









# Cable Glands for SWA and AWA Cables

## ORION for Mining Application



Technical Details		
<b>Material</b>	<b>Body, Cap</b>	Brass, Brass Nickel Plated, Stainless Steel 316L
	<b>Inner Part</b>	Brass, Brass Nickel Plated, Stainless Steel 316L
	<b>Seal</b>	CR (Chloroprene) , Silicone
	<b>O-ring</b>	CR (Chloroprene) , Silicone
<b>Ingress Protection Rating</b>	IP 68 - 5 Bar, 30 min IP 66	
<b>Operating Temperature</b>	<b>Seal Material</b>	
	<b>CR (Chloroprene)</b>	<b>Silicone</b>
	<b>Standard Group</b>	-40°C to +80°C
<b>LT Group</b>	-40°C to +80°C	-60°C to +80°C
<b>Equipment For</b>	Mining potentially explosive atmospheres.	
<b>Suitable for use in</b>	Group I	Mining Group IMb Group I
<b>Equipment Marking</b>	<b>Group I</b> Ex I M2 Ex db I Mb Ex eb I Mb	
<b>Marking Example *</b>	BMD KBA.. CE 0722  I M2 Ex db I Mb Ex eb I Mb IP66/68 Ta -40°C to +80°C CESI 13 ATEX 033X IECEx CES 13.0013X	
<b>Thread Type</b>	<ul style="list-style-type: none"> <li>• Metric (M) ISO Pitch 1,5</li> <li>• NPT (N) ANSI ASME B1.20.1</li> <li>• Other thread types also available upon request.</li> </ul>	
<b>Cable Type</b>	SWA - AWA	
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Lock nuts</li> <li>• Gaskets (Washers)</li> <li>• Serrated Washers</li> <li>• Shrouds</li> <li>• Earth tags</li> </ul>	
<b>Remarks</b>	<ul style="list-style-type: none"> <li>• O-ring available in Metric outer threads.</li> <li>• Accessories must be ordered separately.</li> </ul>	
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

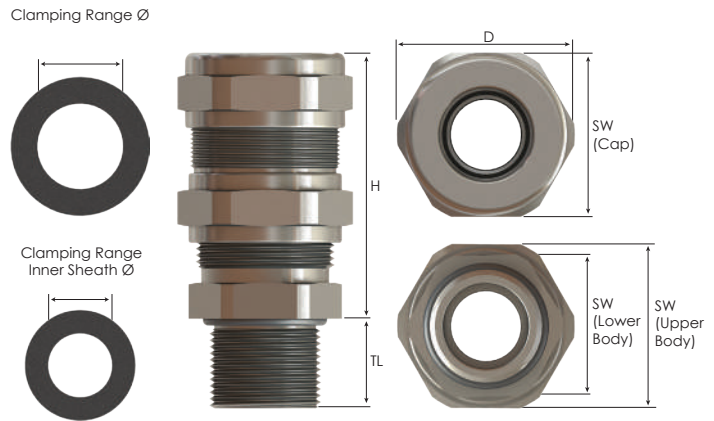
-For more information see our webpage.

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

Order Coding								
Part Number	Material	Seal	- Group	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 316L	C Chloroprene S Silicone	- M Group I (Mining)	WC Chloroprene WS Silicone WF Fiber	WSR Serrated washer	L Lock nut	S Shroud	E Earth tag
Example								
KBA1N	BN	C	- M	-	WSR	L	S	-

