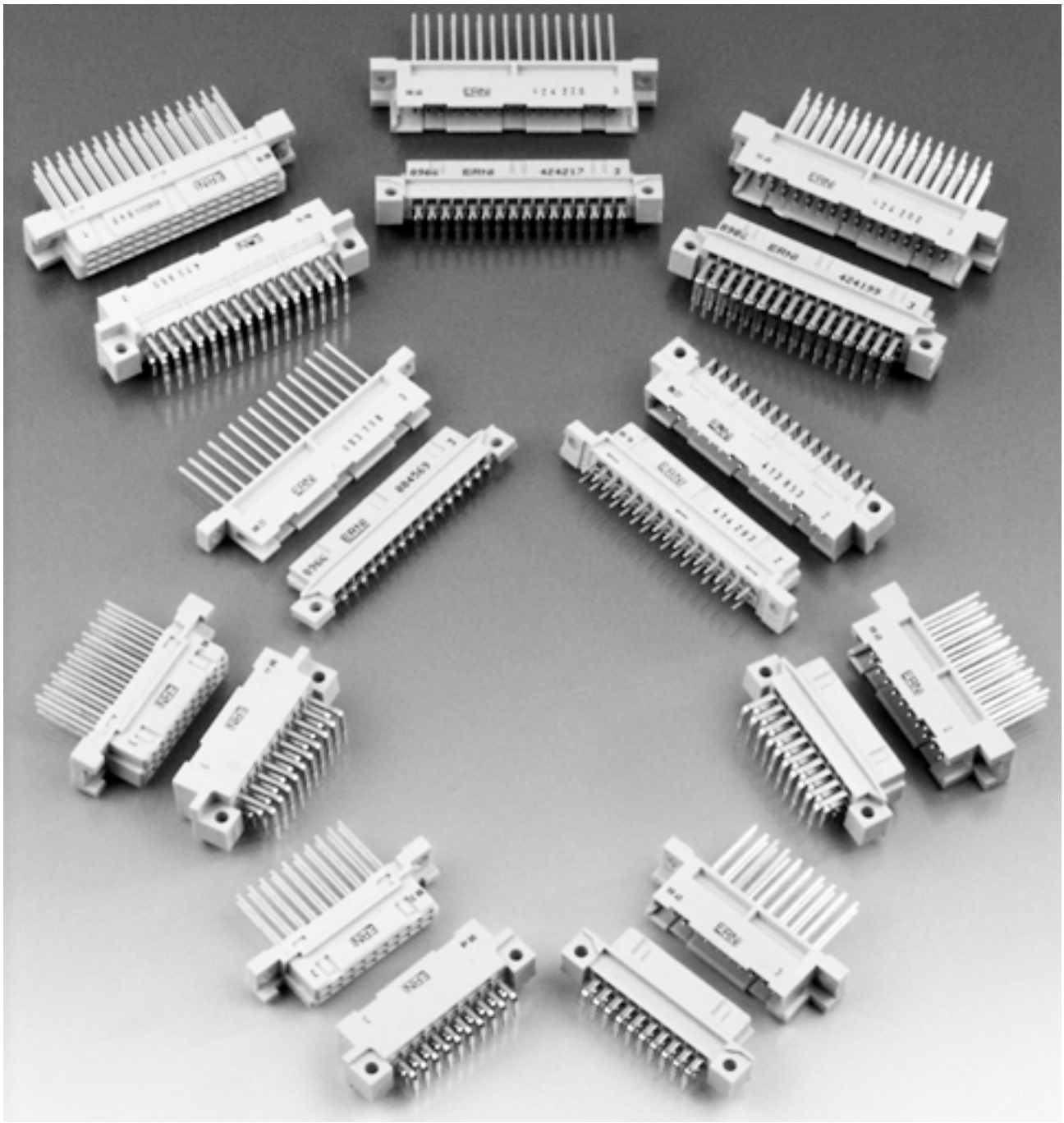
Short Connectors

Type B/2, C/2, E 80, Q/2, R/2

Type B/3, C/3, Q/3, R/3



Performance level

101 Conforms to the requirements as per
DIN 41612/IEC 60603-2
performance level 1
500 mating cyles
Contact zone gold-plated
Terminal zone tin-plated

107 Conforms to the requirements as per
DIN 41612/IEC 60603-2
performance level 1
500 mating cyles
Contact zone gold-plated
Terminal zone tin-plated

201 Conforms to the requirements as per
DIN 41612/IEC 60603-2
performance level 2
400 mating cyles
Contact zone gold-plated
Terminal zone tin-plated

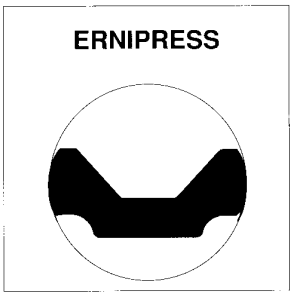
207 Conforms to the requirements as per
DIN 41612/IEC 60603-2
performance level 2
400 mating cyles
Contact zone gold-plated
Terminal zone tin-plated

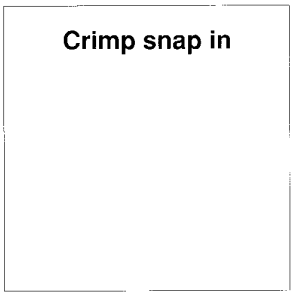
Approval certificates

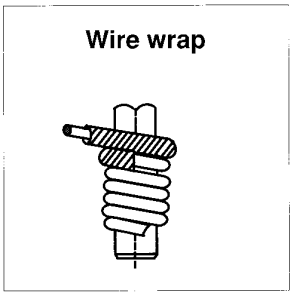
UL For our connectors type B/2 and C/2, we have the UC-recognition by the American approvals authority „Underwriters Laboratories Inc.“ under the File Nr. E 84703.

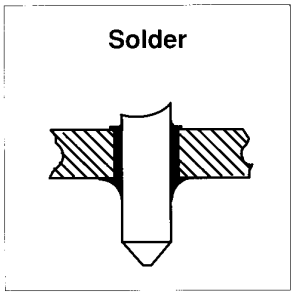
CSA For our connectors type B/2 and C/2, we have the recognition of the „Canadian Standard Association“ under the File Nr. LR 62503 and LR 62504.

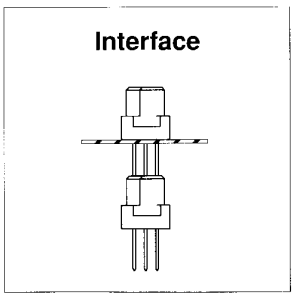
Termination techniques











Connectors with termination techniques ERNIPRESS and Crimp snap in are contained in separate data sheets.

Codings

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

- 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.
- 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.

Retentive clip

For efficient mounting of the right angle connectors ERNI offers a retentive clip.
These clips are installed to the connector 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 PCB holes are recommended in such applications. Connectors with retentive clips are available upon request.

