

HIGH VOLTAGE MULTIPIN CONNECTORS

- ❑ High voltage connectors (breakdown voltage 12,5 kVdc).
- ❑ High density rectangular connectors for 23 or 52 high voltage contacts.
- ❑ Braid to braid electrical continuity achieved once plug & receptacle are mated.
- ❑ Rear release, rear removable size 23 crimp contacts.
- ❑ Interlock contacts.



These connectors have been designed for high voltage applications on four CERN experiments (ATLAS, CMS, ALICE, LHC-B) of the LHC (Large Hadron Collider) particle accelerator. For connectors with 23 or 52 contacts (size 23 crimp), there are five configurations available (see table on reverse side). The connectors can be fitted with two interlock pin contacts that switch off the power supply before unmating the standard contacts. Both interlock and standard contacts are rear release rear removable crimp contacts. The electrical continuity between the plug and the receptacle is provided by the connector pin guides.

TECHNICAL CHARACTERISTICS :

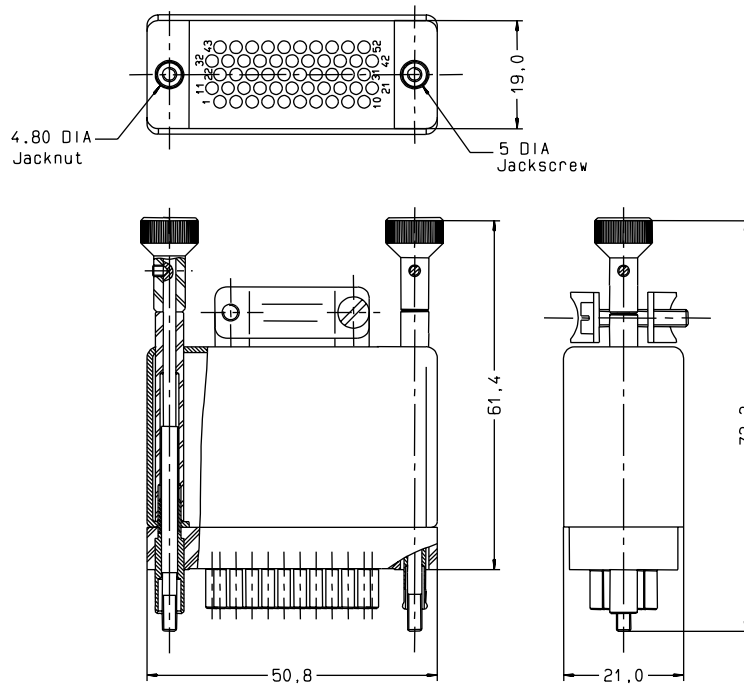
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|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ● Material insulator : | Thermoplastic UL94V0 - halogen free - tensile strength reduction does not exceed 6% after a cumulative exposition to $5 \cdot 10^8$ Gy at a rate of 1 to 2 Gy / h. |
| ● Backshell & shroud : | Aluminium alloy nickel plated. |
| ● Locking device : | Stainless steel and nickel plated copper alloy. |
| ● Contacts : | Copper alloy gold over nickel plated. |
| ● Breakdown voltage : | 12,5 kV dc. |

ISO 9001 APPROVED



DIMENSIONS :

The drawing below shows the dimensions (mm) of the plug for cable and for 52 socket contacts.



CERN / RADIALL CROSS REFERENCES :

| CERN P/N | RADIALL P/N | Designation |
|----------------|-------------|---------------------------------------------------------------------------|
| 09.41.34.700.2 | 691802002 | Plug for cable and for 52 socket contacts |
| 09.41.34.720.8 | 691802004 | Plug for cable and for 52 pin contacts |
| 09.41.34.705.7 | 691803002 | Receptacle for cable and for 52 pin contacts |
| 09.41.34.710.0 | 691803004 | Receptacle for front panel and for 52 pin contacts |
| 09.41.34.730.6 | 691803006 | Receptacle for front panel and for 52 socket contacts |
| 09.41.34.500.8 | 691802003 | Plug for cable and for 23 socket contacts |
| 09.41.34.520.4 | 691802005 | Plug for cable and for 23 pin contacts |
| 09.41.34.505.3 | 691803003 | Receptacle for cable and for 23 pin contacts |
| 09.41.34.510.6 | 691803005 | Receptacle for front panel and for 23 pin contacts |
| 09.41.34.530.2 | 691803007 | Receptacle for front panel and for 23 socket contacts |
| 09.41.33.840.5 | 691804200 | Size 23 pin contact for 0,12mm ² cross section cable |
| 09.41.33.820.9 | 691804201 | Size 23 pin contact for 0,02mm ² cross section cable |
| 09.41.33.830.7 | 691804300 | Size 23 socket contact for 0,12mm ² cross section cable |
| 09.41.33.810.1 | 691804301 | Size 23 socket contact for 0,02mm ² cross section cable |
| 09.41.33.890.5 | 691804230 | Size 23 interlock pin contact for 0,12mm ² cross section cable |
| 09.41.33.880.7 | 691804231 | Size 23 interlock pin contact for 0,02mm ² cross section cable |
| T.B.D | 282281 | Crimping tool |
| T.B.D | 282585001 | Positioner |
| T.B.D | 282549024 | Insertion / extraction tool |

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