









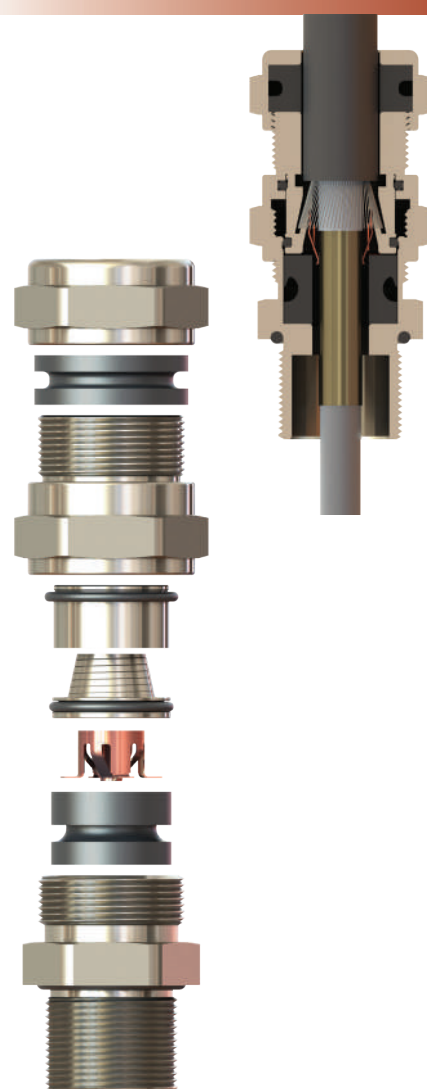
Cable Glands for SWA and AWA Cables

Technical Details										
Material	Body, Cap	Brass, Brass Nickel Plated, Stainless Steel 316L, Aluminium								
	Inner Part	Brass, Brass Nickel Plated, Stainless Steel 316L, Aluminium								
	Seal	CR (Chloroprene) , Silicone								
	O-ring	CR (Chloroprene) , Silicone								
	Spring	Speacial Copper Alloy								
Ingress Protection Rating		IP 68 - 5 Bar, 30 min IP 66								
Operating Temperature		<table><tr><th>Seal Material</th><th></th></tr><tr><td>CR (Chloroprene)</td><td>Silicone</td></tr><tr><td>Standard</td><td>-40°C to +100°C</td></tr><tr><td>LT Type</td><td>-40°C to +80°C</td></tr></table>	Seal Material		CR (Chloroprene)	Silicone	Standard	-40°C to +100°C	LT Type	-40°C to +80°C
Seal Material										
CR (Chloroprene)	Silicone									
Standard	-40°C to +100°C									
LT Type	-40°C to +80°C									
Equipment For		Gas & Dust potentially explosive atmospheres								
Suitable for use in		Group II Gas Group IIC ZONE1/ZONE2 Group III Dust Group IIIC ZONE21/ZONE 22								
Equipment Marking		Ex II 2GD Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db								
Marking Example *		BMD KBA.. CE 0722  II 2GD Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db Ta -60°C to +130°C IP66/68 CESI 13 ATEX 033X IECEx CES 13.0013X								
Thread Type		<ul style="list-style-type: none">• Metric (M) ISO Pitch 1,5• NPT (N) ANSI ASME B1.20.1• Other thread types also available upon request.								
Cable Type		SWA - AWA								
Accessories		<ul style="list-style-type: none">• Lock nuts• Gaskets (Washers)• Serrated Washers• Shrouds• Earth tags								
Remarks		<ul style="list-style-type: none">• O-ring available in Metric outer threads.• Accessories must be ordered separately.								
Approvals	Certificate Number	Standards								
	CESI 13 ATEX 033X	EN 60079-0:2012+A11:2013 EN 60079-1:2014 EN 60079-7:2015 EN 60079-31:2014								
	IECEx CES 13.0013X	IEC 60079-0:2011 Edition:6 IEC 60079-1:2014 Edition:7 IEC 60079-31:2013 Edition:2 IEC 60079-7:2015-08 Edition:5								
	20150612-E474828	UL 2225, CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA C22.2 No. 60079-7:12 CAN/CSA-C22.2 No. 60079-31:12								
	20170315-E199260	UL 514B UL50E								
	№ TC RU C-TR.AA87.B.00941	ГОСТ 31610.0-2014 ГОСТ IEC 60079-1:2013 ГОСТ IEC 60079-31:2013								
	DNV 12.0053 X	ABNT NBR IEC 60079-0:2013, ABNT NBR IEC 60079-1:2009, ABNT NBR IEC 60079-7:2008, ABNT NBR IEC 60079-31:2011								
	E-14044	IEC/EN60079-0, IEC/EN60079-7, IEC/EN60079-31 IEC/EN60079-1, IEC/EN 62444								
	MASC MS/18-0240X	SANS (IEC) 60079-0 : 2011 SANS (IEC) 60079-1 : 2014 SANS (IEC) 60079-7 : 2007 SANS (IEC) 60079-31 : 2014								
-For more information see our webpage. * The standard marking consists ATEX & IECEx only. Marking acc. to other standards on request.										

