



180 Degree Opening/Closing Wide Angle Gripper Double Acting/Single Acting

# HDL Series

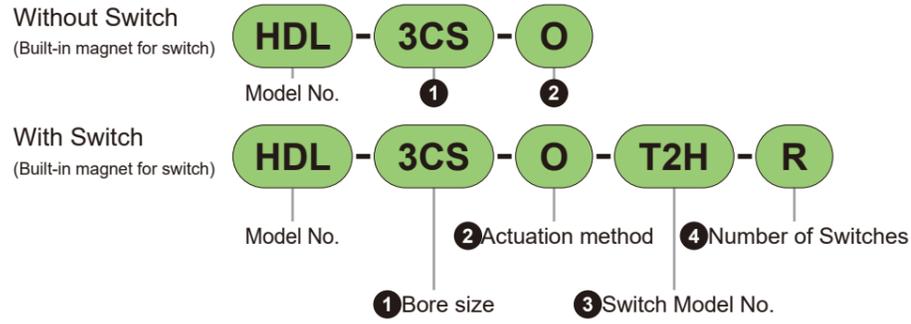
●Opening/closing angle: 0 to 180°



# HDL Series

Model No. Notation Method

## Model No. Notation Method



### ① Bore Size (mm)

Code	Content
3CS	φ25
4CS	φ40

### ② Actuation method

Code	Content
Blank	Standard (Double Acting)
O	Single Acting Type (Normally Open: )
C	Single Acting Type (Normally Closed: )

### ③ Switch Model No.

For switch details, please refer to P. 573.  
Switches are included with the product and shipped.

Contact	Indicator LED Special Function	Wiring (Output)	Load Voltage (V)		Load Current (mA)		Lead wire *1	
			AC	DC	AC	DC	Straight	L-shape
Solid State	1-Color	2-wire	-	10 to 30	-	5 to 20 *2	T2H□	T2V□
	1-Color Flexible Lead Wire	2-wire	-	10 to 30	-	5 to 20 *2	T2HR3	T2VR3
	1-Color	3-wire (NPN)	-	30 or less	-	100 or less	T3H□	T3V□
		3-wire (PNP)	-				T3PH□	T3PV□

\*1: For "□" in the switch model number, enter the code selected from the "Lead wire length" table.  
\*2: The maximum load current value above, 20 mA, is at 25 °C. If the switch operating ambient temperature is higher than 25 °C, it will be lower than 20 mA. (At 60 °C, it will be 5 to 10 mA.)  
\*3: Switches other than the model numbers listed above are also available. (Custom Product) For details, see P. 573.

### ④ Number of Switches

Code	Content
R	With 1 pc. on Open Side
H	With 1 pc. on Close Side
D	With 2 pcs

## Switch Single Unit Model No. Notation Method

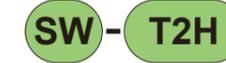
●For switch T□H□

• Switch body + Mounting bracket set \*1



③ Switch Model No.

• Switch body



③ Switch Model No.

• Mounting bracket set \*1



●For switch T□V□

• Switch body + Mounting bracket set \*1



③ Switch Model No.

• Switch body



③ Switch Model No.

• Mounting bracket set \*1



Code	Content
R	Open side
H	Closed side

Code	Content
R	Open side
H	Closed side

\*1: The weight of the mounting bracket is 1.5 g.

### \*Lead wire length

Code	Content
Blank	1 m (Standard)
3	3 m (Option)
5	5 m (Option)

Example) Lead wire length  
1 m T2H③  
3 m T2H⑤  
5 m T2H⑤

Hand (Gripper)

LSH-HP  
LSH  
FH100  
BSA2  
BHA  
BHG  
BHE  
LHA  
LHAG  
HAP-1C  
HAP-2 to 4CS  
HKP  
HCP  
HGP  
LST-HP  
HLF2  
HLA/HLB  
HLAG/HLBG  
HLC  
HLD  
HMC-HP  
HMF  
HMF-G  
HMF-B  
HFP  
FH500  
HBL  
HJL  
HMD  
HDL  
HJD  
Cylinder Switch  
Ending

Hand (Gripper)

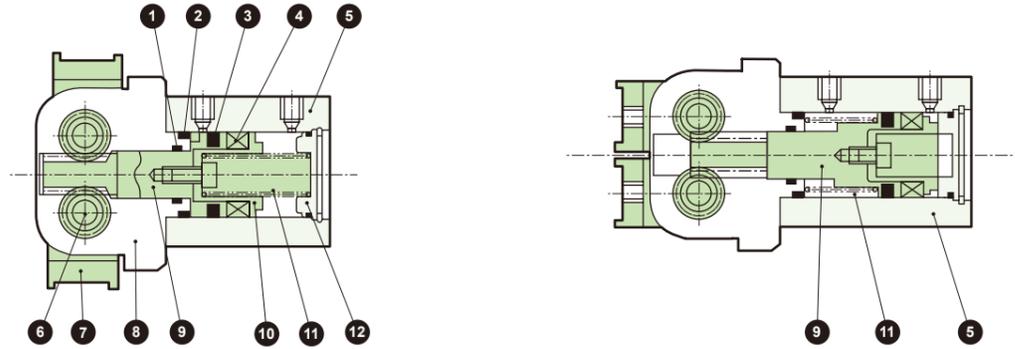
LSH-HP  
LSH  
FH100  
BSA2  
BHA  
BHG  
BHE  
LHA  
LHAG  
HAP-1C  
HAP-2 to 4CS  
HKP  
HCP  
HGP  
LST-HP  
HLF2  
HLA/HLB  
HLAG/HLBG  
HLC  
HLD  
HMC-HP  
HMF  
HMF-G  
HMF-B  
HFP  
FH500  
HBL  
HJL  
HMD  
HDL  
HJD  
Cylinder Switch  
Ending



## Internal Structure Diagram/Material

● Standard (double acting), O (normally open) type

● C (Normally Closed) Type



**Do not disassemble**

No.	Part Name	Material	Remarks	No.	Part Name	Material	Remarks
1	Rod Packing	Nitrile Rubber		7	Finger	Steel	
2	Gasket	Nitrile Rubber		8	Adapter	Aluminum Alloy	
3	Piston Packing	Nitrile Rubber		9	Piston A	Stainless Steel	
4	Magnet			10	Piston B	Polyacetal	
5	Body	Aluminum Alloy		11	Coil Spring	Stainless Steel	C, O type only
6	Pinion gear	Steel		12	Cover	Polyacetal	

MEMO

Hand (Gripper)

LSH-HP

LSH

FH100

BSA2

BHA

BHG

BHE

LHA

LHAG

HAP-1C

HAP-2 to 4CS

HKP

HCP

HGP

LST-HP

HLF2

HLA/HLB

HLAG/HLBG

HLC

HLD

HMC-HP

HMF

HMF-G

HMFB

HFP

FH500

HBL

HJL

HMD

**HDL**

HJD

Cylinder Switch

Ending

Hand (Gripper)

LSH-HP

LSH

FH100

BSA2

BHA

BHG

BHE

LHA

LHAG

HAP-1C

HAP-2 to 4CS

HKP

HCP

HGP

LST-HP

HLF2

HLA/HLB

HLAG/HLBG

HLC

HLD

HMC-HP

HMF

HMF-G

HMFB

HFP

FH500

HBL

HJL

HMD

**HDL**

HJD

Cylinder Switch

Ending