# ORION for Mining Application

## Cable Glands for SWA and AWA Cables



Mining Application

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

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			
M20x1,5	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	16,0	26	26	24	29,0	50,0	KBA1SM
	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
M25x1,5	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	18,0	26	26	29	31,5	50,0	KBA2XSM
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	18,0	29	29	29	31,5	52,5	KBA2SM
	8,5 - 16,0	12,0 - 21,0	0,70 - 1,20	18,0	34	34	32	37,0	56,5	KBA2M
M32x1,5	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	18,0	29	29	36	39,8	52,5	KBA3XSM
	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	18,0	40	40	40	44,0	64,0	KBA3SM
	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	KBA4XSM
	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	18,0	52	52	48	57,0	81,0	KBA4SM
	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	KBA5XSM
	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	KBA5SM
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	18,0	74	70	70	81,8	104,5	KBA5M
M63x1,5	22,0 - 35,0	33,0 - 48,0	2,00 - 2,80	20,0	75	70	68	83,0	100,0	KBA6XSM
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	20,0	74	70	70	81,8	104,5	KBA6XMM
	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	20,0	80	80	75	89,5	109,5	KBA6SM
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	20,0	85	85	85	94,0	111,5	KBA6M
M75x1,5	45,0 - 56,0	54,0 - 70,0	1,30 - 2,50	20,0	100	95	90	110,5	128,5	KBA6LM
	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	20,0	80	80	85	94,0	109,5	KBA7XSM
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	20,0	85	85	85	94,0	111,5	KBA7SM
M90x1,5	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	20,0	100	95	90	110,5	127,5	KBA7M
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	20,0	85	85	100	110,5	111,5	KBA8XSM
M110x2,0	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	20,0	100	95	95	110,5	127,5	KBA8SM
	60,0 - 72,0	63,0 - 80,0	1,00 - 3,50	20,0	115	115	110	127,0	158,0	KBA8M

### 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		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			
M90x2,0	70,0 - 82,0	78,0 - 90,0	1,5 - 4,4	20,0	120	120	115	134,0	159,5	KBA8MLT
M100x2,0	80,0 - 92,0	88,0 - 100,0	1,2 - 4,0	20,0	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	162,0	180,0	KBA10MLT
M130x2,0	100,0 - 115,0	109,0 - 123,0	2,0 - 5,4	24,0	160	160	160	176,0	202,0	KBA13MLT

# Cable Glands for SWA and AWA Cables

# ORION for Mining Applications



Technical Details			
<b>Material</b>	<b>Body, Cap</b>	Brass, Brass Nickel Plated, Stainless Steel 316L	
	<b>Inner Part</b>	Brass, Brass Nickel Plated, Stainless Steel 316L	
	<b>Seal</b>	CR (Chloroprene) , Silicone	
	<b>O-ring</b>	CR (Chloroprene) , Silicone	
<b>Ingress Protection Rating</b>	IP 68 - 5 Bar, 30 min IP 66		
<b>Operating Temperature</b>	<b>Seal Material</b>		
	<b>CR (Chloroprene)</b>	<b>Silicone</b>	
	<b>Standard Group</b>	-40°C to +80°C	-60°C to +80°C
<b>LT Group</b>	-40°C to +80°C		
<b>Equipment For</b>	Mining potentially explosive atmospheres.		
<b>Suitable for use in</b>	Group I	Mining Group IMb Group I	
<b>Equipment Marking</b>	<b>Group I</b> Ex I M2 Ex db I Mb Ex eb I Mb		
<b>Marking Example *</b>	BMD KBA.. CE 0722  I M2 Ex db I Mb Ex eb I Mb IP66/68 Ta -40°C to +80°C CESI 13 ATEX 033X IECEx CES 13.0013X		
<b>Thread Type</b>	<ul style="list-style-type: none"> <li>• Metric (M) ISO Pitch 1,5</li> <li>• NPT (N) ANSI ASME B1.20.1</li> <li>• Other thread types also available upon request.</li> </ul>		
<b>Cable Type</b>	SWA - AWA		
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Lock nuts</li> <li>• Gaskets (Washers)</li> <li>• Serrated Washers</li> <li>• Shrouds</li> <li>• Earth tags</li> </ul>		
	<ul style="list-style-type: none"> <li>• O-ring available in Metric outer threads.</li> <li>• Accessories must be ordered separately.</li> </ul>		
	<b>Remarks</b>		
	<b>Approvals</b>	<b>Certificate Number</b>	<b>Standards</b>
		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.