Wiring accessories

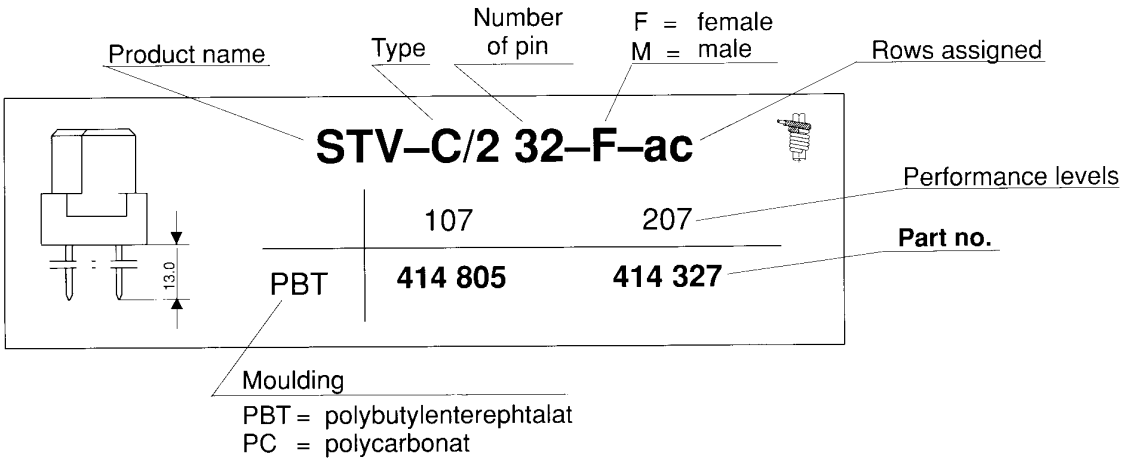
The product range of type B/2, C/2, Q/2 and R/2 connectors is complemented by a range of accessories, offering the possibility to build up mateable wiring-systems entering or leaving the front-panel and wiring-field and connecting peripherical equipment of all kinds (see data sheet „Mateable transfer wiring-system“).

Early make/last break

0,8 mm early make/last break male contacts are possible at all positions in all rows.

Other lengths of early make/last break contacts on request.

Example how to order



Electrical and mechanical data

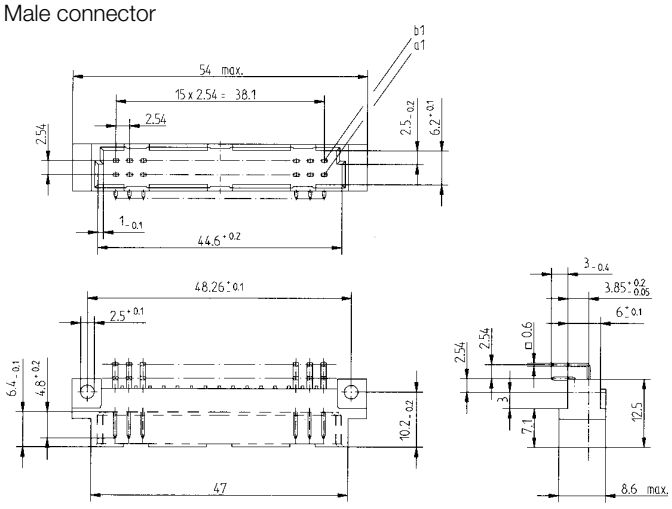
Type				B/2	C/2	B/3	C/3	E 80
Reversed Type				Q/2	R/2	Q/3	R/3	
Max. number of contacts				32	48	20	30	80
Contract row designation of male and female connectors				ab	abc	ab	abc	abcde
Application-class				EKD DIN 40040				
Temperature range				- 60° . . . + 125° C				
Permissible humidity				Annual average 80%, max. 100%				
Creepage (Cr) and clearance (Cl) in mm		Contact to ground	Cr	1.8				
			Cl	1.6				
		Contact to contact within a row	Cr	1.2				
			Cl	1.2				
		between a row	Cr	1.2				
			Cl	1.2				
Current rating at ambient temperature			A					
	+20°C	(293K)		4.0				
	+70°C	(343K)		2.0				
	+100°C	(373K)		1.0				
Test voltage, 50Hz, 1min								
Contact/contact			Veff	1000				
Contact/ground			Veff	1550				
Contact resistance			mΩ	20				
Insulation resistance			Ω	10^{12} at 100 VDC				
Shock and vibration proofness				no contact breakdown at 20g and 10...2000Hz				
Housing material	female		PBT 30% GV	PC 30% GV				
	male		PBT 30% GV	PC 30% GV				
Comparative creepage figure to DIN IEC 112			PBT	CTI 275 / CTI 175 M				
			PC	CTI 150-175 / CTI 100 M				
Service life to DIN 41 612, Part 5				Performance level 1 ≥ 500 Mating-cycles Performance level 2 ≥ 400 Mating-cycles				
Mating and with drawal force for the assembled connectors		N		32pin.≤30	48pin.≤45 32pin.≤30	20pin.≤18	30pin.≤28	80pin.≤75
Withdrawal force per contact of the plastic				≥0.15				
Inflammability of the plastic		PBT		non flammable as per UL 94 V-0				
		PC		non flammable as per UL 94 V-1				

Type B/2

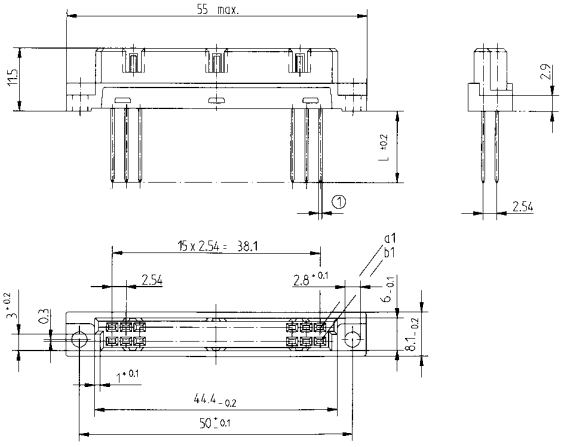
short construction of type B as per DIN 41612/IEC 60603-2

Dimensional drawings

Male connector



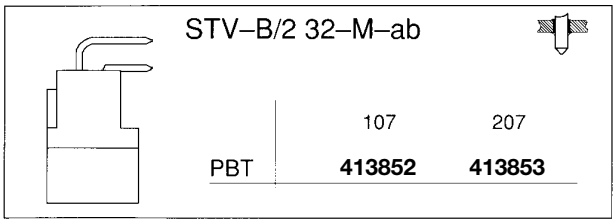
Female connector



① Connectors for dip soldering are available with terminations of 0.25 x 0.7 mm or 0.6 x 0.6 mm. Wire-wrap-terminations 0.6 x 0.6 mm.

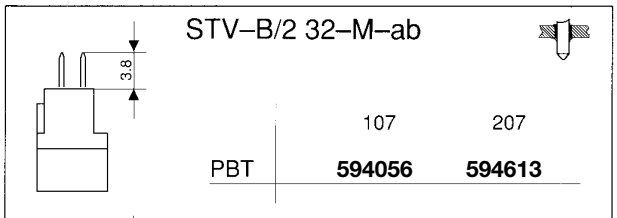
Ordering details

Male connector type B/2
as per DIN 41612/IEC 60603-2, maximum two rows loaded, maximum 32 contacts



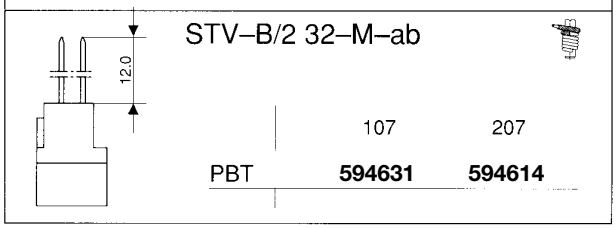
STV–B/2 32–M–ab

	107	207
PBT	**413852**	**413853**



STV–B/2 32–M–ab

	107	207
PBT	**594056**	**594613**

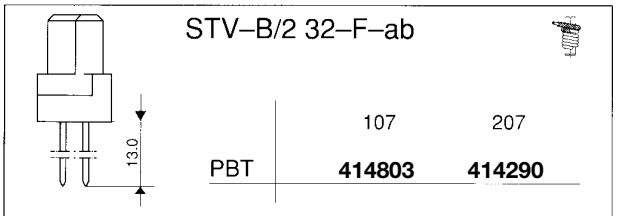


STV–B/2 32–M–ab

	107	207
PBT	**594631**	**594614**

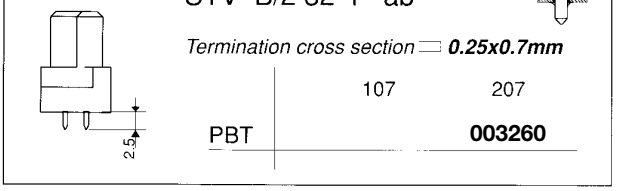
Other types of terminations such as solder eyelets or partially loaded connectors are available on request.
Male connectors with early make/last break contacts can be loaded in any position.

