

# G-MEK100-R

Technical specifications



### Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

### Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

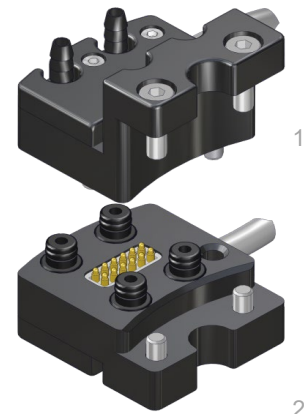
Can withstand 50,000 alternating cycles

Individual wiring

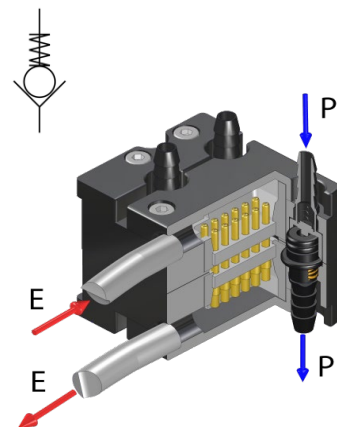
Coding of the interchangeable parts

Improved electrical connection by spring mounted poles

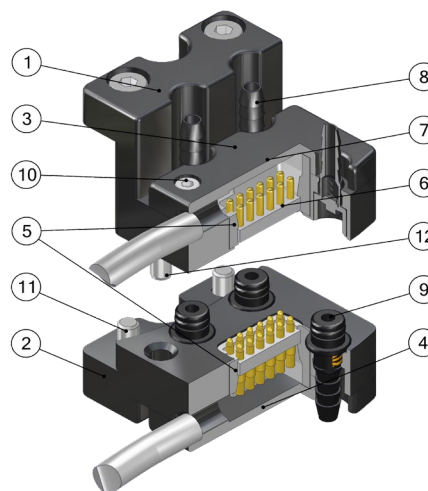
Automatic closing of pneumatic ducts by integrated check valves



Technical specifications		MEK063-R
Suitable for		MGW100, SWS100
Pneumatic ducts	number P	4
	nominal width NW [mm]	PR4
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	12
	rated current per pole I [A]	2
	rated voltage U (max. voltage) [V]	63 (120)
	contact resistance per pole R [mΩ]	<20
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,11
	base	0,06
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

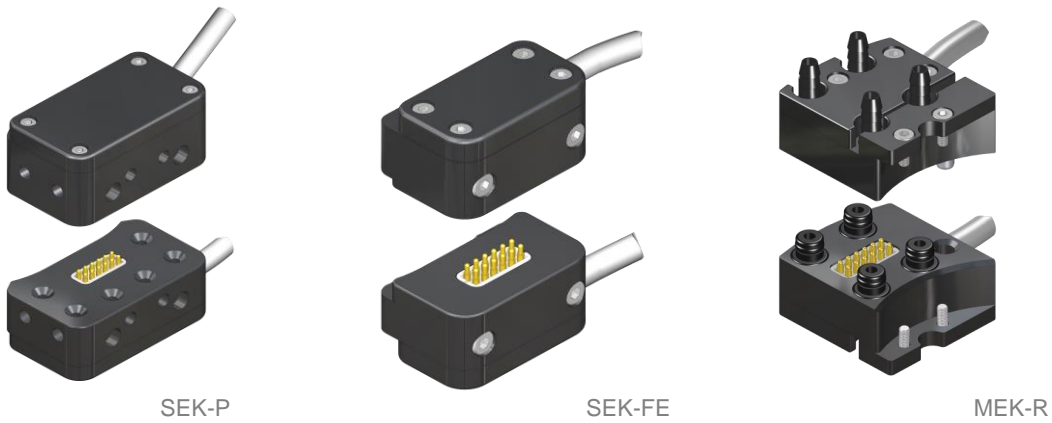


Pos.	Description
1	Upper assembly
2	Base
3	Upper cover
4	Lower cover
5	Insulation frame
6	Electrical bushing strip
7	Electrical plug strip
8	Female coupling (check valve)
9	Male coupling
10	Mounting screw
11	Mounting screw
12	Index pin
13	Cable (optional)

