

A close-up photograph of several ceramic components, including a large red ring and a white ring with a central hole, set against a white background. The components are arranged in a way that suggests they are part of a larger assembly.

STANDARD PRODUCT RANGE

High-Performance Ceramics

www.kyocera-solutions.de

TABLE OF CONTENTS

Electrical Engineering	High Temperature Technology	Surface Finishing
06 Feedthroughs	14 Tubes	32 Fine grinding tools
09 Tube-To-Tube Insulator	18 Multi-bore tubes	37 Burnishing wheels
10 Standoffs	19 Insulating beads	
	20 Protective tubes/ Multi-bore tubes for thermocouples	
	21 Rods, Bars, Bands	
	22 Crucibles	
	25 Boats, Combustion trays	
	26 Plates	
	28 Grinding bodies	
	28 Insulating powders, Cement	

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TOLERANCES IN HIGH-TEMPERATURE TECHNOLOGY

The dimensional accuracy of the size of the sintered parts essentially depends on the material and the forming method.

Tubes, multi-bore tubes and rods $\varnothing \geq 3$ mm as well as bands:

Diameter $\pm 5\%$ (but not less than $\pm 0,1$ mm); Cut length tolerance: $\pm 1\%$, < 100 mm upon request;
Straightness: maximum crescent height 0.5% of total length

Tubes, multi-bore tubes and rods $\varnothing < 3$ mm:

Diameter $\pm 5\%$ (but not less than $\pm 0,05$ mm); Cut length tolerance: $\pm 1\%$, < 100 mm upon request;
Straightness: maximum crescent height: 0.5% of total length

Crucibles, boats, combustion trays:

Tolerances $\pm 3\%$ (but not less $\pm 0,1$ mm)

Plates:

Tolerances $\pm 3\%$ (but not less $\pm 0,1$ mm); Deflection: maximum 0,5 % of the diagonal

Insulating beads and grinding bodies:

Tolerances $\pm 3\%$ (but not less than $\pm 0,1$ mm)

