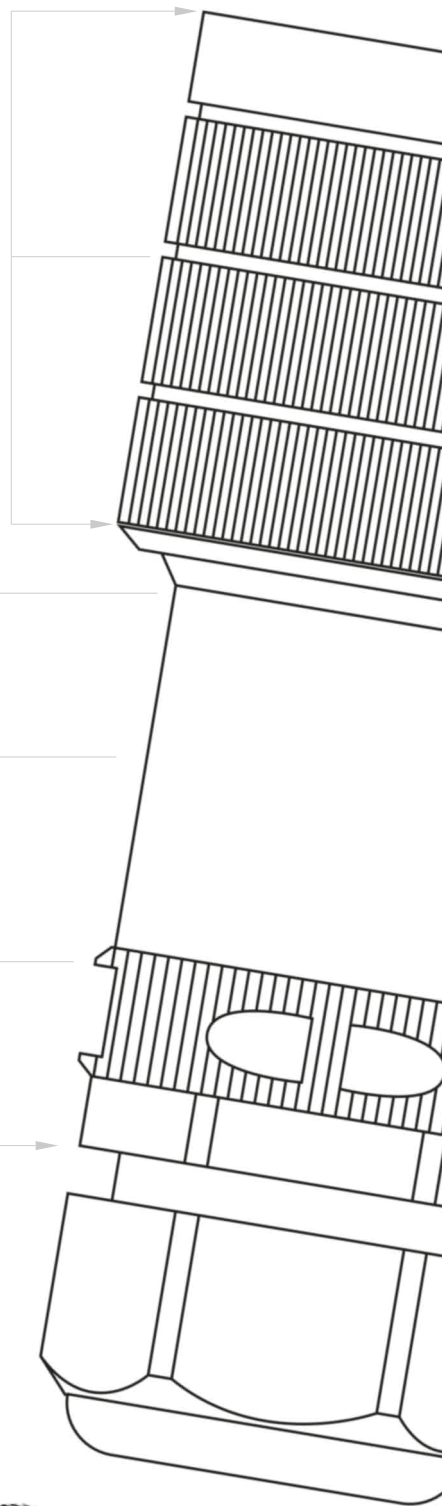


# Bayonet Syntax<sup>®</sup>

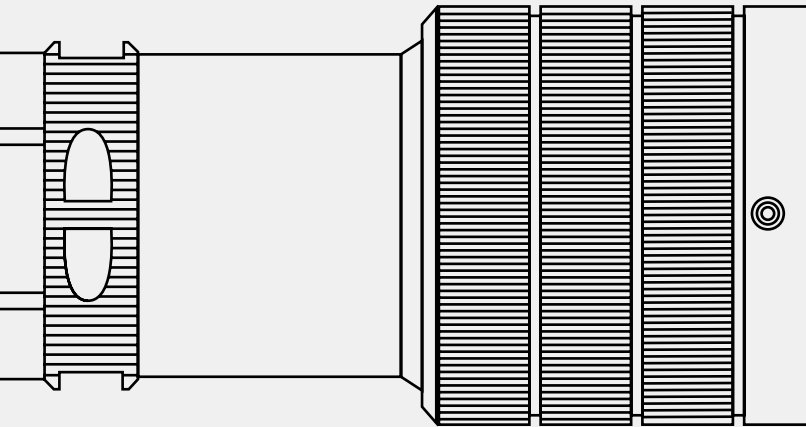
**SAE-AS50151 & VG 95234 Connectors**



Your idea  
is our next  
accomplishment



**Syntax<sup>®</sup>**  
**Bayonet**



**VALENTINI**

*SYNTAX*®  
*PBOX*

## **Inventors, manufacturers, innovators.**

Valentini is a dynamic, ever-evolving company operating in over 60 countries worldwide. For more than 30 years we have actively researched, designed and manufactured connectors for power, signal and hybrid applications.

Our products have been used all over the world to manage power and electric signals in fields such as industry, automotive, broadcasting, shipbuilding & ship to shore power, international sporting events, live shows, military & national emergency management by agencies such as the Italian Civil Protection Department, and so many more.

Valentini is an environmentally-aware company where respect for the environment is an integral part of the manufacturing process. Our team is motivated and mindful of details, as we are aware of how important details are in our pursuit of uncompromised quality and utmost reliability.

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# Syntax® Bayonet

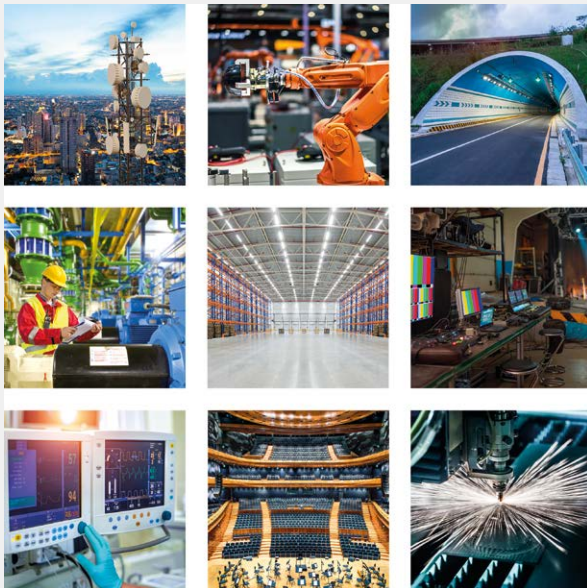
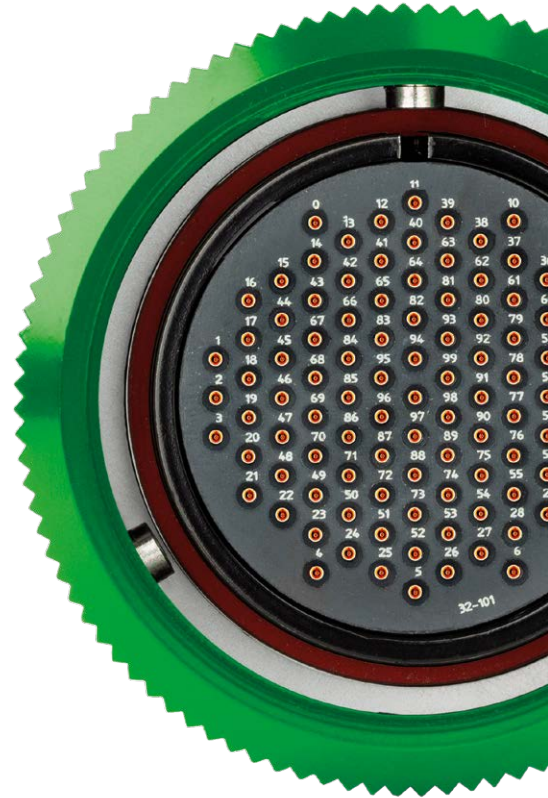
## multipin connectors

### SAE-AS50151 & VG95234

#### Many different shell sizes and insert arrangements up to 150 contacts

Our Syntax circular bayonet multipin connectors are built in compliance with SAE-AS50151, formerly known as MIL-C-5015, and VG 95234 military standards, so they are designed and built to be tough and reliable, being at the same time extremely versatile. Our Bayonet family consists of 6 different connectors series suitable to a vast range of both indoor or outdoor applications, being IP67 waterproof when mated, and can carry signal and/or power, depending on the type of connection the job requires.

Each series has its own peculiarities: the SVK and the SHD connectors are available in 8 different insert arrangements from 13 to 150 pins, with the SVK being a solid all-round indoor/outdoor choice, while the SHD is more focused on outdoor-only applications. The SPK series consists with 3 different pin counts, having 4, 8 and 25 contacts. The 8 pin SPK is CA-COM compatible. The SVS connectors are designed to carry a large number of signal contacts in a slim body and come in 72 and 101 pin versions. The SB Series is available in 16 different insert arrangements and contact configurations and has a special eye for lighting applications. Finally, the SV series is designed for broadcasting and to carry multiple audio and video signals.



## Typical applications

- Industrial automation
- Transport networks
- TV and radio broadcast
- Live entertainment
- Live events
- Conferences
- Surveillance networks
- Electrical power systems
- Power distribution
- Mobile generators
- Railway installations
- Military installations
- Backup power systems
- Electrical power supply companies
- Heavy industry

## Bayonet series shell features

### Multipin connectors



#### Firmer grip

Marked knurling on the whole circumference of locking-ring for optimal grip and easy coupling.  
An audible click indicates that locking is complete.



#### Extra resistance

Thicker locking ring for high resistance to shocks. In the SVK, SHD, SVS, SB, SV series the aluminium housing for the insulating insert does not protrude from the edge of the locking ring, avoiding ovalization due to accidental blows.



#### Simpler wiring

Extrawide backshell to allow easier wiring operations.



#### Bigger roller pins

Increased size of Coupling roller pins on locking-ring for more durability.



#### No vibrations

Vibration-proof stainless steel safety pin ensures high reliability of the connection in every working condition.



# Syntax<sup>®</sup> SVK series

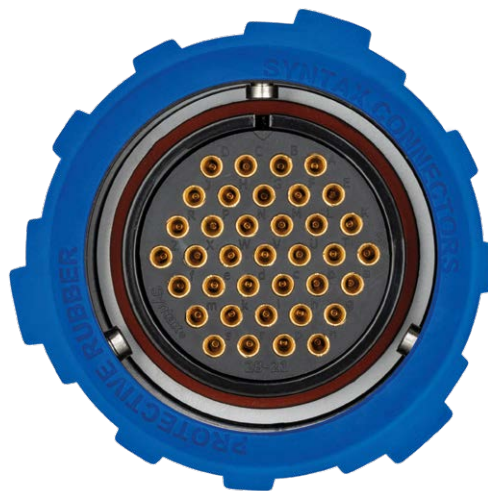
A synthesis for perfect balance

The Syntax SVK series provides super-reliable military-grade connecting solutions in industrial machinery and automation, and in applications such as energy, managing of audio channels and connection of a wide range of devices. All details have been thoughtfully engineered to set a higher standard and provide an unprecedented level of strength, durability and comfort. Its IP67 waterproof rating (when mated) makes the Syntax SVK series suitable for any kind of usage.

On the females, the locking ring is comfortable to lock and has a thick-wall construction for increased durability in case of accidental blows. The roller pins ensure easy coupling with an audible click when locked. The SVK series is available in 8 different insert arrangement configurations, from 13 to 150 contacts. Compliant with SAE-AS50151 (formerly known as MIL-C-5015) & VG95234 standards, RoHS.

## Technical features

- SVK series available versions: 13, 19,25, 37, 54, 85, 100 and 150 pins
- Compliant with SAE-AS50151 & VG 95234 military standards
- Aluminium alloy shells with abrasion resistant black electrophoresis finish
- Audible lock-up recognition system guaranteed for over 2000 mating and unmating cycles
- Metal or rubber coated locking rings for easy coupling
- Bayonet lock stainless steel safety pin
- High precision gold or silver plated machined contacts for frictionless coupling and long term reliability
- Chloroprene high performance insulating rubber insert allowing easy contact insertion and removal for fast assembling or repair operations
- Standard or spiral flex cable glands ensure water tight sealing and optimal cable strain relief
- Heavy-duty metal cable grips with wire mesh are available on request
- IP67 waterproof (when mated) for outdoor applications
- IP67 caps for waterproof protection on unmated connectors



## Inline versions

### SVK Series



#### Inline female SVK series

Pins	Part Number
13	<b>SVK013FV</b>
19	<b>SVK019FV</b>
25	<b>SVK025FV</b>
37	<b>SVK037FV</b>
54	<b>SVK054FV</b>
85	<b>SVK085FV</b>
100	<b>SVK100FV</b>
150	<b>SVK150FV</b>

#### Inline male SVK series

Pins	Part Number
13	<b>SVK013MV</b>
19	<b>SVK019MV</b>
25	<b>SVK025MV</b>
37	<b>SVK037MV</b>
54	<b>SVK054MV</b>
85	<b>SVK085MV</b>
100	<b>SVK100MV</b>
150	<b>SVK150MV</b>





## Panel versions SVK Series



### Panel female SVK series

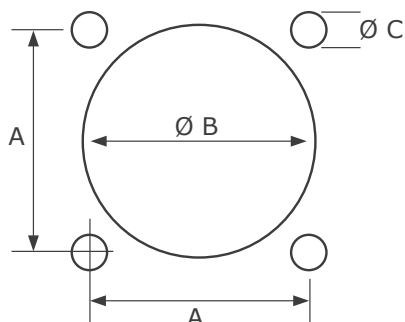
Pins	Part Number
13	<b>SVK013FP</b>
19	<b>SVK019FP</b>
25	<b>SVK025FP</b>
37	<b>SVK037FP</b>
54	<b>SVK054FP</b>
85	<b>SVK085FP</b>
100	<b>SVK100FP</b>
150	<b>SVK150FP</b>

### Panel male SVK series

Pins	Part Number
13	<b>SVK013MP</b>
19	<b>SVK019MP</b>
25	<b>SVK025MP</b>
37	<b>SVK037MP</b>
54	<b>SVK054MP</b>
85	<b>SVK085MP</b>
100	<b>SVK100MP</b>
150	<b>SVK150MP</b>



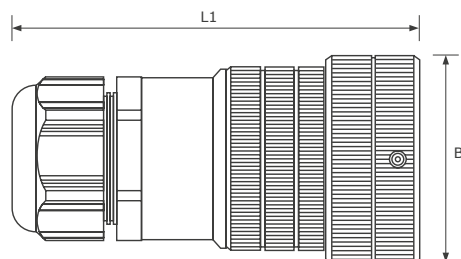
## Cut-out dimensions Panel connectors



Pins	A	Ø B	Ø C
13-19	29.4 mm	31.7 mm	3.1 mm
25	34.9 mm	35.3 mm	3.7 mm
37	39.7 mm	41.5 mm	3.7 mm
54	44.5 mm	47.9 mm	4.3 mm
85-100-150	55.5 mm	59.1 mm	4.3 mm

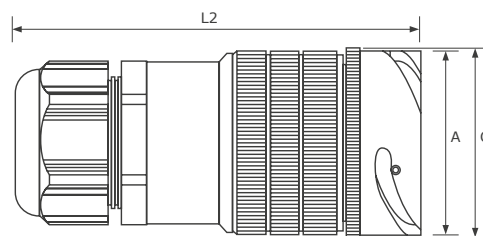
# Overall dimensions

## Inline and panel version



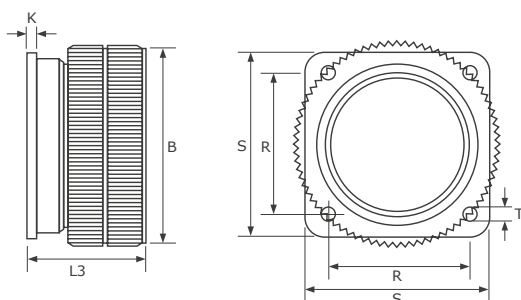
**Inline female**  
Dimensions in mm

Pins	Shell size	Ø B Max	L1 Max	Cable clamp metric	Ø Cable Min-Max
13-19	20	43.0	103	M20	6-14
25	24	50.4	108	M25	6-18
37	28	56.0	116	M32	7-25
54	32	63.0	121	M32	7-25
85-100-150	40	75.0	147	M40	15-32



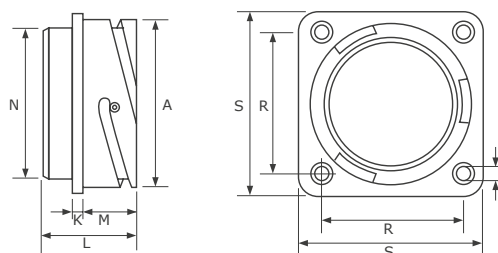
**Inline male**  
Dimensions in mm

Pins	Shell size	Ø A Max +0/-0.15	Ø C Max	L2 Max	Cable clamp metric	Ø Cable Min-Max
13-19	20	40.0	43	102	M20	6-14
25	24	40.9	44	109	M25	6-18
37	28	46.7	50	116	M32	7-25
54	32	53.4	56	122	M32	7-25
85-100-150	40	65.5	69	147	M40	15-32



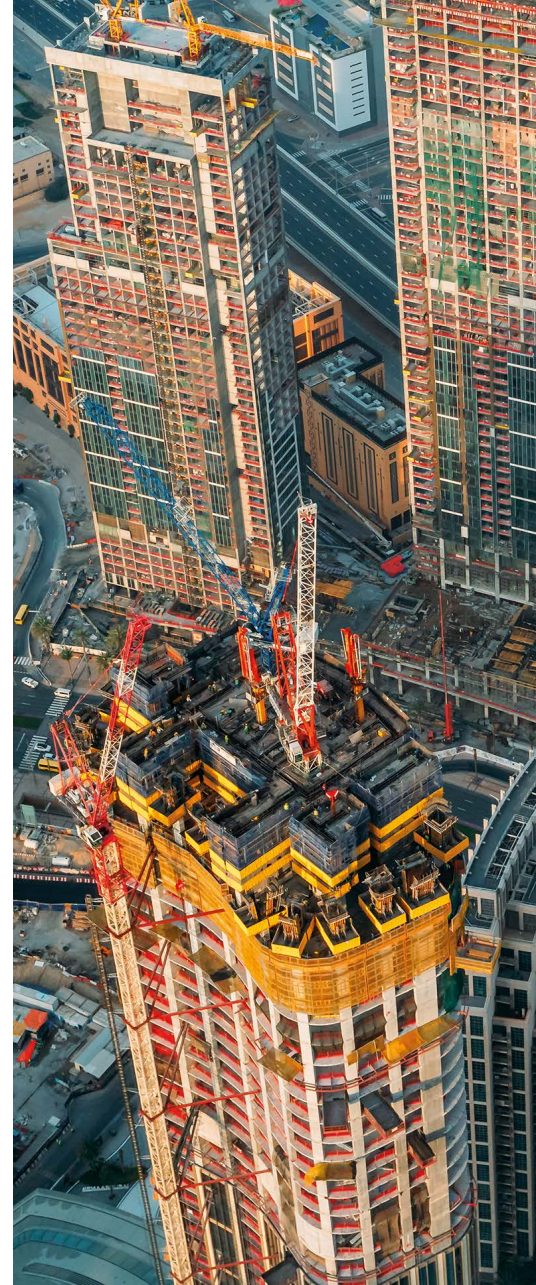
**Panel female**  
Dimensions in mm

Pins	Shell size	Ø B Max	L3 Max	K ±0.2	R ±0.1	S ±0.3	T H13
13-19	20	43.0	38.1	4	29.4	38.0	3.2
25	24	50.4	40.6	4	34.9	44.5	3.7
37	28	56.0	40.8	4	39.7	50.8	3.7
54	32	63.0	43.7	4	44.5	57.0	4.4
85-100-150	40	75.0	44.8	4	55.6	69.8	4.4



**Panel male**  
Dimensions in mm

Pins	Shell size	Ø A ±0.15	L ±0.3	K ±0.2	M +0.4/-0	Ø N Max	R ±0.1	S ±0.3	T H13
13-19	20	34.2	34.5	4	19.0	31.7	29.4	38.1	3.2
25	24	40.9	35.7	4	20.6	35.3	34.9	44.5	3.7
37	28	46.7	35.7	4	20.6	41.4	39.7	50.8	3.7
54	32	53.4	37.3	4	22.2	47.8	44.5	57.0	4.3
85-100-150	40	65.5	37.3	4	22.2	59.0	55.6	69.8	4.3



# Syntax® SHD series

SHD Roadline Syntax Heavy Duty connectors

The Syntax SHD series has set a new benchmark for industry standard SAE-AS50151 & VG 95234 designs, providing extra-reliable military-grade performance in such diverse fields as industrial machinery, automation, energy, managing of audio channels, live events, broadcasting and connections of a wide range of devices, both indoors or outdoors. Its extreme robustness guarantees long term reliability and an increased number of mating cycles in rigorous conditions. Bigger coupling roller pins and deeper knurled shells provide easy mating/unmating. Thicker machined construction prevents ovalization of the locking rings caused by unintentional blows.