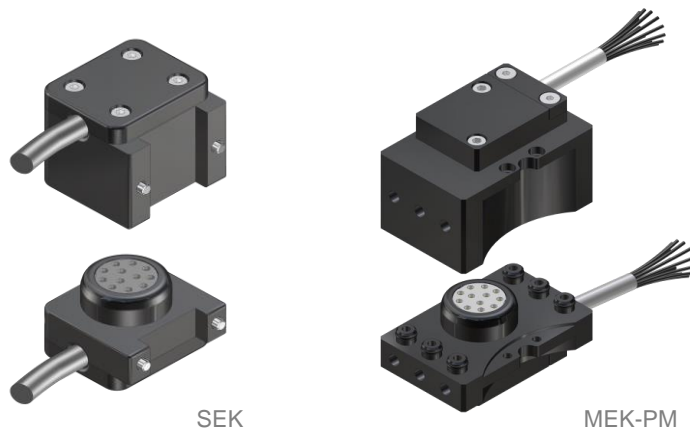


**Multi energy coupling Ø100 with check valve**

G-MEK100-O-4PR4	upper assembly, 4 x air, ID = 4 mm
G-MEK100-O-4PR4-1FE12	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles
G-MEK100-O-4PR4-1FE12-2000OE	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles, with 2000 mm cable, open end
G-MEK100-O-4PR4-1FE12-300-M12	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles, with 300 mm cable and M12 circular plug-in connector
G-MEK100-U-4PR4	base, 4 x air (suitable for check valve), ID = 4 mm
G-MEK100-U-4PR4-1FE12	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles
G-MEK100-U-4PR4-1FE12-2000OE	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles, with 2000 mm cable, open end
G-MEK100-U-4PR4-1FE12-300-M12	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles, with 300 mm cable and M12 cylindrical plug-in connector



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



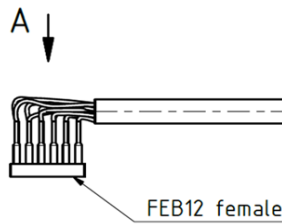
Products	Electrical connection	Cable variants
SEK / MEK-PM upper assembly	Insulating body with pin contacts	M8-bushing, M12-plug, open end
SEK / MEK-PM lower assembly	Insulating body with socket contacts	M8-plug, M12-bushing, open end



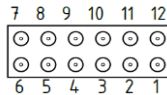
As standard, we offer the listed products for self-soldering.  
The contact assignment of the pre-assembled connections can be found in the following data sheets.

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	

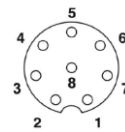


A  
FEB12 female  
solder side

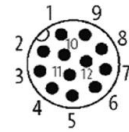


M8-bushing	M12-plug
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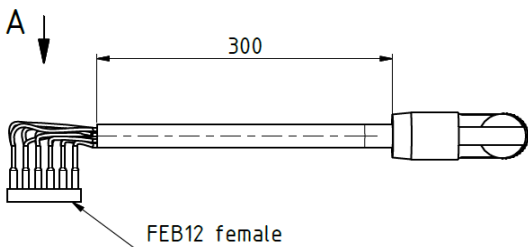
M8 female



M12  
Male



300-M8
300mm cable, circular connector M8-bushing

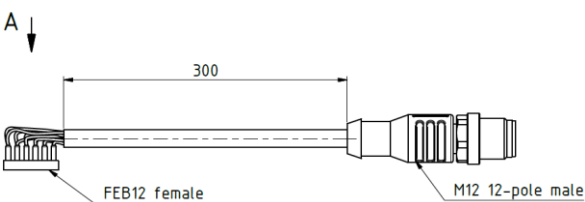


pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

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

300-M12
300mm cable, circular connector M12 plug

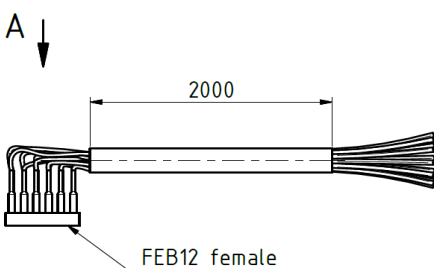


FEB12 female	colour	M12 male
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/pink	11
12	blue/red	12

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

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

2000-OE
2000mm cable, open end

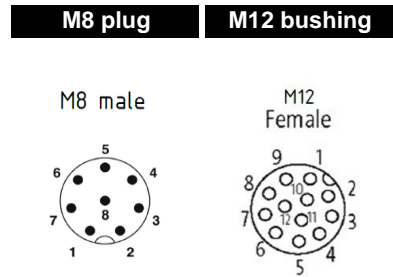


pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	black
10	violet
11	grey-pink
12	blue-red