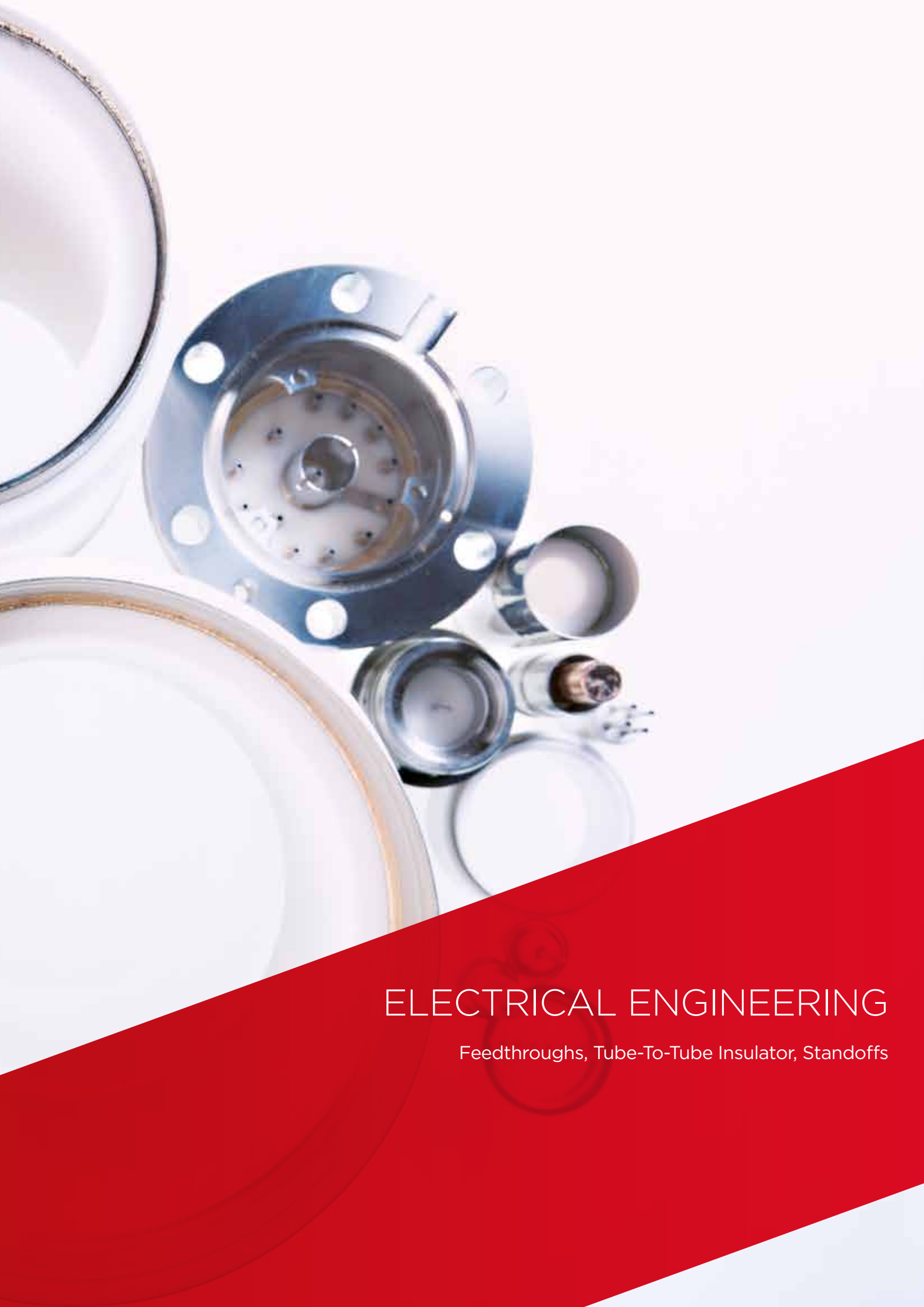
All dimensions in mm

MATERIALS

Material	KYOCERA-Brand	Characterisation
Al_2O_3 Aluminium Oxide	DEGUSSIT AL23	Pure Al_2O_3 , dense, excellent thermal and electrical resistance properties, corrosion resistant, permeable to microwaves
Al_2O_3 Aluminium Oxide	DEGUSSIT AL24	Pure Al_2O_3 , slightly porous, good resistance to thermal shock, extremely good creep strength
Al_2O_3 Aluminium Oxide	DEGUSSIT AL25	Pure Al_2O_3 , very porous, good thermal insulation, highest resistance to thermal shock of all the Al_2O_3 materials
Al_2O_3 Aluminium Oxide	DEGUSSIT DD57	Pure Al_2O_3 , dense, without any binder, red colour, wear resistant and tough, also called 'sintered ruby'
Al_2O_3 Aluminium Oxide	F99,7	Pure Al_2O_3 , dense, extremely resistant to wear and corrosion, very high electrical insulating properties
Al_2O_3 (+ ZrO_2) Aluminium Oxide, fine grain stabilized	FZT	Al_2O_3 toughened with ZrO_2 , dense, high strength, good resistance to thermal shock, extremely resistant to wear and corrosion, fine grain size
ZrO_2 Zirkonium Oxide	FZM	ZrO_2 partially stabilized with MgO , dense, high strength and highly wear resistant, extremely resistant to corrosion and thermal shock
ZrO_2 Zirkonium Oxide	DEGUSSIT FZY	Partially stabilized with Y_2O_3 , dense, high purity ZrO_2 , high temperature and corrosion resistance, ion conducting for measuring oxygen

Available are also parts with different dimensions, in different ceramic and metal materials as well as coated parts.