IP67 waterproof rating is achieved when connectors are mated or connected to the protective caps.

## Technical features

- SHD series available versions: 13, 19,25, 37, 54, 85, 100 and 150 pins
- Compliant with SAE-AS50151 & VG 95234 military standards
- Increased thickness of the locking-ring ensures greater resistance to shocks
- Double backshell tightening areas
- Aluminium alloy shells with abrasion resistant black electrophoresis finish
- Audible lock-up recognition system guaranteed for over 2000 mating and unmating cycles
- Metal or rubber coated locking rings specifically designed for easy coupling
- Bayonet lock stainless steel safety pin
- High precision gold or silver plated machined contacts for frictionless coupling and long term reliability
- High performance insulating insert allowing easy contact insertion and removal for fast assembling or repair
- Standard or spiral flex cable glands ensure water tight sealing and optimal cable strain relief
- Heavy-duty metal cable grips with wire mesh are available on request
- Extra wide backshell for easier wiring
- IP67 waterproof (when mated) for outdoor applications
- IP67 caps for waterproof protection on unmated connectors



## Inline versions SHD Series



### Inline female SHD series

Pins	Part Number
13	<b>SHD013FV</b>
19	<b>SHD019FV</b>
25	<b>SHD025FV</b>
37	<b>SHD037FV</b>
54	<b>SHD054FV</b>
85	<b>SHD085FV</b>
100	<b>SHD100FV</b>
150	<b>SHD150FV</b>

### Inline male SHD series

Pins	Part Number
13	<b>SHD013MV</b>
19	<b>SHD019MV</b>
25	<b>SHD025MV</b>
37	<b>SHD037MV</b>
54	<b>SHD054MV</b>
85	<b>SHD085MV</b>
100	<b>SHD100MV</b>
150	<b>SHD150MV</b>



## Panel versions

### SHD Series



#### Panel female

##### SHD series

Pins	Part Number
13	<b>SHD013FP</b>
19	<b>SHD019FP</b>
25	<b>SHD025FP</b>
37	<b>SHD037FP</b>
54	<b>SHD054FP</b>
85	<b>SHD085FP</b>
100	<b>SHD100FP</b>
150	<b>SHD150FP</b>

#### Panel male

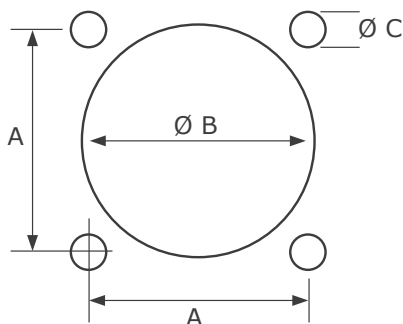
##### SHD series

Pins	Part Number
13	<b>SHD013MP</b>
19	<b>SHD019MP</b>
25	<b>SHD025MP</b>
37	<b>SHD037MP</b>
54	<b>SHD054MP</b>
85	<b>SHD085MP</b>
100	<b>SHD100MP</b>
150	<b>SHD150MP</b>



## Cut-out dimensions

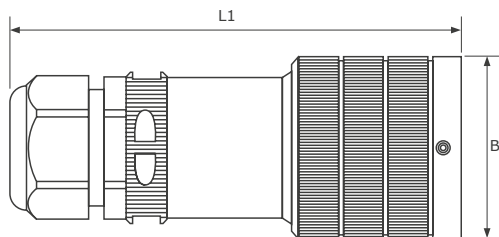
### Panel connectors



Pins	A	Ø B	Ø C
13-19	29.4 mm	31.7 mm	3.1 mm
25	34.9 mm	35.3 mm	3.7 mm
37	39.7 mm	41.5 mm	3.7 mm
54	44.5 mm	47.9 mm	4.3 mm
85-100-150	55.5 mm	59.1 mm	4.3 mm

# Overall dimensions

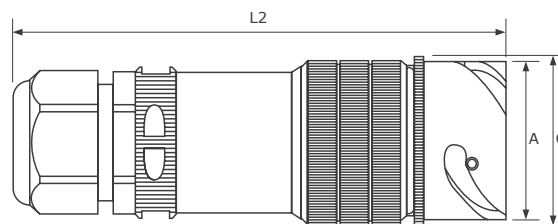
## Inline and panel version



### Inline female

Dimensions in mm

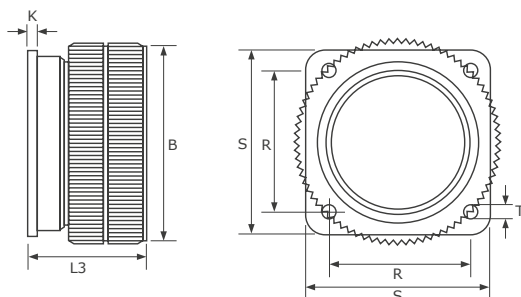
Pins	Shell size	Ø B Max	L1 Max	Cable clamp metric	Ø Cable Min-Max
13-19	20	43.0	153	M20	6-14
25	24	50.4	153	M25	6-18
37	28	56.0	158	M32	7-25
54	32	63.0	163	M32	7-25
85-100-150	40	75.0	186	M40	15-32



### Inline male

Dimensions in mm

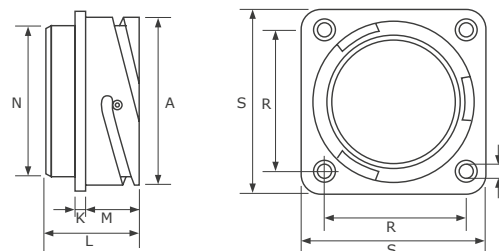
Pins	Shell size	Ø A Max +0/-0.15	Ø C Max	L2 Max	Cable clamp metric	Ø Cable Min-Max
13-19	20	40.0	43	102	M20	6-14
25	24	40.9	44	109	M25	6-18
37	28	46.7	50	116	M32	7-25
54	32	53.4	56	122	M32	7-25
85-100-150	40	65.5	69	147	M40	15-32



### Panel female

Dimensions in mm

Pins	Shell size	Ø B Max	L3 Max	K ±0.2	R ±0.1	S ±0.3	T H13
13-19	20	43.0	38.1	4	29.4	38.0	3.2
25	24	50.4	40.6	4	34.9	44.5	3.7
37	28	56.0	40.8	4	39.7	50.8	3.7
54	32	63.0	43.7	4	44.5	57.0	4.4
85-100-150	40	75.0	44.8	4	55.6	69.8	4.4



### Panel male

Dimensions in mm

Pins	Shell size	Ø A ±0.15	L ±0.3	K ±0.2	M +0.4/-0	Ø N Max	R ±0.1	S ±0.3	T H13
13-19	20	34.2	34.5	4	19.0	31.7	29.4	38.1	3.2
25	24	40.9	35.7	4	20.6	35.3	34.9	44.5	3.7
37	28	46.7	35.7	4	20.6	41.4	39.7	50.8	3.7
54	32	53.4	37.3	4	22.2	47.8	44.5	57.0	4.3
85-100-150	40	65.5	37.3	4	22.2	59.0	55.6	69.8	4.3



## Double backshell tightening

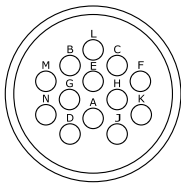
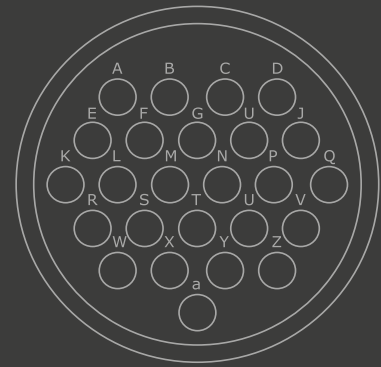
Once wiring is carried out, both circular knurling and machined housings for customized wrench jaws on the backshell's edge contribute to easier locking. Tightening tools:

- SVKT - KSW** customized wrench (on machined housings)
- SVKT - KSTRAP** strap wrench (on knurling).

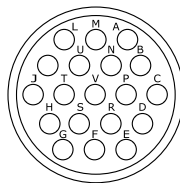
# Insert layouts and wiring lists

## Reference guide

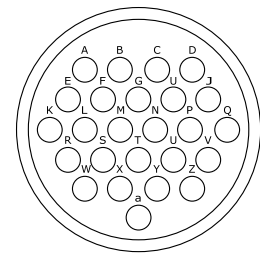
Male insert front view | SVK and SHD series



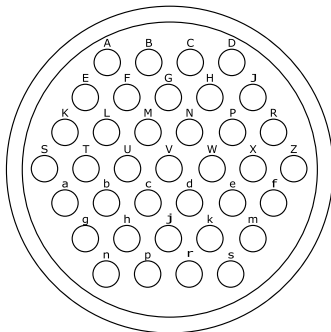
13 pin | size 20 (SVK-SHD)



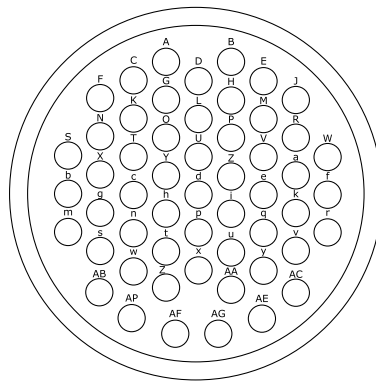
19 pin | size 20 (SVK-SHD)



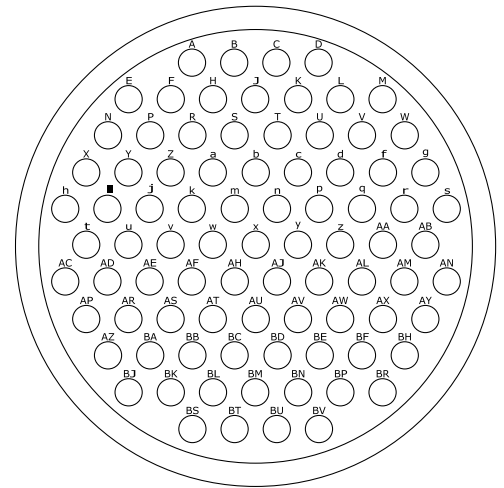
25 pin | size 24 (SVK-SHD)



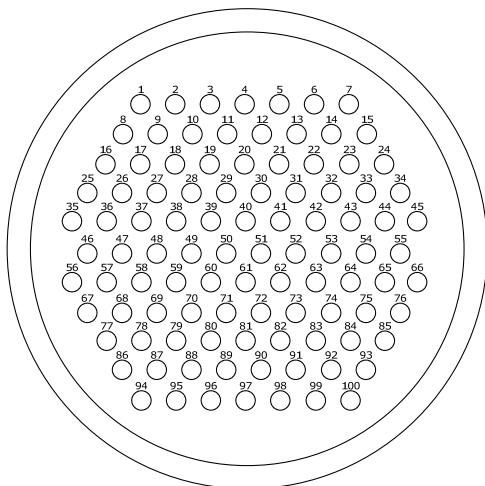
37 pin | size 28 (SVK-SHD)



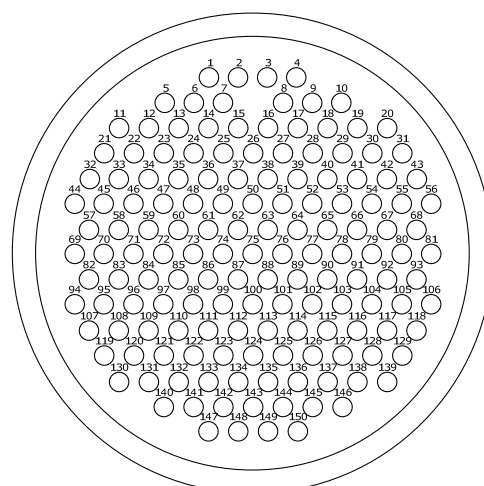
54 pin | size 32 (SVK-SHD)



85 pin | size 40 (SVK-SHD)



100 pin | size 40 (SVK-SHD)



150 pin | size 40 (SVK-SHD)

**13 pin - 4 channels**

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	M	B	L
2	N	G	E
3	D	A	H
4	J	K	F

**19 pin - 6 channels**

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	A	M	L
2	C	P	B
3	N	U	V
4	T	J	K
5	D	R	E
6	F	G	S

**25 pin - 8 channels**

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	A	E	F
2	G	C	B
3	D	H	J
4	M	L	K
5	Q	P	N
6	W	S	R
7	T	X	Y
8	Z	V	U

**37 pin - 12 channels**

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	E	F	A
2	B	C	G
3	H	J	D
4	S	T	K
5	L	M	U
6	V	W	N
7	P	R	X
8	a	b	g
9	c	d	j
10	e	f	m
11	n	p	h
12	r	s	k

**54 pin - 16 channels**

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	W	f	r
2	J	R	a
3	k	v	AC
4	E	M	V
5	e	q	y
6	B	H	P
7	Z	j	u
8	D	L	U
9	d	p	x
10	A	G	O
11	Y	h	t
12	C	K	T
13	c	n	w
14	F	N	X
15	g	s	AB
16	S	b	m

**150 pin - 48 channels**

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	1	2	3
2	5	6	7
3	8	9	10
4	11	12	13
5	14	15	16
6	17	18	19
7	21	22	23
8	24	25	26
9	27	28	29
10	20	30	31
11	32	33	34
12	35	36	37
13	38	39	40
14	41	42	43
15	44	45	46
16	47	48	49
17	50	51	52
18	53	54	55
19	57	58	59
20	60	61	62
21	63	64	65
22	66	67	68
23	69	70	71
24	72	73	74
25	75	76	77
26	78	79	80
27	82	83	84
28	85	86	87
29	88	89	90
30	91	92	93
31	94	95	96
32	97	98	99
33	100	101	102
34	103	104	105
35	56	81	106
36	107	108	109
37	110	111	112
38	113	114	115
39	116	117	118
40	119	120	121
41	122	123	124
42	125	126	127
43	139	128	129
44	130	131	132
45	133	134	135
46	136	137	138
47	140	141	142
48	143	144	145

**85 pin - 28 channels**

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	A	B	C
2	E	F	H
3	J	K	L
4	N	P	R
5	S	T	U
6	X	Y	Z
7	a	b	c
8	d	f	g
9	h	l	j
10	k	m	n
11	p	q	r
12	t	u	v
13	w	x	y
14	z	AA	AB
15	AC	AD	AE
16	AF	AH	AJ
17	AK	AL	AM
18	AP	AR	AS
19	AT	AU	AV
20	AW	AX	AY
21	AZ	BA	BB
22	BC	BD	BE
23	BJ	BK	BL
24	BM	BN	BP
25	BS	BT	BU
26	BV	BR	BF
27	BH	AN	s
28	W	M	D

**100 pin - 32 channels**

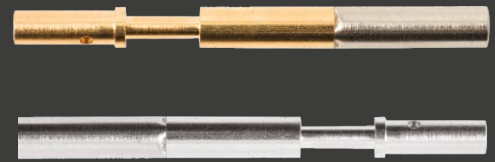
Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	1	2	3
2	4	5	6
3	7	8	9
4	10	11	12
5	13	14	15
6	16	17	18
7	19	20	21
8	22	23	24
9	25	26	27
10	28	29	30
11	31	32	33
12	34	35	36
13	37	38	39
14	40	41	42
15	43	44	45
16	46	47	48
17	49	50	51
18	52	53	54
19	55	56	57
20	58	59	60
21	61	62	63
22	64	65	66
23	67	68	69
24	70	71	72
25	73	74	75
26	76	77	78
27	79	80	81
28	82	83	84
29	85	86	87
30	88	89	90
31	91	92	93
32	94	95	96
33	97	98	99



# Contacts for SVK and SHD series

The secret behind a high quality connection

Male and female contacts | Silver - Gold  
Size 16-18



## FEMALE contacts

### SOLDER



GOLD Armored | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16GFZ**



SILVER Armored | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16SFZ**



GOLD | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16GFS**



SILVER | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16SFS**

### CRIMP



SILVER Armored | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16SFK**



SILVER | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16SFC**



GOLD Armored | size 18  
100/150 pin versions  
Part No. **SVKP18GFK**



GOLD Armored | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16GFK**



GOLD | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16GFC**

## MALE contacts

### SOLDER



GOLD | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16GMS**



SILVER | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16SMS**

### CRIMP



SILVER | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16SMC**



GOLD | size 16  
13/19/25/37/54/85 pin versions  
Part No. **SVKP16GMC**



GOLD | size 18  
100/150 pin versions  
Part No. **SVKP18GMC**

## Contacts rating Size 16 - Size 18

Size	Max current	Rated current	Max voltage drop	Wire section (mm <sup>2</sup> )	Wire section AWG
16	22 A	13 A	74mV	1÷1,5	18÷16
18	7.5 A	7.5A	83mV	0.15÷0.6	26÷20

## Connectors rating SVK and SHD series

Contacts number	Operating voltage Vdc	Operating voltage Vac	Test voltage Vac	Min. Flashover Vac
13/19/25/150	250	1200	1000	1400
37/54/85/100	700	500	2000	2800



## SLS Stainless steel connector Series

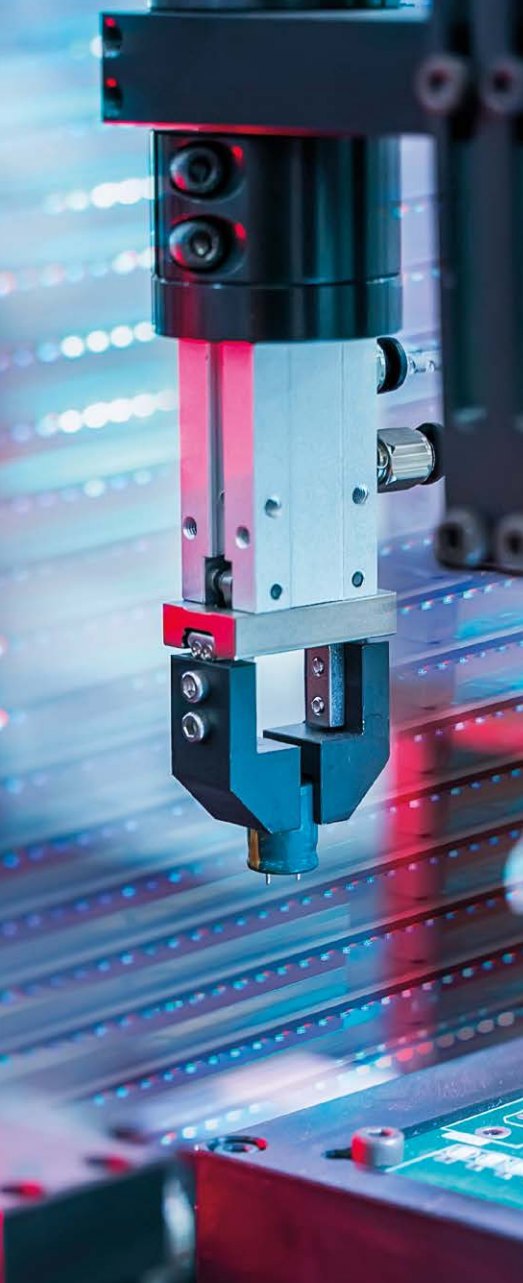
The high-end solution for professional connections.