Female connector type B/2
as per DIN 41612/IEC 60603-2, maximum two rows loaded, maximum 32 contacts



STV–B/2 32–F–ab

	107	207
PBT	**414803**	**414290**

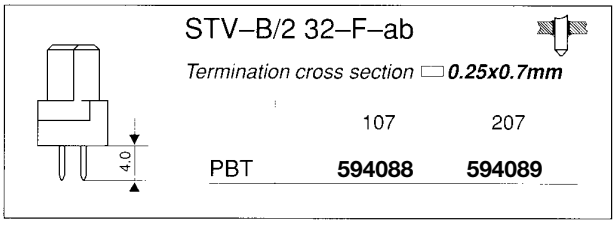


STV–B/2 32–F–ab

Termination cross section ▭ ***0.25x0.7mm***

	107	207
PBT		**003260**

Other versions available on request.



STV–B/2 32–F–ab

Termination cross section ▭ ***0.25x0.7mm***

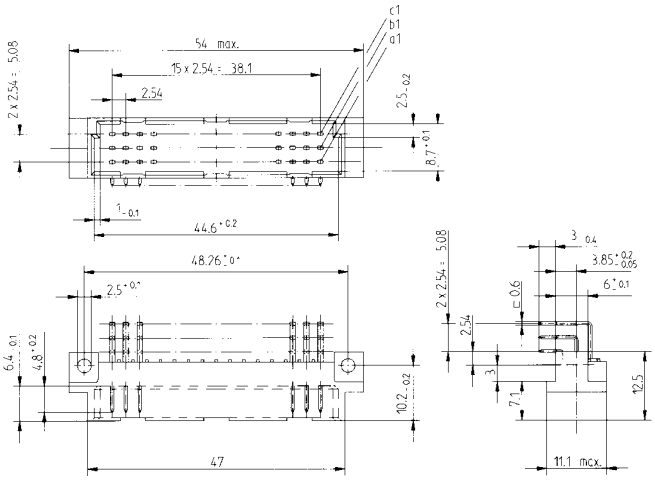
	107	207
PBT	**594088**	**594089**

Type C/2

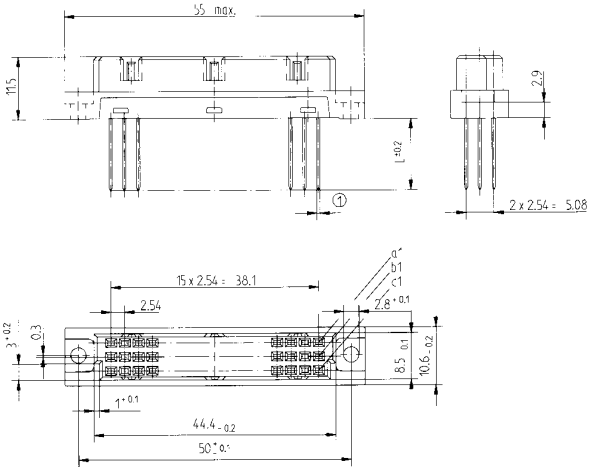
short construction of type C as per DIN 41612/IEC 60603-2

Dimensions

Male connector



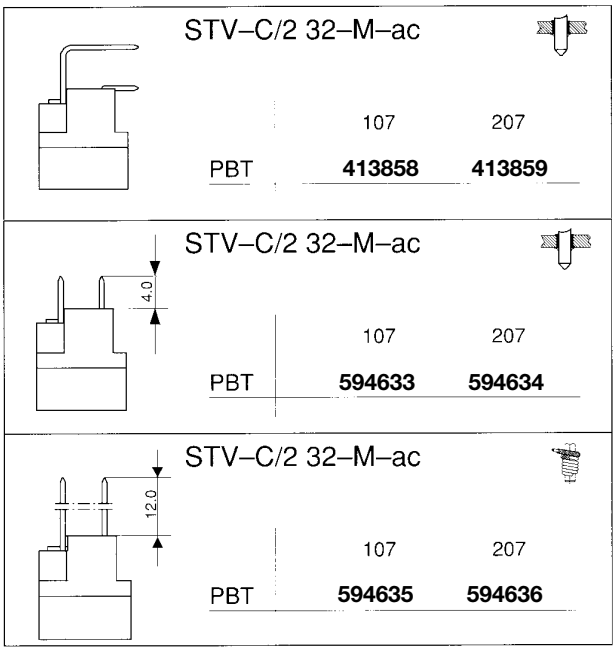
Female connector

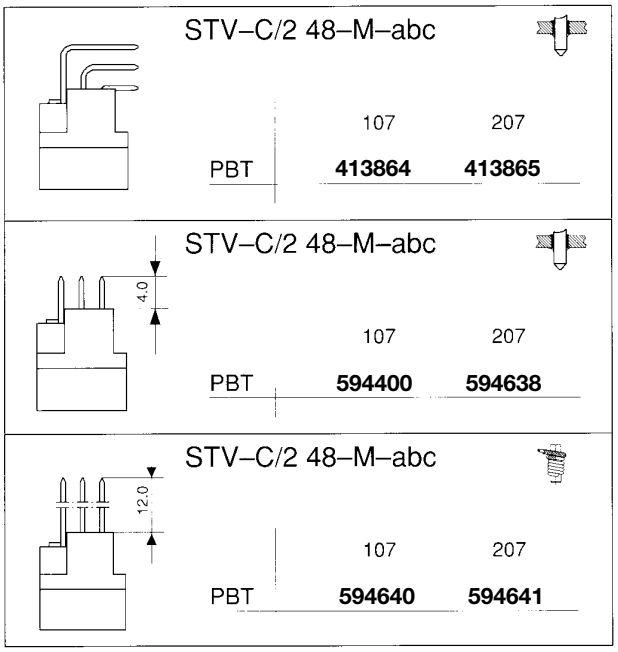


① Connectors for dip soldering are available with terminations of 0.25 x 0.7 mm or 0.6 x 0.6 mm. Wire-wrap-terminations 0.6 x 0.6 mm.

Ordering details

Male connector type C/2
as per DIN 41612/IEC 60603-2, maximum three rows loaded, maximum 48 contacts