*For more information see our webpage.

* The standard marking consists ATEX & IECEx only. Marking acc. to other standards on request.

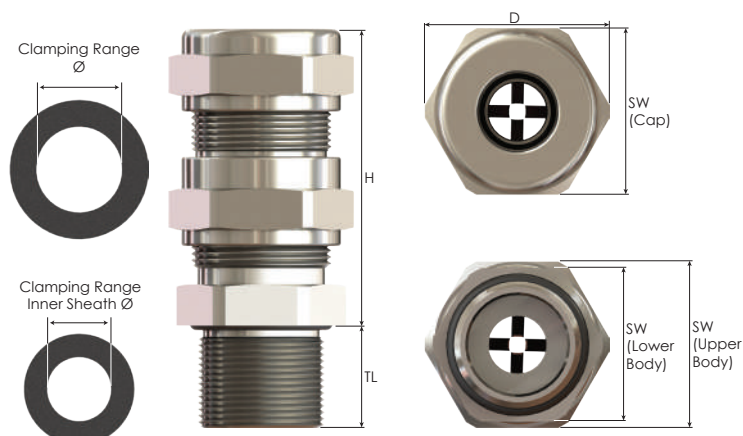
ORION LEAD SHEATHED



Order Coding								
Part Number	Material	Seal	Lead Sheath	Gasket (Washer)	Serrated Washer	Lock Nut	Shroud	Earth Tag
Mandatory	Mandatory	Mandatory	Mandatory	Option	Option	Option	Option	Option
See table	B Brass BN Brass Nickel plated X Stainless steel A Aluminium	C Chloroprene S Silicone	-	WC Chloroprene WS Silicone WF Fiber	WSR Serrated washer	L Lock nut	S Shroud	E Earth tag
Example								
KBA1N	BN	S	LSK	WC	-	L	-	E