A new generation of connectors. The new Syntax SLS series is a high-end solution for professional connections. The SLS series features a front shell made of stainless steel. Along with the all-aluminium construction of the existing Syntax connectors series such as SVK and SHD, the new SLS series completes the Syntax range with a focus on connections where high-precision contactation is needed. In particular, stainless steel's unique properties will enable our customers to easily take their ideal connection from concept to reality. While providing unprecedented connectors' lifespan and reliability, the adoption of steel originates a vast array of possibilities for new connectors' designs, making innovative breakthroughs possible and not restricted to large scale deployment solutions. A new generation of special, high-performance connectors for fiber optic, audio/video applications, combo systems and a virtually limitless number of high-precision future applications is now within reach.



### Main advantages

- Extreme robustness
  - Highest durability
  - Greater resistance to wear and tear
  - Increased number of mating cycles
- (more than 10 times the number of cycles of all-aluminium shells)



# Syntax® SVS series

Slim High Density connectors

The Syntax SVS Slim High Density series connectors have been conceived and manufactured to set a higher standard for indoor as well for outdoor applications, thanks to their IP67 waterproof rating. SVS connectors are compliant with SAE-AS50151 VG 95234 military standards. The new version of the series has been enhanced to achieve a higher level of strength and durability, thanks to thicker backshell and locking ring. Our locking rings are designed to prevent possible ovalization of the insert due to accidental blows, with deeper knurling for easy coupling. The increased size of the roller pins ensures stable and reliable connections.

## Technical features

- SVS Slim high density series available versions 72 and 101 pins
- Compliant with SAE-AS50151 & VG 95234 military standards
- Aluminium alloy shells with abrasion resistant black electrophoresis finish
- Audible lock-up recognition system guaranteed for over 2000 mating and unmating cycles
- Metal or rubber coated locking rings for easy coupling
- Bayonet lock stainless steel safety pin
- High precision gold or silver plated machined contacts for frictionless coupling and long term reliability
- High performance insulating insert allowing easy contact insertion and removal for fast assembling or repair operations
- Standard or spiral flex cable glands ensure water tight sealing and optimal cable strain relief
- Heavy-duty metal cable grips with wire mesh are available on request
- IP67 waterproof (when mated) for outdoor applications
- IP67 caps for waterproof protection even on unmated connectors



## Inline and panel versions SVS Series



**Inline female**  
SVS series

Pins	Part Number
72	<b>SVS072FV</b>
101	<b>SVS101FV</b>



**Inline male**  
SVS series

Pins	Part Number
72	<b>SVS072MV</b>
101	<b>SVS101MV</b>



**Panel female**  
SVS series

Pins	Part Number
72	<b>SVS072FP</b>
101	<b>SVS101FP</b>

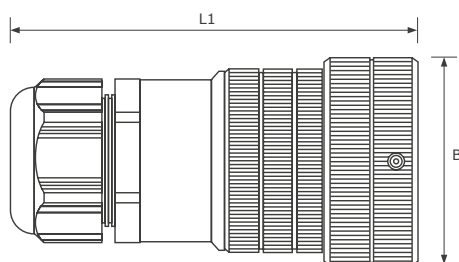


**Panel female**  
SVS series

Pins	Part Number
72	<b>SVS072MP</b>
101	<b>SVS101MP</b>

## Overall dimensions

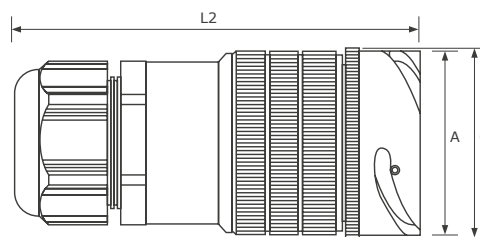
### Inline and panel version



#### Inline female

Dimensions in mm

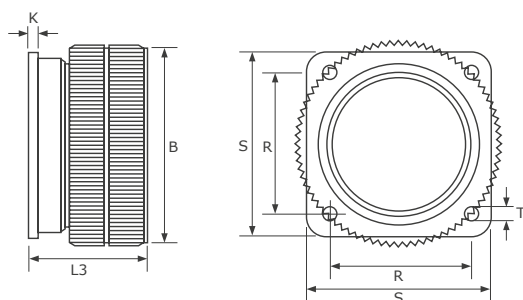
Pins	Shell size	Ø B Max	L1 Max	Cable clamp metric	Ø Cable Min-Max
72	28	56.0	116	M32	7-25
101	32	63.0	121	M32	7-25



#### Inline male

Dimensions in mm

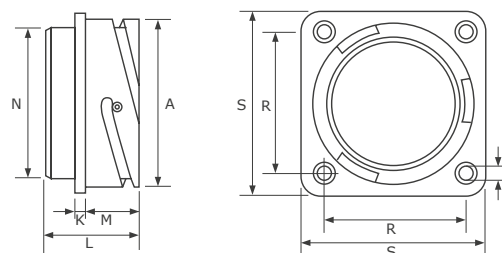
2,2 mm	Shell size	Ø A Max +0/-0.15	Ø C Max	L2 Max	Cable clamp metric	Ø Cable Min-Max
72	28	46.7	50	116	M32	7-25
101	32	53.4	56	122	M32	7-25



#### Panel female

Dimensions in mm

Pins	Shell size	Ø B Max	L3 Max	K ±0.2	R ±0.1	S ±0.3	T H13
72	28	56.0	40.8	4	39.7	50.8	3.7
101	32	63.0	43.7	4	44.45	57.0	4.4



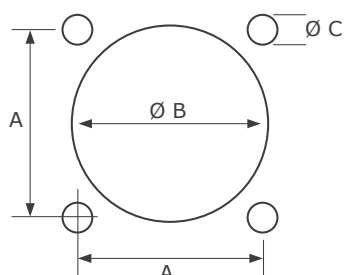
#### Panel male

Dimensions in mm

Pins	Shell size	Ø A ±0.15	L ±0.3	K ±0.2	M +0.4/-0	Ø N Max	R ±0.1	S ±0.3	T H13
72	28	46.7	35.7	4	20.6	41.4	39.7	50.8	3.7
101	32	53.4	37.3	4	22.2	47.8	44.5	57.0	4.3

## Cut-out dimensions

### Panel connectors

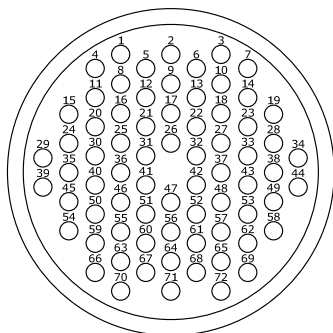


Pins	A	Ø B	Ø C
72	39.7 mm	41.5 mm	3.7 mm
101	44.5 mm	47.9 mm	4.3 mm

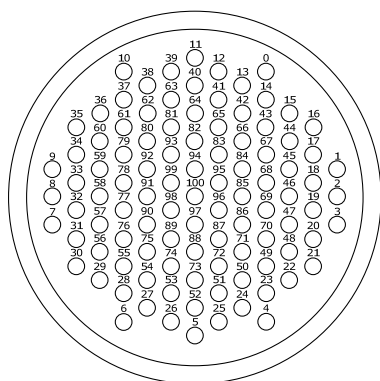
# Insert layouts and wiring lists

## Reference guide

Male insert front view | SVS series



72 pin | size 28 (SVS)



101 pin | size 32 (SVS)

### 101 pin - 32 channels

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	3	2	1
2	9	8	7
3	12	11	10
4	15	14	13
5	18	17	16
6	21	20	19
7	24	23	22
8	27	26	25
9	30	29	28
10	33	32	31
11	36	35	34
12	39	38	37
13	42	41	40
14	45	44	43
15	48	47	46
16	51	50	49
17	54	53	52
18	57	56	55
19	60	59	58
20	63	62	61
21	66	65	64
22	69	68	67
23	72	71	70
24	75	74	73
25	78	77	76
26	81	80	79
27	84	83	82
28	87	86	85
29	90	89	88
30	93	92	91
31	96	95	94
32	99	98	97

### 72 pin - 24 channels

Ch	Hot	Cold	Gnd
No.	+	-	⏏
1	3	2	1
2	5	6	7
3	9	8	4
4	13	14	10
5	15	11	12
6	18	17	16
7	22	23	19
8	24	20	21
9	27	26	25
10	33	34	28
11	30	31	32
12	36	35	29
13	44	38	37
14	41	42	43
15	45	39	40
16	48	47	46
17	52	53	49
18	54	50	51
19	57	56	55
20	61	62	58
21	63	59	60
22	69	65	64
23	66	67	68
24	72	71	70

## Contacts for SVS series

### The secret behind a high quality connection

Male and female contacts | Gold | Size 20



GOLD Armored female | size 20  
72/101 pin versions  
Part No. **SVKP20GFC**



GOLD male | size 20  
72/101 pin versions  
Part No. **SVKP20GMC**

### Contacts rating Size 20

Size	Max current	Rated current	Max voltage drop	Wire section (mm <sup>2</sup> )	Wire section AWG
20	10 A	7.5 A	83mV	0.15÷0.3	26÷22

### Connectors rating SVS series

Contacts number	Operating voltage Vdc	Operating voltage Vac	Test voltage Vac	Min. Flashover Vac
72/101	250	1200	1000	1400



# Syntax® SPK series

Carrying all the power you need

The Size 12 high conductive alloy machined contacts are the heart of the SPK family. Each contact provides 41 amp max current and 23 amp rated current, making our SPK connectors ideal not only for the live entertainment world and loudspeakers connections, but also for industrial applications as well as for field operations that require high power. SPK connectors are compliant with SAE-AS50151 & VG 95234 military standards and come in 3 different models: 4pin, the smallest one, 8pin, fully compatible with the CA-COM type connectors, and the new 25 pin, which can be used in combination with 3-way, 6-way or 12-way grommets.



## Syntax SPK 25 pin

### Inline and panel versions

The Syntax SPK 25pin heavy duty features, common to all the bayonet multipin series connectors, are based on SAE-AS50151 and VG95234 mechanical specs and include IP67 rating, thick wall construction shells and impact resistant locking rings. All these elements provide SPK 25pin series with benchmarking robustness and durability. The SPK 25pin can be used in combination with either a M40 or a M50 cable gland and, in combination with a special adapter, even with a M63 gland, which allows the use of 3 different multiway grommets.



**Inline**  
with rubber coated locking ring  
and M40 cable gland



**Panel**  
with ramps



**Inline**  
with ramps  
and M50 cable gland

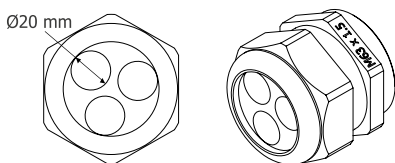
## M50 to M63 cable gland adapter for SPK 25pin inline connectors

This adapter has been designed to allow the use of bigger M63 cable glands with the inline body of the 25pin SPK connector, in order to use the 3-way, 6-way and the 12-way grommets.

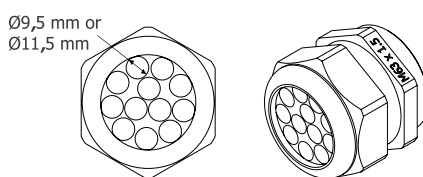


## Multiway grommet for M63 cable gland with adapter

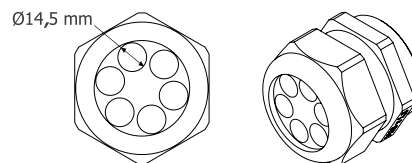
Multi-hole grommet allow easy cable splitting with specific solutions for 12 cables (2x2.5 mm<sup>2</sup> or 2x4 mm<sup>2</sup>) or 6 cables (4x4 mm<sup>2</sup>) or 3 cables (8x4 mm<sup>2</sup>).



**3-way grommets**  
3x20 mm OD cables  
Associated Syntax® cable:  
Part Number **7Z8SX40**



**12-way grommets**  
12x9,5 mm or 12x11,5 mm OD cables  
Associated Syntax® cable:  
Part Numbers **7Z2SX25** (Ø9,5mm)  
**7Z2SX40** (Ø11,5mm)

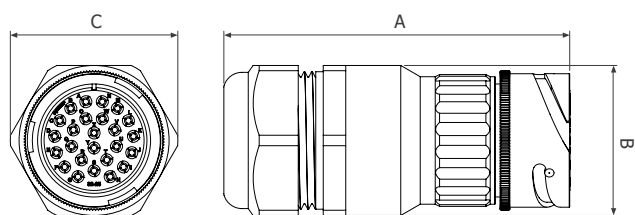


**6-way grommets**  
6x14,5 mm OD cables  
Associated Syntax® cable:  
Part Number **7Z4SX40**



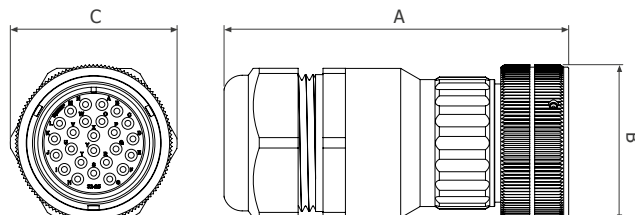
## Overall dimensions

### Inline and panel version 25pin



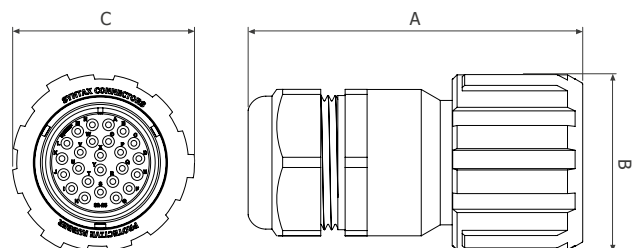
**Inline version**  
with ramps

Cable gland	A	B	C
M40	~ 134 mm	Ø 60 mm	Ø 60 mm
M50	~ 139 mm	Ø 60 mm	Ø 67 mm
M63	~ 164 mm	Ø 70 mm	Ø 76,3 mm



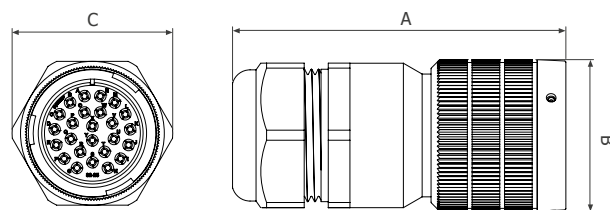
**Inline version**  
with standard aluminium locking ring

Cable gland	A	B	C
M40	~ 134 mm	Ø 63 mm	Ø 63 mm
M50	~ 139 mm	Ø 63 mm	Ø 67 mm
M63	~ 164 mm	Ø 63 mm	Ø 76,3 mm



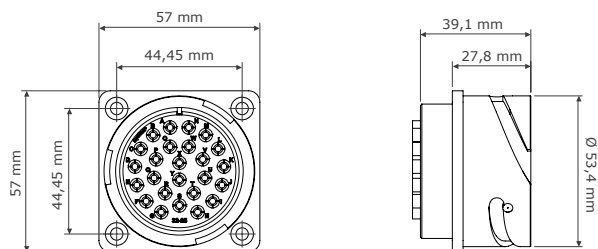
**Inline version**  
with rubber locking ring

Cable gland	A	B	C
M40	~ 134 mm	Ø 75 mm	Ø 75 mm
M50	~ 139 mm	Ø 75 mm	Ø 75 mm
M63	~ 163 mm	Ø 75 mm	Ø 75 mm

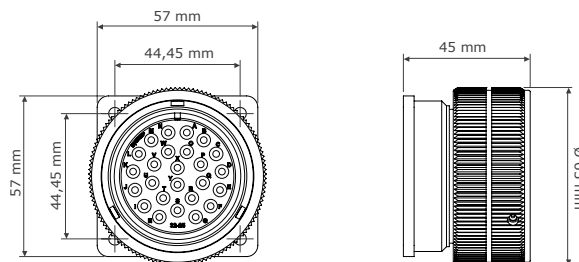


**Inline version**  
with aluminium heavy duty locking ring

Cable gland	A	B	C
M40	~ 134 mm	Ø 63 mm	Ø 63 mm
M50	~ 139 mm	Ø 63 mm	Ø 67 mm
M63	~ 164 mm	Ø 63 mm	Ø 76,3 mm



**Panel version**  
with ramps



**Panel version**  
with aluminium locking ring

## Syntax SPK 8pin

### Inline and panel versions

Syntax SPK connectors are available in the 8pin configuration, fully intermateable with the widely used CA-COM connectors. As a typical application, for example, the SPK 8 pins are used to convey high power signals to professional loudspeakers. Their design presents the same key features of SVK Series, and can be supplied with rubber covered locking ring and with gold plated solder-type contacts. The SPK series connectors are solidly built so as to ensure long term reliability.



### Inline versions SPK 8pin Series



**Inline**  
with rubber locking ring  
and M32 cable gland



**Inline**  
with ramps  
and M32 cable gland



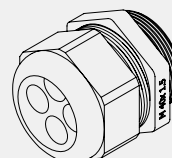
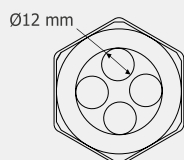
**Inline**  
with aluminium locking ring  
and M32 cable gland

#### 4-way grommets

4x12 mm OD cables

Associated Syntax® cable:

Part Number **7Z2SX40**



### 8pin Adapter For 8pin extension cables

Part Number **SPK008ADIV**

The SPK 8pin extension cables (CA-COM 8 compatible) typically feature a male connector at one end and a female connector at the other end, with locking rings on both terminations to allow the connection to panel mount devices without locking rings. Such configuration prevents the possibility of joining multiple cables and make longer extensions. SPK 8pin adapter permits the connection of more extension cords together. The male and female connections of the SPK 8 pin adapter are without locking rings. This allow users to extend the length of a SPK 8 pin Speaker cable by joining two existing cables with locking rings together.