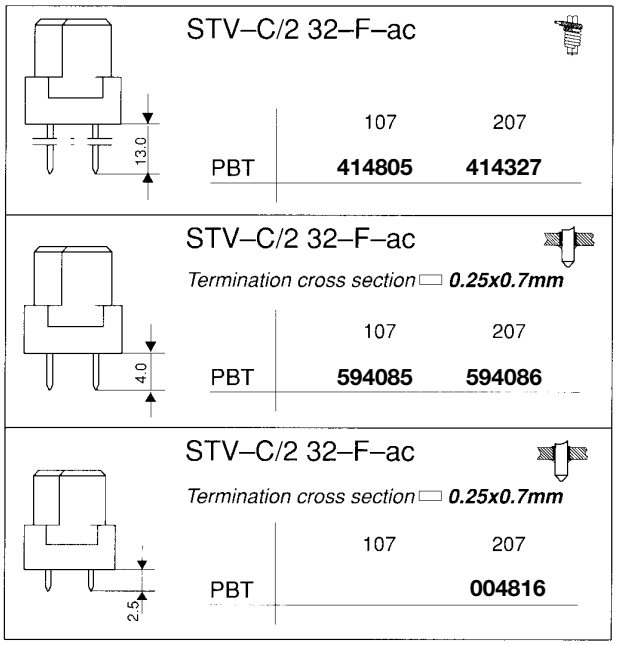


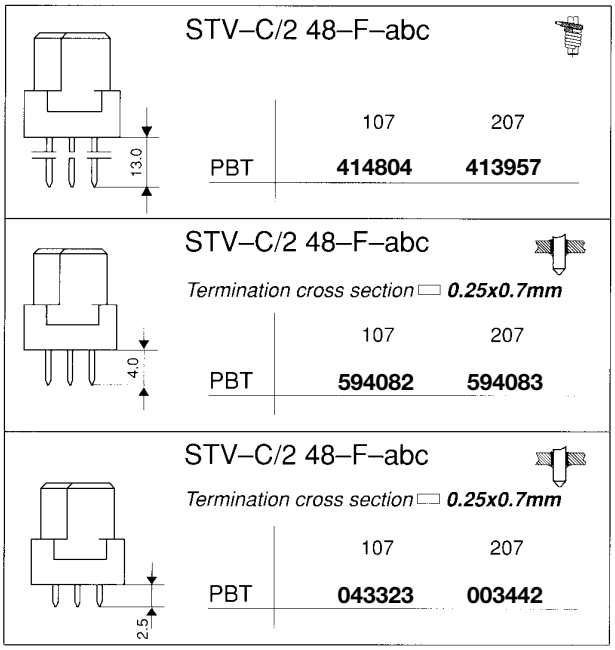


Other versions available on request.

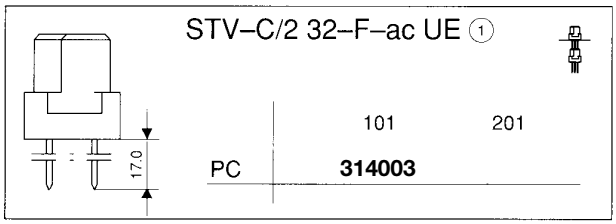
Ordering details

Female connector type C/2
as per DIN 41612/IEC 60603-2, maximum three rows loaded, maximum 48 contacts

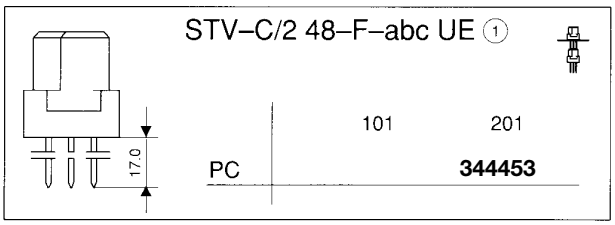




Female connector type C/2
as per DIN 41612/IEC 60603-2, with gold-plated transfer zone

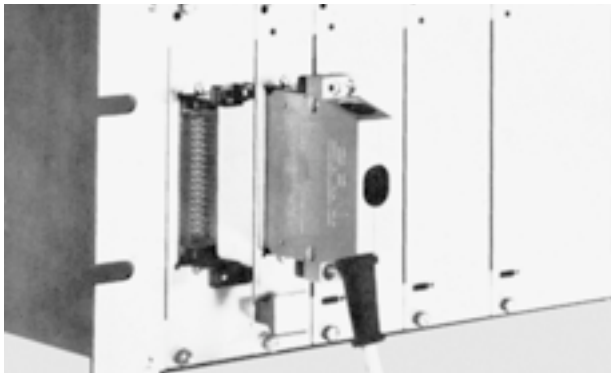


Other versions available on request.



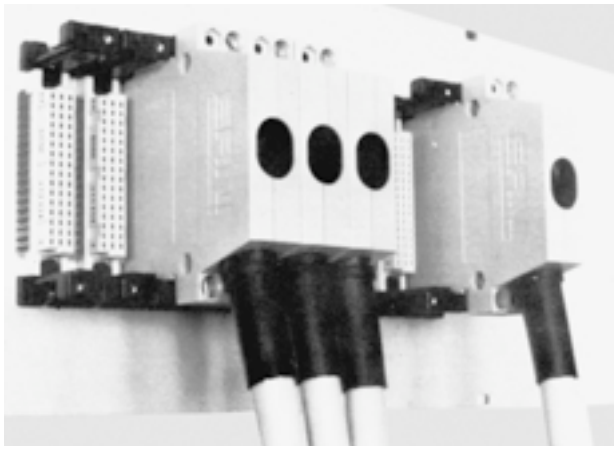
① Entire length of contacts gold-plated.
Suitable for adaption technique.

Application examples for cable housing KSG 193



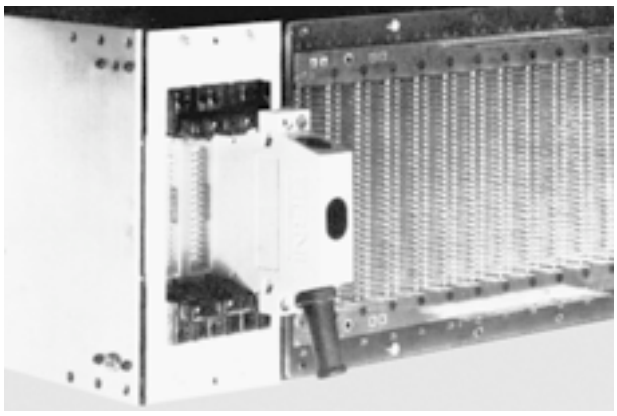
1. Front mounting

This interface system gives users the opportunity of providing mateable connections on the front-panels.
Fitting mateable connectors to the front-panels of PCB modules makes it possible to separate the international and external wiring and to provide mateable connections between different modules, cabinets or other peripheral equipment.
This front end interfaces system makes it possible to transmit sensitive signals without interferences.



2. Mounting on wiring planes

A particular advantage of this method of interconnection wiring is the wide variety of wiring methods that are possible. A female connector type chosen to suit the wiring method used (wire wrapping, solder, faston or piggyback connection) is fitted in the interconnection field.
Thus the interconnection field and the wiring plane have identical terminations. The **male half** of the connector is carried in the cable-housing.
Where the wiring plane is fitted with printed circuit boards on which male connectors with straight pins are fitted, the guide elements can be mounted directly on the printed circuit board. In this case, the **female connector** is carried in the cable housing.



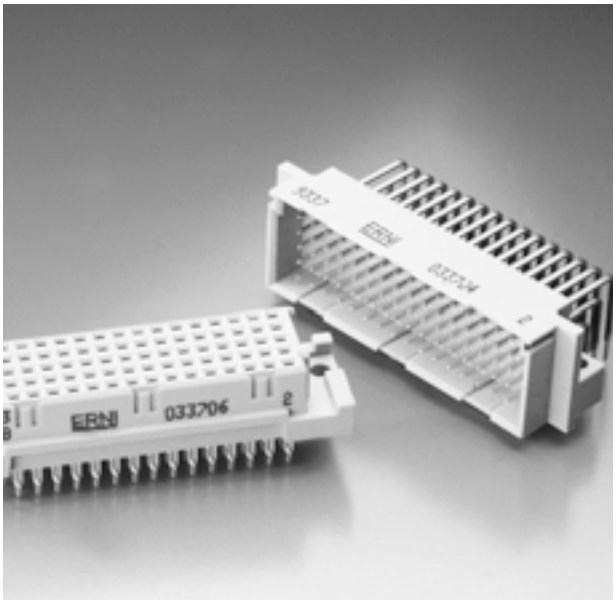
3. Monting and the wiring field

In a similar way to front-mounted connectors, this interface system also provides for making mateable interconnections directly from the wiring end to a printed circuit board.
The guide elements are mounted on the mother board and serve to locate the card in the rack.
The guide elements are mounted on the mother board. Similar to front-panel mounting, female connectors with right-angled connections can be mounted directly on the printed circuit board and the male connectors are then located on the cable housing.

