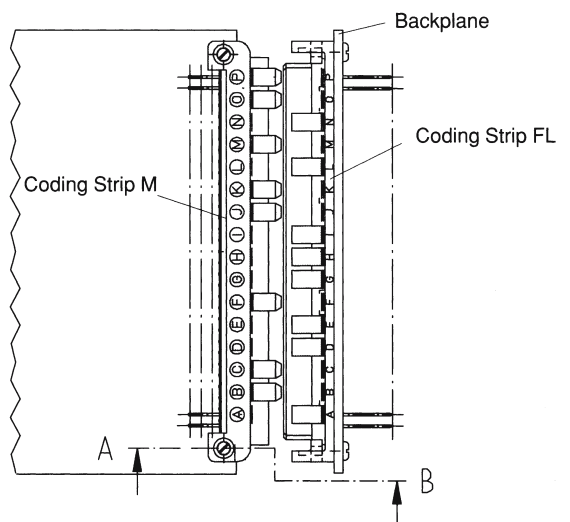
Coding Strip style FL

Female connectors B, C, D, E, H11, M, CD128, E160
Inverse Male connectors Q, R, RD128, TE160

For use with female connectors or inverse male connectors as per DIN 41612 in a backplane mounting scheme.



Coding Strip FL mounted on a backplane.

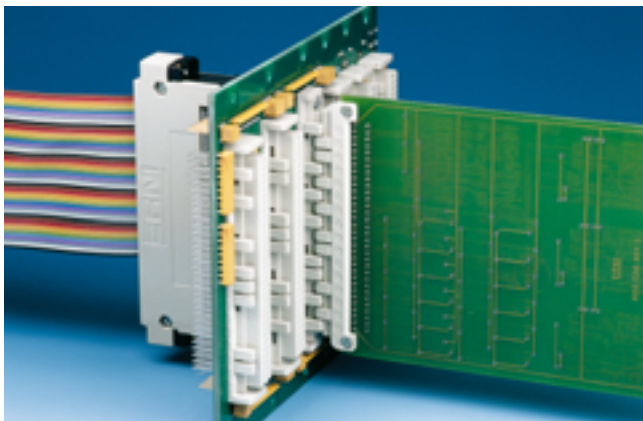


See table on page 197 for reference.

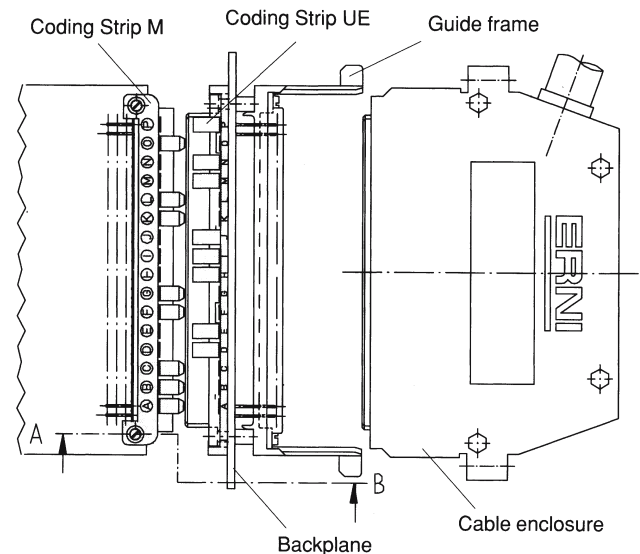
Coding Strip style UE

Female connectors B, C, D, E, M, CD128, E160
Inverse Male connectors Q, R, RD128, TE160

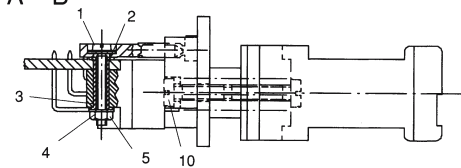
For use with female connectors or inverse male connectors as per DIN 41612 in a backplane mounting scheme together with peripheral connections.