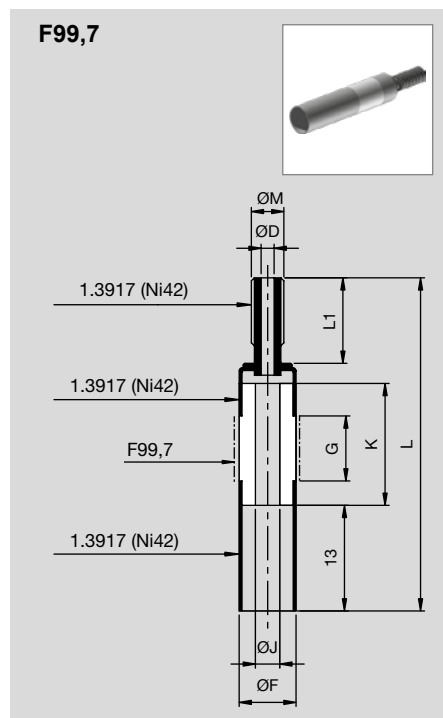




ELECTRICAL ENGINEERING

Feedthroughs, Tube-To-Tube Insulator, Standoffs

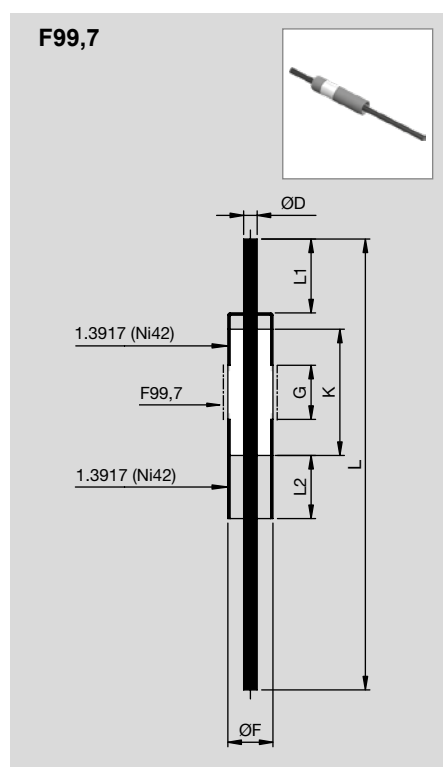
SINGLE TERMINAL FEEDTHROUGHS



Voltage (DC)	Ø M	Ø D	Ø F	Ø J	G	K	L	L1	Product No.
4 kV	M4	1,6	7	3	8	15	41	10	551-1001
6 kV	M6	2,5	9	4	13	20	47	10	551-1002
6 kV	M6	2,5	10,8	5	13	20	47	10	551-1003
6 kV	M8	3,8	13,5	6,5	13	20	54	17	551-1004

Feedthroughs are also available in other dimensions
Also available with welded-on flanges (CF, KF, etc.)

SINGLE TERMINAL FEEDTHROUGHS



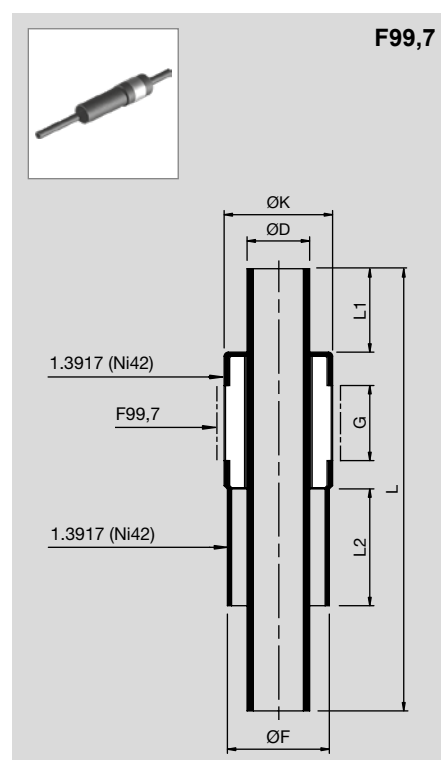
Voltage (DC)	Conductor	Current	Ø D	Ø F	G	K	L	L1	L2	Product No.
2 kV	NiFeCo	4 A	1,5x0,25	5	4	10.5	60	10	7	551-1063
2 kV	NiFeCo	5 A	1,5	5	4	10.5	60	10	7	551-1064
3 kV	NiFeCo	5 A	1,5	5	6	12.5	60	10	7	551-1066
3 kV	Cu	15 A	1,5	5	6	12.5	60	10	7	551-1066-2
4 kV	Ni42	5 A	1,5	7	8	15	57	10	13	551-0412
4 kV	Cu	15 A	1,5	7	8	15	57	10	13	551-0412-1
4 kV	Ni42	8 A	2	7	8	15	52	10	13	551-1006
4 kV	Cu	25 A	2	7	8	15	52	10	13	551-1006-1
5 kV	NiFeCo	5 A	1,5	5	10	16.5	60	10	7	551-1068
5 kV	Cu	15 A	1,5	5	10	16.5	60	10	7	551-1068-2
6 kV	Ni42	12 A	3	9	13	20	58	10	13	551-1007
6 kV	Cu	40 A	3	9	13	20	58	10	13	551-1007-1
6 kV	Ni42	20 A	4	10,8	13	20	58	10	13	551-1008
6 kV	Cu	60 A	4	10,8	13	20	58	10	13	551-1008-1
6 kV	Ni42	25 A	5	13,5	13	20	65	10	13	551-1009
6 kV	Cu	80 A	5	13,5	13	20	65	10	13	551-1009-1
8 kV	Cu	120 A	8	19,8	16	23	68	10	13	551-1010-1

Feedthroughs are also available in other dimensions
Also available with welded-on flanges (CF, KF, etc.)