ORION LEAD SHEATHED

Cable Glands for SWA and AWA Cables











Thread Type **METRIC** acc. to ISO 965-3

Outer Thread Size (Male)	Clamping Range		Armour Wire	Outer Thread Length	Cap	Spanner Width Upper Body		Lower Body	Outer Ø	max. Height	Part Number
	Inner Sheath Ø min-max mm	Ø min-max mm	Ø min-max mm	TL mm	SW Cap mm	SW Upper Body mm	SW Lower Body mm	D mm	H mm		
M12x1,5	2,0 - 4,0	3,0 - 5,5	0,10 - 0,40	15,0	17	17	17	18,9	62,5	KBA05M	
	3,0 - 7,5	6,0 - 12,0	0,70 - 1,20	15,0	26	26	22	29,0	50,5	KBA05LM	
M16x1,5	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	16,0	26	26	22	29,0	49,5	KBA015M	
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	16,0	29	29	25	31,5	52,0	KBA01M	
M20x1,5	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	16,0	26	26	24	29,0	50,0	KBA15M	
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	16,0	29	29	25	31,5	51,5	KBA1M	
	8,5 - 14,5	12,0 - 20,0	0,90 - 1,30	16,0	32	30	28	35,0	54,0	KBA1LM	
	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	18,0	26	26	29	31,5	50,0	KBA2X5M	
M25x1,5	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	18,0	29	29	29	31,5	52,5	KBA25M	
	8,5 - 16,0	12,0 - 21,0	0,70 - 1,20	18,0	34	34	32	37,0	56,5	KBA2M	
	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	18,0	40	40	36	44,0	63,0	KBA2LM	
M32x1,5	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	18,0	29	29	36	39,8	52,5	KBA3X5M	
	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	18,0	40	40	40	44,0	64,0	KBA35M	
	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	18,0	52	52	48	57,0	81,0	KBA3M	
M40x1,5	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	18,0	40	40	45	50,0	64,0	KBA4X5M	
	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	18,0	52	52	48	57,0	81,0	KBA45M	
	20,0 - 32,0	29,0 - 41,0	1,60 - 2,20	18,0	60	60	55	66,0	92,0	KBA4M	
M50x1,5	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	18,0	52	52	54	60,0	81,0	KBA5X5M	
	20,0 - 32,0	29,0 - 41,0	1,60 - 2,20	18,0	60	60	55	66,0	92,0	KBA5XMM	
	22,0 - 35,0	33,0 - 48,0	2,00 - 2,80	18,0	75	70	60	83,0	100,0	KBA55M	
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	18,0	74	70	70	81,8	104,5	KBA5M	
	22,0 - 35,0	33,0 - 48,0	2,00 - 2,80	20,0	75	70	68	83,0	100,0	KBA6X5M	
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	20,0	74	70	70	81,8	104,5	KBA6XMM	
M63x1,5	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	20,0	80	80	75	89,5	109,5	KBA65M	
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	20,0	85	85	85	94,0	111,5	KBA6M	
	45,0 - 56,0	54,0 - 70,0	1,30 - 2,50	20,0	100	95	90	110,5	128,5	KBA6LM	
M75x1,5	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	20,0	80	80	85	94,0	109,5	KBA7X5M	
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	20,0	85	85	85	94,0	111,5	KBA75M	
	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	20,0	100	95	90	110,5	127,5	KBA7M	
M90x1,5	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	20,0	85	85	100	110,5	111,5	KBA8X5M	
	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	20,0	100	95	95	110,5	127,5	KBA85M	
	60,0 - 72,0	63,0 - 80,0	1,00 - 3,50	20,0	115	115	110	127,0	158,0	KBA8M	
M110x1,5	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	20,0	100	95	120	128,0	127,5	KBA105M	
	60,0 - 72,0	63,0 - 80,0	1,00 - 3,50	20,0	115	115	120	128,0	158,0	KBA10M	

Thread Type **METRIC** acc. to ISO 965-3 (LT Type)

Outer Thread Size (Male)	Clamping Range		Armour Wire Ø min-max mm	Outer Thread Length TL mm	Cap SW Cap mm	Spanner Width Upper Body		Lower Body SW Lower Body mm	Outer Ø D mm	max. Height H mm	Part Number
	Inner Sheath Ø min-max mm	Ø min-max mm				SW Upper Body mm					
M90x2,0	70,0 - 82,0	78,0 - 90,0	1,5 - 4,4	20,0	120	120	120	120	134,0	159,5	KBA8MLT
M100x2,0	80,0 - 92,0	88,0 - 100,0	1,2 - 4,0	20,0	135	135	135	135	150,0	169,0	KBA9SMLT
M110x2,0	90,0 - 101,0	98,0 - 110,0	2,1 - 5,4	20,0	145	145	145	145	162,0	180,0	KBA10MLT
M130x2,0	100,0 - 115,0	109,0 - 123,0	2,0 - 5,4	24,0	160	160	160	160	176,0	202,0	KBA13MLT

