

# Spring-loaded Cable

## Advantage of Spring-loaded Cable



Mechanical Spring

Elastomeric Spring

### Benefits

- Higher system up-time
- Lower installation costs
- Lower maintenance costs
- Longer lifetime of cable and tube
- Flange with pressure indicator

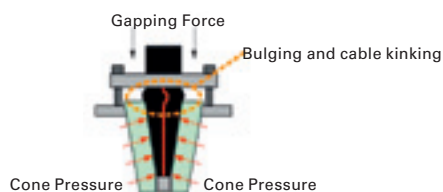
### What is different?

- Spring-loaded cables replace the elastomeric spring by mechanical spring

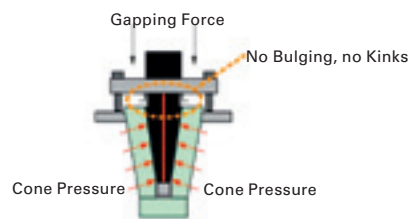
### What are the effects?

- Constant pressure in the receptacle over time since the metal section of the cable replaces the region where bulging normally occurs
- Gapping becomes less critical
- No over-gapping possible
- Reduction of discharges in the interface
- Improved field distribution at the transition cable – receptacle
- Eliminates need of re-gapping 24 hours after initial installation

Standard Cable



Spring loaded Cable



## Technical Data Cables

Rated voltage
Nominal outside diameter
Coverage shielding braid
Conductor resistance Bare Conductor at 20 °C
Conductor resistance Red & White Cond. at 20 °C
Minimum bending radius (dynamic)
Insulation resistance (wires to shield)
Capacitance (wires to shield)
Max. operating temperature

U3/100	N3/160	P3/250
100 kVDC	160 kVDC	250 kVDC
20 mm +/-0.5	29.3 mm +/-1.5	36 mm +/-1.5
>95 %	>95 %	>80 %
6.6 mΩ/m	6.6 mΩ/m	6.6 mΩ/m
9.5 mΩ/m	11.4 mΩ/m	11.4 mΩ/m
80 mm	120 mm	148 mm
≥5x10 <sup>12</sup> Ωm	≥1x10 <sup>12</sup> Ωm	≥1x10 <sup>12</sup> Ωm
136 pF/m	126 pF/m	107 pF/m
+70 °C	+70 °C	+70 °C

Combinations	R24SL	R24SLRA	R28SL	R28SLRA	R30SL	R30SLRA
U3/160 cable	100 kV	100 kV	–	–	–	–
N3/160 cable	160 kV	160 kV	160 kV	–	–	–
P3/250 cable	225 kV	225 kV	225 kV	225 kV	–	–

Within the high voltage system the component with the lowest specified high voltage rating defines the maximum allowed voltage.

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