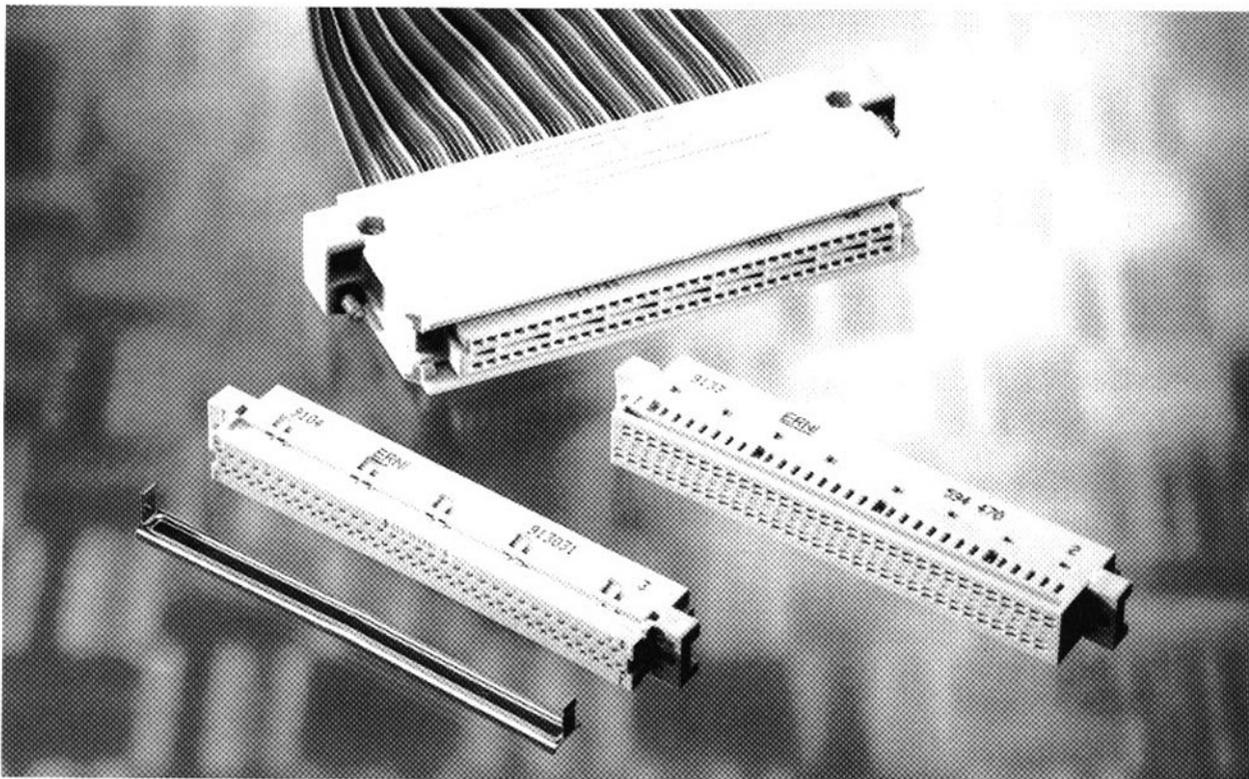


Insulation Displacement Connector (IDC)

for flat ribbon cable

Female connectors size C, 64 and 96 –pin similar to DIN 41 612



General

ERNI insulation displacement connectors similar to DIN 41 612 are suitable for assembling flat ribbon cable.

The female connectors are available with the standard pin numbers 64 and 96.

- Female connectors Size C, 64–pin, rows a c
- Female connectors Size C, 96–pin, rows a b c

Reliable and economic wiring of the flat ribbon cable is performed by a single operation.

The flat ribbon cable fixed in the cable guide is pressed onto the insulation displacement contacts of the female connector using a simple tool (pliers or installed press).

A reliable connection is made via a double insulation displacement contact, the pointed ends of which puncture the insulation of the flat cable and make contact with the conductors at high pressure.