- Compatible with Syntax SPK 8pin connector, CA-COM 8 and all other series with insert 22-23 (8 pins) compliant with SAE-AS50151 & VG95234 standards
- Allows users of SPK 8pin to create longer extensions
- Heavy duty aluminum body for maximum durability
- Obtained through machining of aluminum special alloy
- Typical environments and markets: theatres, PA (concert touring) applications, live events, permanent installations



## Panel versions SPK 8pin Series

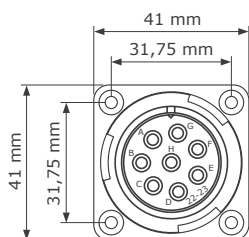


**Panel  
with ramps**

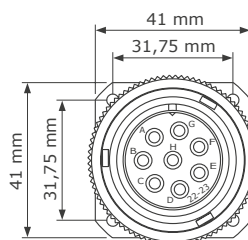
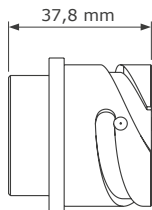


**Panel  
with aluminium locking ring**

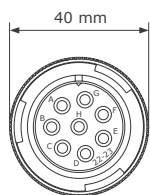
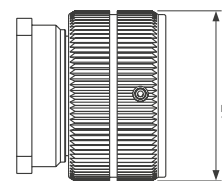
## Overall dimensions Inline and panel version 8pin



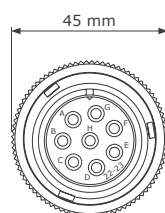
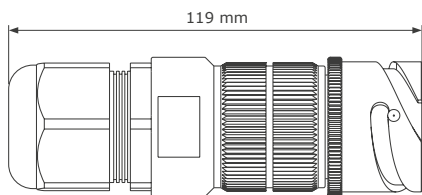
**Panel version  
with ramps**



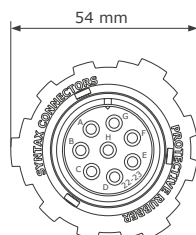
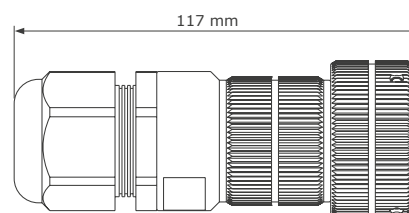
**Panel version  
with aluminium locking ring**



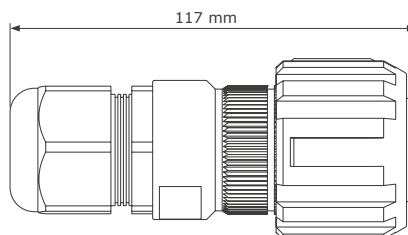
**Inline version  
with ramps**



**Inline version  
with aluminium locking ring**



**Inline version  
with rubber locking ring**





## Syntax SPK 4pin

### Inline and panel versions

The smallest connector in the SPK family is the 4pin. Like its bigger brothers and, in general, all the connectors in the bayonet multipin series, the SPK 4pin is compliant with SAE-AS50151 & VG 95234 military standards. The design presents the same key features of SVK Series, and can be supplied with gold plated solder-type contacts. The SPK series connectors are solidly built so to ensure long term reliability.



**Inline male and female with locking rings and M20 cable gland**



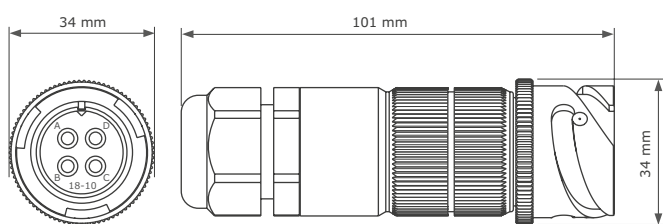
**Inline male and female with ramps and M20 cable gland**



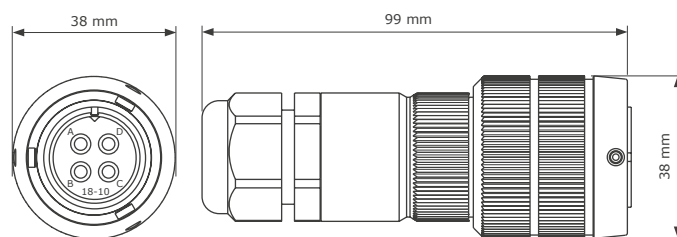
**Panel male and female with ramps**

## Overall dimensions

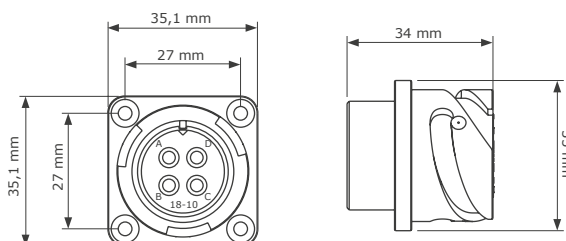
### Inline and panel version 4pin



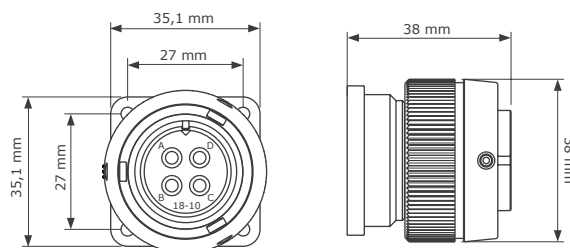
**Inline version with ramps**



**Inline version with aluminium locking ring**



**Panel version with ramps**

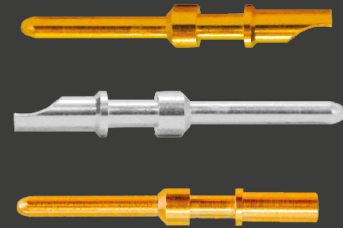


**Panel version with aluminium locking ring**

# Contacts for SPK series

The secret behind a high quality connection

Male and female contacts | Silver - Gold  
Size 12



## FEMALE contacts

### SOLDER



GOLD | size 12  
Part No. **SVKP12GFS\_SPLIT**



SILVER | size 12  
Part No. **SVKP12SFS\_SPLIT**



GOLD | size 12  
Part No. **SVKP12GFS**



SILVER | size 12  
Part No. **SVKP12SFS**

### CRIMP



GOLD for 2,5 mm<sup>2</sup> | size 12  
Part No. **SVKP12GFC\_SPLIT**



SILVER for 2,5 mm<sup>2</sup> | size 12  
Part No. **SVKP12SFC\_SPLIT**



GOLD for 4 mm<sup>2</sup> | size 12  
Part No. **SVKP12GFC4\_SPLIT**



SILVER for 4 mm<sup>2</sup> | size 12  
Part No. **SVKP12SFC4\_SPLIT**



GOLD for 2,5 mm<sup>2</sup> | size 12  
Part No. **SVKP12GFC**



SILVER for 2,5 mm<sup>2</sup> | size 12  
Part No. **SVKP12SFC**



GOLD for 4 mm<sup>2</sup> | size 12  
Part No. **SVKP12GFC4**



SILVER for 4 mm<sup>2</sup> | size 12  
Part No. **SVKP12SFC4**

## MALE contacts

### SOLDER



GOLD | size 12  
Part No. **SVKP12GMS**



SILVER | size 12  
Part No. **SVKP12SMS**

### CRIMP



GOLD for 2,5 mm<sup>2</sup> | size 12  
Part No. **SVKP12GMC**



SILVER | size 12  
Part No. **SVKP12SMC**



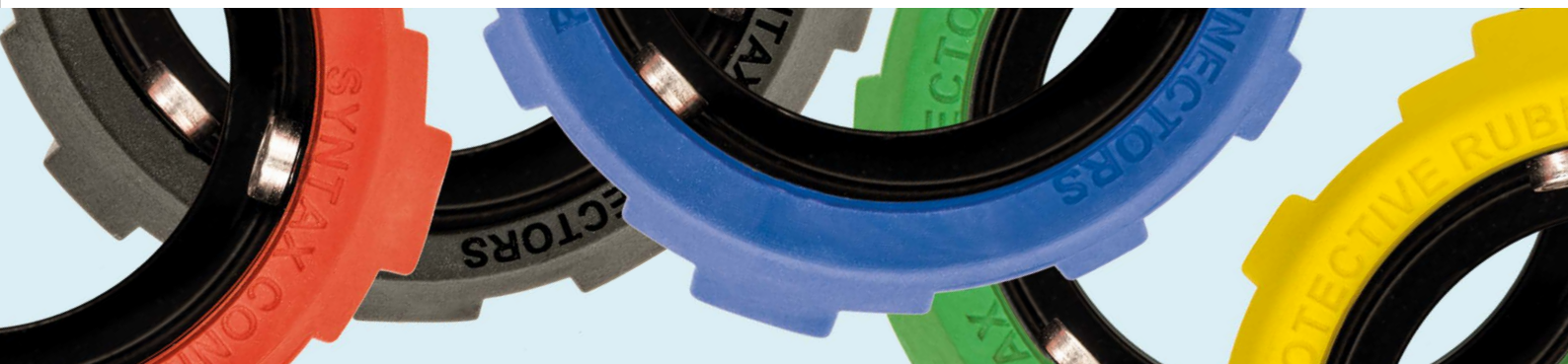
GOLD for 4 mm<sup>2</sup> | size 12  
Part No. **SVKP12GMC4**



SILVER | size 12  
Part No. **SVKP12SMC4**

## Technical data SPK series

Voltage rating AC	Voltage rating DC	Max current	Rated current	Potential drop	Dielectric strenght Test voltage	Min. Flashover
1250 V	900 V	41 Amps	23 Amps	63 mV	2800 Vac RMS	3600 Vac RMS



## Customize and color code your connectors

### Rubber coated and Heavy Duty locking rings

Available in multiple sizes for models in the SVK, SHD, SVS, SPK, SB, SV families of Syntax Bayonet multipin connectors. Multiple color options available in stock.

For special color customizations, according to RAL charts, please contact our Sales department.

### Rubber coated locking rings

The thoughtful design of our rubber coated rings ensures optimal grip on the whole circumference and easy coupling. The thick wall construction of the inner metal ring, in fact, provides unparalleled resistance to all possible forms of abuse. It represents an evolution of the common rubber-coated rings and solves the problem of their being mechanically weaker compared to all-metal construction rings.

An audible click indicates that locking is complete. The roller pins ensure smoother coupling and more durability. Thanks to their increased size, these characteristics have now been further emphasized.



### Heavy Duty locking rings

The Syntax Heavy duty rings have been built to be super resistant to the shocks and compressions of everyday extensive usage. Black painted cataphoresis finish as a standard. On request, anodized finish is available in different colors.

### Availability chart

#### Find the version you need

Our color coded locking rings are available in multiple sizes for the following series and models:



Size	Series	Connector version
18	SPK	4 pin (Heavy Duty only)
20	SVK - SHD	13 - 19 pin
	SB	20-15
22	SPK	8 pin
	SB	22-1   22-2   22-22
24	SVK - SHD	25 pin
	SB	24-11   24-2
28	SVK - SHD	37 pin
	SVS	72 pin
	SB	28A-9   28-22   28-3   28-6   28-10
	SV	-
32	SVK - SHD	54 pin
	SVS	101 pin
	SPK	25 pin
	SB	32A-9   32-5
40	SVK - SHD	85   100   150 pin
	SB	40A-10



# Syntax® SV series

Audio/Video connectors and stage boxes

The Syntax SV Audio/Video connectors have been designed for professional broadcasting, and are especially suitable for outdoor usage even in harsh conditions. The SV range include inline and panel mount connectors, male and female, as well as the Syntax 7YVD6DG8HD combi audio/video cable with 6 video and 8 audio channels, and male or female break-out boxes. This insert arrangement houses 24 audio signal contacts and 6 video coaxial contacts suited for RG59 coaxial cable.

## Technical features

- Compliant with SAE-AS50151 & VG 95234 military standards
- Aluminium alloy shells with abrasion resistant black electrophoresis finish
- Audible lock-up recognition system guaranteed for over 2000 mating and unmating cycles
- Metal or rubber coated locking rings for easy coupling
- Bayonet lock with stainless steel safety pin
- Gold plated machined contacts for quality signal transmission and long term reliability
- High performance insulating insert allowing easy contact insertion and removal for fast assembling or repair operations
- Cable gland retention system, ensures waterproof sealing and good strain relief at the cable entry
- Heavy-duty metal cable grips with wire mesh are available on request
- IP67 waterproof (when mated) for outdoor applications
- IP67 caps for waterproof protection on unmated connectors



## Inline and panel versions SV Series



**Inline female**  
SV series

Part Number	Description
<b>SV25/6FV-GCMONO</b>	SV Female Inline



**Inline male**  
SV series

Part Number	Description
<b>SV25/6MVRGCMONO</b>	SV Male Inline



**Panel female**  
SV series

Part Number	Description
<b>SV25/6FP-GC0000</b>	SV Female Panel



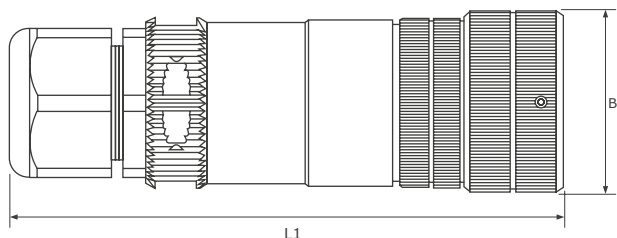
**Panel male**  
SV series

Part Number	Description
<b>SV25/6MPRGC0000</b>	SV Male Panel



## Overall dimensions

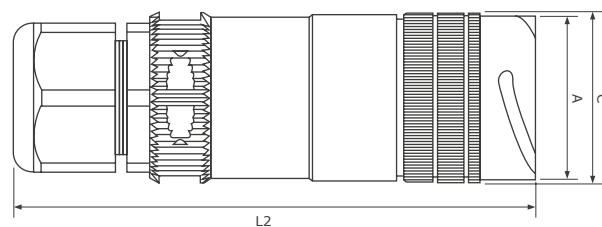
### Inline and panel version



**Inline female**

Dimensions in mm

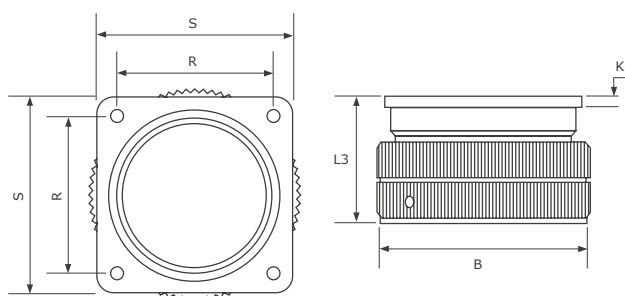
Shell size	BØ Max	L1 Max	Cable clamp metric	Ø Cable Min-Max
28	56.0	116	M32	7 - 25



**Inline male**

Dimensions in mm

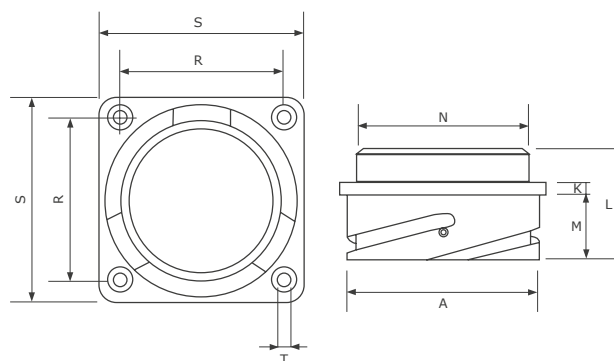
Shell size	AØ Max +0/-0.15	ØC Max	L2 Max	Cable clamp metric	Ø cable Min-Max
28	46.7	50	116	M32	7 - 25



**Panel female**

Dimensions in mm

Shell size	Ø B Max	L3 Max	K ±0.2	R ±0.1	S ±0.3	T H13
28	56.0	40.8	4	39.7	50.8	3.7



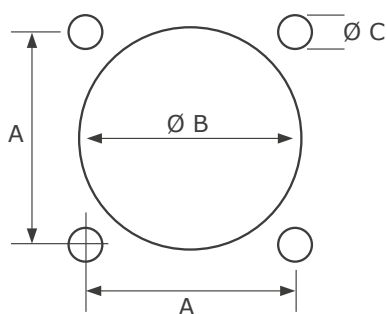
**Panel male**

Dimensions in mm

Shell size	AØ Max +0/-0.15	K ±0.2	L ±0.3	M ±0.4/-0	Ø N Max	R ±0.1	S ±0.3	T H13
28	46.7	4	35.7	20.6	41.4	39.7	50.8	3.7

## Cut-out dimensions

### Panel connectors



Shell size	A	Ø B	Ø C
28	39.7 mm	41.5 mm	3.7 mm

## Contacts for SV series

### The secret behind a high quality connection

RG 59 | Size 20 | Crimp | Gold



GOLD Crimp RG 59 female  
Part No. **SVKP20GFC**



GOLD Crimp RG 59 male  
Part No. **SVKP59CXGMC**



GOLD Crimp female | size 20  
Part No. **SVKP20GFC**



GOLD Crimp male | size 20  
Part No. **SVKP20GMC**

## Stage box Cronista

### Break-out or break-in stage boxes with SV combi multipin connector and 8 XLRs + 6 BNCs

Steel stage box for audio and video signal distribution. Break-out box version features a male Syntax SV 25/6 multipin audio/video combi connector with female XLRs and BNCs. The break-in version, on the other hand, features a female Syntax SV 25/6 with male XLRs and BNCs.



#### Break-in Box configuration

Signal distribution is obtained through the exclusive Syntax SV multipin connector (male or female), with 24 gold-plated pins for audio signal and 6 gold-plated pins for 75 Ohm video signal. Protection cap is provided.

#### Frame

Steel stage box with trapezoidal section and high mechanical resistance sides, painted in polyepoxidic anti-scratch black paint. Output connectors on the leaning sides guarantee easy channel identification when connecting. Channel numbering by indelible laser-carving is also provided. 4 nylon feet sustain the base, ensuring stability and the necessary ground-detachment. On the side opposite to the multipin connector, three holes have been specifically designed for vertical hooking.



#### Break-out Box configuration

Audio connection through 8 XLR panel (female or male) 3-pin connectors, arranged in two lines of 4, one per each side. Video connection through 6 BNC panel connectors arranged in two lines of 3, one per each side, with earth connection detached from the frame.

#### Internal connections

The audio interconnection between multipin connector and XLR connectors is arranged through a shielded balanced cable, made of 2 signal conductors, 1 drain wire and aluminium foil screen. The multipin connector cabling is attained through crimping, while the XLR connector cabling through soldering. The video interconnection between the multipin connector and BNC connectors is carried out through RG59 75 Ohm double-shielded cable, made of a one-signal conductor, a copper tinned braid shield and an aluminium foil screen. Video channel cabling is carried out through crimping to guarantee a good mechanical resistance and a steady impedance, avoiding signal loss.



# Syntax® SB series

Signal and power underneath a flawless suit

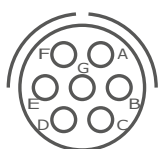
The Syntax SB connector's mechanical features ensure high quality, extreme durability and safe connections. The SB series is available in 16 different arrangement layouts for the inserts, with contacts ranging from size 0 to 16S, allowing transmission of power and signals. A typical application for the SB Series is the connection between HMI ballasts and lamps: the SB family includes connectors compatible with all major HMI lamp manufacturer specifications, covering 400W-20KW HMI ranges. Bayonet lock with roller pins ensures easy mating, granting high quality connections over a high number of coupling cycles.