SINGLE TERMINAL FEEDTHROUGHS

Voltage (DC)	Conductor	Current	Ø D	Ø F	G	L	Ø K	L1	L2	Product No.
1 kV	Ni42	4 A	1,5x0,25	4	2,8	35	4,5	6	10	551-1491
1 kV	Ni42	5 A	1,5	4	2,8	35	4,5	6	10	551-1425
1 kV	Cu	5 A	1,5	4	2,8	35	4,5	6	10	551-1425-1
4 kV	Ni42	30 A	7,5x0,75	12	8	53	13	10	14	551-1633
4 kV	Cu	90 A	7,5x0,75	12	8	53	13	10	14	551-1633-1

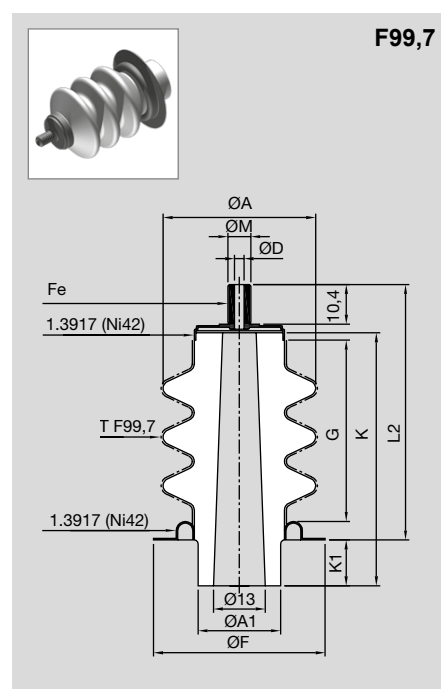
Feedthroughs are also available in other dimensions
Also available with welded-on flanges (CF, KF, etc.)



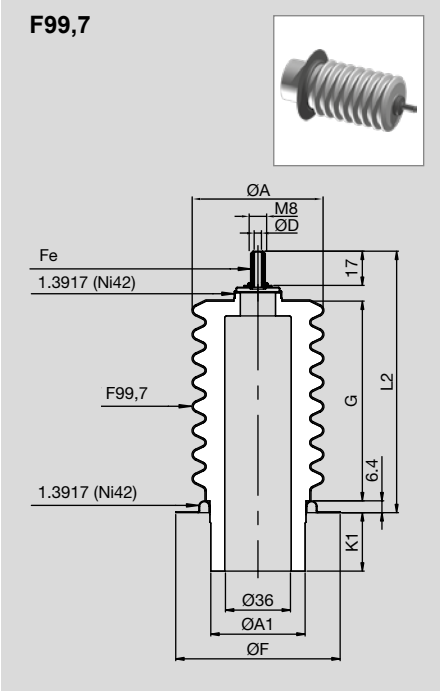
SINGLE TERMINAL FEEDTHROUGHS

Voltage (DC)	No. of Ribs	Creepage distance	Ø M	Ø D	Ø F	Ø A	Ø A1	G	K	K1	L2	Product No.
25 kV	3	54	M6	2,5	45	40	22	45	66	12	67	551-1012

This feedthrough could be adjusted with different conductors for special electrical standards
Also available with welded-on flanges (CF, KF, etc.)



