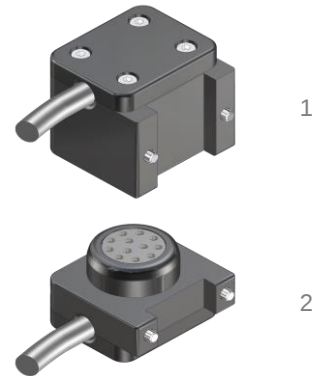


Operating mode:

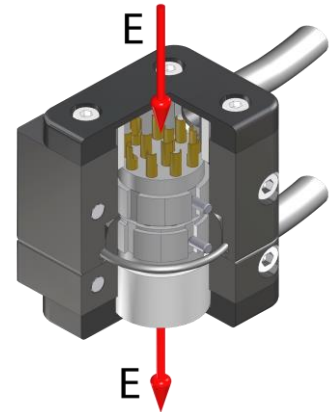
The SEK upper assembly is mounted on the SHW upper assembly.
The SEK lower assembly is mounted on the SHW lower assembly accordingly. The SEK is automatically coupled by the mechanical connection of the exchange system.

Advantages:

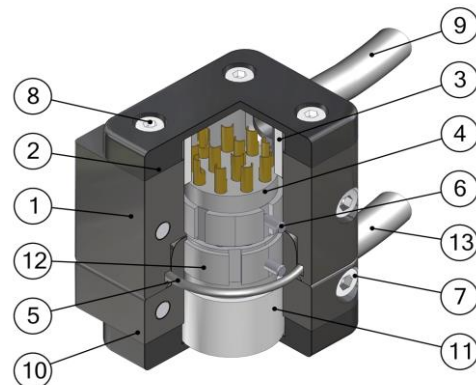
Mechanical and electric connections are established simultaneously.
Withstands up to 50,000 changing cycles
Individual wiring
Coding of the interchange parts



Technical specifications		SEK100
Basic material		Al, anod.
Compatible with		SHW 063, 080, 100
Adaptable to		SHW 125, 160
Width x depth x height [mm]		34 x 32 x 29,5
No. of poles E		12
Rated current per pole I [A]		9
Rated voltage U [V]		63
Contact resistance per pole R [mΩ]		3
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,07
	lower assembly	0,045
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120



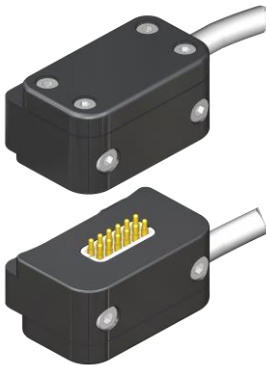
Pos.	Description
1	Upper assembly 1E
2	Cap
3	Distance bush upper assembly
4	Insulating body with pins
5	O-Ring
6	Cylindrical pin
7	Mounting screw
8	Screw for Cap
9	Cable on the robot side
10	Lower assembly 1E
11	Distance bush lower assembly
12	Insulating body with bushings
13	Cable on tool side



SEK energy feed-through with pneumatic ducts...	
G-SEK100-O-1E12-300-M12	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M12, 12 poles
G-SEK100-O-1E12-300-M8	upper assembly, electrical plug, 12 poles, cable L= 300 mm, socket M8, 8 poles, angled
G-SEK100-O-1E12-300-M8-SW	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M8, 8 poles, angled
G-SEK100-U-1E12-300-M12	lower assembly, electrical socket, 12 poles, cable L= 300 mm, socket M12, 12 poles
G-SEK100-U-1E12-40-M8	lower assembly, electrical socket, 12 poles, cable L= 40 mm, plug M8, 8 poles, angled
G-SEK100-U-1E12-40-M8-BW	lower assembly, electrical socket, 12 poles, cable L= 40 mm, socket M8, 8 poles, angled



SEK-P



SEK-FE

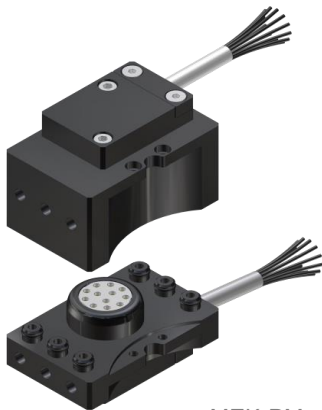


MEK-R

Products	Electrical connection	Cable variants
SEK-P / SEK-FE / MEK-R upper assembly	Electric strip, female (suitable for spring contacts)	M8-bushing, M12-plug, open end
SEK-P / SEK-FE / MEK-R lower assembly	Electric strip, male (including spring contacts)	M8-plug, M12-bushing, open end