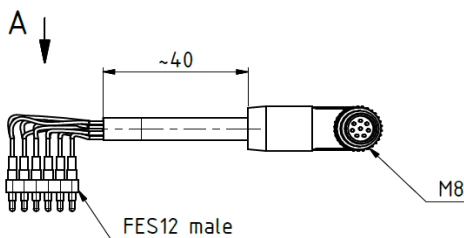
Open end
12 poles
Cable: drag chain suitable
Outer-Ø (D): 5,6 ± 0,2mm
Nominal voltage: ≤300V
Bending radius:
- fixed installation: >5 x D
- in motion: >10 x D
Wire cross-section: 12 x 0,14mm <sup>2</sup>
Insulation resistance: ≥10 <sup>3</sup> Ω
Temperature range: -25...85°C
Material: PUR halogen-free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

included in: G-SEK100-O-1FE12-2000-OE  
G-MEK063-O-4PR4-1FE12-2000-OE

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



**40-M8**  
40mm cable, circular connector M8 plug

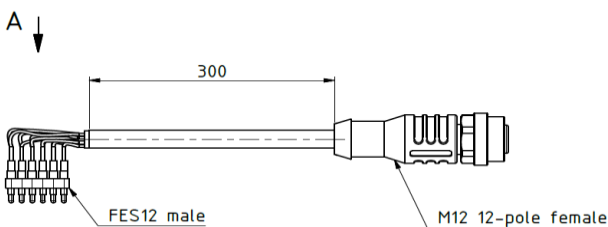


pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

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

**300-M12**  
300mm cable, circular connector M12 bushing

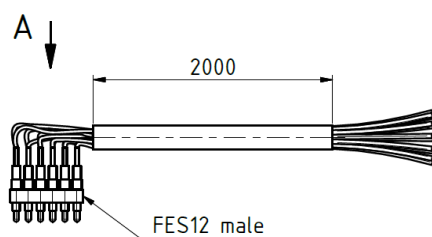


FES12 male	colour	M12 fem.
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/pink	11
12	blue/red	12

M12 bushing
12 poles (female)
Cable: drag chain suitable
12 x 0,14mm <sup>2</sup> , Ø5,6
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Insulation resistance: ≥10 <sup>3</sup> 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

**2000-OE**  
2000mm cable, open end



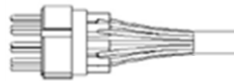
pin assignment	
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	black
10	violet
11	grey-pink
12	blue-red

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 <sup>2</sup>
Insulation resistance: ≥10 <sup>3</sup> 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

**IKS12**

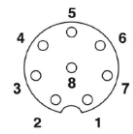
- Insulating body with pins
- 12 poles (male)
- Rated current per pole: 9A
- Contact resistance < 3mΩ



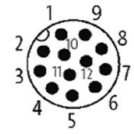
**M8 bushing**

**M12 plug**

M8 female

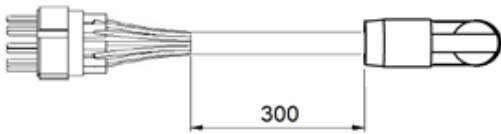


M12 Male



**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	---

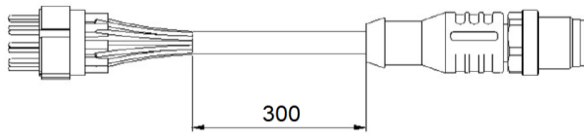
**M8 bushing**

- 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

**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 0,14mm<sup>2</sup>, Ø5,6
- According to IEC-61076-2-104
- Operating voltage: max 30 V
- Rated current (at 30°): 1,5 A
- Insulation resistance: ≥10<sup>3</sup>Ω
- Temperature range: -25...85°C
- Cable: PUR halogen-free

included in: G-SEK100-O-1E12-300-M12  
G-MEK063-O-6PM5-1E12-300-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

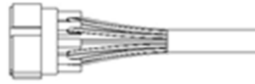
**Open end**

- 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 0,14mm<sup>2</sup>
- Insulation resistance: ≥10<sup>3</sup>Ω
- 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

**IKB12**

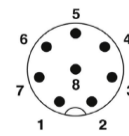
- Insulating body with bushings
- 12 poles (female)
- Rated current per pole: 9A
- Contact resistance < 3mΩ



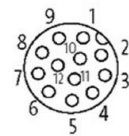
**M8 plug**

**M12 bushing**

M8 male

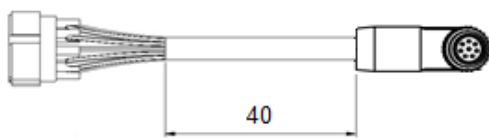


M12 Female



**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	---

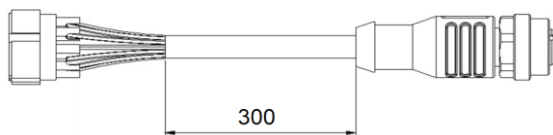
**M8 plug**

- 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

**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

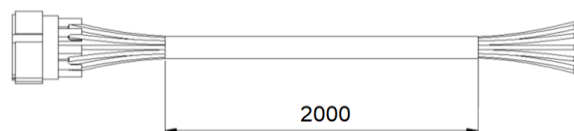
**M12 bushing**

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

included in: G-SEK100-U-1E12-300-M12  
G-MEK063-U-6PM5-1E12-300-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 0,14mm<sup>2</sup>
- Insulation resistance: ≥10<sup>3</sup>Ω
- 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