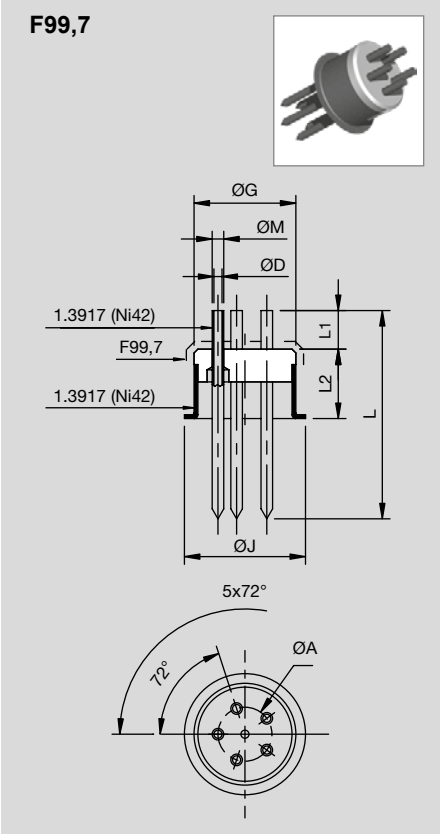
SINGLE TERMINAL FEEDTHROUGHS



Voltage (DC)	No. of Ribs	Creepage distance	Ø M	Ø D	Ø F	Ø A	Ø A1	G	K1	L2	Product No.
50 kV	8	150	M8	3,8	88,9	70	52	108	31,6	141.4	551-0970
Order-related manufacture											

This feedthrough could be adjusted with different conductors for special electrical standards
Also available with welded-on flanges (CF, KF, etc.)

MULTITERMINAL FEEDTHROUGHS



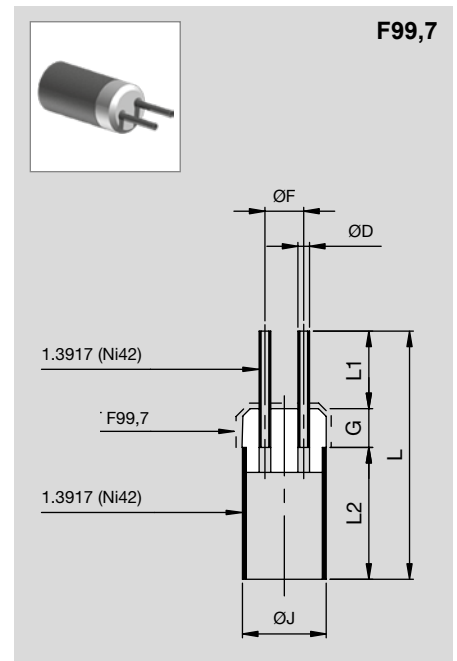
Voltage (DC)	Current	Ø D	Ø A	Ø G	Ø J	L	L1	L2	No. of Feedthroughs	Product No.
500 V Pin-Pin 1 kV Pin-Flange	4 A	1,5x0,25	7	13,2	15,7	27	5	9	5	552-2548
Order-related manufacture										

Feedthrough are also available in other dimensions
Also available with welded-on flanges (CF, KF, etc.)

MULTITERMINAL FEEDTHROUGHS

Voltage (DC)	Current	Ø D	Ø F	Ø J	G	L	L1	L2	No. of Feedthroughs	Product No.
500 V Pin-Pin	4 A	1,5x0,25	5	10,8	5	32	10	17	2	552-0861
1 kV Pin-Flange										
500 V Pin-Pin	4 A	1,5x0,25	5	10,8	5	32	10	17	4	552-0838
1 kV Pin-Flange										

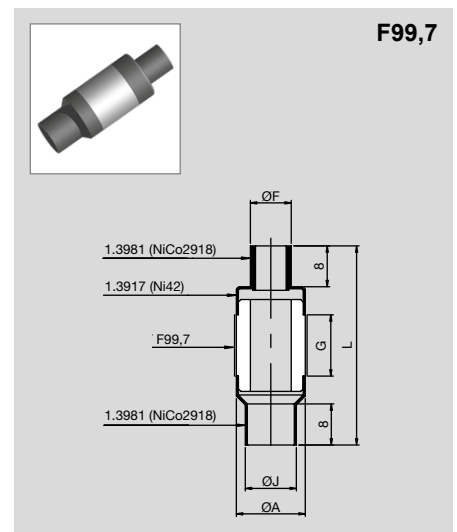
Feedthroughs are also available in other dimensions
Also available with welded-on flanges (CF, KF, etc.)