Main features

- Two–part connector system
- Pitch 2,54 mm (1/10")
- Built according to DIN 41 612, the most widespread connector standard with 13 basic sizes
- **Two sided female contacts**
- **Double insulation displacement contacts with four points of contact per conductor (64–pin version only)**
- Accurate locating of the flat ribbon cable in the cable guide
- Numbered openings in the cable guide allow the connection to be inspected visually and checked electrically from the wiring side.
- Connector housings available for 90° and 180° cable entries
- Low–cost parallel back–panel wiring for racks
- With the ERNI interfacing system the connector is suitable for creating links from the front or back panel of the rack

Electrical and mechanical characteristics

| | | |
|--|---|-----|
| Max. number of contacts | 64 | 96 |
| Contact row designation | ac | abc |
| Temperature range | -65°C...+125°C | |
| Current rating at + 20°C ambient temperature + 70°C + 100°C | 2 A 1,5 A 1 A | |
| Test voltage 50Hz, 1min Contact/Contact Contact/ground | 600 V _{eff} 1000 V _{eff} | |
| Permissible humidity Test class 65/125/56 | Annual average ≤ 80%, max. 100% | |
| Contact resistance | ≤ 20 mΩ | |
| Insulation resistance | ≥ 10 ¹² Ω | |

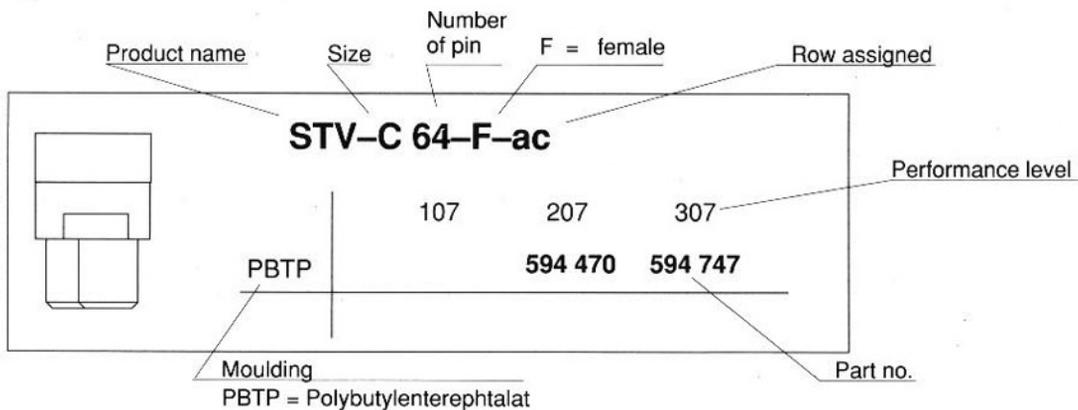
| | | |
|--|---|-----------------|
| Max. number of contacts | 64 | 96 |
| Shock and vibration proofness | No contact breakdown at 20g and 10...2000Hz | |
| Service life to DIN 41 612, part 5 | Performance level 2 ≥ 400 Performance level 3 ≥ 50 | |
| Housing material of female connectors | PBTP 30%GV | |
| Contact material | Zinnbronze | Phosphor Bronze |
| Mating and withdrawal force for the assembled connectors max N | 64 pin ≤ 60 N 96 pin ≤ 90 N | |
| Inflammability of the plastic | UL 94 V-0 | |

Performance levels

207 Conforms to the requirements as per DIN 41612 performance level 2 and IEC 603-2 400 mating cycles Contact zone gold-plated Terminal zone tin-plated

307 Conforms to the requirements as per DIN 41612 performance level 3 and IEC 603-2 50 mating cycles Contact zone gold-plated Terminal zone tin-plated

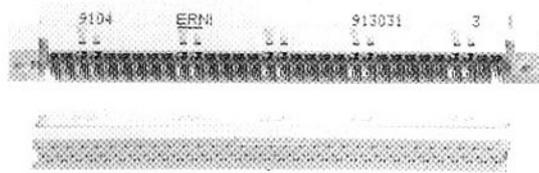
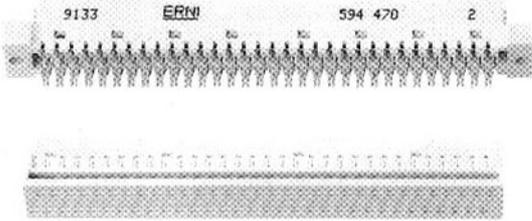
Example of how to order



