

Cables, Flanges, Quick Locks

Industrial X-Ray

Overview

08/2014 - V3, specification subject to change without notice

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Technology with Passion

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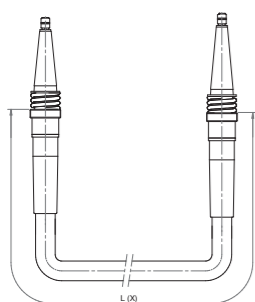
Technical data of cables

	L3/75	U3/100	N3/160	P3/250	F3/300
Rated voltage	75 kVDC	100 kVDC	160 kVDC	250 kVDC	300 kVDC
Nominal outside diameter	16.7 mm	20 mm	29 mm +/- 1.5	36 mm +/- 1.5	51 mm
Coverage shielding braid	>95%	>95%	>95%	>80%	appr. 90%
Conductor resistance Bare Conductor @ 20°C	6.6 mΩ/m	6.6 mΩ/m	6.6 mΩ/m	6.6 mΩ/m	1.0 mΩ/m
Conductor resistance Red & White Cond. @ 20°C	9.5 mΩ/m	9.5 mΩ/m	11.4 mΩ/m	11.4 mΩ/m	13.7 mΩ/m
Minimum bending radius (dynamic / stationary)	66.8 mm / 33.4 mm	80 mm / 40 mm	116 mm / 58 mm	144 mm / 72 mm	306 mm / 204 mm
Insulation resistance (wires to shield)	>1x10 ¹² Ω·m	≥5x10 ¹² Ω·m	≥1x10 ¹² Ω·m	≥1x10 ¹² Ω·m	1x10 ¹² Ω·m
Capacitance (wires to shield)	145 pF/m	136 pF/m	126 pF/m	107 pF/m	112 pF/m
Max. operating temperature	70° C	+70° C	+70° C	+70° C	+ 90° C
Bending radius (stationary)	2 x D	2 x D	2 x D	2 x D	4 x D
Bending radius (dynamic)	4 x D	4 x D	4 x D	4 x D	6 x D

Standard cable length at maximum voltage rating

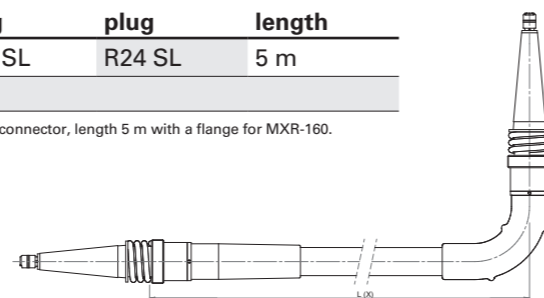
	XRS-100	XRS-160	XRS-225	XRS-320	XRS-450	XRS-600
5m	100kV	160kV	225kV	320kV	450kV	600kV
10m	100kV	160kV	225kV	320kV	450kV	-
15m	100kV	160kV	225kV	320kV	450kV	-
20m	100kV	160kV	220kV	315kV	425kV	-
25m	100kV	160kV	210kV	310kV	425kV	-
30m	95kV	155kV	200kV	310kV	425kV	-
35m	95kV	155kV	200kV	310kV	425kV	-

Ordering Example

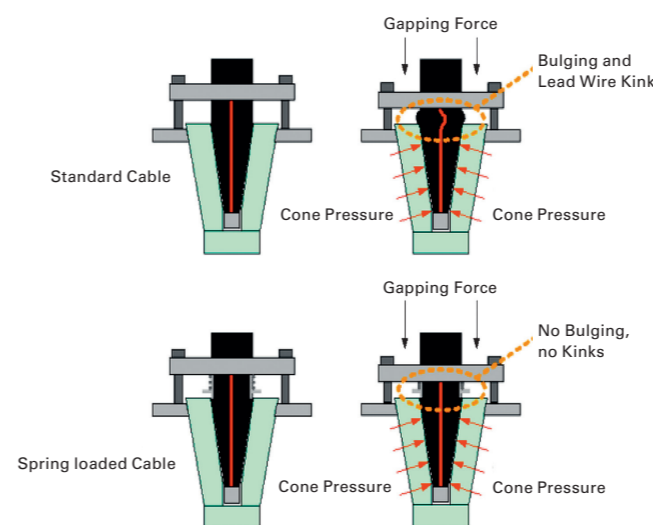


	cable	plug	plug	length
Cable	N3/160	R24 SL	R24 SL	5 m
Flange	4512-104-87121			

Example: 160 kV cable with straight and rectangular connector, length 5 m with a flange for MXR-160.



Standard vs. Spring-loaded



Advantage of Spring-loaded cable

What is different?

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

What are the effects?

- Constant pressure in the receptacle over time, since the metal section and spring of the cable replaces the rubber where bulging normally occurs
- Installation is simplified
- 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

How do you benefit?