TUBE-TO-TUBE INSULATORS

Voltage (DC)	Ø F	Ø A	Ø J	G	L	Product No.
5 kV	8x6	13,5	10	12	39	559-1464

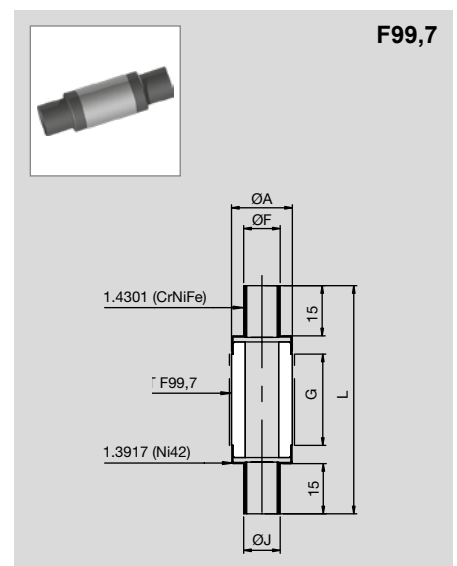
Tube-To-Tube Insulator is also available in other dimensions
Also available with welded-on flanges (CF, KF, etc.)



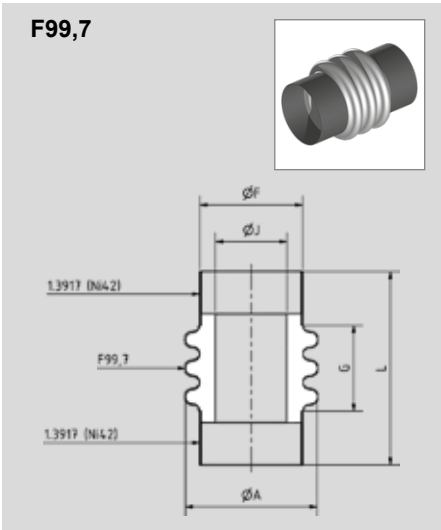
TUBE-TO-TUBE INSULATORS

Voltage (DC)	Ø F	Ø A	Ø J	G	L	Product No.
15 kV	18	23	18	30	74	559-3664-2

Tube-To-Tube Insulator is also available in other dimensions
Also available with welded-on flanges (CF, KF, etc.)



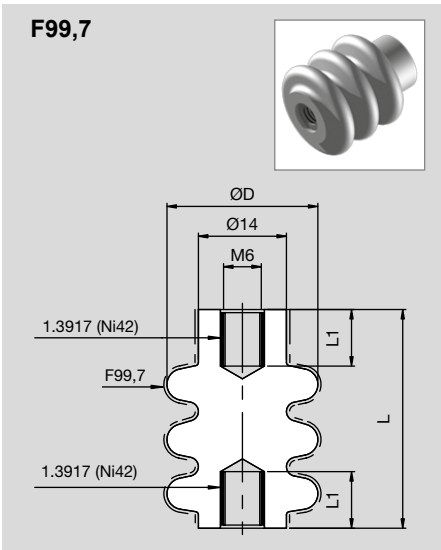
TUBE-TO-TUBE INSULATORS



Voltage (DC)	No. of Ribs	Creepage distance	Ø F	Ø A	Ø J	G	L	Product No.
15 kV	3	44	36	46	25	30	67.6	559-0654

Tube-To-Tube Insulator is also available in other dimensions
 Also available with welded-on flanges (CF, KF, etc.)

STANDOFFS



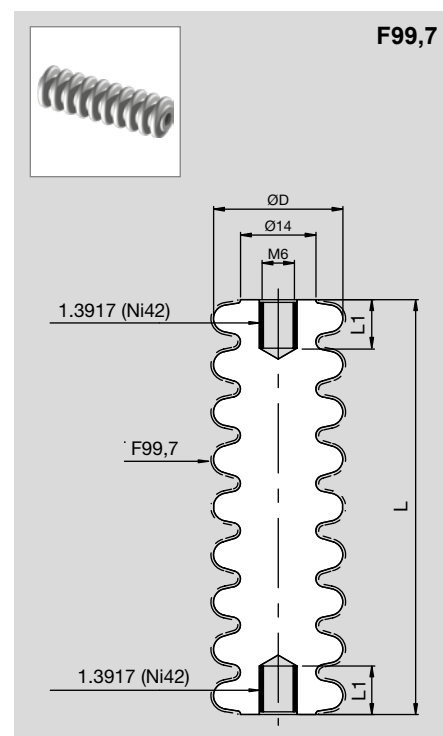
Voltage (DC)	Creepage distance	Ø D	L	L1	Product No.
15 kV	40	24	30	9	558-1162