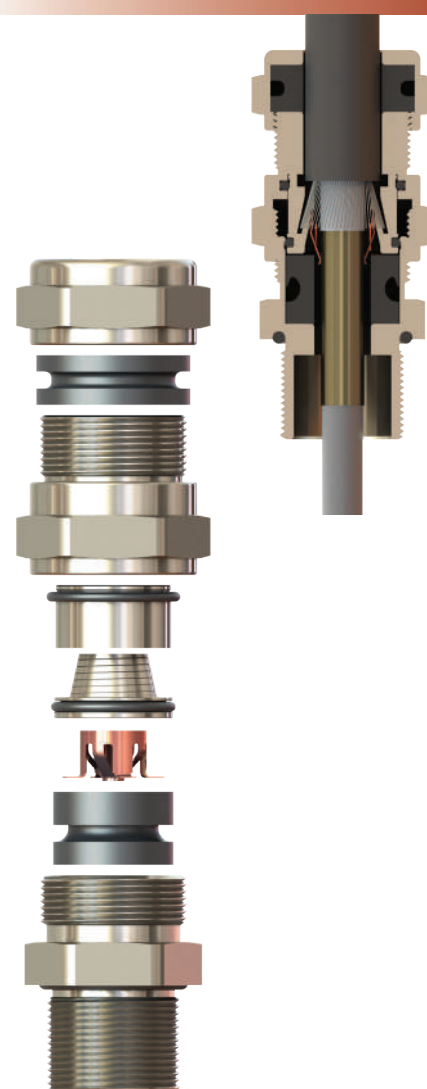
Cable Glands for SWA and AWA Cables

Technical Details		
Material	Body, Cap	Brass, Brass Nickel Plated, Stainless Steel 316L, Aluminium
	Inner Part	Brass, Brass Nickel Plated, Stainless Steel 316L, Aluminium
	Seal	CR (Chloroprene) , Silicone
	O-ring	CR (Chloroprene) , Silicone
	Spring	Speacial Copper Alloy
Ingress Protection Rating		IP 68 - 5 Bar, 30 min IP 66
Operating Temperature		Seal Material CR (Chloroprene) Silicone
Standard		-40°C to +100°C -60°C to +130°C
LT Type		-40°C to +80°C -60°C to +80°C
Equipment For		Gas & Dust potentially explosive atmospheres
Suitable for use in		Group II Gas Group IIC ZONE1 /ZONE2 Group III Dust Group IIIC ZONE21 /ZONE 22
Equipment Marking		Ex II 2GD Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db
Marking Example *		BMD KBA.. CE 0722  II 2GD Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db Ta -60°C to +130°C IP66/68 CESI 13 ATEX 033X IECEx CES 13.0013X
Thread Type		<ul style="list-style-type: none">• Metric (M) ISO Pitch 1,5• NPT (N) ANSI ASME B1.20.1• Other thread types also available upon request.
Cable Type		SWA - AWA
Accessories		<ul style="list-style-type: none">• Lock nuts• Gaskets (Washers)• Serrated Washers• Shrouds• Earth tags
Remarks		<ul style="list-style-type: none">• O-ring available in Metric outer threads.• Accessories must be ordered separately.
Approvals	Certificate Number	Standards
	CESI 13 ATEX 033X	EN 60079-0:2012+A11:2013 EN 60079-1:2014 EN 60079-7:2015 EN 60079-31:2014
	IECEx CES 13.0013X	IEC 60079-0:2011 Edition:6 IEC 60079-1:2014 Edition:7 IEC 60079-31:2013 Edition:2 IEC 60079-7:2015-08 Edition:5
	20150612-E474828	UL 2225, CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA C22.2 No. 60079-7:12 CAN/CSA-C22.2 No. 60079-31:12
	20170315-E199260	UL 514B UL50E
	№ TC RU C-TR.AA87.B.00941	ГОСТ 31610.0-2014 ГОСТ IEC 60079-1:2013 ГОСТ IEC 60079-31:2013
	DNV 12.0053 X	ABNT NBR IEC 60079-0:2013, ABNT NBR IEC 60079-1:2009, ABNT NBR IEC 60079-7:2008, ABNT NBR IEC 60079-31:2011
	E-14044	IEC/EN60079-0, IEC/EN60079-7, IEC/EN60079-31 IEC/EN60079-1, IEC/EN 62444
	MASC MS/18-0240X	SANS (IEC) 60079-0 : 2011 SANS (IEC) 60079-1 : 2014 SANS (IEC) 60079-7 : 2007 SANS (IEC) 60079-31 : 2014
-For more information see our webpage. * The standard marking consists ATFX & IECEx only. Marking acc. to other standards on request		