All of this results in:

- Higher system up-time
- Lower installation costs
- Lower maintenance costs
- Longer lifetime of cable and tube

UL Certification Number E187096

For High-voltage Receptacles and Cable Assemblies for Use in X-Ray Equipment-Component

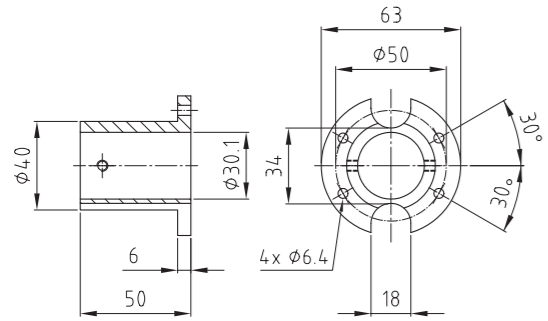
Compatibility cable / plug

CABLE	CA11	R10	R24	R24 RA	R28	R28 RA	R30	R30 RA
L3/75 cable	75 kV	75 kV	75 kV	75 kV	-	-	-	-
U3/100 cable	-	100 kV	100 kV	100 kV	-	-	-	-
N3/160 cable	-	-	160 kV	160 kV	160 kV	160 kV	160 kV	160 kV
P3/250 cable	-	-	225 kV	225 kV	225 kV	225 kV	225 kV	225 kV
F3/300 cable	-	-	-	-	-	-	300 kV	-

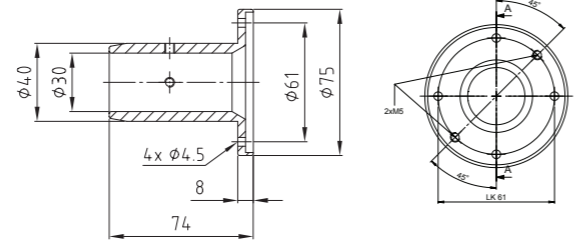
Within the high voltage system the part with the lowest specified high voltage rating defines the maximum allowed voltage.