Standoff is also available in other dimensions

STANDOFFS

Voltage (DC)	Creepage distance	Ø D	L	L1	Product No.
40 kV	130	24	80	9	558-2105

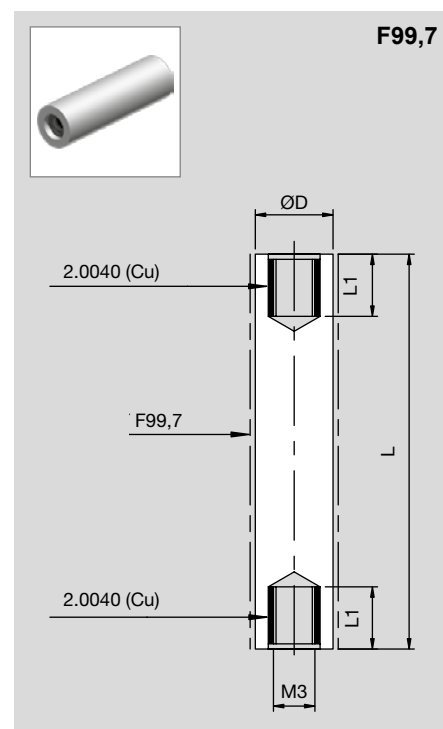
Customized parts with different lengths, different diameters or different number of flutes are also available



STANDOFFS

Voltage (DC)	Creepage distance	Ø D	L	L1	Product No.
10 kV	25	7,5	25	8	558-1511
15 kV	38	9,5	38.1	6	558-1984

Standoffs are also available in other dimensions



COMPETENCE PLUS RESPONSIBILITY

Our customers rightly expect first-class performance with lasting value. Besides the competence to achieve this, we also undertake the responsibility for it. Ask for the evidence: KYOCERA Fineceramis Solutions GmbH is the technological and market leader in ceramic materials for the 21st Century.



- 01 Image-intensifier for radiology
- 02 X-Ray tube for radiology
- 03 Pressure sensor for aerospace
- 04 Camera housing for aerospace
- 05 Accelerator tube for radiology
- 06 Feedthroughs for high-vacuum applications
- 07 High-voltage feedthroughs for vacuum technology
- 08 Insulating tubes for high-vacuum technology
- 09 High current feedthroughs for energy systems
- 10 Wafer carrier for the semiconductor industry
- 11 Test plates for the semiconductor industry
- 12 Sensor elements for the semiconductor industry

- 13 Guide strip for the printing industry
- 14 Isolator for the printing industry
- 15 Square tubes for the printing industry
- 16 Tubes, rods and capillaries for high temperature applications
- 17 Thermal protection tubes for the glass and metallurgical industries
- 18 Crucibles and boats for industry and research
- 19 FZY-probes for oxygen measurement in gases
- 20 Dielectric elements for fuel cells
- 21 Dielectric elements for fuel cells
- 22 Thermal protection tubes for high temperature applications
- 23 Shaping roller for the glass industry
- 24 Glow-block for heat treatment of lamp filaments



- 25 Ozone generator for the semiconductor industry
- 26 Control discs for production and laboratory processes
- 27 Dosing pistons with control edge for the food-processing and pharmaceutical industries
- 28 Pump inserts for medical technology
- 29 Float body for flow-measurement in the chemical industry
- 30 Electrode holder for flow-measurement in the chemical industry
- 31 Flow meters for the food-processing industry
- 32 Welding pins for automotive-body manufacture
- 33 Centring pin for automotive-body manufacture
- 34 Metal-forming tools for automotive-body manufacture
- 35 Isolation shells for magnetically-coupled pump in the chemical industry
- 36 Pump impeller for the chemical industry

- 37 Stirrers for the chemical industry
- 38 High-pressure pump piston for the chemical industry
- 39 Adhesive nozzle for the paper industry
- 40 Valve disc for pulp-processing
- 41 Vacuum plate for paper-making
- 42 Protection tubes for the glass industry
- 43 Midget file for the glass-processing industry
- 44 Hand lappers for the glass-processing industry
- 45 Grinding wheel for the glass-processing industry
- 46 Grinding tools for metal working
- 47 Bench-stones for metal working
- 48 Mounted points for metal working



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