SEK



MEK-PM

Products	Electrical connection	Cable variants
SEK / MEK-PM upper assembly	Insulating body with pin contacts	M8-bushing, M12-plug, open end
SEK / MEK-PM lower assembly	Insulating body with socket contacts	M8-plug, M12-bushing, open end

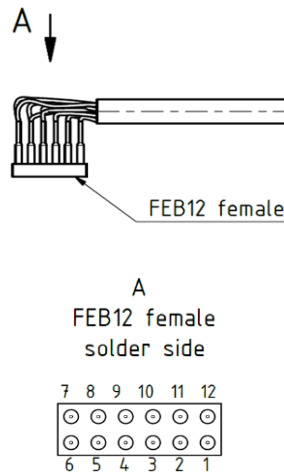


SEK-FE

As standard, we offer the listed products for self-soldering.
The contact assignment of the pre-assembled connections can be found in the following data sheets.

Ordering example: G-SEK100-O/U-1FE12
G-MEK063-O/U-6PM5-1E12

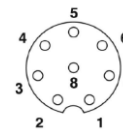
FEB12
Electric strip, female
12-poles (female)
Strip 2x 6 rows
Rated current per pole: 2A
Contact resistance < 20mΩ
Contact spacing: 2,54mm
Gilded
Solder connection



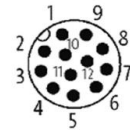
M8-bushing

M12-plug

M8 female

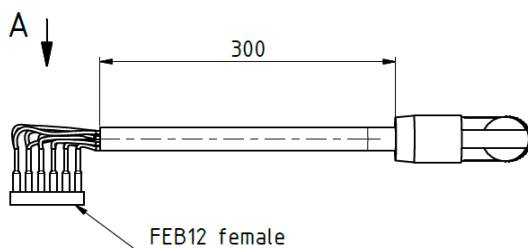


M12 Male



300-M8

300mm cable, circular connector M8-bushing



pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

M8-bushing

8 poles (female)

Cable: drag chain suitable

According to IEC-61076-2-104

Operating voltage: max 30 V

Rated current (at 30°): 1,5 A

Temperature range: -25...85°C

Cable: PUR halogen-free

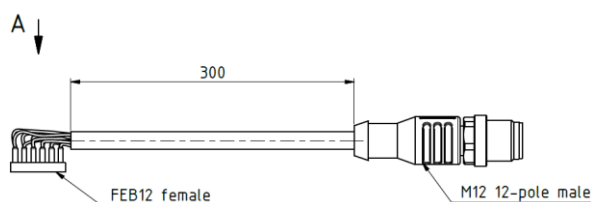
included in: G-SEK100-O-1FE12-300-M8

G-MEK063-O-4PR4-1FE12-300-M8

spare part: EG-MEK-FEB12-300-M8-BW

300-M12

300mm cable, circular connector M12 plug



FEB12 female	colour	M12 male
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/pink	11
12	blue/red	12

M12-plug

12 poles (male)

Cable: drag chain suitable

12 x 0,14mm², Ø5,6

According to IEC-61076-2-104

Operating voltage: max 30 V

Rated current (at 30°): 1,5 A

Insulation resistance: ≥10³Ω

Temperature range: -25...85°C

Cable: PUR halogen-free

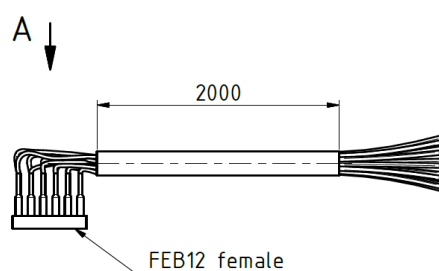
included in: G-SEK100-O-1FE12-300-M12

G-MEK063-O-4PR4-1FE12-300-M12

spare part: EG-MEK-FEB12-300-M12

2000-OE

2000mm cable, open end



pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	black
10	violet
11	grey-pink
12	blue-red

Open end

12 poles

Cable: drag chain suitable

Outer-Ø (D): 5,6 ± 0,2mm

Nominal voltage: ≤300V

Bending radius:

- fixed installation: >5 x D

- in motion: >10 x D

Wire cross-section: 12 x 0,14mm²

Insulation resistance: ≥10³Ω

Temperature range: -25...85°C

Material: PUR halogen-free

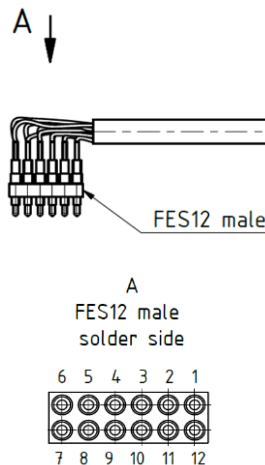
Rated current (at 30°): 2 A

included in: G-SEK100-O-1FE12-2000-OE

G-MEK063-O-4PR4-1FE12-2000-OE

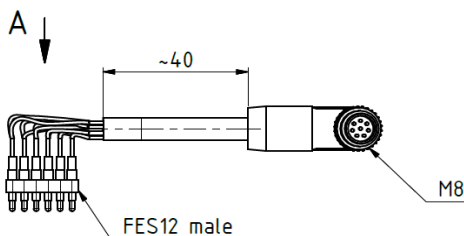
spare part: EG-MEK-FEB12-2000OE

FES12
Electric strip, male
Spring contacts
12 poles (male)
Strip 2x 6 rows
Spring force: 0,6N at 0,7mm
Rated current per pole: 2A
Contact resistance < 20mΩ
Contact spacing: 2,54mm
Gilded
Solder connection
Max stroke: 2,4mm



M8 plug	M12 bushing
M8 male	M12 Female

40-M8
40mm cable, circular connector M8 plug



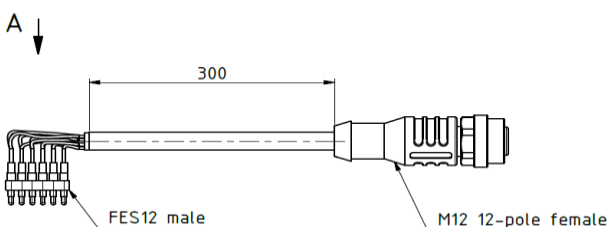
pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

M8 plug
8 poles (male)
Cable: drag chain suitable
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Temperature range: -25...85°C
Cable: PUR halogen-free

included in: G-SEK100-U-1FE12-40-M8
G-MEK063-U-4PR4-1FE12-40-M8

spare part: EG-MEK-FES12-40-M8-SW

300-M12
300mm cable, circular connector M12 bushing



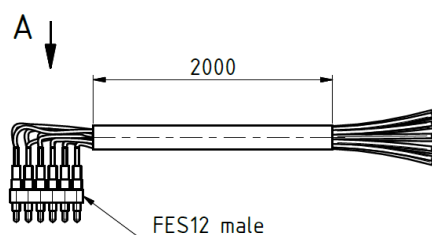
FES12 male	colour	M12 fem.
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/pink	11
12	blue/red	12

M12 bushing
12 poles (female)
Cable: drag chain suitable
12 x 0,14mm ² , Ø5,6
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Insulation resistance: ≥10 ³ Ω
Temperature range: -25...85°C
Cable: PUR halogen-free

included in: G-SEK100-U-1FE12-300-M12
G-MEK063-U-4PR4-1FE12-300-M12

spare part: EG-MEK-FES12-300-M12

2000-OE
2000mm cable, open end



pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	black
10	violet
11	grey-pink
12	blue-red

Open end
12 poles
Cable: drag chain suitable
Outer-Ø (D): 5,6 ± 0,2mm
Nominal voltage: ≤300V
Bending radius:
- fixed installation: >5 x D
- in motion: >10 x D
Wire cross-section: 12 x 0,14mm ²
Insulation resistance: ≥10 ³ Ω
Temperature range: -25...85°C
Material: PUR halogen-free
Rated current (at 30°): 2 A

included in: G-SEK100-U-1FE12-2000-OE
G-MEK063-U-4PR4-1FE12-2000-OE
spare part: EG-MEK-FES12-2000OE

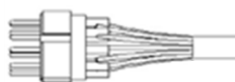
IKS12

Insulating body with pins

12 poles (male)

Rated current per pole: 9A

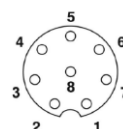
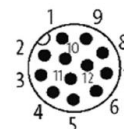
Contact resistance < 3mΩ



M8 bushing

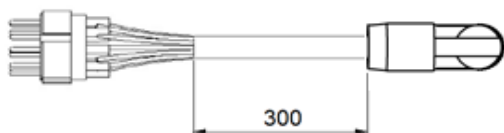
M12 plug

M8 female


M12
Male


300-M8

300mm cable, circular connector M8 bushing



pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

M8 bushing

8 poles (female)