Female connectors Size C, 64 and 96-pin

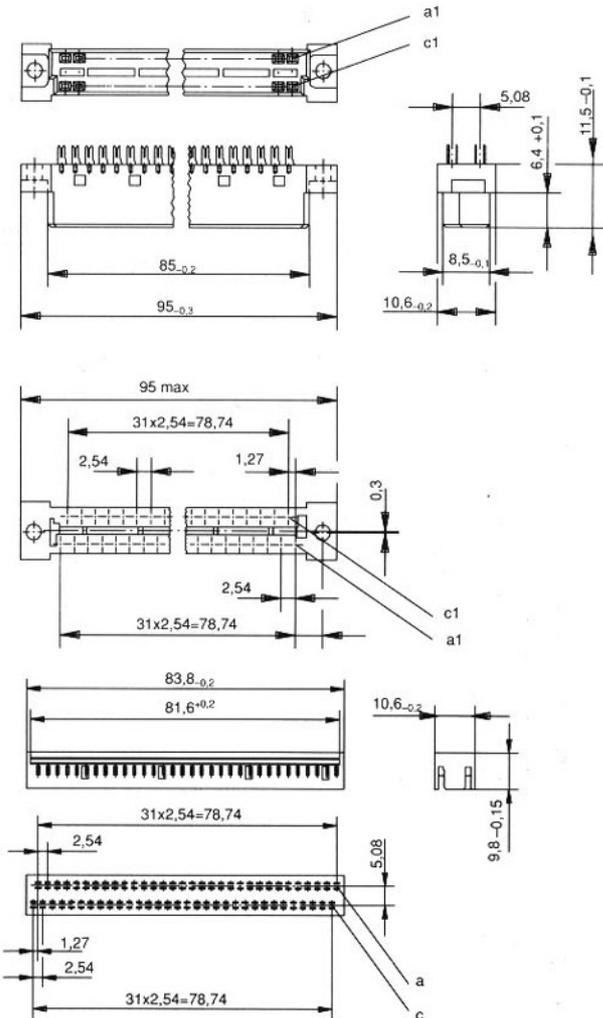
insulation displacement connectors

similar to DIN 41 612

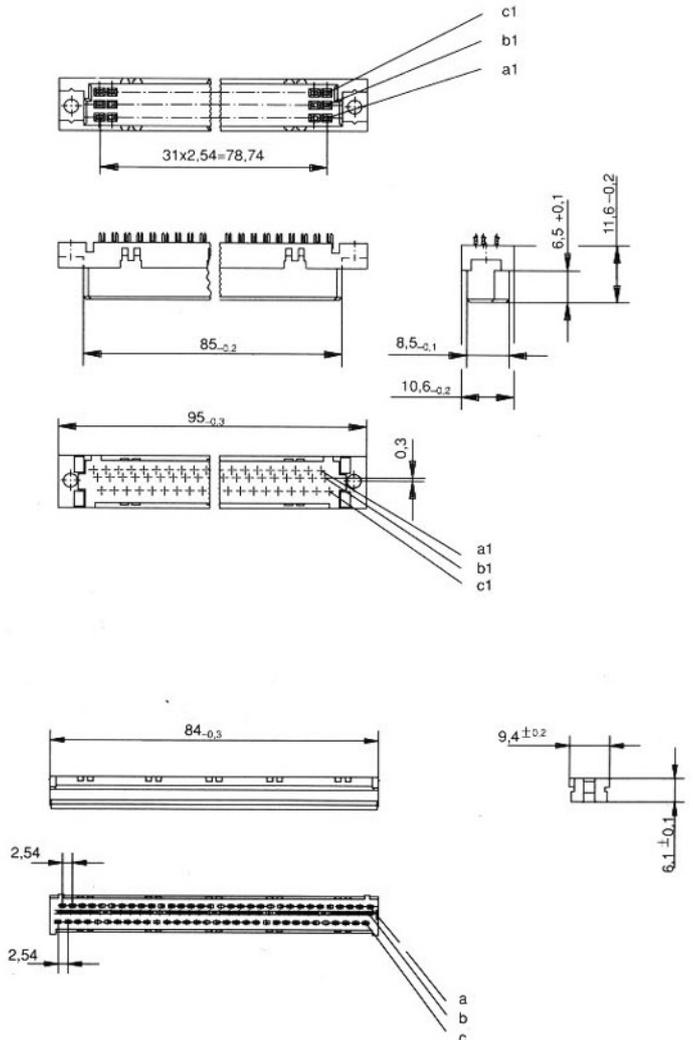


Dimensional drawing

Female connector C-64 pin



Female connector C-96 pin

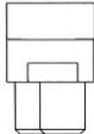


Ordering details

All female connectors with insulation displacement contacts are supplied with cable guides.