-For more information see our webpage.

* The standard marking consists ATEX & IECEx only. Marking acc. to other standards on request.

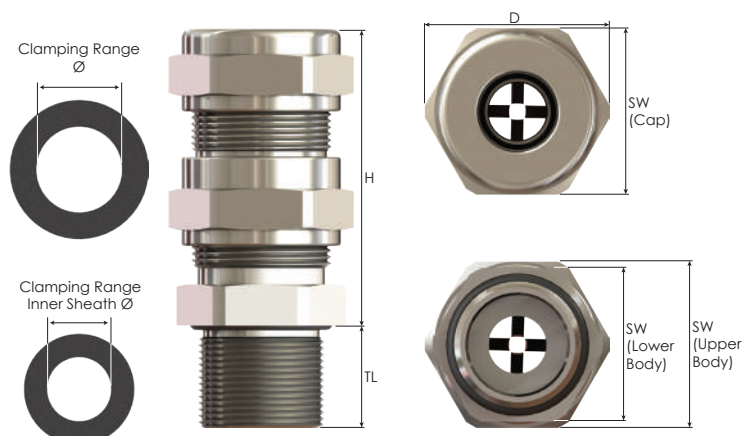
ORION LEAD SHEATHED



Order Coding								
Part Number	Material	Seal	Lead Sheath	Gasket (Washer)	Serrated Washer	Lock Nut	Shroud	Earth Tag
Mandatory	Mandatory	Mandatory	Mandatory	Option	Option	Option	Option	Option
See table	B Brass BN Brass Nickel plated X Stainless steel A Aluminium	C Chloroprene S Silicone	-	WC Chloroprene WS Silicone WF Fiber	WSR Serrated washer	L Lock nut	S Shroud	E Earth tag
Example								
KBA1N	BN	S	LSK	WC	-	L	-	E