## Technical features

- Compliant with SAE-AS50151 & VG 95234 military standards
- Aluminium alloy shells with abrasion resistant black electrophoresis finish
- Metal or rubber coated locking rings for easy coupling
- Silver-plated crimp or solder-type contacts
- Bayonet lock stainless steel safety pin
- Audible lock-up recognition system guaranteed for over 2000 mating and unmating cycles
- Heavy-duty metal cable grips with wire mesh are available on request
- IP67 waterproof (when mated) for outdoor applications
- IP67 caps for waterproof protection on unmated connectors
- Standard insulating insert range -55° to 125° C (also available 70° to 200° C)

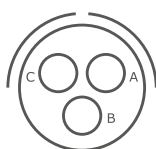


## Insert arrangement layouts Contact types & quantities



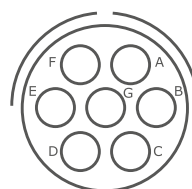
**16S-1**

Arrangement	16S-1
Total contacts	7
Contact type(s)	Size 16S
Service rating	A



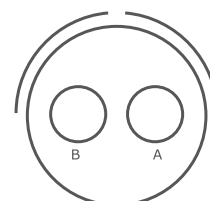
**16-10**

Arrangement	16-10
Total contacts	3
Contact type(s)	Size 12
Service rating	A



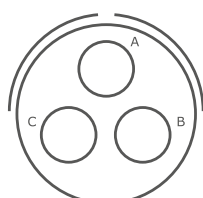
**20-15**

Arrangement	20-15
Total contacts	7
Contact type(s)	Size 12
Service rating	A



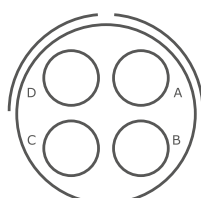
**22-1**

Arrangement	22-1
Total contacts	2
Contact type(s)	Size 8
Service rating	D



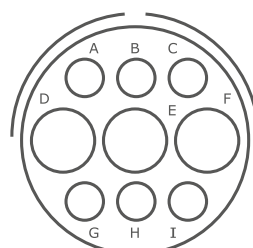
**22-2**

Arrangement	22-2
Total contacts	3
Contact type(s)	Size 8
Service rating	D



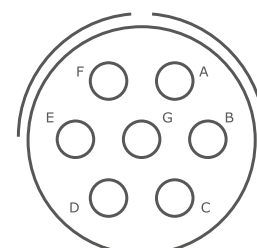
**22-22**

Arrangement	22-22
Total contacts	4
Contact type(s)	Size 8
Service rating	A



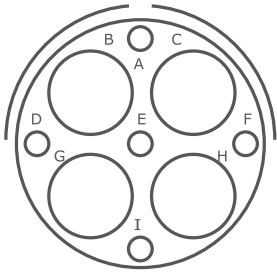
**24-11**

Arrangement	24-11
Total contacts	9
Contact type(s)	Size 8 (3) Size 12 (6)
Service rating	A



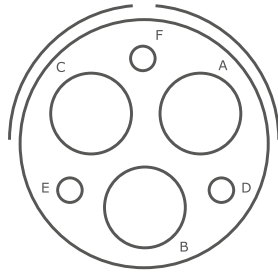
**24-2**

Arrangement	24-2
Total contacts	7
Contact type(s)	Size 12
Service rating	D



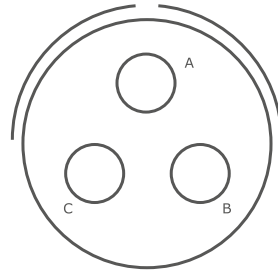
**28A-9**

<b>Arrangement</b>	<b>28A-9</b>
Total contacts	9
Contact type(s)	Size 4 (4) Size 16 (5)
Service rating	A



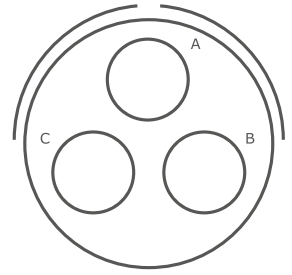
**28-22**

<b>Arrangement</b>	<b>28-22</b>
Total contacts	6
Contact type(s)	Size 4 (3) Size 16 (3)
Service rating	D



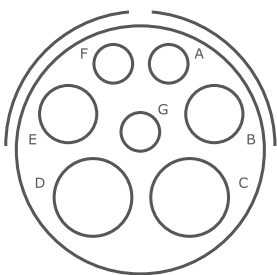
**28-3**

<b>Arrangement</b>	<b>28-3</b>
Total contacts	3
Contact type(s)	Size 8
Service rating	E



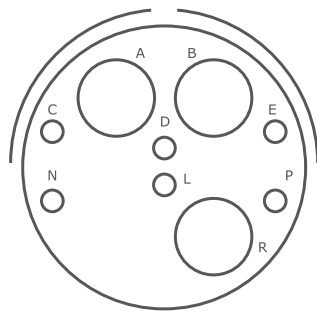
**28-6**

<b>Arrangement</b>	<b>28-6</b>
Total contacts	3
Contact type(s)	Size 4
Service rating	D



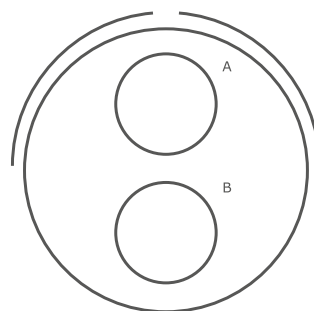
**28-10**

<b>Arrangement</b>	<b>28-10</b>
Total contacts	7
Contact type(s)	Size 4 (2) Size 8 (2) Size 12 (3)
Service rating	A



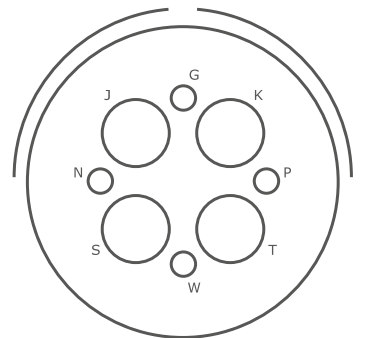
**32A-9**

<b>Arrangement</b>	<b>32A-9</b>
Total contacts	9
Contact type(s)	Size 4 (3) Size 16 (6)
Service rating	A



**32-5**

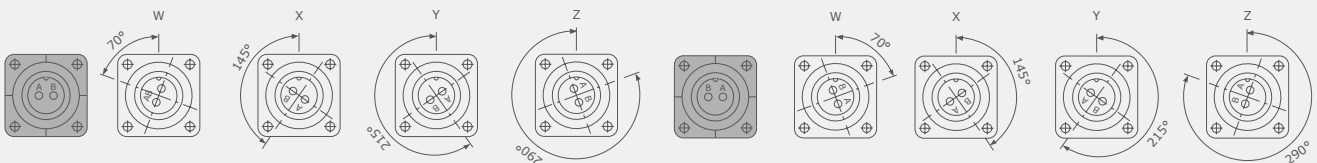
<b>Arrangement</b>	<b>32-5</b>
Total contacts	2
Contact type(s)	Size 0
Service rating	D



**40A-10**

<b>Arrangement</b>	<b>40A-10</b>
Total contacts	8
Contact type(s)	Size 4 (4) Size 16 (4)
Service rating	D

**Alternate insert rotations**



**Example 1**  
Front view - Mating side - Female insert shell rotation

**Example 1**  
Front view - Mating side - Male insert shell rotation

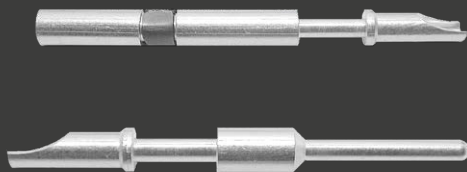
**Rotation degrees  
alternate insert rotations**

Insert type	16S-1	16-10	20-15	22-1	22-2	22-22	24-2	24-11	28A-9	28-22	28-3	28-6	28-10	32A-9	32-5	40A-10
W	80	90	80	35	70	-	80	35	110	70	70	70	80	65	35	-
X	-	180	-	110	145	110	-	110	250	145	145	145	110	135	110	-
Y	-	270	-	250	215	250	-	250	260	215	215	215	250	225	250	-
Z	280	-	280	325	290	-	280	325	280	290	290	290	280	275	325	-

# Contacts for SB series

The secret behind a high quality connection

Male and female contacts | Silver - Solder  
Size 16S - 16 - 12 - 8 - 4 - 0



## FEMALE contacts



SILVER solder | size 16S  
For arrangement type:  
16S-1  
Part No. **SVKP16SFSs**



SILVER solder | size 12  
For arrangement type:  
16-10, 20-15, 24-11, 24-2, 28-10  
Part No. **SVKP12SFS**



SILVER solder | size 4  
For arrangement type:  
28A-9, 28-22, 28-6, 28-10, 32A-9, 40A-10  
Part No. **SVKP04SFS**



SILVER solder | size 16  
For arrangement type:  
28A-9, 28-22, 32A-9, 40A-10  
Part No. **SVKP16SFS**



SILVER solder | size 8  
For arrangement type:  
22-1, 22-2, 24-11, 28-3, 28-10  
Part No. **SVKP08SFS**



SILVER solder | size 0  
For arrangement type:  
32-5  
Part No. **SVKP00SFS**

## MALE contacts



SILVER solder | size 16S  
For arrangement type:  
16S-1  
Part No. **SVKP16SMSs**



SILVER solder | size 12  
For arrangement type:  
16-10, 20-15, 24-11, 24-2, 28-10  
Part No. **SVKP12SMS**



SILVER solder | size 4  
For arrangement type:  
28A-9, 28-22, 28-6, 28-10, 32A-9, 40A-10  
Part No. **SVKP04SMS**



SILVER solder | size 16  
For arrangement type:  
28A-9, 28-22, 32A-9, 40A-10  
Part No. **SVKP12SMS**



SILVER solder | size 8  
For arrangement type:  
22-1, 22-2, 24-11, 28-3, 28-10  
Part No. **SVKP08SMS**



SILVER solder | size 0  
For arrangement type:  
32-5  
Part No. **SVKP00SMS**

## Insert service rating Standard at sea level

Service rating	Operating voltage DC	Operating voltage AC
I	250 V	200 V
A	700 V	500 V
D	1250 V	900 V
E	1750 V	1250 V
B	2450 V	1750 V
C	4200 V	3000 V

## Contacts rating Size 0 - 4 - 8 - 12 - 16 - 16S contacts

Size	Max current	Rated current	Max voltage drop	Wire section (mm <sup>2</sup> )	Wire section AWG
0	245 A	150 A	53 mV	50÷60	0
4	135 A	80 A	85 mV	16÷20	4
8	73 A	46 A	65 mV	6÷8	8
12	41 A	23 A	63 mV	3	12
16	22 A	13 A	74 mV	1÷1,5	16
16S	22 A	13 A	74 mV	1÷1,5	16

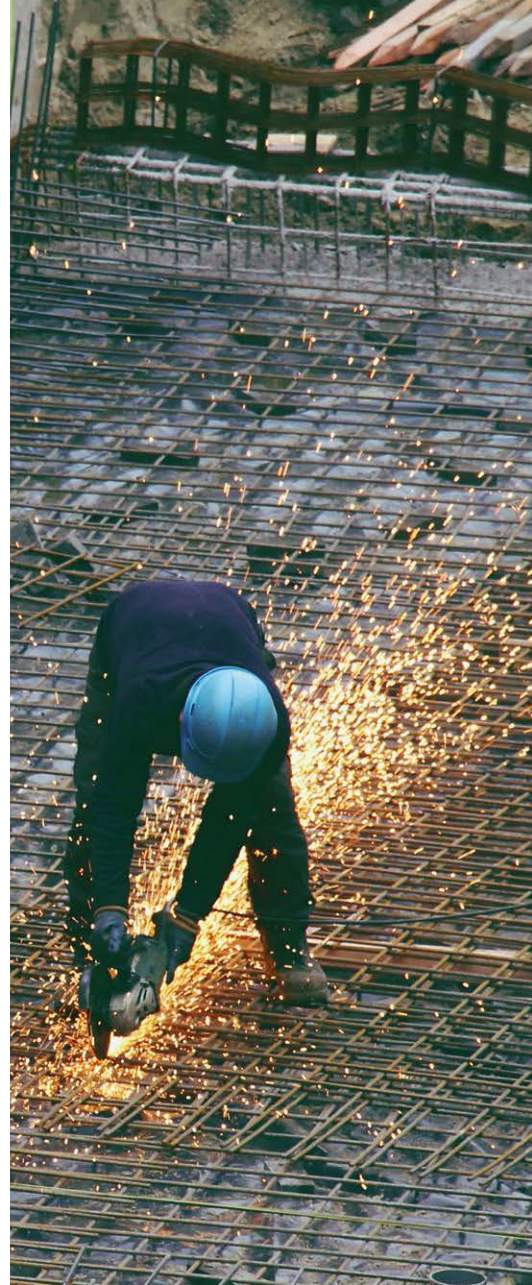
## Dielectric strength Standard at sea level

Service rating	Minimum Flashover AC MS	Test voltage AC RMS (Hi Pot)
I	1400 V	1000 V
A	2800 V	2000 V
D	3600 V	2800 V
E	4500 V	3500 V
B	5700 V	4500 V
C	8500 V	7000 V

## Backshell and metal cable gland for the Syntax SB Series

For more information see the cable gland section starting from page 48.





# High conductive alloy machined contacts

Male and female | Solder or crimp  
Gold or silver plated

Our highly conductive copper alloy crimp or solder contacts, gold or silver plated, are available in spring-loaded or armored versions. The armored contact features a protective jacket that improves electrical conductivity and provides self-centered insertion for a seamless connection, lower operating temperature and increased number of mating cycles.

# Choose the contacts you need

## Technical data Contacts rating

Size	Max current	Rated current	Max voltage drop	Wire section (mm <sup>2</sup> )	Wire section AWG
20	10 A	7.5 A	83m V	0.15÷0.3	26÷22
18	7.5 A	7.5 A	83m V	0.15÷0.6	26÷20
16	22 A	13 A	74m V	1÷1,5	18÷16
16S	22 A	13 A	74mV	1÷1,5	18÷16
12	41 A	23 A	63m V	3	12
8	73 A	46 A	65m V	6÷8	8
4	135 A	80 A	85m V	16÷20	4
0	245 A	150 A	53m V	50÷60	0

## Crimp female contacts Silver - Gold



**Size 20**  
Gold | Armored  
Part No. **SVKP20GFC**



**Size 18**  
Gold | Armored  
Part No. **SVKP18GFK**



**Size 16**  
Gold  
Part No. **SVKP16GFC**



**Size 16**  
Silver  
Part No. **SVKP16SFC**



**Size 16**  
Silver | Armored  
Part No. **SVKP16SFK**



**Size 16**  
Gold | Armored  
Part No. **SVKP16GFK**



**Size 12**  
Gold  
for 2,5 mm<sup>2</sup>  
Part No. **SPKP12GFC\_SPLIT**



**Size 12**  
Silver  
for 2,5 mm<sup>2</sup>  
Part No. **SPKP12SFC\_SPLIT**



**Size 12**  
Gold  
for 4 mm<sup>2</sup>  
Part No. **SPKP12GFC4\_SPLIT**



**Size 12**  
Silver  
for 4 mm<sup>2</sup>  
Part No. **SPKP12SFC4\_SPLIT**



**Size 12**  
Gold  
for 2,5 mm<sup>2</sup>  
Part No. **SVKP12GFC**



**Size 12**  
Silver  
for 2,5 mm<sup>2</sup>  
Part No. **SVKP12SFC**



**Size 12**  
Gold  
for 4 mm<sup>2</sup>  
Part No. **SVKP12GFC4**



**Size 12**  
Silver  
for 4 mm<sup>2</sup>  
Part No. **SVKP12SFC4**



## Solder female contacts

### Silver - Gold



**Size 16**  
Gold  
Part No. **SVKP16GFS**



**Size 16**  
Gold | Armored  
Part No. **SVKP16GFZ**



**Size 16**  
Silver  
Part No. **SVKP16SFSS**



**Size 16**  
Silver | Armored  
Part No. **SVKP16SFZ**



**Size 16S**  
Silver  
Part No. **SVKP16SFSS**



**Size 12**  
Gold  
Part No. **SVKP12GFS\_SPLIT**



**Size 12**  
Silver  
Part No. **SVKP12SFS\_SPLIT**



**Size 12**  
Gold  
Part No. **SVKP12GFS**



**Size 12**  
Silver  
Part No. **SVKP12SFS**



**Size 8**  
Silver  
Part No. **SVKP08SFS**



**Size 4**  
Silver  
Part No. **SVKP04SFS**



**Size 0**  
Silver  
Part No. **SVKP00SFS**

## Crimp male contacts

### Silver - Gold



**Size 20**  
Gold  
Part No. **SVKP20GMC**



**Size 18**  
Gold  
Part No. **SVKP18GMC**



**Size 16**  
Silver  
Part No. **SVKP16SMC**



**Size 16**  
Gold  
Part No. **SVKP16GMC**



**Size 12**  
Gold  
for 2,5 mm<sup>2</sup>  
Part No. **SVKP12GMC**



**Size 12**  
Silver  
for 2,5 mm<sup>2</sup>  
Part No. **SVKP12SMC**



**Size 12**  
Gold  
for 4 mm<sup>2</sup>  
Part No. **SVKP12GMC4**



**Size 12**  
Silver  
for 4 mm<sup>2</sup>  
Part No. **SVKP12SMC4**

## Solder male contacts

Silver - Gold



**Size 16**  
Silver  
Part No. **SVKP16SMS**



**Size 16**  
Gold  
Part No. **SVKP16GMS**



**Size 16S**  
Silver  
Part No. **SVKP16SMSs**



**Size 12**  
Gold  
Part No. **SVKP12GMS**



**Size 12**  
Silver  
Part No. **SVKP12SMS**



**Size 8**  
Silver  
Part No. **SVKP08SMS**



**Size 4**  
Silver  
Part No. **SVKP04SMS**



**Size 0**  
Silver  
Part No. **SVKP00SMS**

## Coax video

RG 59 | Gold | Crimp | Female - Male



**RG 59 Female**  
Gold  
Part No. **SVKP20GFC**



**RG 59 Male**  
Gold  
Part No. **SVKP59CXGMC**



# Cable protection and management

Wire mesh strain relief, hanger grip and pulling grip

Explore our full range of wire mesh cable management solutions for our Syntax connectors, designed to ease optimal cable laying and organization and to provide protection from excessive bending due to gravity or any unwanted external force, in order to sensibly increase the life span of your connections.

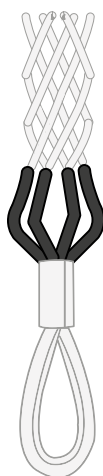
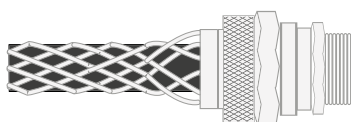
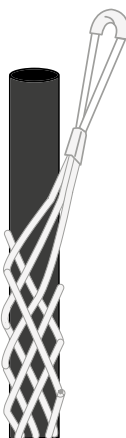
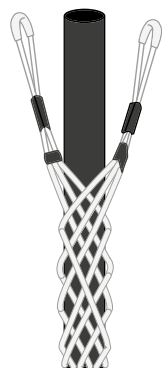
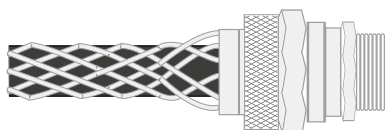
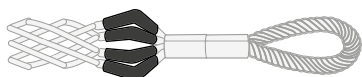
## The right technology for long-lasting connections

### Discover our cable management solutions

The quality of a connection depends on many factors. Reliable connectors are essential, of course, and the cables are a top priority too.

Choosing high quality products made with the best materials is important, but there are other parts of the job that should not be overlooked. How you lay a cable, how you protect it from unwanted stresses, how you make sure it will be safeguarded from external elements that might possibly damage your connections over time, these decisions are all integral to achieve highly reliable connections.

Our accessories are thoughtfully designed and manufactured for ideal cable management, handling and protection.



### Strain Reliefs

Thoughtfully designed to reduce tension on cables and, therefore, stress related damages to your connections due to excessive bending. Available in a wide range of thread sizes and overall diameters to fit any connector and cable combinations.

### Hanger grips

Heavy duty wire mesh hangers are designed to ensure optimal support and right retention of the cable without any sliding or scraping of the external jacket. Different styles and sizes are available in stock for any kind of application, both indoors or outdoors.

### Pulling grips

Created to provide the operators an efficient way to pull cables through ducts or other spaces in the safest possible way. Made to be extremely resistant and conveniently reusable, and fit to a large number of applications. Different models available.

## Protecting your cables from unwanted stress

### Discover the new range of wire mesh strain reliefs

These kellums cable grips, also referred to as “basket weave”, are made up of a woven steel wire mesh and a watertight gland nut.