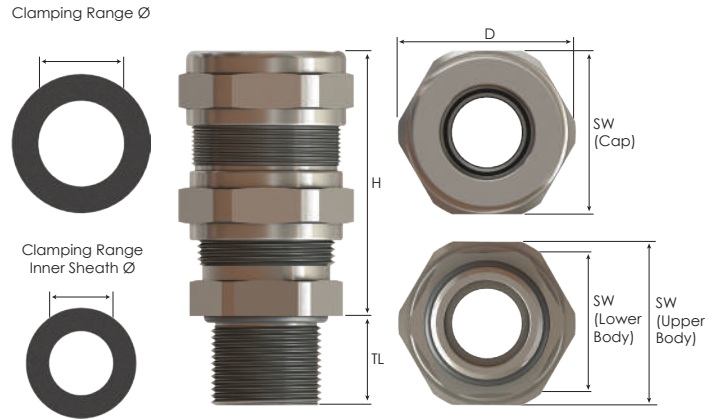
\* The standard marking consists ATEX & IECEx only. Marking acc. to other standards on request.

### Order Coding

Part Number	Material	Seal	- Group	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 316L	C Chloroprene S Silicone	- M Group I (Mining)	WC Chloroprene WS Silicone WF Fiber	WSR Serrated washer	L Lock nut	S Shroud	E Earth tag
<b>Example</b>								
KBA1N	BN	C	- M	-	WSR	L	S	-

# ORION for Mining Applications

## 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 mm	Spanner Width			Outer Ø mm	max. Height mm	Part Number
	Inner Sheath Ø min-max mm	Ø min-max mm			Cap SW Cap mm	Upper Body SW Upper Body mm	Lower Body SW Lower Body mm			
NPT 1/2"	3,0 - 8,5	6,0 - 12,0	0,70 - 1,20	21,0	26	26	24	29,0	49,5	KBA1SN
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	21,0	29	29	25	31,5	51,0	KBA1N
	8,5 - 14,5	12,0 - 20,0	0,90 - 1,30	21,0	32	30	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	31,5	50,0	KBA2XSN
	6,0 - 12,0	8,5 - 16,0	0,70 - 1,25	21,0	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	37,0	56,5	KBA2N
	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	21,0	40	40	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	39,8	52,5	KBA3XSN
	12,0 - 20,0	16,0 - 26,0	1,30 - 1,70	26,0	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	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	50,0	64,0	KBA4XSN
	15,0 - 26,0	20,0 - 33,0	1,20 - 1,80	28,0	52	52	48	57,0	81,0	KBA4SN
	20,0 - 32,0	29,0 - 41,0	1,60 - 2,20	28,0	60	60	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	60,0	81,0	KBA5XSN
	20,0 - 32,0	29,0 - 41,0	1,60 - 2,20	28,0	60	60	55	66,0	92,0	KBA5XMN
	22,0 - 35,0	33,0 - 48,0	2,00 - 2,80	28,0	75	70	60	83,0	100,0	KBA5SN
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	28,0	74	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	83,0	100,0	KBA6XSN
	27,0 - 41,0	36,0 - 52,0	1,80 - 2,80	28,0	74	70	70	81,8	104,5	KBA6XMN
	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	28,0	80	80	75	89,5	109,5	KBA6SN
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	28,0	85	85	85	94,0	111,5	KBA6N
NPT 2 1/2"	45,0 - 52,0	54,0 - 70,0	1,30 - 2,50	28,0	100	95	90	110,5	128,5	KBA6LN
	35,0 - 45,0	43,0 - 57,0	1,80 - 2,80	41,0	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	94,0	111,5	KBA7SN
NPT 3"	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	41,0	100	95	90	110,5	127,5	KBA7N
	40,0 - 52,0	47,0 - 60,0	1,80 - 2,80	43,0	85	85	95	105,0	111,5	KBA8XSN
	45,0 - 60,0	54,0 - 70,0	1,00 - 2,30	43,0	100	95	95	110,5	127,5	KBA8SN
	60,0 - 72,0	63,0 - 80,0	1,00 - 3,50	43,0	115	115	110	127,0	158,0	KBA8N

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	Spanner Width			Outer Ø D mm	max. Height H mm	Part Number
	Inner Sheath Ø min-max mm	Ø min-max mm			Cap SW Cap 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	115	134,0	159,5	KBA9MNLT
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