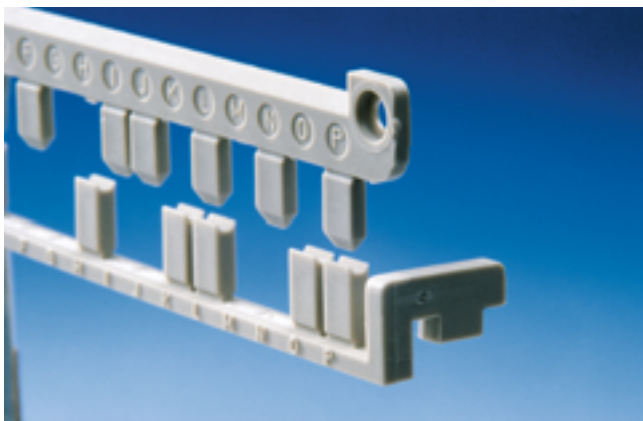
Coding Strip UE mounted on a backplane with a peripheral interface.



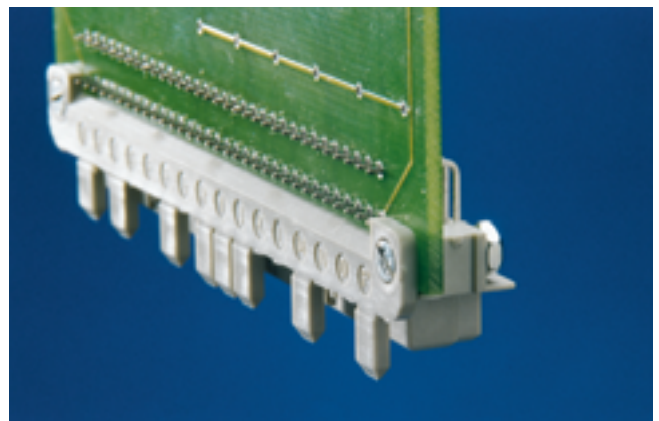
Section A – B



See table on page 197 for reference.

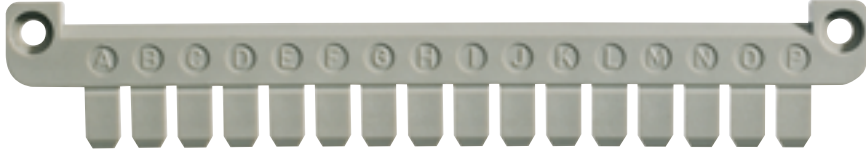


Ruggedized coding tabs on the coding strips can withstand a strain of up to 250 N even when misaligned mating occurs.



When coding the plug-in module, the coding strip M is always used. The M strips' coding tabs are identified with the letters A, B, C, . . . , P.

Ordering Instructions for Coding Strips

Description	Material	Remarks	Part Number
			
Coding Strips M Male connectors B, C, D, E, H11, M, CD128, E160 Inverse Female connectors Q, R, RD128, TE160	PBTP 30% GF	Coding Strips M should be mounted after soldering.	083502
			
Coding Strips F Female connectors B, C, D, E, H11, M, CD128, E160 Inverse Male connectors Q, R, RD128, TE160	PBTP 30% GF	The Coding Strips must be screwed or riveted together with the connector; no additional drill holes are needed.	083504
			
Coding Strips FL Female connectors B, C, D, E, H11, M, CD128, E160 Inverse Male connectors Q, R, RD128, TE160	PBTP 30% GF	The Coding Strips must be screwed or riveted together with the connector; no additional drill holes are needed.	083506
			
Coding Strips UE Female connectors B, C, D, E, M, CD128, E160 Inverse Male connectors Q, R, RD128, TE160	PBTP 30% GF	The Coding Strips must be screwed or riveted together with the connector; no additional drill holes are needed.	414705

Mounting Hardware for Coding Strips (*not included with coding strips*)

Pos ¹⁾	Description	Size	Pos ¹⁾	Description	Size
1	Fillster head screw	M 1.6x12 DIN 84	6	Fillster head srew	M 2.5x12 DIN 84
2	Washer	A 1.8 DIN 125	7	Washer	2.7 DIN 125
3	Rivet		8	Hexagonal nut	M 2.5 DIN 934
4	Spring washer	A 1.7 DIN 137	9	Sheet metal srew	B 2.2x9.5 DIN 84
5	Hexagonal nut	M 1.6 DIN 934	10	Fillster head sheed	M 2.5x10 DIN 84

¹⁾ Position numbers are from sketches on pages 195 and 196.