Female connectors size C, 64-pin

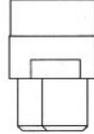
similar to DIN 41 612

| | | | | |
|---|------|-----|----------------|----------------|
| STV-C-64-F-ac | | | | |
|  | | 107 | 207 | 307 |
| | PBTP | | 594 470 | 594 747 |

A withdrawal lug with a tension relief clamp for a 64-row female connector size C is available on request as an accessory.

Female connectors size C, 96-pin

similar to DIN 41 612

| | | | | |
|---|------|-----|----------------|-----|
| STV-C-96-F-abc | | | | |
|  | | 107 | 207 | 307 |
| | PBTP | | 033 117 | |

A withdrawal lug with a tension relief clamp for a 96-row female connector size C is available on request as an accessory.

Female connectors without mounting flange on request.

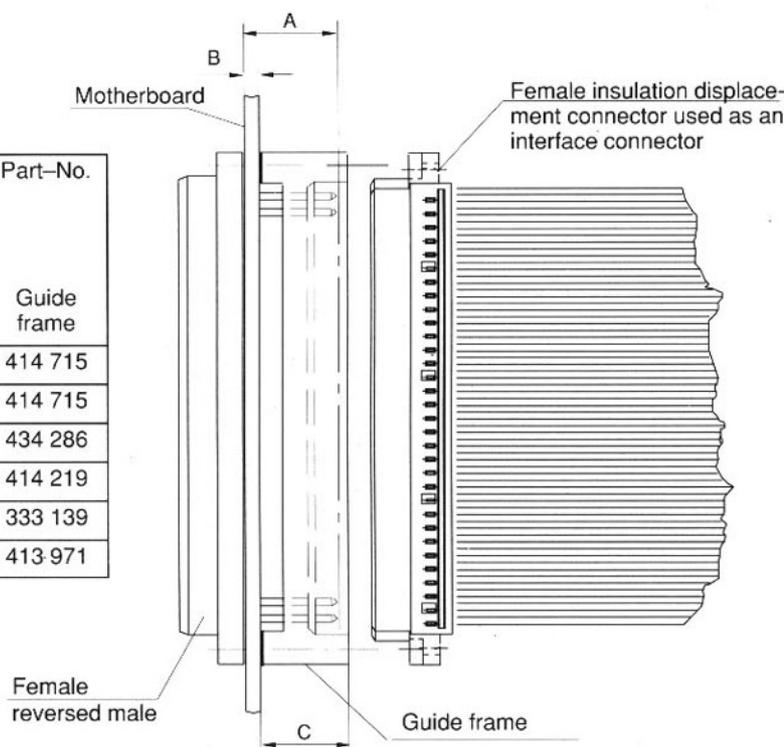
Application example

To facilitate use of female connectors with insulation displacement contacts as interface connectors from the wiring side of the rack ERNI has developed special guide

