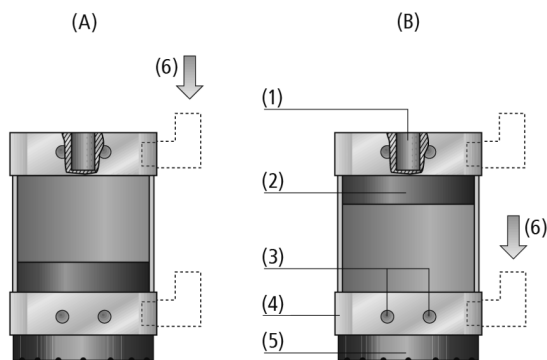


Magnetic Grippers SGM

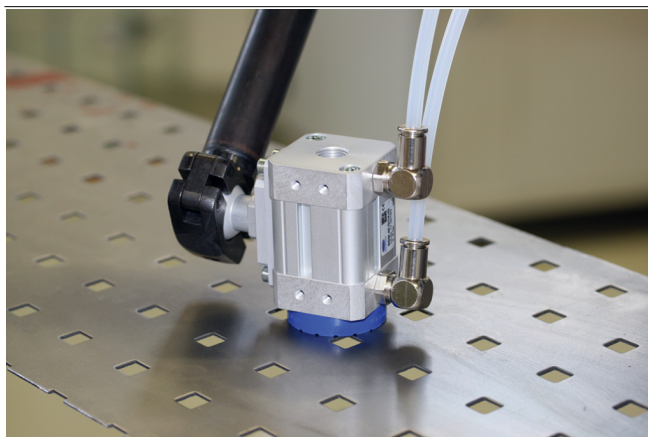
Suction area (Ø) from 30 mm to 70 mm



Magnetic Grippers SGM



System design Magnetic Grippers SGM



Magnetic grippers SGM being used for handling perforated metal sheets

Suitability for industry specific applications

Application

- Magnetic gripper for handling of perforated metal sheets, complex laser-cut workpieces and metal sheets with holes and apertures
- Handling of ferromagnetic workpieces

Design

- Robust aluminum housing (4) with permanent magnet (2)
- Clip-on, easy to replace friction ring (5)
- Bistable design: the magnet settings "grip" (A) and "deposit" (B) are maintained in event of power failure at the compressed air connection (6)
- Standard connection threads (1) in top cover; mounting threads (3) for holder systems HTS on three sides
- The holder system HTS offers several options for mounting a gripper onto the gripping apparatus; HTS...D version for interlocking and mounting two grippers
- SGM-S with piston control for sensor recognition of piston position of the magnetic gripper, can not be retrofitted

Product highlights

- Permanent magnet allows safe handling without voltage source
- Compact design and low weight
- Easily replaceable friction ring absorbs high lateral forces
- Robust design for use in welding cells
- Due to the possibility of interlocking also optimal for elongated workpieces

Magnetic Grippers SGM

Suction area (Ø) from 30 mm to 70 mm

Designation code Magnetic Grippers SGM

SGM	-	S	-	30	-	G1/8-IG	-	PNP
1		2		3		4		5

1 – Abbreviated designation

Code	Version
SGM	SGM

2 – Product addition

Code	Type
S	With piston control
HD	Heavy Duty

3 – Diameter

Code	Diameter in mm
30...70	ø 30 to 70

4 – Connection

Code	Connection
G1/8-IG	G1/8-IG (IG = female (F))
G1/4-IG	G1/4-IG

5 – Switching function sensor

Code	Type
NPN	Switches to minus
PNP	Switches to plus





Magnet gripper SGM is delivered assembled. It is available in three versions:

- Gripper of type SGM - available in various diameters
- Gripper of type SGM-HD - stainless-steel grip surface for robust applications - available in various diameters
- Gripper of type SGM-S - with a piston control by a sensor

