

Magnetic Catches with Sensors / Door Limit Switches

Magnetic Catches with Sensors / Ball Catches

Door Limit Switches

BCWS Body Side

Body Side Wiring Diagram

Terminal

Performance

Detection Distance	As Shown Below
Max. Operating Voltage	DC100V
Max. Operating Current	0.5A
Max. Operating Power	10W
Contact Resistance	150mΩ
Withstand Voltage	DC200V 1min

AC Unusable

Part Name **Material**

Main Body	ABS
Magnet	Ferrite
Terminal	SUS304 Equivalent

Part Number	Mass (g)	Unit Price	Volume Discount Rate
Type No.		1 ~ 9 pc (s).	10~50
BCWS 1	19		

Ordering Example **Part Number**
Example **BCWS1**

Terminal Type

MGST

Operating Properties of Switch

Operating Force (OF) (N/gf)	3.43(350)max.
Returning Force (RF) (N/gf)	0.49(50)min.
ON Distance (PT)	1.8mm max.
Hysteresis Range (MD)	0.2~0.8mm
Returning Position (RP)	4.0mm max.

Rating

Resistive Load	Lamp Load	Inductive Load
AC125V 5A	1.5A	3A
AC250V 5A	-	3A
DC30V 5A	-	1.5A

Part Number	Retention Force (kgf)	Case Color	Mass (g)	Unit Price	Volume Discount Rate
Type No.				1 ~ 4 pc (s).	5~50
MGST 1	3	Gray	52		
2					

Ordering Example **Part Number**
Example **MGST1**

Performance Overview

Electrical Performance	Insulation Resistance (Initial)	100MΩ or More (with 500VDC Insulation Resistance Meter)	Service Life	Mechanical Life	100,000 Times or More (Open-Close Frequency: 60 times/min.)	Operating Conditions	Operating Temperature	-20 ~ +80°C (No to be frozen in low temperature)
	Withstand Voltage	Between Contact Points: 1,000VAC/min. (Initial) Between Each Terminal and Non-charging Metal Part: 2,100VAC/min. Between Each Terminal and Ground: 2,100VAC/min.		Electrical Life	50,000 Times or More (Resistance Load 250VAC, 5A) 30,000 Times or More (Lamp Load 125VAC, 15A)		Open/Close Frequency	20 times/min.
			Degree of Protection	IP40		Allowable Operating Frequency	Mechanical: 60 times/min., Electrical: 20 times/min.	

3 Wire Magnetic Catches

HMGR-T

When the main body and the plate are in contact, White-Red conducts.
When the main body and the plate are separated, White-Black conducts.

Max. Contact Capacity
AC250V, 3A
DC125V, 0.4A

Part Name **Material** **Surface Treatment**

Main Body	Polyethylene	-
Plate	SPCC	Trivalent Chromate

Part Number	R	Retention Force (kgf)	Mass (g)	Unit Price	Volume Discount Rate
Type				1 ~ 9 pc (s).	10~100
HMGR-T	150 2000	2	43		

Ordering Example **Part Number** - R
Example **HMGR-T** - 150

The default R dimension is 150 unless specified.

Wire Connection Type

MGSR

Performance

Maximum ON/OFF Power	10W
Maximum ON/OFF Voltage	100V DC
Maximum ON/OFF Current	0.5A DC
Maximum Contact Resistance	0.15Ω *1
Operating Temp. Range	0 ~ 60°C
Lead Wire	UL1007 AWG#26 / Black
Lead Wire Tensile Strength	1kgf

*1: Lead wire conductor resistance is excluded.

Part Name **Material** **Surface Treatment**

① Main Body	Polycarbonate	-
② Catch Plate	SPCC	Nickel Plating
③ Back Plate	SPCC	Nickel Plating

Part Number	Retention Force (kgf)	Mass (g)	Unit Price	Volume Discount Rate
Type			1 ~ 4 pc (s).	5~200
MGSR 1	3	28		
2				

Ordering Example **Part Number**
Example **MGSR2**

Caution

- Do not apply any strong impacts since a lead switch is used.
 - Do not use or store in places with strong magnetic fields.
 - Carefully keep magnetic materials (particles) and adhesive objects and etc. away from the attraction surface of the product.
- To mount it on a nonmagnetic object (wood, plastic, glass, aluminum, etc.), mount the included back plate or a similar magnetic object on the mounting surface.

Magnetic Catches with Switch

MGSTK

There is no catch plate.

Performance

Circuit Type	Circuit, 1 Contact, Normally Closed
Rating	30VDC 10mA (Resistive Load)
Maximum ON/OFF Voltage	500VAC/min.
Maximum Contact Resistance	100MΩ or More (500VDC)
Operating Temp. Range	-10°C ~ +70°C
Lead Wire	For IL-G of Japan Aviation Electronics
Lead Wire Tensile Strength	1kgf

Part Name **Material** **Surface Treatment**

Main Body	Polypropylene	-
Magnet	Ferrite	-

Part Number	Retention Force (kgf)	Case Color	Mass (g)	Unit Price	Volume Discount Rate
Type				1 ~ 9 pc (s).	10~49 50~200
MGSTK	3	Black	13		

For orders larger than indicated quantity, please check with WOS.

Ball Catches

BCAS (Stainless Steel)
BCASS (Stainless Steel)
BCASD (Zinc Die Cast)

Part Name **Material** **Surface Treatment**

BCAS	SUS316	-
BCASS	SUS304	-
BCASD	Zinc Die Cast	Chrome Plating

Part Number	Type	A	B	C	D	d	e	F	G	T	I	J	K	N	L	R	(S)	Latching Force N (kgf)	Unlatching Force N (kgf)	Mass (g)	Unit Price		
																					BCAS	BCASS	BCASD
BCAS	32	25	8	4	3.2	6.2	18	9	2	18	11	8	6.5	3.2	6	11.5	17 (1.7)	8 (0.8)	12				
BCASS	43	35	8	5.9	3.2	6.2	28.4	10	2.5	25	16	7.5	8.5	4.5	6	13.5	20 (2)	13 (1.3)	16				
BCASD	50	40	10	7.5	4.2	8.2	31.5	12.2	2.9	30	20	9	10.3	6	7.7	15.9	23 (2.3)	18 (1.8)	28				
BCASD	70	60	13	13			51	17	4	42	30	10.5	15	10	10.5	23	56 (5.7)	38 (3.9)	78				

Ordering Example **Part Number**
Example **BCAS50**