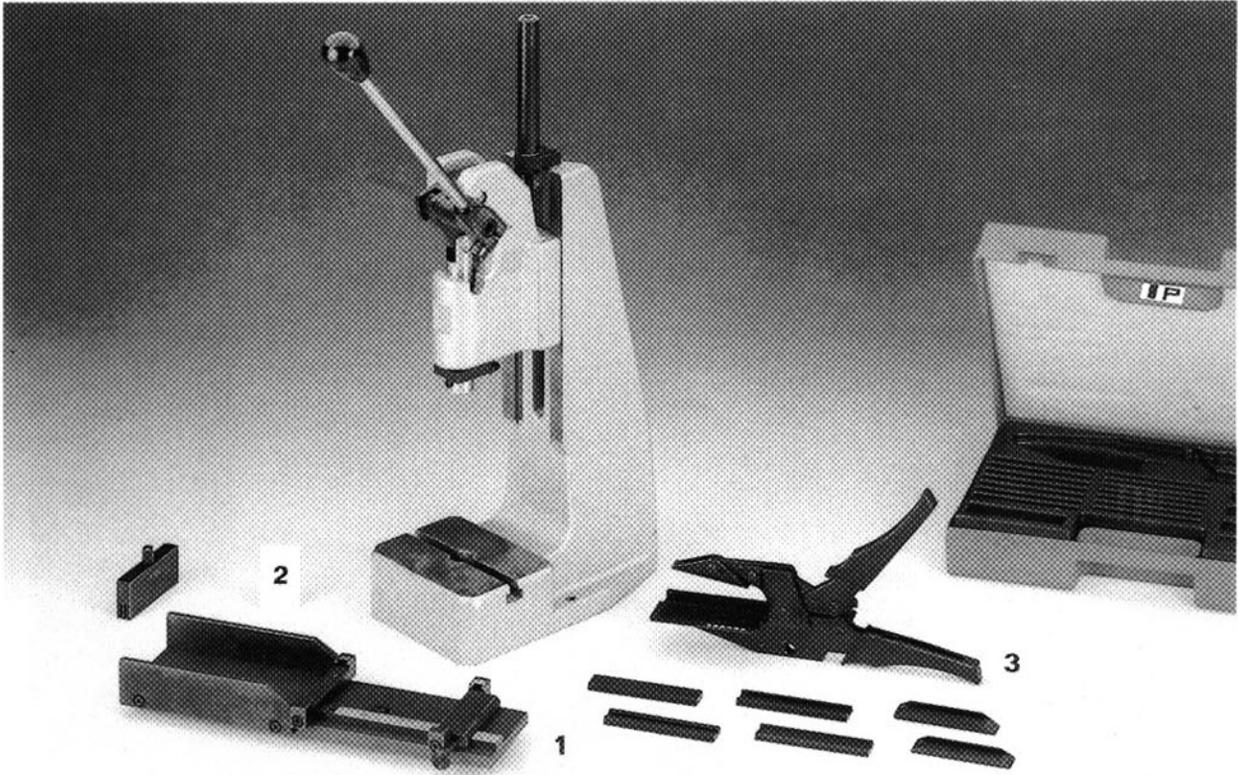
frames. These guide frames are available in various lengths.

(All dimensions in mm)

| Size | Contact length | Mother board | Guide frame | Part-No. |
|---------|----------------|--------------|-------------|-------------|
| | A | B | C | Guide frame |
| C, R | 13 | 1,6 | 12,5 | 414 715 |
| | 13 | 2,4 | 12,5 | 414 715 |
| | 13 | 3,2 | 11,4 | 434 286 |
| | 17 | 2,4 | 16,0 | 414 219 |
| | 17 | 3,2 | 15,2 | 333 139 |
| | 20 | 3,2 | 18,2 | 413 971 |



The female insulation displacement connector can be screwed to the guide frame with a cheese-head tapping screw B2.2x9.5 DIN 7971.

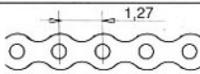
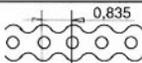


Ordering details tools

| Description | Fig. no. | Part no. |
|------------------------------------|----------|----------|
| Standard assembly tool | | 473 210 |
| Assembly tool with adjustable stop | 1 | 473 188 |

| Description | Fig. no. | Part no. |
|---|----------|----------|
| Bench press | 2 | 473 200 |
| Pliers with various accessories. Complete set in a case | 3 | 424 623 |