Available spare parts: friction ring, proximity switch

Available accessories: holder hystem

Ordering data Magnetic Grippers SGM

Type*	Part no.
SGM 30 G1/8-IG	10.01.17.00162 
SGM 40 G1/4-IG	10.01.17.00163 
SGM 50 G1/4-IG	10.01.17.00164 
SGM 70 G1/4-IG	10.01.17.00165 
SGM-S 30 G1/8-IG NPN	10.01.17.00216
SGM-S 40 G1/4-IG NPN	10.01.17.00217
SGM-S 50 G1/4-IG NPN	10.01.17.00218
SGM-S 70 G1/4-IG NPN	10.01.17.00219
SGM-S 30 G1/8-IG PNP	10.01.17.00200
SGM-S 40 G1/4-IG PNP	10.01.17.00201
SGM-S 50 G1/4-IG PNP	10.01.17.00202
SGM-S 70 G1/4-IG PNP	10.01.17.00203
SGM-HD 30 G1/8-IG	10.01.17.00184
SGM-HD 40 G1/4-IG	10.01.17.00185
SGM-HD 50 G1/4-IG	10.01.17.00273
SGM-HD 70 G1/4-IG	10.01.17.00272

*Suitable screw in push fittings can be found under "Screw in push fittings" in section "Filters and Connections"

Magnetic Grippers SGM

Suction area (Ø) from 30 mm to 70 mm

Ordering data Spare parts Magnetic Grippers SGM

Type	Friction ring	Proximity switch NPN	Proximity switch PNP
SGM 30 G1/8-IG	10.01.17.00136	-	-
SGM 40 G1/4-IG	10.01.17.00137	-	-
SGM 50 G1/4-IG	10.01.17.00138	-	-
SGM 70 G1/4-IG	10.01.17.00139	-	-
SGM-S 30 G1/8-IG NPN	10.01.17.00136	10.01.17.00215	-
SGM-S 40 G1/4-IG NPN	10.01.17.00137	10.01.17.00215	-
SGM-S 50 G1/4-IG NPN	10.01.17.00138	10.01.17.00215	-
SGM-S 70 G1/4-IG NPN	10.01.17.00139	10.01.17.00215	-
SGM-S 30 G1/8-IG PNP	10.01.17.00136	-	10.01.17.00199
SGM-S 40 G1/4-IG PNP	10.01.17.00137	-	10.01.17.00199
SGM-S 50 G1/4-IG PNP	10.01.17.00138	-	10.01.17.00199
SGM-S 70 G1/4-IG PNP	10.01.17.00139	-	10.01.17.00199
SGM-HD 30 G1/8-IG	10.01.17.00136	-	-
SGM-HD 40 G1/4-IG	10.01.17.00137	-	-
SGM-HD 50 G1/4-IG	10.01.17.00138	-	-
SGM-HD 70 G1/4-IG	10.01.17.00139	-	-

Ordering data Accessories Magnetic Grippers SGM

Type*	Holder system HTS-A2	Holder system HTS-A3	Holder system HPS-SGM
SGM 30	10.01.17.00581	10.01.17.00558	10.01.17.00655
SGM 40	10.01.17.00581	10.01.17.00558	10.01.17.00655
SGM 50	10.01.17.00578	10.01.17.00576	10.01.17.00653
SGM 70	10.01.17.00578	10.01.17.00576	10.01.17.00653

*Complete with mounting screws

Type*	Holder system HTS-A2 D	Holder system HTS-A3 D
SGM 30	10.01.17.00586	10.01.17.00582
SGM 40	10.01.17.00586	10.01.17.00582
SGM 50	10.01.17.00587	10.01.17.00583
SGM 70	10.01.17.00587	10.01.17.00583

*Complete with mounting screws

Magnetic Grippers SGM

Suction area (Ø) from 30 mm to 70 mm

Technical data Magnetic Grippers SGM

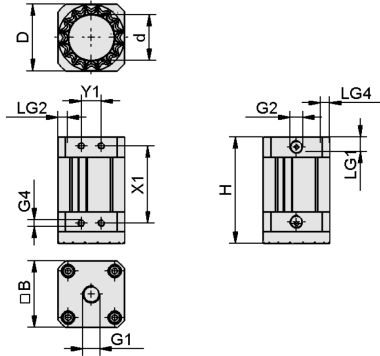
Type	Holding force max. with friction ring [N]*	Remaining holding force [N]	Pressure range (operating pressure) [bar]	Installation position	Control valve	Operating temperature [°C]	Weight [g]
SGM 30 G1/8-IG	35	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	130
SGM 40 G1/4-IG	100	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	240
SGM 50 G1/4-IG	180	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	440
SGM 70 G1/4-IG	290	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	715
SGM-S 30 G1/8-IG NPN	35	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	145
SGM-S 40 G1/4-IG NPN	100	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	255
SGM-S 50 G1/4-IG NPN	180	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	445
SGM-S 70 G1/4-IG NPN	290	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	730
SGM-S 30 G1/8-IG PNP	35	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	145
SGM-S 40 G1/4-IG PNP	100	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	255
SGM-S 50 G1/4-IG PNP	180	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	445
SGM-S 70 G1/4-IG PNP	290	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	730
SGM-HD 30 G1/8-IG	35	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	191
SGM-HD 40 G1/4-IG	100	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	342
SGM-HD 50 G1/4-IG	180	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	594
SGM-HD 70 G1/4-IG	290	0.3	3.5 ... 6.0 bar	BEL	Bistable	5 ... 70 °C	975