Details regarding this cable housing please refer to the data sheet „Mateable transfer wiring-system“

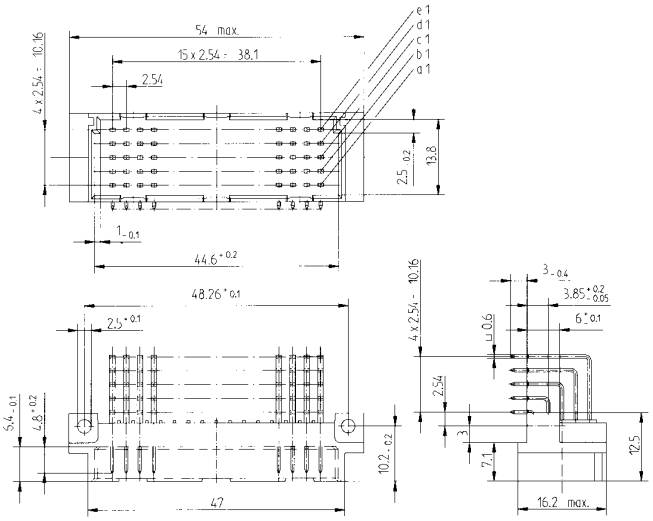
Type E 80

short construction of type E 160

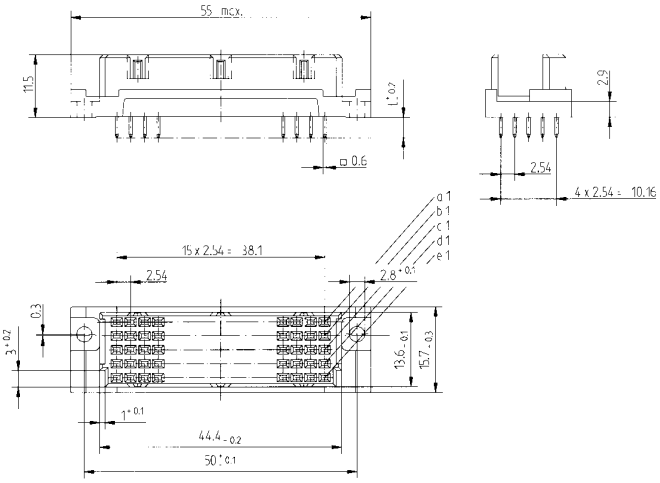


Dimensions

Male connector

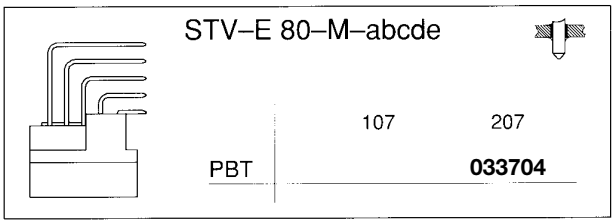


Female connector



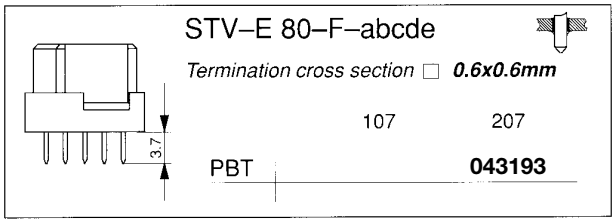
Ordering details

Male connector type E 80
maximum five rows loaded, maximum 80 contacts



Male connectors of type E 80 are also available with compliant pressfit terminations (EE).

Female connector type E 80
maximum five rows loaded, maximum 80 contacts



Female connectors of type E 80 are also available with compliant pressfit terminations (EE).

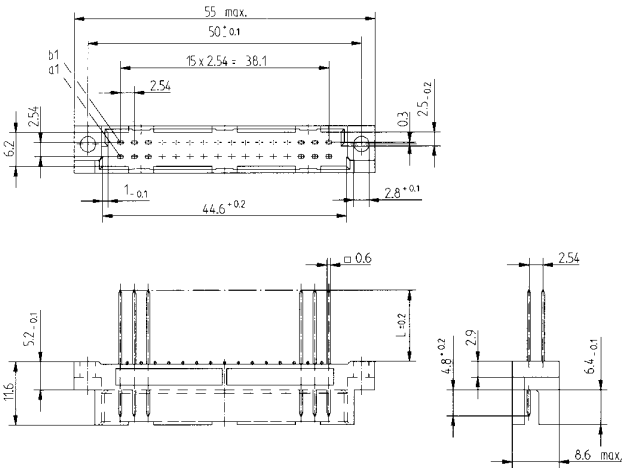
Other versions available on request.

Type Q/2

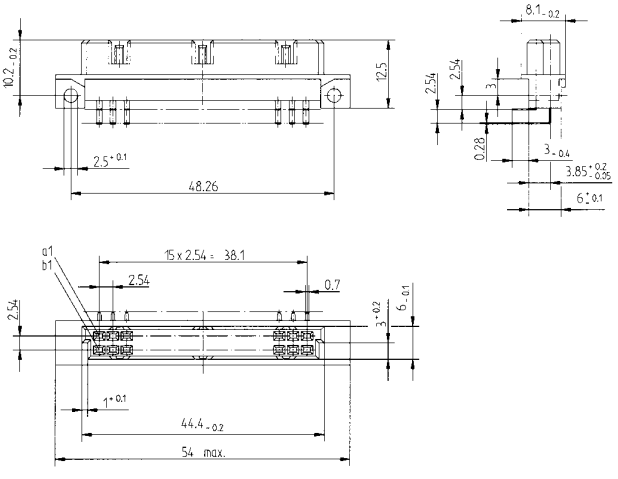
short construction of type Q as per DIN 41612/IEC 60603-2
reversed type

Dimensions

Male connector



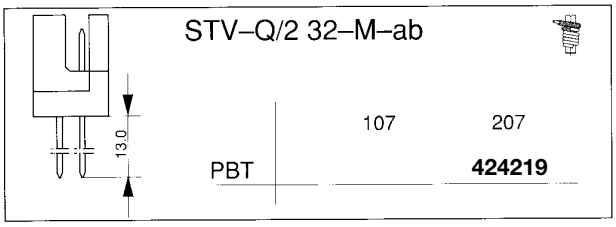
Female connector

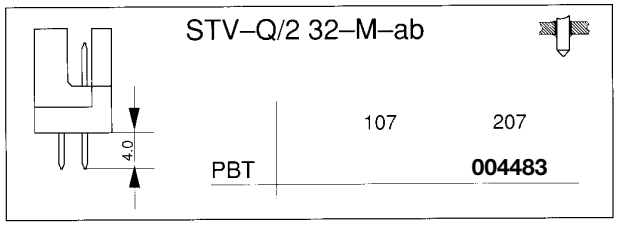


Ordering details

Male connector type Q/2

as per DIN 41612/IEC 60603-2, maximum two rows loaded, maximum 32 contacts

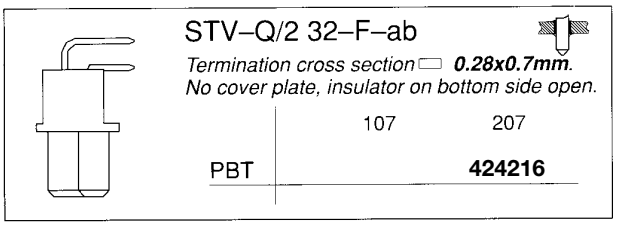




Male connectors with early make/last break contacts can be loaded in any position.

Female connector type Q/2

as per DIN 41612/IEC 60603-2, maximum two rows loaded, maximum 32 contacts



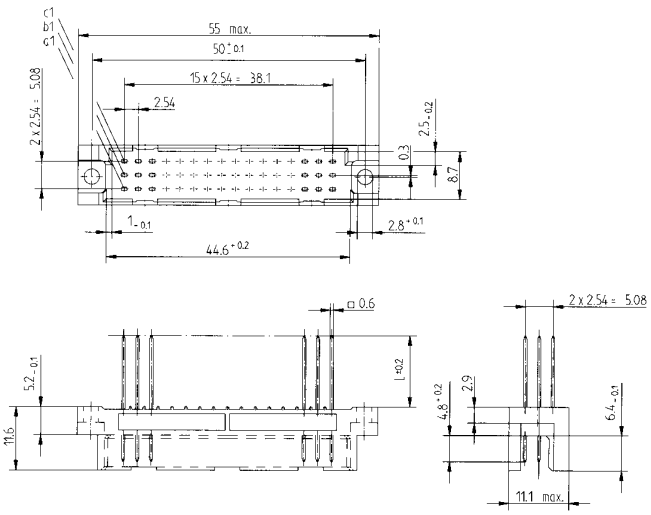
Other versions available on request.