ORION LEAD SHEATHED

Cable Glands for SWA and AWA Cables



Thread Type **NPT** acc. to ANSI ASME B1.20.1

Outer Thread Size (Male)	Clamping Range		Armour Wire Ø min-max mm	Outer Thread Length TL mm	Cap SW Cap mm	Spanner Width Upper Body		Lower Body SW Lower Body mm	Outer Ø D mm	max. Height H mm	Part Number
	Inner Sheath Ø min-max mm	Ø min-max mm				SW Upper Body mm					
NPT 1/4"	2,0 - 4,0	3,0 - 5,5	0,10 - 0,40	15,0	17	17	17	17	18,9	62,5	KBA0SN
	3,0 - 8,0	6,0 - 12,0	0,70 - 1,20	15,0	26	26	22	22	29,0	50,0	KBA0SLN
NPT 3/8"	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	16,0	26	26	22	22	29,0	49,5	KBA01SN
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	16,0	29	29	25	25	31,5	52,0	KBA01N
NPT 1/2"	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	21,0	26	26	24	24	29,0	49,5	KBA1SN
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	21,0	29	29	25	25	31,5	51,0	KBA1N
	8,5 - 14,5	12,0 - 20,0	0,90 - 1,30	21,0	32	30	28	28	35,0	54,0	KBA1LN
NPT 3/4"	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	21,0	26	26	29	29	31,5	50,0	KBA2XSN
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	21,0	29	29	29	29	31,5	52,5	KBA2SN
	8,5 - 16,0	12,0 - 21,0	0,70 - 1,20	21,0	34	34	32	32	37,0	56,5	KBA2N
	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	21,0	40	40	36	36	44,0	62,5	KBA2LN
NPT 1"	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	26,0	29	29	36	36	39,8	52,5	KBA3XSN
	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	26,0	40	40	40	40	44,0	64,0	KBA3SN
	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	26,0	52	52	48	48	57,0	80,5	KBA3N
NPT 1 1/4"	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	28,0	40	40	45	45	50,0	64,0	KBA4XSN
	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	28,0	52	52	48	48	57,0	81,0	KBA4SN
	20,0 - 32,0	29,0 - 41,0	1,60 - 2,20	28,0	60	60	55	55	66,0	92,0	KBA4N
NPT 1 1/2"	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	28,0	52	52	54	54	60,0	81,0	KBA5XSN
	20,0 - 32,0	29,0 - 41,0	1,60 - 2,20	28,0	60	60	55	55	66,0	92,0	KBA5XMN
	22,0 - 35,0	33,0 - 48,0	2,00 - 2,80	28,0	75	70	60	60	83,0	100,0	KBA5SN
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	28,0	74	70	70	70	81,8	104,5	KBA5N
NPT 2"	22,0 - 35,0	33,0 - 48,0	2,00 - 2,80	28,0	75	70	68	68	83,0	100,0	KBA6XSN
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	28,0	74	70	70	70	81,8	104,5	KBA6XMN
	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	28,0	80	80	75	75	89,5	109,5	KBA6SN
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	28,0	85	85	85	85	94,0	111,5	KBA6N
	45,0 - 52,0	54,0 - 70,0	1,30 - 2,50	28,0	100	95	90	90	110,5	128,5	KBA6LN
NPT 2 1/2"	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	41,0	80	80	80	80	89,5	109,0	KBA7XSN
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	41,0	85	85	85	85	94,0	111,5	KBA7SN
	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	41,0	100	95	90	90	110,5	127,5	KBA7N
NPT 3"	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	43,0	85	85	95	95	105,0	111,5	KBA8XSN
	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	43,0	100	95	95	95	110,5	127,5	KBA8SN
	60,0 - 72,0	63,0 - 80,0	1,00 - 3,50	43,0	115	115	110	110	127,0	158,0	KBA8N
NPT 3 1/2"	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	45,0	100	95	110	110	123,0	127,5	KBA9SN
	60,0 - 72,0	63,0 - 80,0	1,00 - 3,50	45,0	115	115	110	110	127,0	158,0	KBA9N

Thread Type **NPT** acc. to ANSI ASME B1.20.1 (LT Type)

Outer Thread Size (Male)	Clamping Range		Armour Wire Ø min-max mm	Outer Thread Length TL mm	Cap SW Cap mm	Spanner Width		Outer Ø D mm	max. Height H mm	Part Number
	Inner Sheath Ø min-max mm	Ø min-max mm				Upper Body SW Upper Body mm	Lower Body SW Lower Body mm			
NPT 3 1/2"	70,0 - 82,0	78,0 - 90,0	1,5 - 4,4	45,0	120	120	120	134,0	159,5	KBA9MNL
NPT 4"	80,0 - 92,0	88,0 - 100,0	1,2 - 4,0	46,0	135	135	135	150,0	169,0	KBA10SNLT
	90,0 - 101,0	98,0 - 110,0	2,1 - 5,4	46,0	145	145	145	162,0	180,0	KBA10NLT
NPT 5"	100,0 - 115,0	109,0 - 123,0	2,0 - 5,4	48,0	160	160	160	176,0	202,0	KBA11SNLT