*The value given is a static value with no safety factor; based on a plate with a thickness of 2 mm. For system configurations with magnetic grippers SGM, a safety factor of $S = 3$ must be applied.

Magnetic Grippers SGM

Suction area (\varnothing) from 30 mm to 70 mm

Design data Magnetic Grippers SGM



SGM, SGM-HD

Magnetic Grippers SGM

Suction area (Ø) from 30 mm to 70 mm

Design data Magnetic Grippers SGM

Type	B [mm]*	d [mm]	D [mm]	G1	G2	G3	G4	H [mm]	LG1 [mm]	LG2 [mm]	LG4 [mm]	Lk [mm]	X1 [mm]	Y1 [mm]
SGM 30 G1/8-IG	30.1	16.5	29.5	G1/8"-F	G1/8"-F	-	M4-F	70.2	7	6	5	-	46	12
SGM 40 G1/4-IG	40.7	26.0	40.0	G1/4"-F	G1/8"-F	-	M4-F	70.2	11	6	7	-	46	12
SGM 50 G1/4-IG	50.7	35.0	50.0	G1/4"-F	G1/8"-F	-	M5-F	80.2	11	6	7	-	58	15
SGM 70 G1/4-IG	68.8	51.0	68.0	G1/4"-F	G1/8"-F	-	M5-F	80.2	11	6	8	-	58	15
SGM-S 30 G1/8-IG NPN	30.1	16.5	29.5	G1/8"-F	G1/8"-F	M12x1-M	M4-F	70.2	7	6	5	300	46	12
SGM-S 40 G1/4-IG NPN	40.7	26.0	40.0	G1/4"-F	G1/8"-F	M12x1-M	M4-F	70.2	11	6	7	300	46	12
SGM-S 50 G1/4-IG NPN	50.7	35.0	50.0	G1/4"-F	G1/8"-F	M12x1-M	M5-F	80.2	11	6	7	300	58	15
SGM-S 70 G1/4-IG NPN	68.8	51.0	68.0	G1/4"-F	G1/8"-F	M12x1-M	M5-F	80.2	11	6	8	300	58	15
SGM-S 30 G1/8-IG PNP	30.1	16.5	29.5	G1/8"-F	G1/8"-F	M12x1-M	M4-F	70.2	7	6	5	300	46	12
SGM-S 40 G1/4-IG PNP	40.7	26.0	40.0	G1/4"-F	G1/8"-F	M12x1-M	M4-F	70.2	11	6	7	300	46	12
SGM-S 50 G1/4-IG PNP	50.7	35.0	50.0	G1/4"-F	G1/8"-F	M12x1-M	M5-F	80.2	11	6	7	300	58	15
SGM-S 70 G1/4-IG PNP	68.8	51.0	68.0	G1/4"-F	G1/8"-F	M12x1-M	M5-F	80.2	11	6	8	300	58	15
SGM-HD 30 G1/8-IG	30.1	16.5	29.5	G1/8"-F	G1/8"-F	-	M4-F	70.2	7	6	5	-	46	12
SGM-HD 40 G1/4-IG	40.7	26.0	40.0	G1/4"-F	G1/8"-F	-	M4-F	70.2	11	6	7	-	46	12
SGM-HD 50 G1/4-IG	50.7	35.0	50.0	G1/4"-F	G1/8"-F	-	M5-F	80.2	11	6	7	-	58	15
SGM-HD 70 G1/4-IG	68.8	51.0	68.0	G1/4"-F	G1/8"-F	-	M5-F	80.2	11	6	8	-	58	15

*Contact surface of the grippers (round) corresponds to dimension B

Multimedia product presentation

Medium

Product video

Link

<https://vimeo.com/803893026>