



Hybrid robot
Single axis unit

HRL-1 Series

● Load capacity: 5, 10, 15, 25, 50, 65 kg



Specifications

Descriptions		HRL-1□-05	HRL-1□-10	HRL-1□-15	HRL-1□-15H	HRL-1□-25	HRL-1□-50	HRL-1□-65
Load capacity (vertical) *1 kg		5	10	15		25	50	65
Basic cylinder		SCM-00-20D	SCM-00-25D	SCM-00-32D		SCM-00-40D	SCM-00-50D	SCM-00-63B
Bore size mm		20	25	32		40	50	63
Guide rod diameter mm		13	13	16	20	20	25	30
Speed mm/s		50 to 500						
Working pressure MPa		0.3 to 0.7						
Adjustable stroke range *2 mm		0 to -10 mm (push side)						
Shock absorber *3		NCK-00-0.7-P4		NCK-00-1.2-P4		NCK-00-12-P4		
Product weight kg	Basic	2 + (0.0033 × stroke length)	2.1 + (0.0037 × stroke length)	2.8 + (0.0051 × stroke length)	2.9 + (0.0069 × stroke length)	10.8 + (0.0081 × stroke length)	11.9 + (0.0122 × stroke length)	13.3 + (0.02 × stroke length)
	Long body	2.3 + (0.0033 × stroke length)	2.4 + (0.0037 × stroke length)	3.1 + (0.0051 × stroke length)	3.2 + (0.0069 × stroke length)	12.5 + (0.0081 × stroke length)	13.6 + (0.0122 × stroke length)	15 + (0.02 × stroke length)
Movable part weight kg	Basic	0.9 + (0.0025 × stroke length)	0.9 + (0.0027 × stroke length)	1.3 + (0.0041 × stroke length)	1.6 + (0.0059 × stroke length)	4.1 + (0.0066 × stroke length)	5.2 + (0.0102 × stroke length)	6.1 + (0.0137 × stroke length)
	Long body	1.0 + (0.0025 × stroke length)	1.0 + (0.0027 × stroke length)	1.5 + (0.0041 × stroke length)	1.8 + (0.0059 × stroke length)	4.4 + (0.0066 × stroke length)	5.7 + (0.0102 × stroke length)	6.8 + (0.0137 × stroke length)
Speed controller *4		SC3W-6-6-P4				SC3W-6-8-P4	SC3W-8-8-P4	

*1: Load capacity varies with air pressure, speed and absorption energy. (Value is for reference.)

*2: Adjustable stroke is not available for pulled side.

*3: The shock absorber is built into the body. Use within the following allowable shock absorber tolerance values at the working speed and working air pressure.

- HRL-1□F-05/10/15/15H Pull side: 70% or less
- HRL-1□F-25/50/65 Pull side: 65% or less
- Other than the above: 74% or less

*4: The speed controller is an attachment.

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Compatibility table by variation

Applicable bore size		Basic
ø20 to 63	P4	●
	P40	▲
	P41	▲

● : Standard ○ : Made to order ▲ : Contact CKD □ : Not applicable

How to order

Without switch *1

HRL-1 **L** - **05** - **350** - **Q** ————— **P4**

With switch

HRL-1 **L** - **05** - **350** - **Q** - **SW11** - **R** - **P4**

A Basic shape

F Switch quantity

B Load capacity

C Stroke length

D Position locking mechanism
*2

E Switch model No.

Code	Content
A Basic shape	
Blank	Basic
L	Long body
F	Basic front flange
LF	Long body front flange
B Load capacity (vertical)	
05	5 kg
10	10 kg
15	15 kg
15H	15 kg
25	25 kg
50	50 kg
65	65 kg
C Stroke length (mm)	
[Basic body shape]	
50, 75, 100, 125, 150, 200, 250, 300	
[Long body shape]	
350, 400, 450, 500, 550, 600	
D Position locking mechanism	
Blank	No
Q	Yes
E Switch model No.	
Refer to the compatibility table on Intro Pages 21 to 24 for switch model No.	
F Switch quantity	
R	1 on rod side
H	1 on head side
D	2
T	3

⚠ Precautions for model No. selection

*1: When without switch is selected, with/without cylinder switch rail depends on whether position locking is selected.

Without position locking mechanism: Without switch rail

With position locking mechanism: With switch rail

*2: The position locking mechanism can be installed on the head side of the cylinder only.