Cable: drag chain suitable

According to IEC-61076-2-104

Operating voltage: max 30 V

Rated current (at 30°): 1,5 A

Temperature range: -25...85°C

Cable: PUR halogen-free

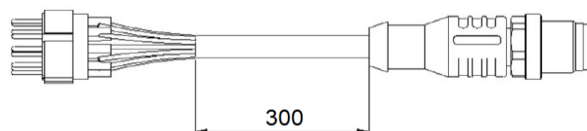
included in: G-SEK100-O-1E12-300-M8

G-MEK063-O-6PM5-1E12-300-M8

spare part: EG-MEK-IKS12-300-M8-BW

300-M12

300mm cable, circular connector M12 plug



pin assignment	
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

M12 plug

12 poles (male)

Cable: drag chain suitable

12 x 0,14mm², Ø5,6

According to IEC-61076-2-104

Operating voltage: max 30 V

Rated current (at 30°): 1,5 A

Insulation resistance: ≥10³Ω

Temperature range: -25...85°C

Cable: PUR halogen-free

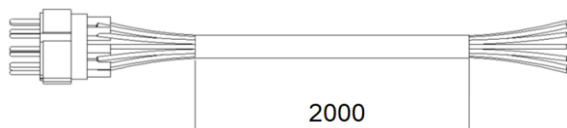
included in: G-SEK100-O-1E12-300-M12

G-MEK063-O-6PM5-1E12-300-M12

spare part: EG-MEK-IKS12-300-M12

2000-OE

2000mm cable, open end



pin assignment	
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

Open end

12 poles

Cable: drag chain suitable

Outer-Ø (D): 5,6 ± 0,2mm

Nominal voltage: ≤300V

Bending radius:

- fixed installation: >5 x D

- in motion: >10 x D

Wire cross-section: 12 x 0,14mm²

Insulation resistance: ≥10³Ω

Temperature range: -25...85°C

Material: PUR halogen-free

Rated current (at 30°): 2 A

included in: G-SEK100-O-1E12-2000-OE

G-MEK063-O-6PM5-1E12-2000-OE

spare part: EG-MEK-IKS12-2000-OE

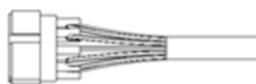
IKB12

Insulating body with bushings

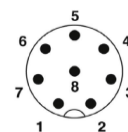
12 poles (female)

Rated current per pole: 9A

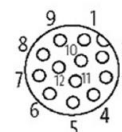
Contact resistance < 3mΩ

**M8 plug****M12 bushing**

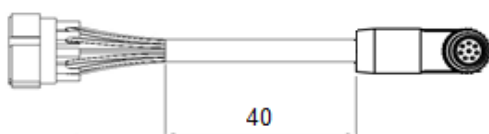
M8 male



M12 Female

**40-M8**

40mm cable, circular connector M8 plug



pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

M8 plug

8 poles (male)

Cable: drag chain suitable

Operating voltage: max 30 V

Rated current (at 30°): 1,5 A

Temperature range: -25...85°C

Cable: PUR halogen-free

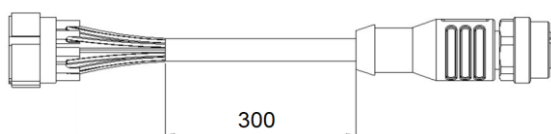
included in: G-SEK100-U-1E12-40-M8

G-MEK063-U-6PM5-1E12-40-M8

spare part: EG-MEK-IKB12-40-M8-SW

300-M12

300mm cable, circular connector M12 bushing



pin assignment	
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

M12 bushing

12 poles (female)

Cable: drag chain suitable

12 x 0,14mm², Ø5,6

According to IEC-61076-2-104

Operating voltage: max 30 V

Rated current (at 30°): 1,5 A

Insulation resistance: ≥10³Ω

Temperature range: -25...85°C

Cable: PUR halogen-free

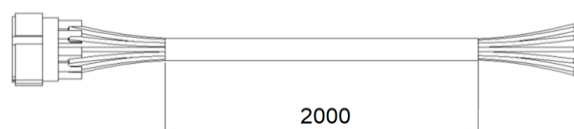
included in: G-SEK100-U-1E12-300-M12

G-MEK063-U-6PM5-1E12-300-M12

spare part: EG-MEK-IKB12-300-M12

2000-OE

2000mm cable, open end



pin assignment	
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

Open end

12 poles

Cable: drag chain suitable

Outer-Ø (D): 5,6 ± 0,2mm

Nominal voltage: ≤300V

Bending radius:

- fixed installation: >5 x D

- in motion: >10 x D

Wire cross-section: 12 x 0,14mm²Insulation resistance: ≥10³Ω

Temperature range: -25...85°C

Material: PUR halogen-free

Rated current (at 30°): 2 A

included in: G-SEK100-U-1E12-2000-OE

G-MEK063-U-6PM5-1E12-2000-OE

spare part: EG-MEK-IKB12-2000-OE