Coding Taps

Female connectors B/3, C/3, B/2, C/2, B, C, D, H11, H15, M, CD128, E160
Inverse Female connectors Q/3, R/3, Q/2, R/2, P, Q, R, RD128, TE160



The coding tabs are inserted into existing slots on the female connector. By using coding pliers, the corresponding pre-notched area on the male connector is recessed.

The number of coding tab locations available depends on the size and style of the connector.

To maintain connector stability, the maximum recommended number of coding possibilities is based on using only 1/2 the total available coding slots.

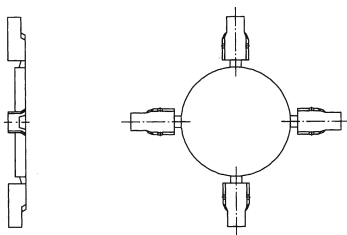
Thus the specific number of coding possibilities is shown in the table on page 194.

This coding system is supplied in a star-shaped assembly with 4 coding tabs.

Ordering Instructions

4 Coding tab assembly:

Female connectors
B/3, C/3, B/2, C/2, B, C, D, M, CD128, E160
Inverse Female connectors
Q/3, R/3, Q/2, R/2, P, Q, R, RD128, TE160

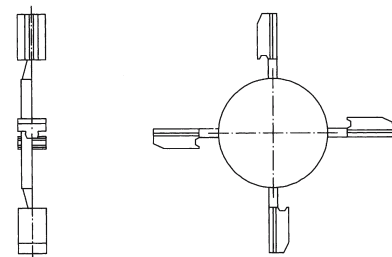


Part number: **033014**

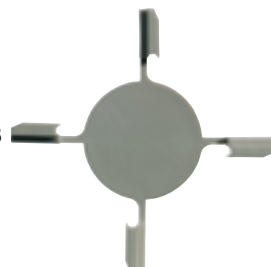


4 Coding tab assembly:

Female connectors
H11, H15



Part number: **434878**



Coding pliers

For removing the coding position on the male connector

Part number: **473270**



Coding Pins

Female connectors D, E, F, H15, H7/F24

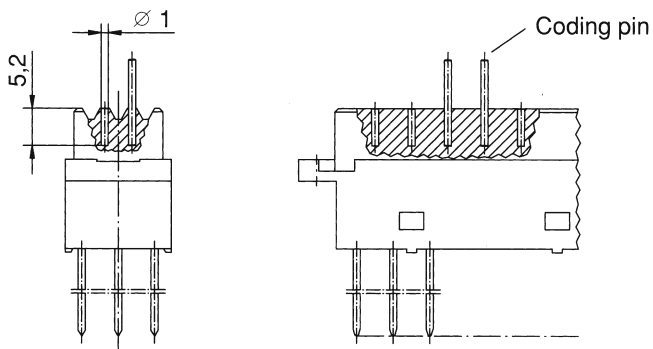


The coding pins are inserted with an insertion tool into predrilled holes located between the contact rows on the female connector. Corresponding holes must then be drilled on the male connector.

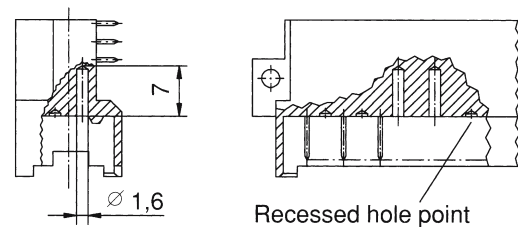
Recessed hole points on the male connector provides alignment for drilling the corresponding holes.

