

# 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),

## HIGH VOLTAGE CABLE

(multicore)

## SL-V2YCEH

### 6 kV (DC) / 70°C

*screened*

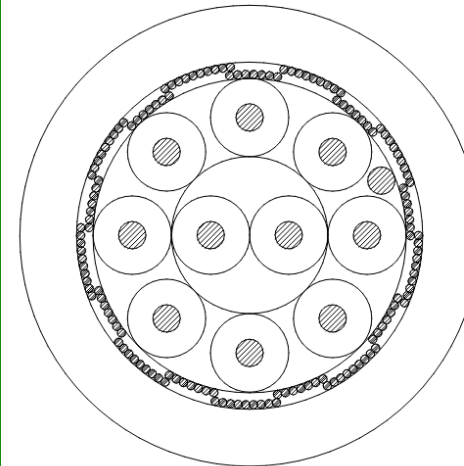
*zero halogen, flame retardant*

### Application

Used as fixed or flexible installed control cable for high voltage (dc) supply for electrical equipments and control units in research. For indoor and outdoor use in dry and wet locations. With reduced smoke emission, corrosiveness and toxicity of combustion gases acc. to CERN safety instruction IS 23.

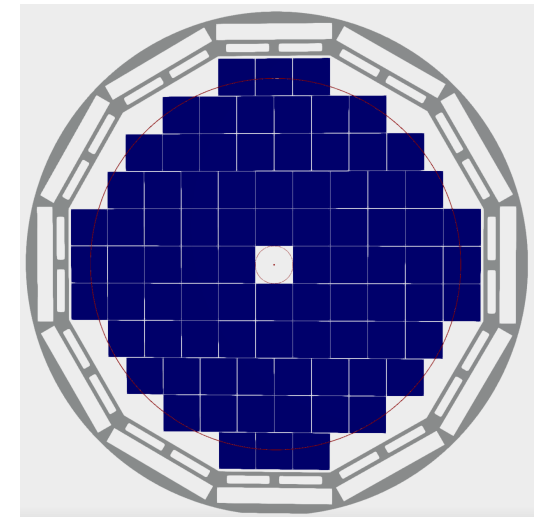
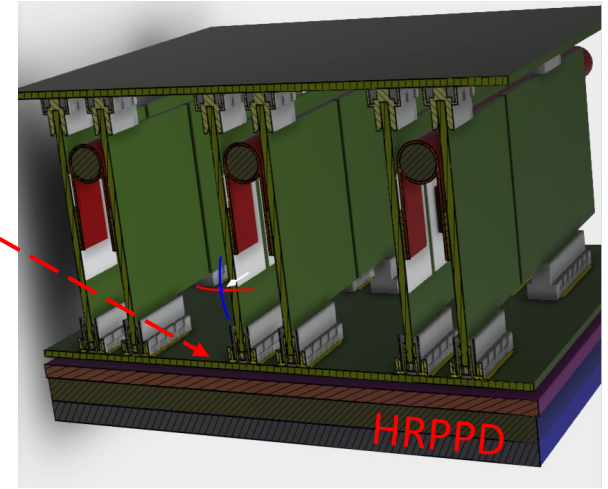
### Construction

- **Cores**  
*Conductor* .....Tinned copper, flexible stranded, AWG26/7  
*Insulation* .....Polyethylene  
*Colour Code* .....Natural-coloured, continuously numbered on cores  
 .....1-n, starting at the centre
- **Further Construction**  
*Wrapping* .....Min. 1 layer of plastic tape, nom. 36µm  
*Screen* .....Tinned copper wire braid, opt. coverage min. 80 %  
 .....over tinned copper drain wire, AWG26/7  
*Outer Sheath* .....Zero halogen, flame retardant polymer  
*Colour* .....Red
- **Cable Marking**  
*Imprint*.....KERPEN SL-V2YCEH SIZE 6KV(DC)  
 ZERO HALOGEN yy W ww Length marking

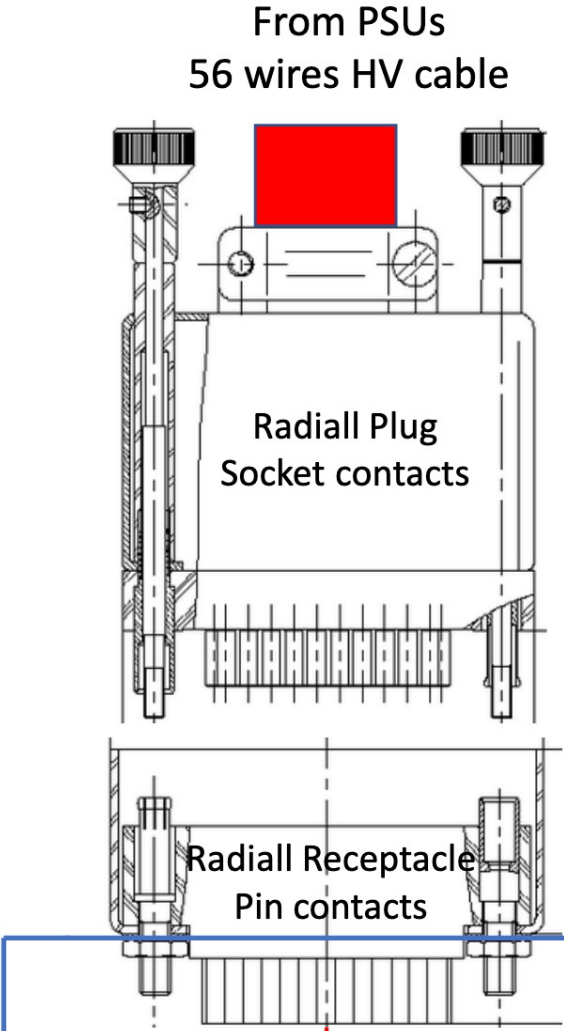


56 wires: <10 cm bending radius

individual Teflon coated wires to HRPPDs



- pFRICH: presently 84 tiles
- 5 HV levels + ground per tile
- Need at most nine 52-pin connectors (+ one spare?)



From PSUs  
56 wires HV cable

Radial Plug  
Socket contacts

Radial Receptacle  
Pin contacts

Black box

6 core cable

6 core cable

To  
#1 HRPPD

To  
#10 HRPPD

internal  
Patch panels

GES MCS series



