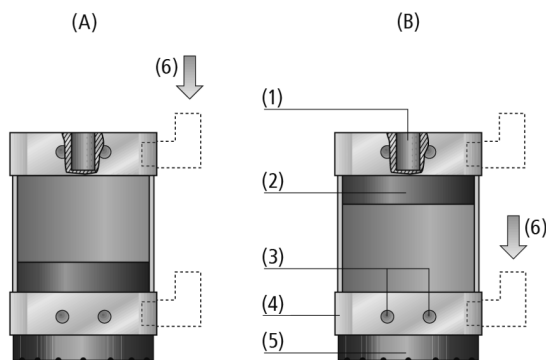


# Magnetic Grippers SGM

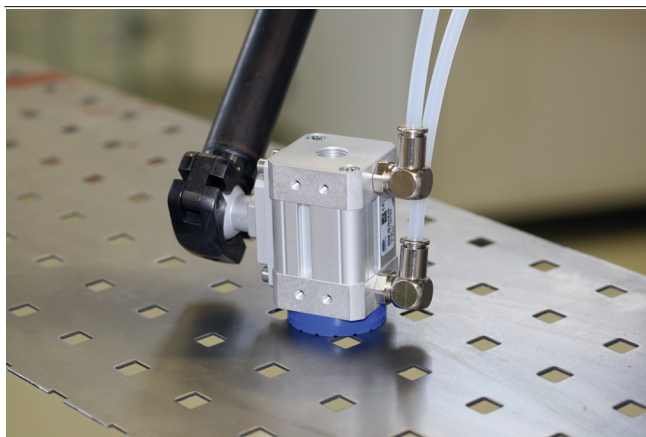
Suction area (Ø) from 30 mm to 70 mm



Magnetic Grippers SGM



System Design Magnetic Grippers SGM



Magnetic grippers SGM being used for handling perforated metal sheets

## Suitability for Industry Specific Applications

### Applications

- 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

<b>SGM</b>	-	<b>S</b>	-	<b>30</b>	-	<b>G1/8-IG</b>	-	<b>PNP</b>
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
SGM	30	10.01.17.00581	10.01.17.00558
SGM	40	10.01.17.00581	10.01.17.00558
SGM	50	10.01.17.00578	10.01.17.00576
SGM	70	10.01.17.00578	10.01.17.00576

\*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

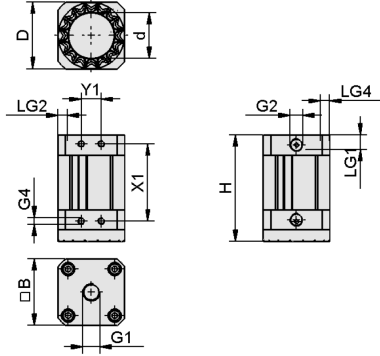
Type	Holding force max. friction ring [N]*	Remaining force [N]	Pressure range (operating pressure) [bar]	Installation position	Control valve	Operating temperature [°C]	Weight [g]
SGM 30 G1/8-IG	35	0.3	3.5 ... 6.0 bar	Any	Bistable	5 ... 70 °C	130
SGM 40 G1/4-IG	100	0.3	3.5 ... 6.0 bar	Any	Bistable	5 ...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

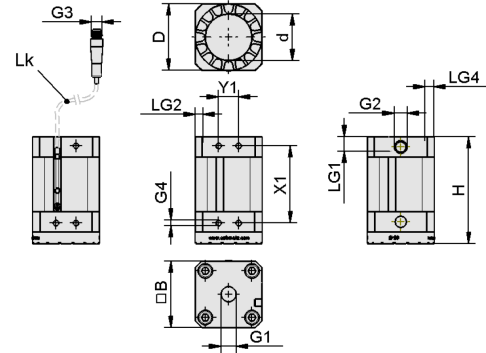
# Magnetic Grippers SGM

Suction area ( $\emptyset$ ) 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