Flanges R10 / R10SL

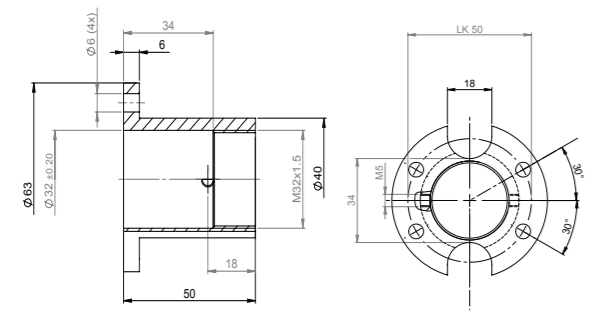
R10 cable flange 651142



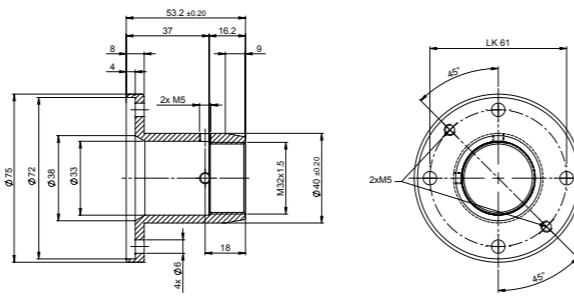
R10 cable flange 10001700



R10SL cable flange 20052838

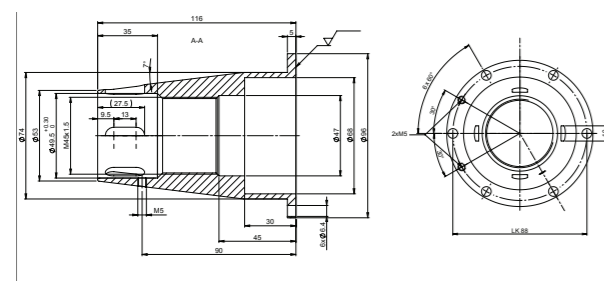


R10SL cable flange 20052839

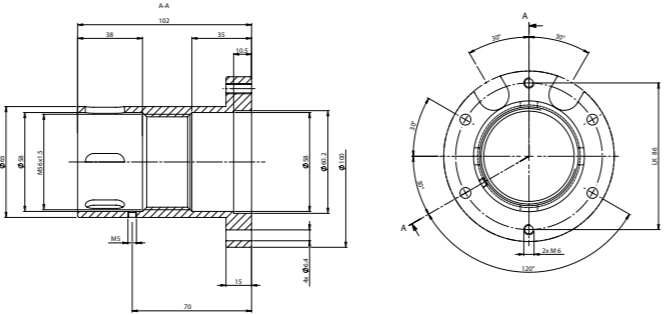


Flanges R24SL

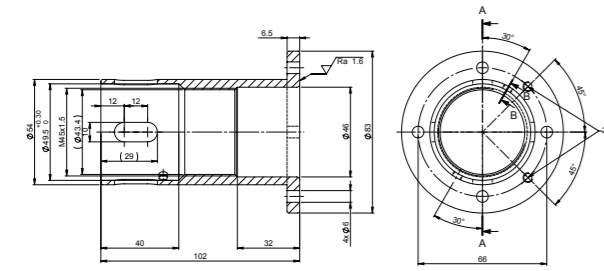
R24SL cable flange 4512-104-87141



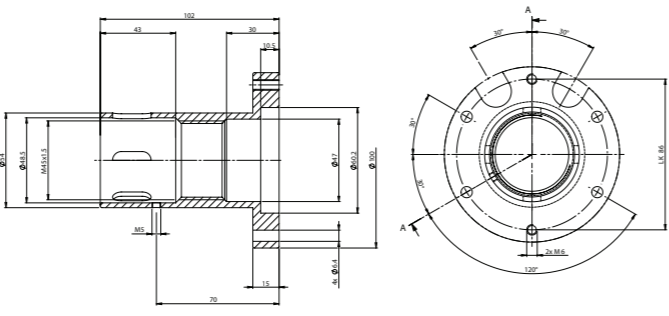
R24SL cable flange 4512-104-87131



R24SL cable flange 4512-104-87101

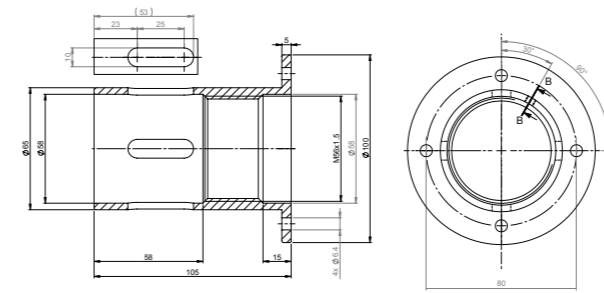


R24SL cable flange 4512-104-87121

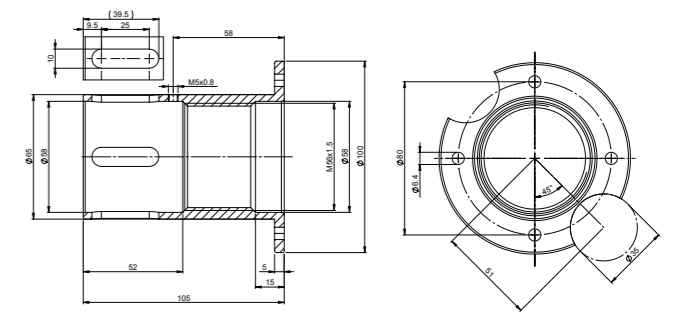


Flanges R28SL

R28SL cable flange 4512-104-87111

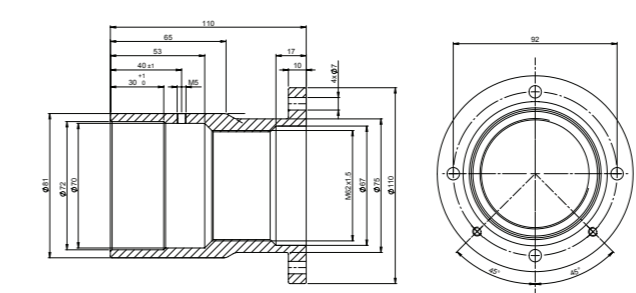


R28SL cable flange 20032631



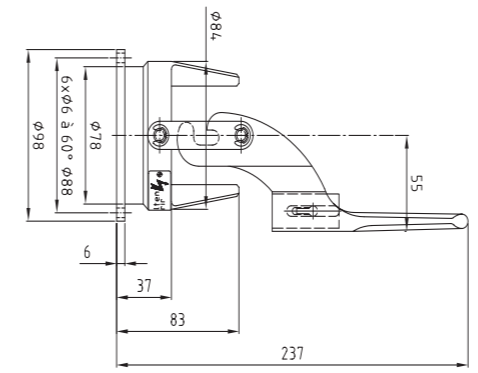
Flanges R30

R30 cable flange 4512-104-87431

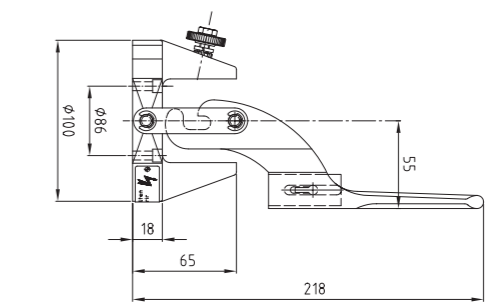


Locking devices / Clamping sleeve

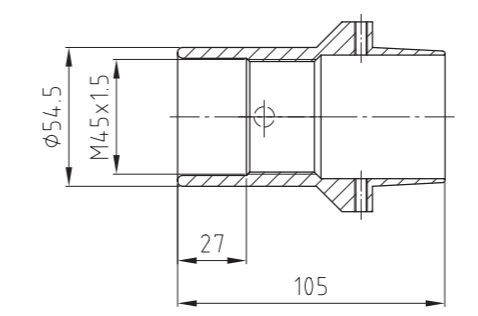
R24 locking device 940303