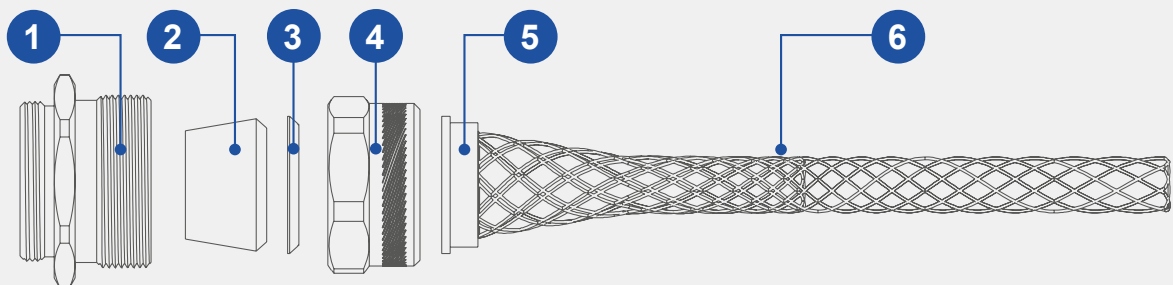


### Wire mesh strain relief

#### Preserve the integrity of your connections

These cable grips, sometimes referred to as “basket weave”, are made up of a woven steel wire mesh and a watertight gland nut. This strain relief system is designed to be anti-bending, offering the following key benefits:

- **Impossibility to pull out the cable from the strain relief through lateral force; the more the cable is pulled the tighter the grip becomes.**
- **Prevention of cable damage caused by flexing. Such a grip design is suited for large diameter cables which require a better protection of the internal conductors.**



1. Threaded body | 2. Grommet | 3. Friction ring | 4. Compression nut | 5. Rings | 6. Wire mesh

## Models and sizes

Available in multiple thread dimensions and suitable for different cable ODs.

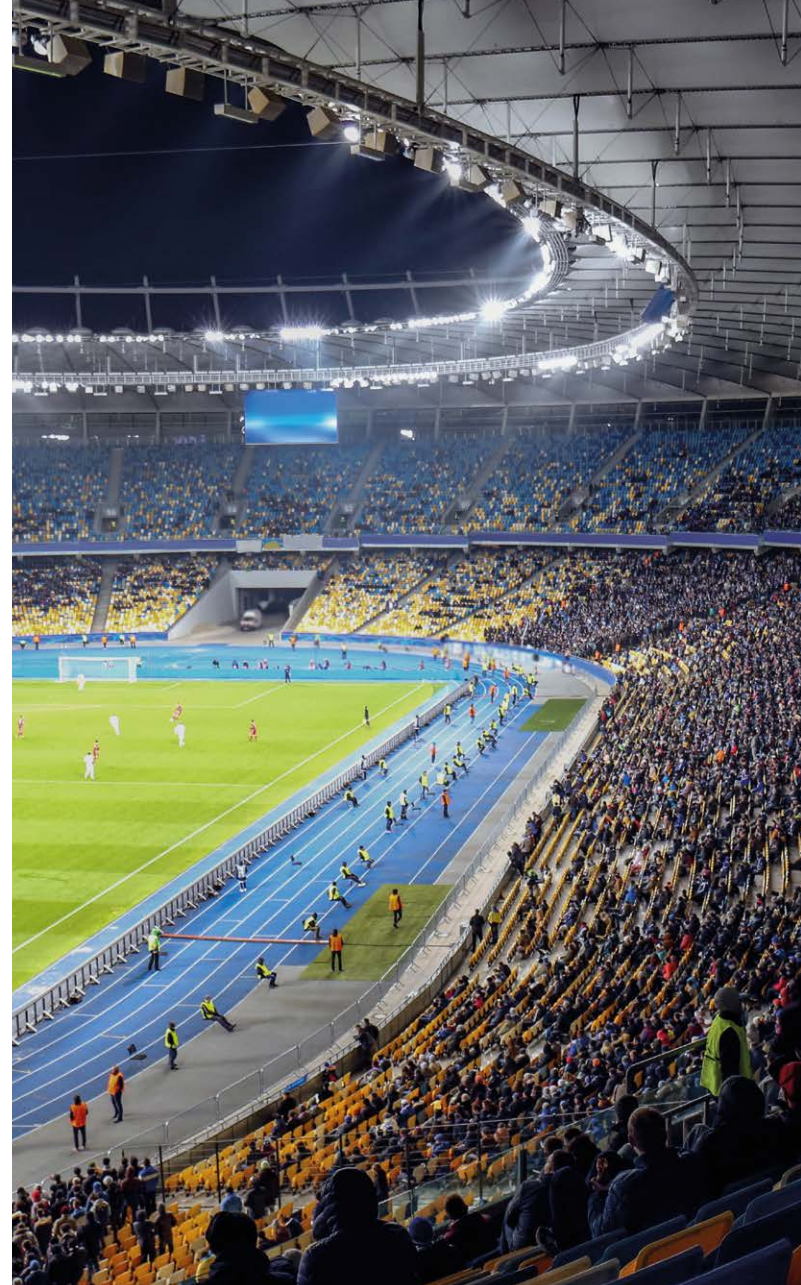


Check with us for current availability, some models might not be ready in stock at the moment.

### Available models

Part N.	Thread size	Cable range
<b>7ZK16A048B063</b>	M16 x 1.5	Ø 4.75 to 6.35 mm (.187" to .250")
<b>7ZK16A064B079</b>	M16 x 1.5	Ø 6.35 to 7.92 mm (.250" to .312")
<b>7ZK16A080B095</b>	M16 x 1.5	Ø 7.92 to 9.53 mm (.312" to .375")
<b>7ZK16A096B111</b>	M16 x 1.5	Ø 9.53 to 11.10 mm (.375" to .437")
<b>7ZK20A048B063</b>	M20 x 1.5	Ø 4.75 to 6.35 mm (.187" to .250")
<b>7ZK20A064B095</b>	M20 x 1.5	Ø 6.35 to 9.53 mm (.250" to .375")
<b>7ZK20A096B127</b>	M20 x 1.5	Ø 9.53 to 12.70 mm (.375" to .500")
<b>7ZK20A127B158</b>	M20 x 1.5	Ø 12.70 to 15.88 mm (.500" to .625")
<b>7ZK25A096B127</b>	M25 x 1.5	Ø 9.53 to 12.70 mm (.375" to .500")
<b>7ZK25A127B158</b>	M25 x 1.5	Ø 12.70 to 15.88 mm (.500" to .625")
<b>7ZK25A159B190</b>	M25 x 1.5	Ø 15.88 to 19.05 mm (.625" to .750")
<b>7ZK25A191B222</b>	M25 x 1.5	Ø 19.05 to 22.23 mm (.750" to .875")
<b>7ZK30A112B140</b>	M30 x 1.5	Ø 11.2 to 14.0 mm (.44" to .56")
<b>7ZK30A142B175</b>	M30 x 1.5	Ø 14.2 to 17.5 mm (.56" to .69")
<b>7ZK30A160B191</b>	M30 x 1.5	Ø 16.0 to 19.1 mm (.63" to .75")
<b>7ZK30A191B224</b>	M30 x 1.5	Ø 19.1 to 22.4 mm (.75" to .88")

Part N.	Thread size	Cable range
<b>7ZK30A224B254</b>	M30 x 1.5	Ø 22.4 to 25.4 mm (.88" to 1.00")
<b>7ZK32A112B140</b>	M32 x 1.5	Ø 11.2 to 14.0 mm (.44" to .56")
<b>7ZK32A142B175</b>	M32 x 1.5	Ø 14.2 to 17.5 mm (.56" to .69")
<b>7ZK32A160B191</b>	M32 x 1.5	Ø 16.0 to 19.1 mm (.63" to .75")
<b>7ZK32A191B224</b>	M32 x 1.5	Ø 19.1 to 22.4 mm (.75" to .88")
<b>7ZK32A224B254</b>	M32 x 1.5	Ø 22.4 to 25.4 mm (.88" to 1.00")
<b>7ZK40A191B224</b>	M40 x 1.5	Ø 19.1 to 22.4 mm (.75" to .88")
<b>7ZK40A224B254</b>	M40 x 1.5	Ø 22.4 to 25.4 mm (.88" to 1.00")
<b>7ZK40A254B285</b>	M40 x 1.5	Ø 25.4 to 28.58 mm (1.00" to 1.125")
<b>7ZK40A286B317</b>	M40 x 1.5	Ø 28.58 to 31.75 mm (1.125" to 1.250")
<b>7ZK40A318B349</b>	M40 x 1.5	Ø 31.75 to 34.92 mm (1.250" to 1.375")
<b>7ZK50A191B224</b>	M50 x 1.5	Ø 19.1 to 22.4 mm (.75" to .88")
<b>7ZK50A224B254</b>	M50 x 1.5	Ø 22.4 to 25.4 mm (.88" to 1.00")
<b>7ZK50A254B285</b>	M50 x 1.5	Ø 25.4 to 28.58 mm (1.00" to 1.125")
<b>7ZK50A286B317</b>	M50 x 1.5	Ø 28.58 to 31.75 mm (1.125" to 1.250")
<b>7ZK50A318B349</b>	M50 x 1.5	Ø 31.75 to 34.92 mm (1.250" to 1.375")



# IP67 protective caps

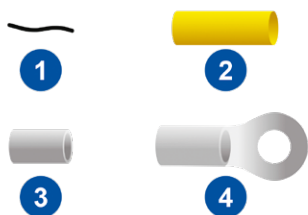
Waterproof your connectors

Environmental caps are available on request and provide complete IP67 protection on unmated connectors. The use of protective caps results in extended life span of the connectors, as the mating threads are protected against damage from impacts, and improved safety, as contacts are protected against dust and water even when the connectors are not mated.

## Our IP67 caps ensure complete waterproof protection.



Size	Series	Connector versions	Part No. cap for female	Part No. cap for male
18	SPK	4 pin	SPK004TFSC	SPK004TMSC
20	SVK - SHD	13 - 19 pin	SVK013TFSC	SVK013TMSC
20	SB	20-15	SVK013TFSC	SVK013TMSC
22	SPK	8 pin	SPK008TFSC	SPK008TMSC
22	SB	22-1   22-2   22-22	SPK008TFSC	SPK008TMSC
24	SVK - SHD	25 pin	SVK025TFSC	SVK025TMSC
24	SB	24-11   24-2	SVK025TFSC	SVK025TMSC
28	SVK - SHD	37 pin	SVK037TFSC	SVK037TMSC
28	SVS	72 pin	SVK037TFSC	SVK037TMSC
28	SV	-	SVK037TFSC	SVK037TMSC
28	SB	28A-9   28-22   28-3   28-6   28-10	SVK037TFSC	SVK037TMSC
32	SVK - SHD	54 pin	SVK054TFSC	SVK054TMSC
32	SVS	101 pin	SVK054TFSC	SVK054TMSC
32	SPK	25 pin	SPK025TFSC	SPK025TMSC
32	SB	32A-9   32-5	SVK054TFSC	SVK054TMSC
40	SVK - SHD	85   100   150 pin	SVK085TFSC	SVK085TMSC
40	SB	40A-10	SVK085TFSC	SVK085TMSC



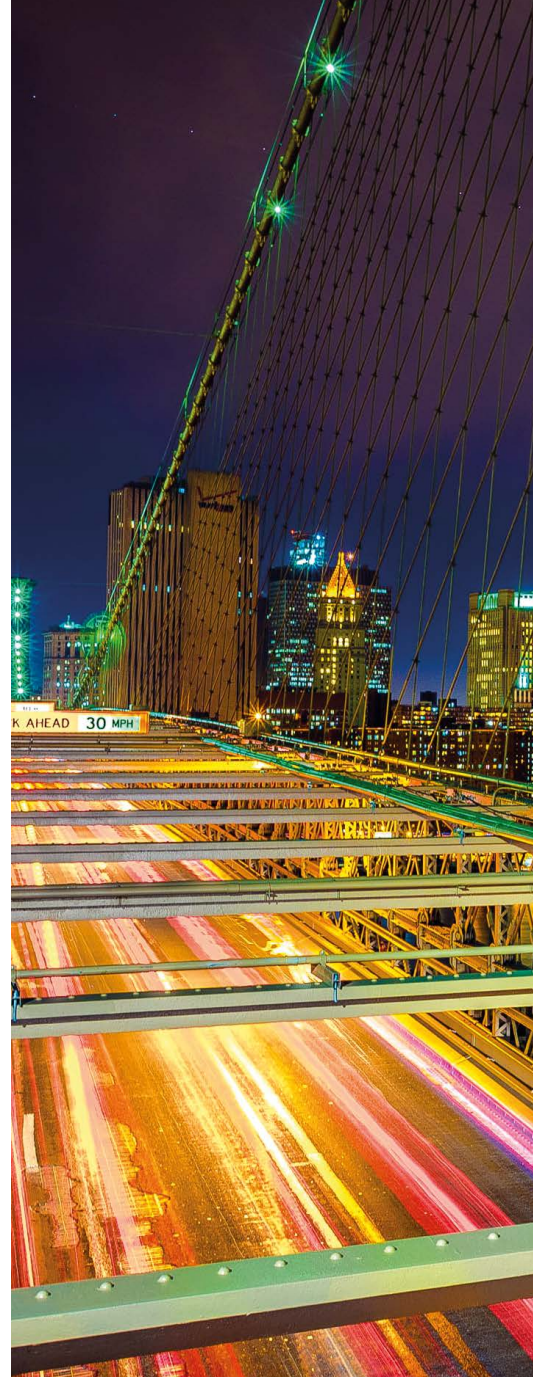
### Dust cap lacing

1. Black steel lanyard (teflon coated)
2. Heat shrink tube
3. Lanyard crimp collet (for inline connectors' caps)
4. Lanyard crimp lug (for caps on panel-mount)

For positive lacing, our IP67 caps are supplied with a special high-resistance lanyard made up of seven stainless strands, coated with anti-scraping black teflon tubing. On cable connectors, the lanyard is laced to a specific housing on the connector's backshell.







# Syntax<sup>®</sup> Cable Glands

For Bayonet multipin series

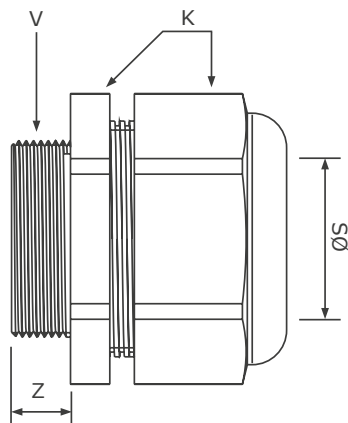
Discover our range of cable glands and accessories, designed to offer optimal grip and protection and available in multiple sizes and types: the plastic metric version, built in standard and spiral flex models, or the metal version.

## Metric cable gland

Our metric cable glands are designed for a perfect grip and effortless spanner tight seal. Provided with Neoprene Seal for a perfect IP68 - 5 bar watertight sealing; Blade System for optimal strain relief and cable protection combined with a generous clamping range; multiple threads for secure and rapid assembly. The cable clamping system has been designed not to come loose in case of cord vibration or torsion. Cable gland types and clamping ranges vary according to connector size.



### Available models Metric cable glands



Code	Thread size (V)	Model type	Length of thread (Z)	Clamping range (SØ)	Spanner size (K)	Part No.
ME	M 16 x 1.5	Normal	8.0 mm	5.0 - 10.0 mm	SW 22	<b>7ZM16EL</b>
MH	M 20 x 1.5	Normal	9.0 mm	8.0 - 13.0 mm	SW 24	<b>7ZM20LN</b>
MI	M 20 x 1.5	Oversize	10.0 mm	10.0 - 14.0 mm	SW 27	<b>7ZM20EL</b>
MJ	M 25 x 1.5	Reduced	10.0 mm	8.0 - 13.0 mm	SW 30	<b>7ZM25LRN</b>
ML	M 25 x 1.5	Oversize	11.0 mm	13.0 - 18.0 mm	SW 33	<b>7ZM25EL</b>
MN	M 32 x 1.5	Reduced	10.0 mm	10.0 - 15.0 mm	SW 36	<b>7ZM32LRN</b>
MM	M 32 x 1.5	Normal	10.0 mm	11.0 - 21.0 mm	SW 41	<b>7ZM32LN</b>
MO	M 32 x 1.5	Oversize	11.0 mm	18.0 - 25.0 mm	SW 42	<b>7ZM32EL</b>
MQ	M 40 x 1.5	Reduced	12.0 mm	15.0 - 23.0 mm	SW 46	<b>7ZM40LRN</b>
MP	M 40 x 1.5	Normal	12.0 mm	19.0 - 28.0 mm	SW 46	<b>7ZM40LN</b>
MR	M 40 x 1.5	Oversize	13.0 mm	22.0 - 32.0 mm	SW 53	<b>7ZM40EL</b>
MT	M 50 x 1.5	Normal	12.0 mm	27.0 - 35.0 mm	SW 52	<b>7ZM50LN</b>
MU	M 50 x 1.5	Oversize	13.0 mm	32.0 - 38.0 mm	SW 60	<b>7ZM50EL</b>
MW	M 63 x 1.5	Oversize	13.0 mm	36.0 - 48.0 mm	SW 68	<b>7ZM63EL</b>

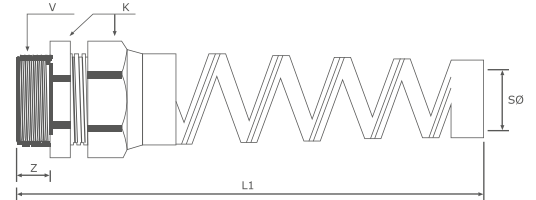
## Plastic spiral gland with metric thread

The spiral gland prevents the cable from damage caused by bending at the connector-cable interface. Therefore, it is commonly used with audio cable, where small signal conductors can be easily damaged.



### Cable Clamp - Metric

V (thread size)	ØS (clamping range)	K	Z	L1
M 20 x 1.5	6 - 12 mm	25 mm	9 mm	101 mm
M 20 x 1.5	7 - 13 mm	25 mm	9 mm	101 mm
M 20 x 1.5	10 - 14 mm	25 mm	9 mm	101 mm
M 25 x 1.5	8 - 13 mm	30 mm	10 mm	125 mm
M 25 x 1.5	9 - 17 mm	30 mm	10 mm	125 mm
M 25 x 1.5	13 - 18 mm	30 mm	10 mm	125 mm
M 32 x 1.5	7 - 15 mm	36 mm	10 mm	149 mm
M 32 x 1.5	11 - 21 mm	36 mm	10 mm	149 mm
M 32 x 1.5	18 - 25 mm	36 mm	10 mm	149 mm



## Backshell and metal cable gland for the Syntax SB Series

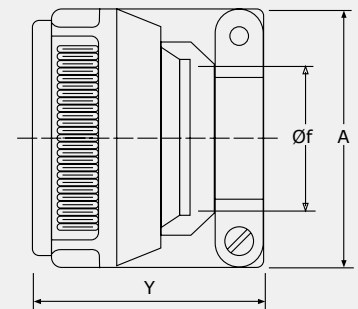
Besides ensuring an excellent mechanical strain relief keeping the cable in the centre of the connector, metal cable glands are provided with an internal rubber cone bushing ensuring IP67 waterproof protection. The screws in stainless steel have elastic anti-vibration washers. Clamping range varies according to connector size as shown in the following table.