Type R/2

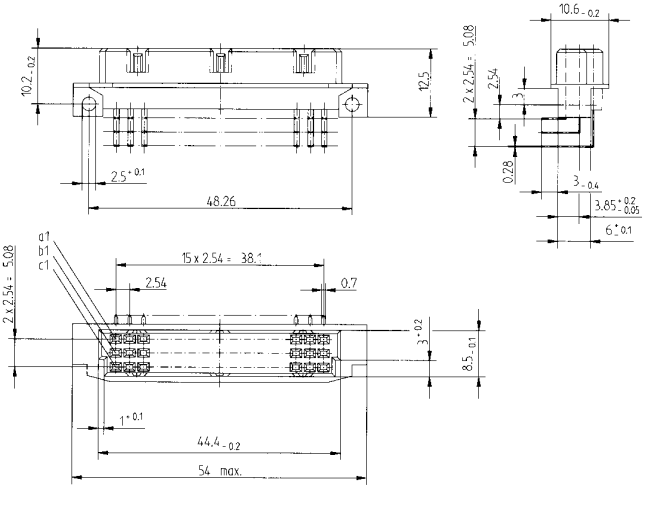
short construction of type R as per DIN 41612/IEC 60603-2
reversed type

Dimensions

Male connector



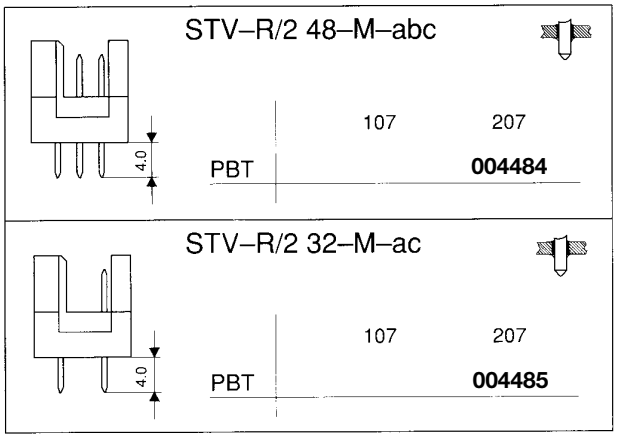
Female connector

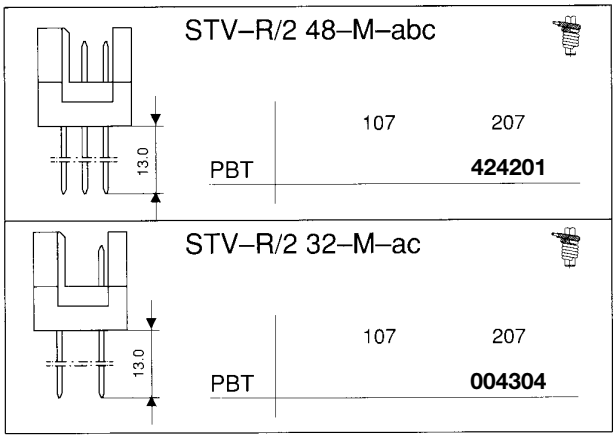


Ordering details

Male connector type R/2

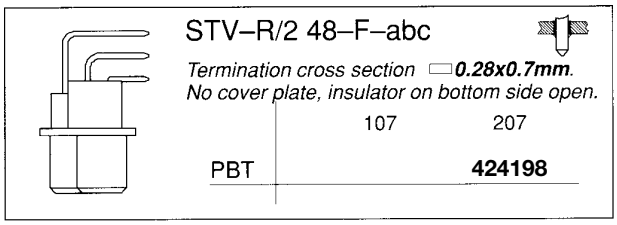
as per DIN 41612/IEC 60603-2, maximum three rows loaded, maximum 48 contacts





Female connector type R/2

as per DIN 41612/IEC 60603-2, maximum three rows loaded, maximum 48 contacts



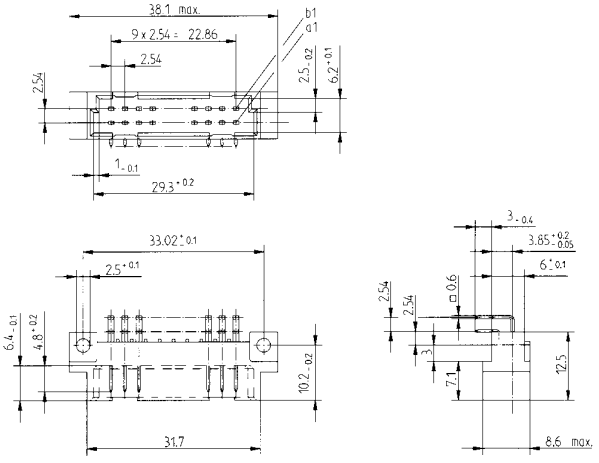
Other versions available on request.

Type B/3

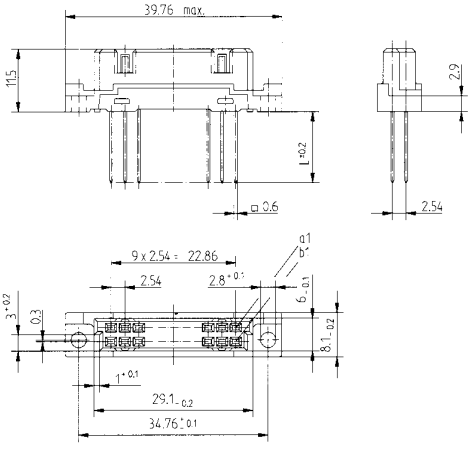
third-length of type B as per DIN 41612/IEC 60603-2