R24 locking device 941002

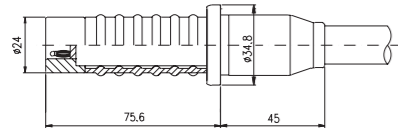


R24 clamping sleeve 651053

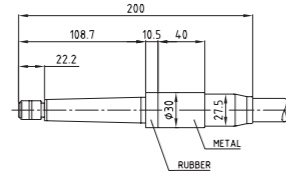


Non-Spring-loaded Plugs

CA11 with L3 cable



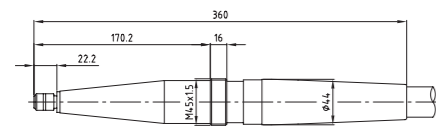
R10 with U3 cable



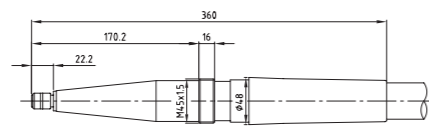
R24 with U3 cable



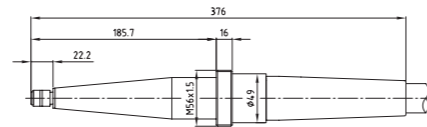
R24 with N3 cable



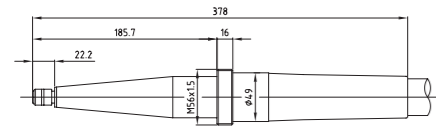
R24 with P3 cable



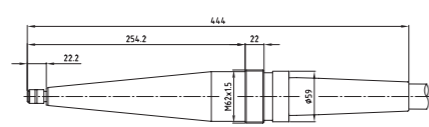
R28 with N3 cable



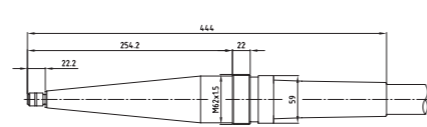
R28 with P3 cable



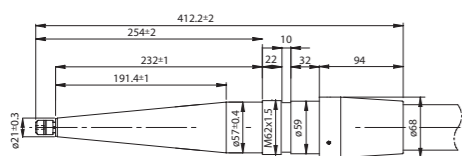
R30 with N3 cable



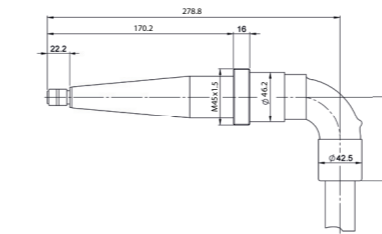
R30 with P3 cable



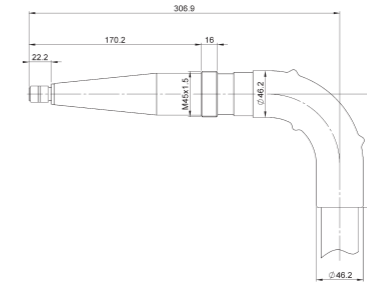
R30 with F3 cable



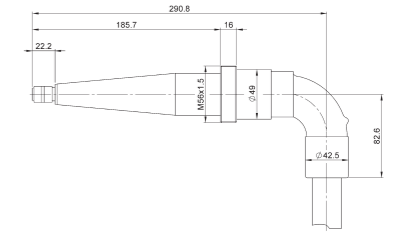
R24 RA with N3 cable



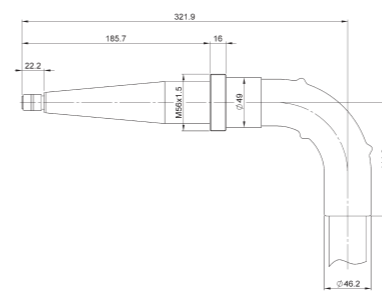
R24 RA with P3 cable



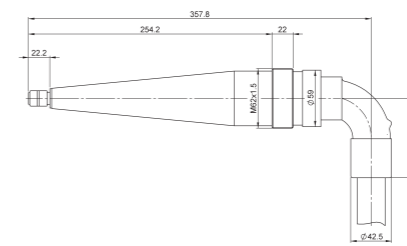
R28 RA with N3 cable



R28 RA with P3 cable



R30 RA with N3 cable



R30 RA with P3 cable