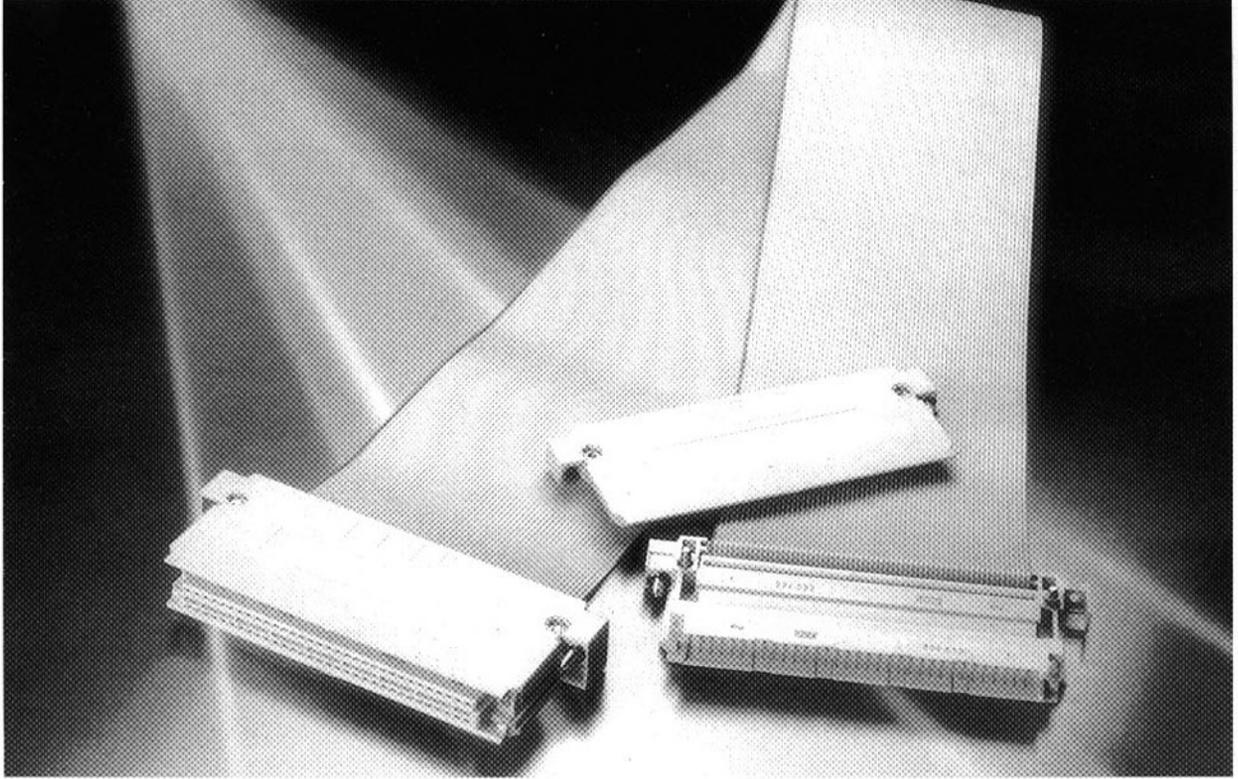
Ordering details for flat ribbon cables und accessories

| 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 | 414 068 |
| | color coded | 61m | 414 082 |
| 96-pin  | grey with a red identification wire | 61m | 913 049 |

| Description | Remarks | Part.no. |
|--|--------------------------------------|----------|
| Tension relief clamp  | for a 96-row female connector size C | 033 055 |

System technology

Standard and customized flat cable systems



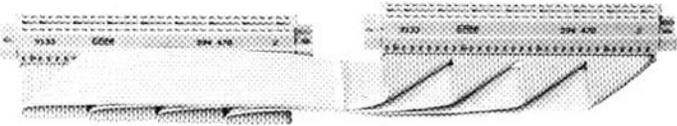
Apart from various standard systems ERNI also offers customized flat cable systems with insulation displacement connectors.

These systems are manufactured according to your specifications and are subjected to electrical testing.

The connectors used and some other versions are shown in this information leaflet, e.g.:

- Connector Series TMC (Sub-D) from 9 to 37-pin
- PCB connector Series LPV from 10 to 60-pin
- Modular insulation displacement connectors from 6 to 96-pin
- DIN 41 612 connectors with crimp snap-in contacts

Ordering details for standard systems

| Description | Part no. |
|--|----------------|
| <p>19" rack connection system, 6 height modules, 64-pin grey flat ribbon cable with red identification wire.</p>  | <p>373 019</p> |

Part-No. Page

| | |
|--------|---|
| 033055 | 2 |
| 033117 | 1 |
| 373019 | 3 |
| 414068 | 2 |
| 414082 | 2 |
| 424623 | 2 |
| 473188 | 2 |
| 473200 | 2 |
| 473210 | 2 |
| 594470 | 1 |
| 594747 | 1 |
| 913049 | 2 |