Dimensions

Male connector

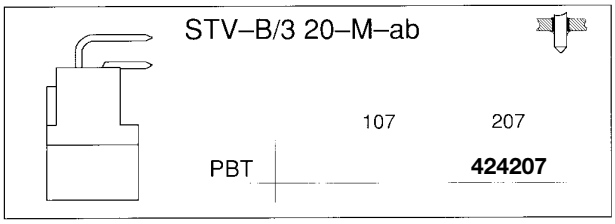


Female connector

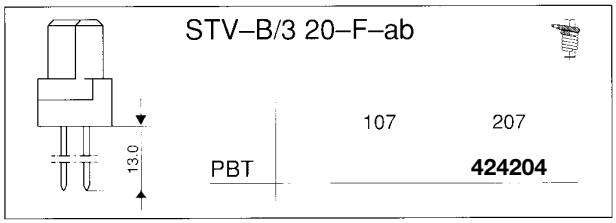


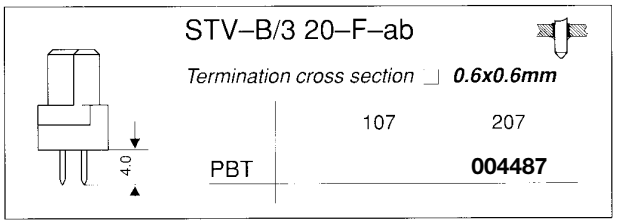
Ordering details

Male connector type B/3
maximum two rows loaded, maximum 20 contacts



Female connector type B/3
maximum two rows loaded, maximum 20 contacts

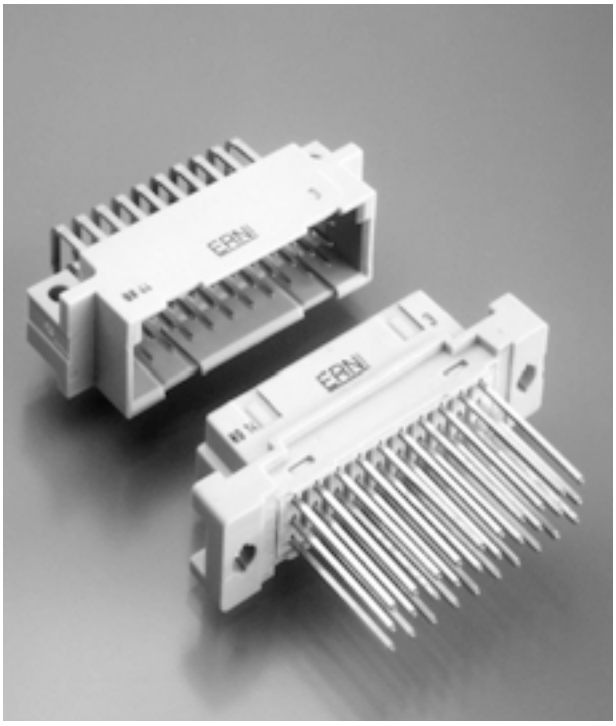




Other versions available on request.

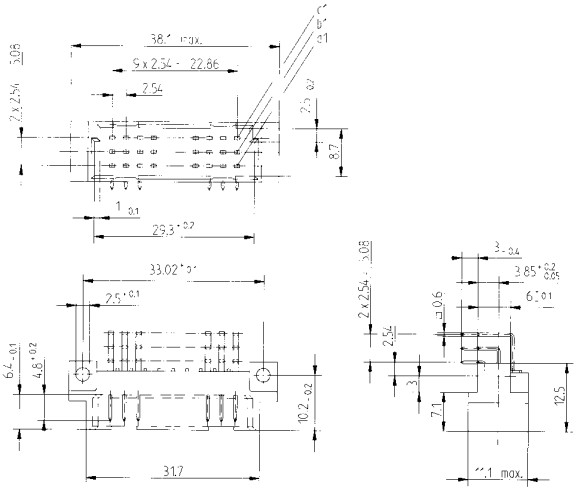
Type C/3

third-length of type C as per DIN 41612/IEC 60603-2

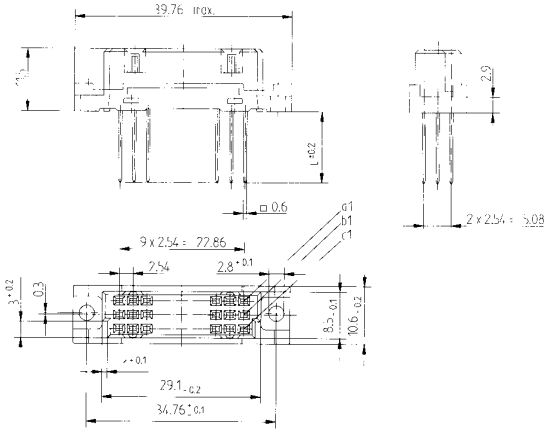


Dimensions

Male connector



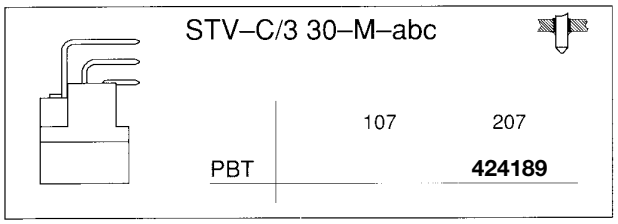
Female connector

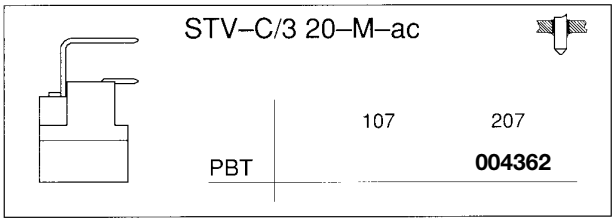


Ordering details

Male connector type C/3

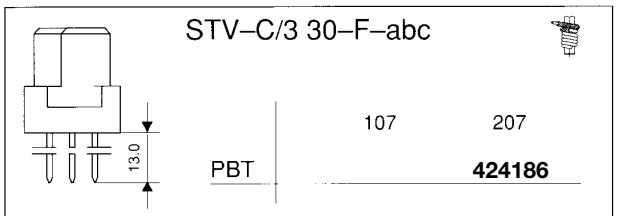
maximum three rows loaded, maximum 30 contacts

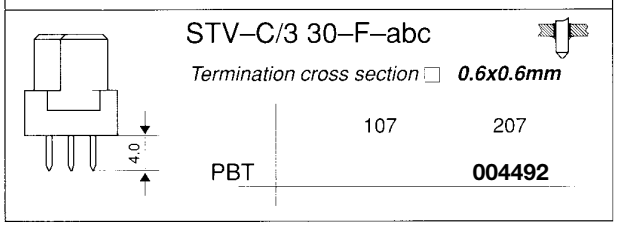


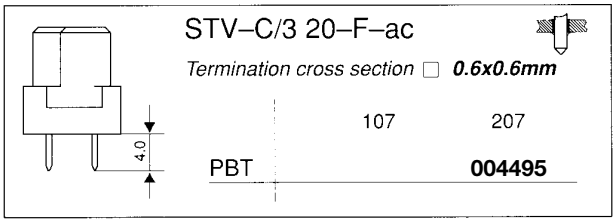


Female connector type C/3

maximum three rows loaded, maximum 30 contacts



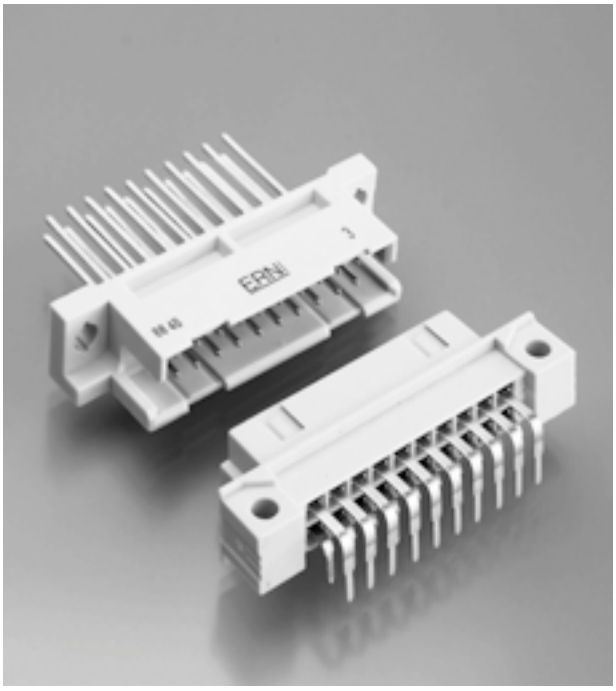




Other versions available on request.