### Models and dimensions

Dimensions in mm

C	Code	Clamping Range ØF	Y	A	Arrangement types
8C	C3	8-13.58	32.3	28.1	16S-1 / 16-10
12C	C5	11.3-19	35.7	37.3	20-15 / 22-1 / 22-2 / 22-22
16C	C6	15.5-23.8	39	43.2	24-2 / 24-11 / 28A-9 / 28-22 / 28-3 / 28-6 / 28-10
20C	C7	23.4-31.8	44.8	54	32A-9 / 32-5
28C	C9	30-41.3	52.3	63.4	40A-10



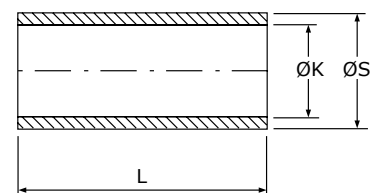
## Bushing

Bushing is made of elastometric rubber and used with the metal cable clamp. It allows the use of cables with a diameter smaller than the nominal one.

### Models and dimensions

Dimensions in mm

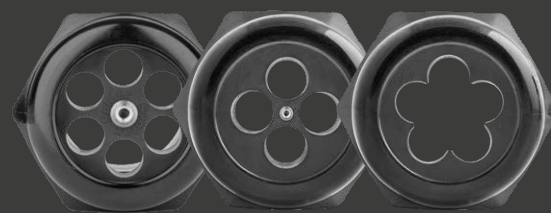
Part No.	For metal clamp	ØS	ØK Open	ØK Closed	L
SBBC3	C3	13.6	11.1	5.6	50.8
SBBC5	C5	18.9	13.74	6.85	50.8
SBBC6	C6	23.7	19	10.9	50.8
SBBC7	C7	31.6	23.8	15.74	50.8
SBBC9	C9	41.1	31.75	20.7	50.8



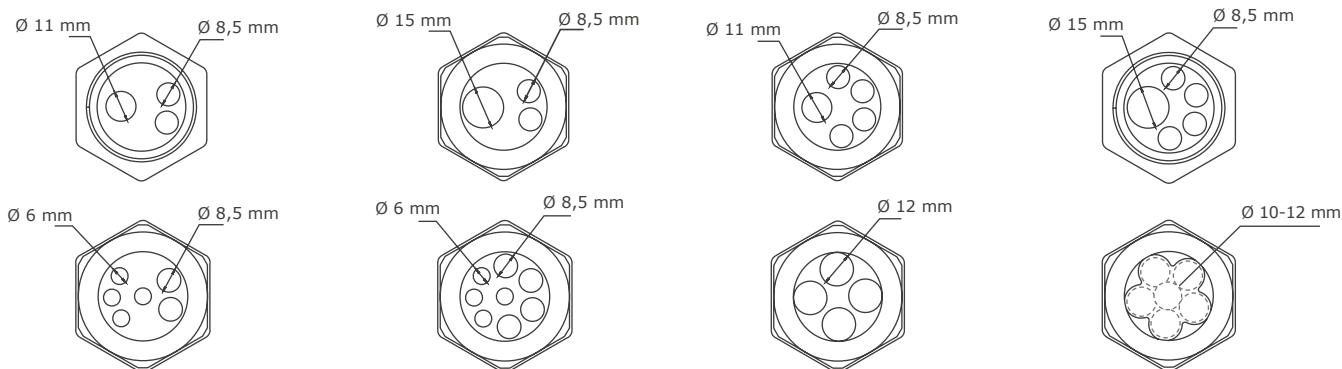
# Multiway grommets

## For Syntax multipin connectors

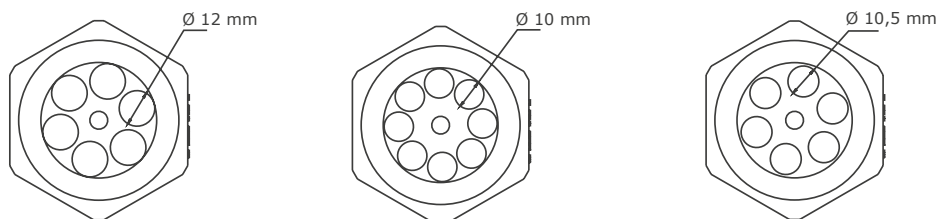
Discover our solutions for effective and convenient multiple cable management.



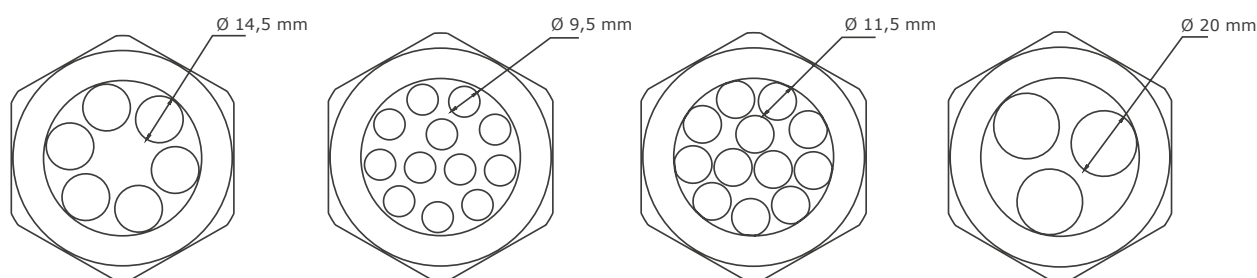
### Versions for M40 cable glands



### Versions for M50 cable glands



### Versions for M63 cable glands



## M50 to M63 cable gland adapter for Syntax multipin connectors

This adapter has been designed to allow the use of bigger M63 cable glands with the inline body of smaller M50 connectors, such as the 25 pin SPK model, in order to use a wider range of multiway grommets.





# Found your connector? Now pick the cable!

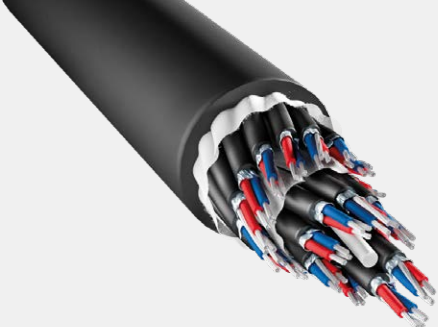
Cables for Bayonet connectors series

Flexible, easy to handle, all in one professional cables for almost limitless applications. Robust and super easy for fast wiring.

**Syntax Analog cables**  
**Syntax Digital cables**  
**Syntax Speaker cables**  
**Syntax Hybrid Cable**

## Syntax cables

compatible with SVK - SHD and SVS series




**Analog Cables**

Part No.	Pair	Diameter	Series
<b>7YPR04SX</b>	4	9,6	SVK - SHD
<b>7YPR08SX</b>	8	12,2	SVK - SHD
<b>7YPR12SX</b>	12	14,5	SVK - SHD
<b>7YPR16SX</b>	16	16,3	SVK - SHD
<b>7YPR24SX</b>	24	20,8	SVK - SHD - SVS
<b>7YPR32SX</b>	32	22,8	SVK - SHD - SVS
<b>7YPR40SX</b>	40	25,2	SVK - SHD
<b>7YPR48SX</b>	48	27,0	SVK - SHD

**Digital Cables**

Part No.	Pair	Diameter	Series
<b>7YDPR02SX</b>	2	9,6	SVK - SHD
<b>7YDPR04SX</b>	4	11,2	SVK - SHD
<b>7YDPR08SX</b>	8	14,8	SVK - SHD
<b>7YDPR0814SX</b>	8	13	SVK - SHD
<b>7YDPR0814SXPUR</b>	8	13	SVK - SHD
<b>7YDPR12SX</b>	12	17,4	SVK - SHD
<b>7YDPR1214SX</b>	12	17,0	SVK - SHD
<b>7YDPR1214SXPUR</b>	12	16,5	SVK - SHD
<b>7YDPR16SX</b>	16	19,5	SVK - SHD




## Syntax cables

compatible with SPK

**Speaker Cables**

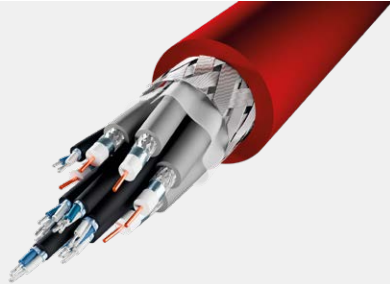
Part No.	Wires	Diameter	Series
<b>7Z2SX25</b>	2	8,8	SPK 25 pin
<b>7Z2SX40</b>	2	11,4	SPK 8, 25 pin
<b>7Z4SX25</b>	4	10,5	SPK 4 and 8 pin
<b>7Z4SX40</b>	4	13,5	SPK 4, 25 pin
<b>7Z8SX25</b>	8	14	SPK 8 pin
<b>7Z8SX40</b>	8	20	SPK 8, 25 pin
<b>7Z24SX40</b>	24	27,5	SPK 25 pin



## Syntax cables

compatible with SV series

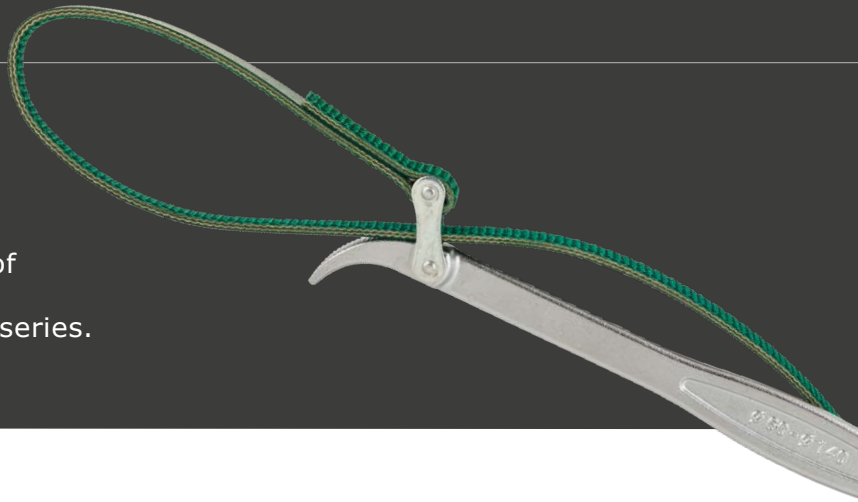
**Hybrid Cable**  
 6 x video + 8 x digital | Diameter Ø 24,5 mm  
 Part No. **7YVD6DG8HD**



# Syntax® Tools

## Essential to connecting

Tools for crimping, insertion & removal of contacts and tightening tools for Syntax Bayonet multipin connectors series.



## Manual crimping tool

For 16-18-20 contact sizes

The manual crimping tool AF8 is compliant with MIL-DTL-22520/1 and AS22520/1. It is suitable for all wire gages from 12 to 26 AWG. The 8-point crimping of the AF8 tool ensures maximum strength and resistance on the crimped connection. Special indent configurations and gaging are available on request. The tool must be used with a military standard turret positioner, which is easily fitted on the crimping tool by orienting the head in the keyed position, and by tightening the hex socket screws supplied. The precision ratchet controls cycling of the tool in both directions. This ensures the same accurate crimp every time. Positive crimp depth is controlled by an 8 position selector knob located on the tool frame, allowing the operator to select the setting for the right wire. The setting can be secured by use of a locking pin or safety wire. Other than keeping the unit clean and properly stored when not in service, no operator maintenance is required.



**Manual crimping tool**  
Part No. **SVKTCRIMP**



**Turret positioner**  
Part No. **SVKTOR**

## Pneumatic crimp tool

For 11-12-16-18-20 contact sizes

Our pneumatic crimping tools are known for cost saving trouble-free operations and their adaptability both in military and industrial programs. Thanks to their compact size and light weight, our pneumatic tools are as easy to use as a hand tool. The bench mount support and foot valve complete the set, allowing fast and safe crimping operations.

The bench mount allows the tool to be secured at virtually any angle at the operator's will. The foot valve, when installed in-line with an air supply, makes a portable system which is adaptable to any work bench.

Air supply requirements are 5.5 to 8.0 atmospheres clean dry air.

The system uses standard air fitting readily available in stores.



**Pneumatic crimp**  
Part Number **SVKTCRIMP-A**



**Foot valve**  
Part Number **SVKTCRIMP-B**



**Adjustable bench mount**  
Part Number **SVKTCRIMP-C**

## Hydraulic crimping tool 45kN

For size 4 and size 8 contacts

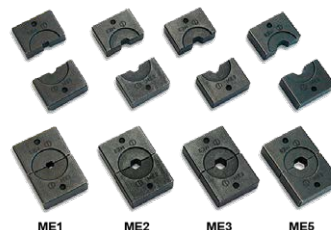
Lightweight and compact, this tool is ideal to crimp connectors on overhead lines and general electric applications. Thanks to spring loaded handles, you can use the tool and crimp contacts with just one hand, with the other hand free to position the connector. For easier operations, the tool head can be rotated by 180 degrees. The built-in safety valve will bypass the oil supply when the maximum pressure is reached. The pressure release system can be easily operated at any stage of the compression.

Part No. **SBH-CRIMP-A**



## Crimping accessories

<b>SBH</b>	ME1	for cable 4 to 6 mm <sup>2</sup>
<b>SBH</b>	ME2	for cable 10 mm <sup>2</sup>
<b>SBH</b>	ME3	for cable 16 mm <sup>2</sup>
<b>SBH</b>	ME5	for cable 25 mm <sup>2</sup>



### Insertion tools

Insertion tools for male and female contacts (using guide pins is recommended for female contacts).

Part No. **SVKTINS12**  
 Part No. **SVKTINS16**  
 Part No. **SVKTINS18/20**



### Removal tool

Only use the recommended removal tool to remove a contact or adjust its position in the cavity.

Part No. **SVKTESTR11**  
 Part No. **SVKTESTR12**  
 Part No. **SVKTESTR16**



### Customized wrench

Part Number **SVKT - KSW**



### Strap wrench

Part Number **SVKT - KSTRAP**

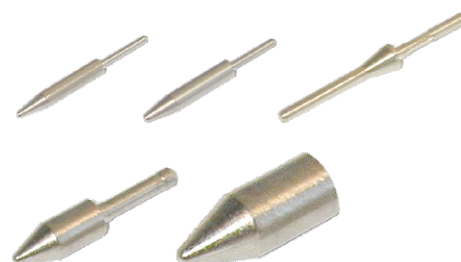
## Tightening tools

Once wiring is carried out, the connector can be easily locked with our customized wrench or the strap wrench, which provides best grip on circular knurling.

## Guide pins for female contacts

Guide pins are used to insert female contacts only. Remove the guide pin from the inserted contact and use it for the next contact.

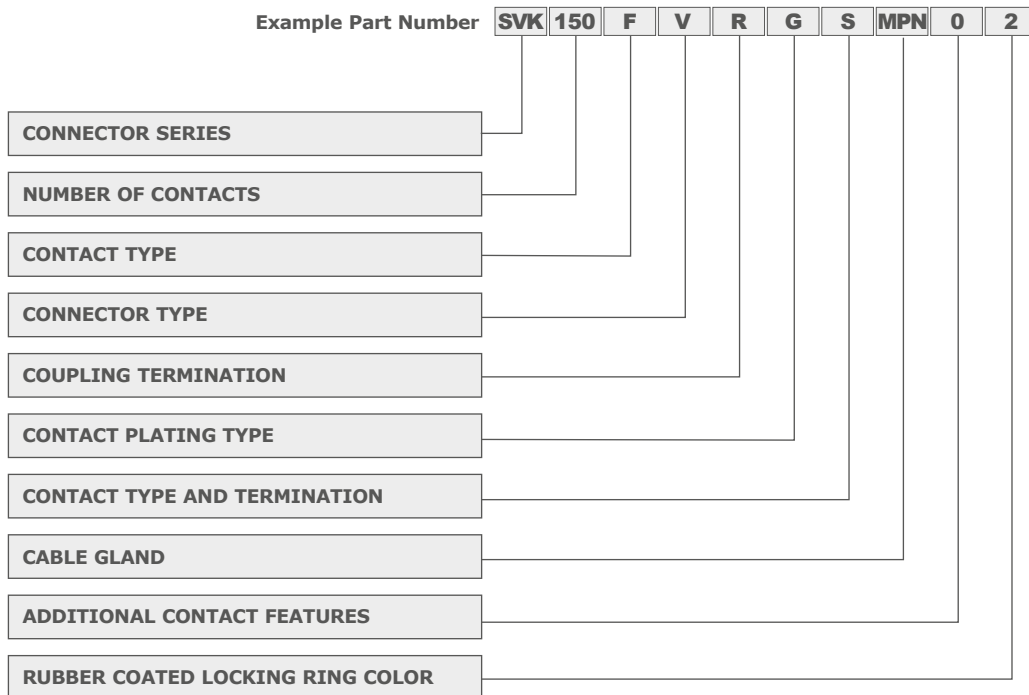
Part No. **SVKT20GP** | **SVKT18GP** | **SVKT16GP**  
**SVKT12GP** | **SVKT59GP**





## PART NUMBER EXPLANATION

Syntax® SVK Series



### Connector Series

**SVK** Series (13, 19, 25, 37, 54, 85, 100, 150 pin)

### Number of Contacts

<b>013</b>	<b>054</b>
<b>019</b>	<b>085</b>
<b>025</b>	<b>100</b>
<b>037</b>	<b>150</b>

### Contact Type

**M** Male  
**F** Female

### Connector Type

**V** Inline  
**P** Panel

### Coupling Termination

- With ramps  
**H** Aluminium black locking ring  
**R** Rubber coated locking ring

### Contact Plating Type

**S** Silver (13, 19, 25, 37, 54, 85 pin)  
**G** Gold (13, 19, 25, 37, 54, 85, 100, 150 pin)  
**N** No contact

### Contact type and termination

**C** Spring loaded crimp (13, 19, 25, 37, 54, 85 pin)  
**S** Spring loaded solder (13, 19, 25, 37, 54, 85 pin)  
**P** Spring loaded pcb (13, 19, 25, 37, 54, 85 pin)  
**N** No contact  
**K** Armored crimp contact (13, 19, 25, 37, 54, 85, 100, 150 pin)  
**Z** Armored solder contact (13, 19, 25, 37, 54, 85, 100, 150 pin)

### Cable gland

**MHN** Thread size M20 x 1.5 | Clamping range 8-13mm (SVK 13-19 pins)  
**MIN** Thread size M20 x 1.5 | Clamping range 10-14mm (SVK 13-19 pins)  
**MJN** Thread size M25 x 1.5 | Clamping range 8-13mm (SVK 25 pins)

**MLN** Thread size M25 x 1.5 | Clamping range 13-18mm (SVK 25 pins)  
**MNN** Thread size M32 x 1.5 | Clamping range 10-15mm (SVK 37-54 pins)  
**MMN** Thread size M32 x 1.5 | Clamping range 11-21mm (SVK 37-54 pins)  
**MON** Thread size M32 x 1.5 | Clamping range 18-25mm (SVK 37-54 pins)  
**MQN** Thread size M40 x 1.5 | Clamping range 15-23mm (SVK 85-100-150 pins)  
**MPN** Thread size M40 x 1.5 | Clamping range 19-28mm (SVK 85-100-150 pins)  
**MRN** Thread size M40 x 1.5 | Clamping range 22-32mm (SVK 85-100-150 pins)  
**MSF** Metric spiral flex (SVK 13-19-25-37-54 - Check clamping range options before ordering)  
**M00** Without cable gland

### Additional contact features

**T** Inserted solder termination contacts  
**0** Not pre-installed  
**2** Reduced crimp terminal (Wire section AWG 26÷20 / 0,15÷0,6mm<sup>2</sup>)