Coding Instructions

Female connector

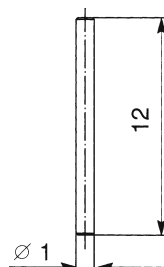


Male connector



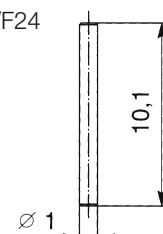
Suitable for Type D,E,F

Part number: **033007**



Suitable for Type H15,H7/F24

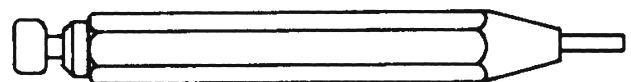
Part number: **424338**



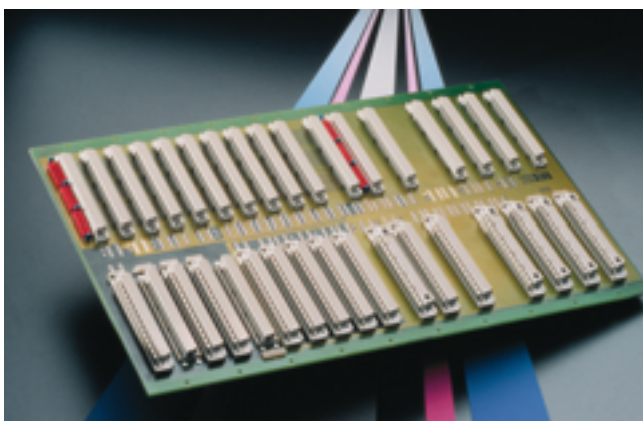
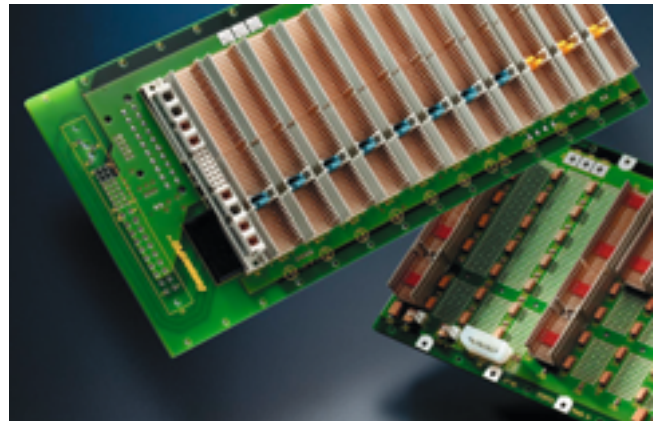
Coding Tool

For inserting coding pins into the predrilled holes on the female connector.

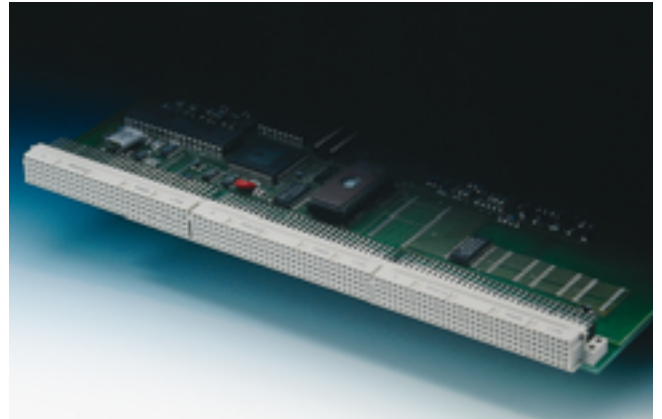
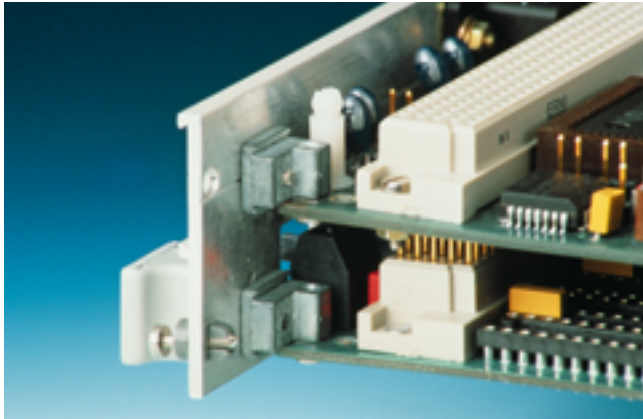
Part number: **063007**



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Applications



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Notes



Notes

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