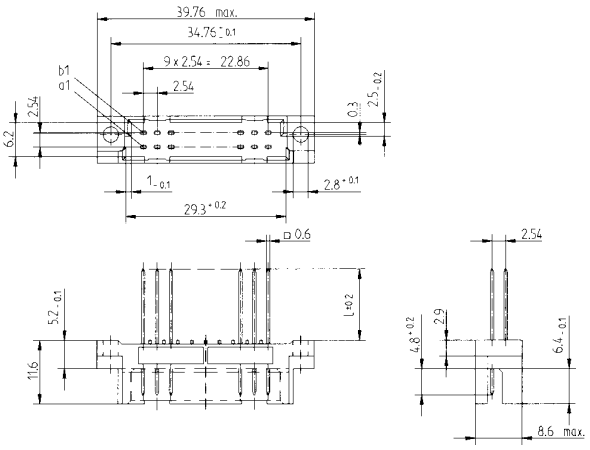
Type Q/3

third-length of type Q as per DIN 41612/IEC 60603-2
reversed type

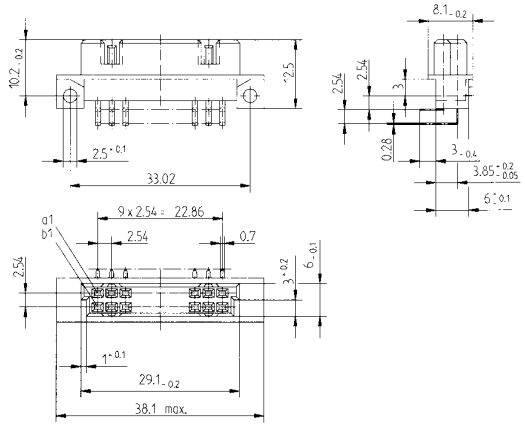


Dimensions

Male connector

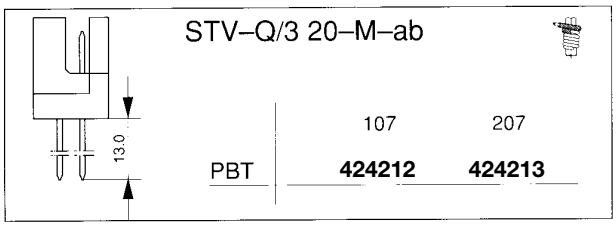


Female connector

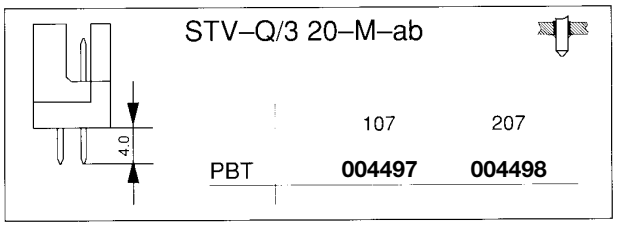


Ordering details

Male connector type Q/3
maximum two rows loaded, maximum 20 contacts

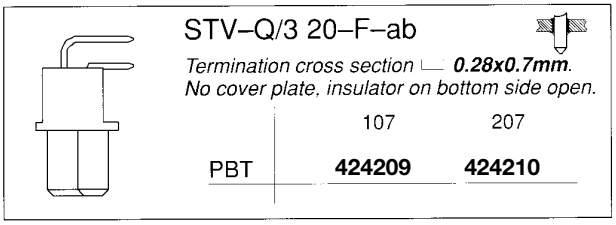


	107	207
PBT	**424212**	**424213**



	107	207
PBT	**004497**	**004498**

Female connector type Q/3
maximum two rows loaded, maximum 20 contacts

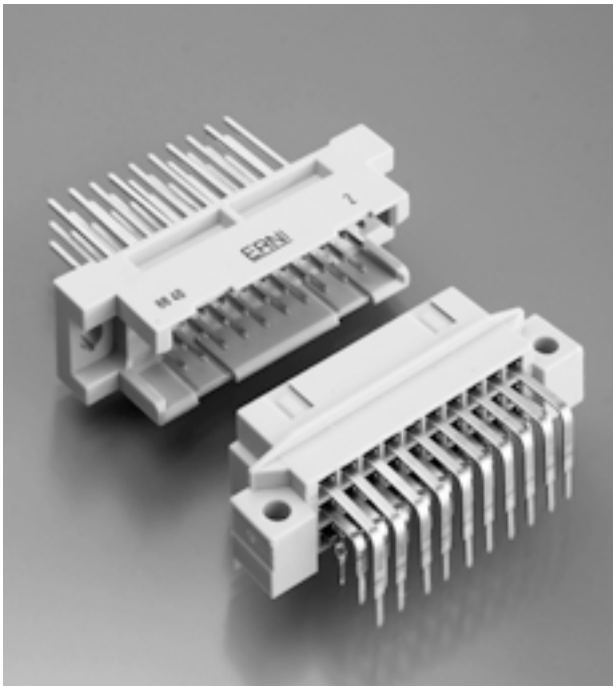


	107	207
PBT	**424209**	**424210**

Other versions available on request.

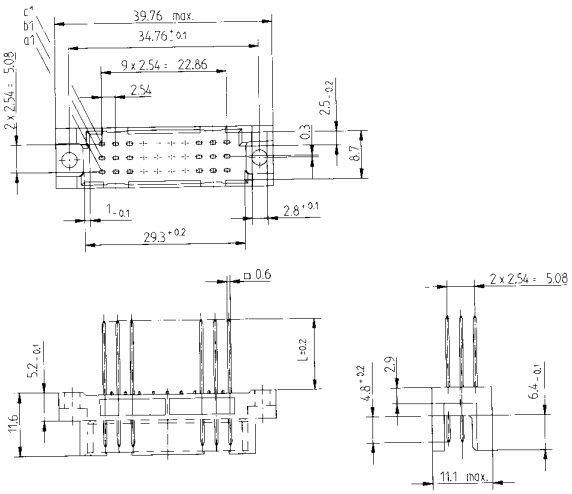
Type R/3

third-length of type R as per DIN 41612/IEC 60603-2
reversed type

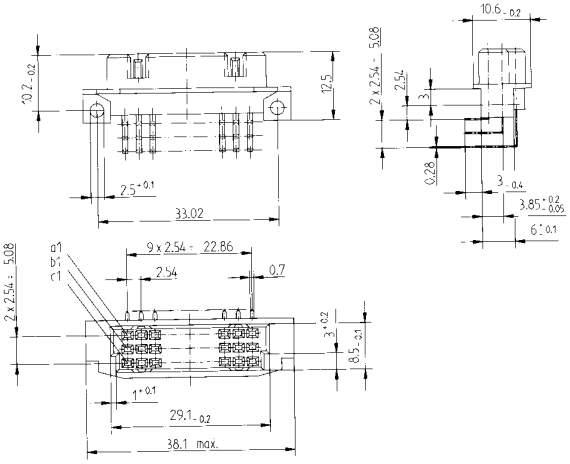


Dimensions

Male connector



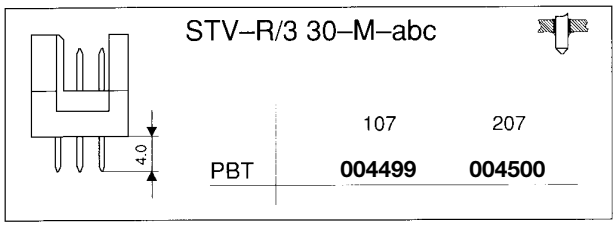
Female connector

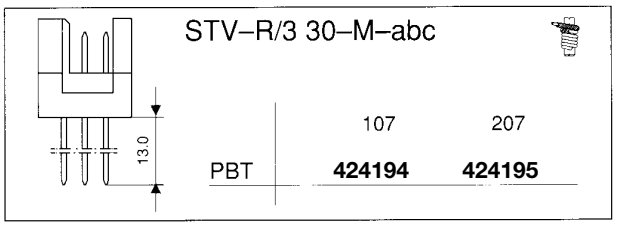


Ordering details

Male connector type R/3

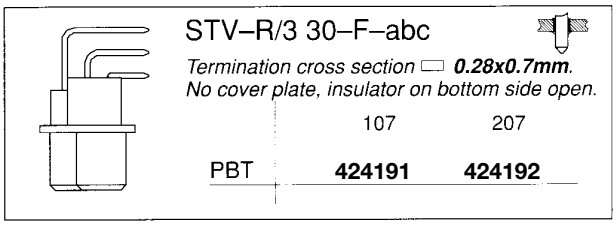
maximum three rows loaded, maximum 30 contacts





Female connector type R/3

maximum three rows loaded, maximum 30 contacts



Other versions available on request.