### Rubber coated locking ring color (when applicable)

**0** Black (standard)  
**1** Green  
**2** Red  
**3** Yellow  
**4** Blue  
**5** Purple  
**6** Orange

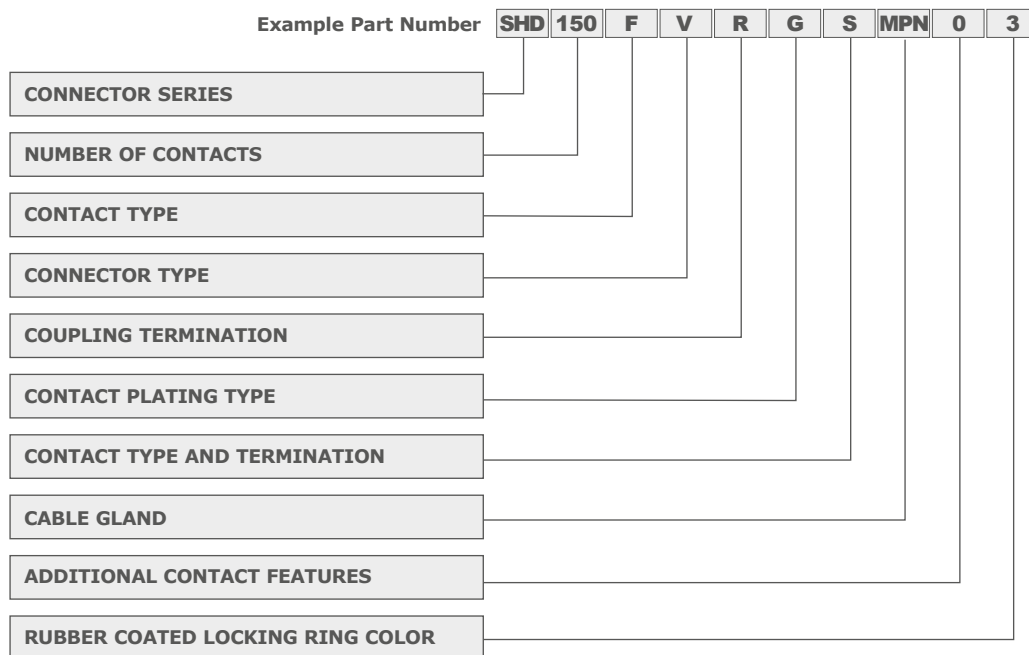
### Optional Accessories (to be ordered separately)

#### Strain Relief (other models available, see website)

**7ZK20A096B127** M20 x 1.5 Ø 9.53 to 12.70 mm (.375" to .500")  
**7ZK20A127B158** M20 x 1.5 Ø 12.70 to 15.88 mm (.500" to .625")  
**7ZK25A127B158** M25 x 1.5 Ø 12.70 to 15.88 mm (.500" to .625")  
**7ZK32A112B140** M32 x 1.5 Ø 11.2 to 14.0 mm (.44" to .56")  
**7ZK32A142B175** M32 x 1.5 Ø 14.2 to 17.5 mm (.56" to .69")  
**7ZK32A160B191** M32 x 1.5 Ø 16.0 to 19.1 mm (.63" to .75")  
**7ZK32A191B224** M32 x 1.5 Ø 19.1 to 22.4 mm (.75" to .88")  
**7ZK40A191B224** M40 x 1.5 Ø 19.1 to 22.4 mm (.75" to .88")  
**7ZK40A224B254** M40 x 1.5 Ø 22.4 to 25.4 mm (.88" to 1.00")  
**7ZK40A254B285** M40 x 1.5 Ø 25.4 to 28.58 mm (1.00" to 1.125")  
**7ZK40A286B317** M40 x 1.5 Ø 28.58 to 31.75 mm (1.125" to 1.250")

## PART NUMBER EXPLANATION

Syntax® SHD Series



### Connector Series

**SHD** Series (Inline female - Inline male - Panel female)

**SVK** Series (Panel male)

### Number of Contacts

**013**

**019**

**025**

**037**

**054**

**085**

**100**

**150**

### Contact Type

**M** Male

**F** Female

### Connector Type

**V** Inline

**P** Panel

### Coupling Termination

- With ramps

**D** Heavy-duty aluminium black locking ring

**R** Rubber coated locking ring

### Contact plating type

**S** Silver (13, 19, 25, 37, 54, 85 pin)

**G** Gold (13, 19, 25, 37, 54, 85 pin)

**N** No contact

### Contact Type and Termination

**C** Spring loaded crimp (13, 19, 25, 37, 54, 85 pin)

**S** Spring loaded solder (13, 19, 25, 37, 54, 85 pin)

**P** Spring loaded pcb (13, 19, 25, 37, 54, 85 pin)

**N** No contact

**K** Armored crimp contact

(13, 19, 25, 37, 54, 72, 85, 100, 101, 150 pin)

**Z** Armored solder contact

(13, 19, 25, 37, 54, 72, 85, 100, 101, 150 pin)

### Cable gland

**MHN** Thread size M20 x 1.5 | Clamping range 8-13mm (13-19 pin)

**MIN** Thread size M20 x 1.5 | Clamping range 10-14mm (13-19 pin)

**MJN** Thread size M25 x 1.5 | Clamping range 8-13mm (25 pin)

**MLN** Thread size M25 x 1.5 | Clamping range 13-18mm (25 pin)

**MNN** Thread size M32 x 1.5 | Clamping range 10-15mm (37-54 pin)

**MMN** Thread size M32 x 1.5 | Clamping range 11-21mm (37-54 pin)

**MON** Thread size M32 x 1.5 | Clamping range 18-25mm (37-54 pin)

**MQN** Thread size M40 x 1.5 | Clamping range 15-23mm (85-100-150 pin)

**MPN** Thread size M40 x 1.5 | Clamping range 19-28mm (85-100-150 pin)

**MRN** Thread size M40 x 1.5 | Clamping range 22-32mm (85-100-150 pin)

**MSF** Metric spiral flex (13-19-25-37-54 pin - Check clamping range options before ordering)

**M00** Without cable gland

### Additional contact features

**T** Inserted solder termination contacts

**0** Not pre-installed

**2** Reduced crimp terminal (Wire section AWG 26÷20 / 0,15÷0,6mm<sup>2</sup>)

### Rubber coated locking ring color (when applicable)

**0** Black (standard)

**1** Green

**2** Red

**3** Yellow

**4** Blue

**5** Purple

**6** Orange

### Optional Accessories (to be ordered separately)

#### Strain Relief (other models available, see website)

**7ZK20A096B127** M20 x 1.5 Ø 9.53 to 12.70 mm (.375" to .500")

**7ZK20A127B158** M20 x 1.5 Ø 12.70 to 15.88 mm (.500" to .625")

**7ZK25A127B158** M25 x 1.5 Ø 12.70 to 15.88 mm (.500" to .625")

**7ZK32A112B140** M32 x 1.5 Ø 11.2 to 14.0 mm (.44" to .56")

**7ZK32A142B175** M32 x 1.5 Ø 14.2 to 17.5 mm (.56" to .69")

**7ZK32A160B191** M32 x 1.5 Ø 16.0 to 19.1 mm (.63" to .75")

**7ZK32A191B224** M32 x 1.5 Ø 19.1 to 22.4 mm (.75" to .88")

**7ZK40A191B224** M40 x 1.5 Ø 19.1 to 22.4 mm (.75" to .88")

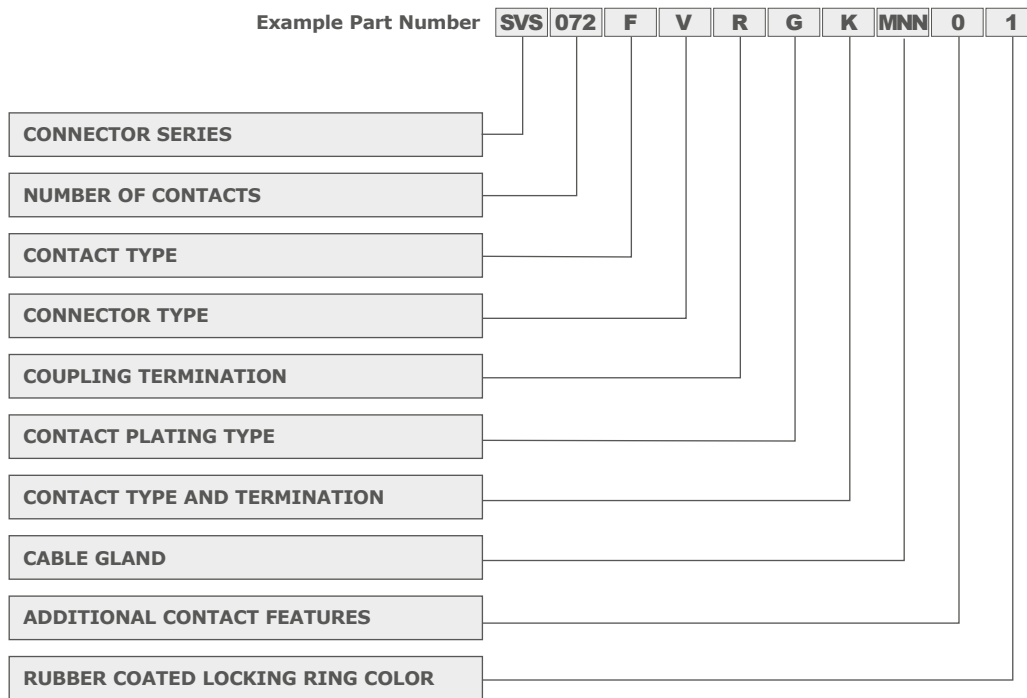
**7ZK40A224B254** M40 x 1.5 Ø 22.4 to 25.4 mm (.88" to 1.00")

**7ZK40A254B285** M40 x 1.5 Ø 25.4 to 28.58 mm (1.00" to 1.125")

**7ZK40A286B317** M40 x 1.5 Ø 28.58 to 31.75 mm (1.125" to 1.250")

## PART NUMBER EXPLANATION

Syntax® SVS Series



**Connector Series**  
**SVS** Series (72, 101 pin)

**Number of Contacts**  
**072**  
**101**

**Contact Type**  
**M** Male  
**F** Female

**Connector Type**  
**V** Inline  
**P** Panel

**Coupling Termination**  
 - With ramps  
**H** Aluminium black locking ring  
**R** Rubber coated locking ring

**Contact Plating Type**  
**G** Gold (72, 101 pin)  
**N** No contact

**Contact type and termination**  
**N** No contact  
**K** Armored crimp contact (72, 101 pin)  
**Z** Armored solder contact (72, 101 pin)

**Cable gland**  
**MNN** Thread size M32 x 1.5 | Clamping range 10-15mm (SVS 72-101 pins)  
**MMN** Thread size M32 x 1.5 | Clamping range 11-21mm (SVS 72-101 pins)  
**MON** Thread size M32 x 1.5 | Clamping range 18-25mm (SVS 72-101 pins)  
**MSF** Metric spiral flex (Check clamping range options before ordering)  
**M00** Without cable gland

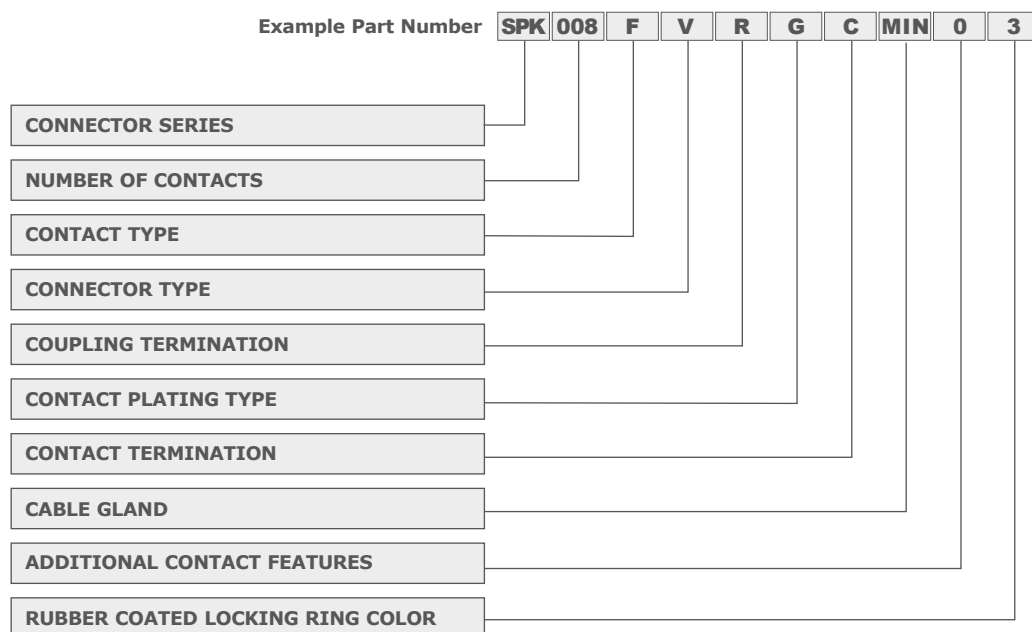
**Additional contact features**  
**T** Inserted solder termination contacts  
**0** Not pre-installed

**Rubber coated locking ring color (when applicable)**  
**0** Black  (standard)  
**1** Green   
**2** Red   
**3** Yellow   
**4** Blue   
**5** Purple   
**4** Orange 

**Optional Accessories (to be ordered separately)**  
**Strain Relief (other models available, see website)**  
**7ZK32A112B140** M32 x 1.5 Ø 11.2 to 14.0 mm (.44" to .56")  
**7ZK32A142B175** M32 x 1.5 Ø 14.2 to 17.5 mm (.56" to .69")  
**7ZK32A160B191** M32 x 1.5 Ø 16.0 to 19.1 mm (.63" to .75")  
**7ZK32A191B224** M32 x 1.5 Ø 19.1 to 22.4 mm (.75" to .88")

## PART NUMBER EXPLANATION

Syntax® SPK Series



### Connector Series

**SPK** Series (4, 8, 25 pin compliant Mil C5015 & VG95234)

### Number of Contacts

**004**  
**008**  
**025**

### Contact Type

**M** Male                      **F** Female

### Connector Type

**V** Inline                      **P** Panel

### Coupling Termination

- With ramps (4, 8, 25 pin)  
**D** Heavy-duty aluminium black locking ring (4, 25 pin)  
**L** Aluminium black locking ring (8 pin)  
**R** Rubber coated locking ring (8, 25 pin)

### Contact Plating Type

**S** Silver                      **G** Gold                      **N** No contact

### Contact Type and Termination

**C** Spring loaded crimp  
**S** Spring loaded solder  
**P** Spring loaded pcb  
**N** No contact

### Cable Gland (more options available)

**MIN** Metric M20x 1.5 Ø cable 10 - 14 mm (SPK 4 pin)  
**MMN** Metric M32 x 1.5 Ø cable 11 - 21 mm (SPK 8 pin)  
**MON** Metric M32 x 1.5 Ø cable 18 - 25 mm (SPK 8 pin)  
**MRN** Metric M40 x 1.5 Ø cable 22 - 32 mm (SPK 25 pin)  
**MUN** Metric M50 x 1.5 Ø cable 32 - 38 mm (SPK 25 pin)  
**MSF** Metric spiral flex (4, 8 pins - Check clamping range options before ordering)  
**MF4** 4-way grommet for M40 cable gland (only for 8 pin)  
**C5N** 12C Metal cable gland (only for 8 pin)  
**M00** Without cable gland (4, 8 pin)  
**M05** Without cable gland (M50 backshell version for SPK 25pin)  
**M04** Without cable gland (M40 backshell version for SPK 25pin)

### Additional contact features

**T** Pre-installed solder contacts  
**0** Contacts not installed - No further details  
**4** 4mm² Crimp terminal wire section  
**6** 6mm² Crimp terminal wire section

### Rubber coated locking ring color (when applicable)

**0** Black (standard)  
**1** Green   
**2** Red   
**3** Yellow   
**4** Blue   
**5** Purple   
**6** Orange

### Optional Accessories (to be ordered separately)

#### Grommet + adapter system (25 pin only)

**SPK025AD-M63-3W** M63 cable gland + adapter and 3-way grommet for SPK 25 pin (Ø hole 20 mm)  
**SPK025AD-M63-6W** M63 cable gland + adapter and 6-way grommet for SPK 25 pin (Ø hole 14.5 mm)  
**SPK025AD-M63-12W** M63 cable gland + adapter and 12-way grommet for SPK 25 pin (Ø hole 11.5 mm)  
**SPK025AD-M63-12W2** M63 cable gland + adapter and 12-way grommet for SPK 25 pin (Ø hole 9.5 mm)

#### Strain Relief (other models available, see website)

**7ZK20A096B127** M20 x 1.5 Ø 9.53 to 12.70 mm (.375" to .500")  
**7ZK20A127B158** M20 x 1.5 Ø 12.70 to 15.88 mm (.500" to .625")  
**7ZK32A112B140** M32 x 1.5 Ø 11.2 to 14.0 mm (.44" to .56")  
**7ZK32A142B175** M32 x 1.5 Ø 14.2 to 17.5 mm (.56" to .69")  
**7ZK32A160B191** M32 x 1.5 Ø 16.0 to 19.1 mm (.63" to .75")  
**7ZK32A191B224** M32 x 1.5 Ø 19.1 to 22.4 mm (.75" to .88")  
**7ZK32A224B254** M32 x 1.5 Ø 22.4 to 25.4 mm (.88" to 1.00")  
**7ZK40A191B224** M40 x 1.5 Ø 19.1 to 22.4 mm (.75" to .88")  
**7ZK40A224B254** M40 x 1.5 Ø 22.4 to 25.4 mm (.88" to 1.00")  
**7ZK40A254B285** M40 x 1.5 Ø 25.4 to 28.58 mm (1.00" to 1.125")  
**7ZK40A286B317** M40 x 1.5 Ø 28.58 to 31.75 mm (1.125" to 1.250")  
**7ZK40A318B349** M40 x 1.5 Ø 31.75 to 34.92 mm (1.250" to 1.375")



## **Tell us what you need and we'll build it for you**

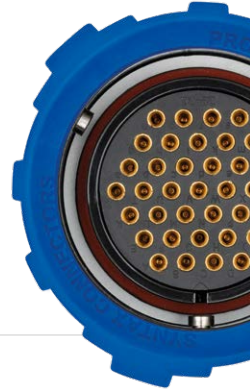
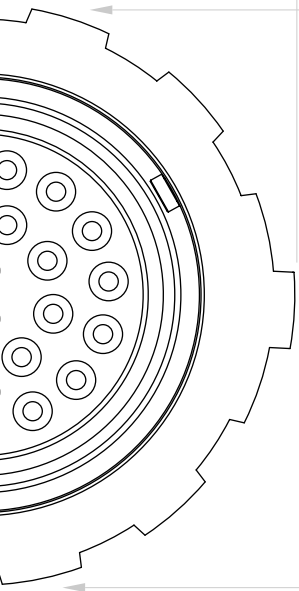
In our mechanical workshop we are free to innovate and independently create and test new solutions, thanks to highly skilled designers and state-of-the-art machines.  
An ability of ours and a great advantage for our clients.

From basic customizations to whole new connector designs,  
we are ready to give shape to your needs.

Let's discuss your new idea together.



[www.valentininet.com](http://www.valentininet.com)



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## SYNTAX®



BayonetSyntax website