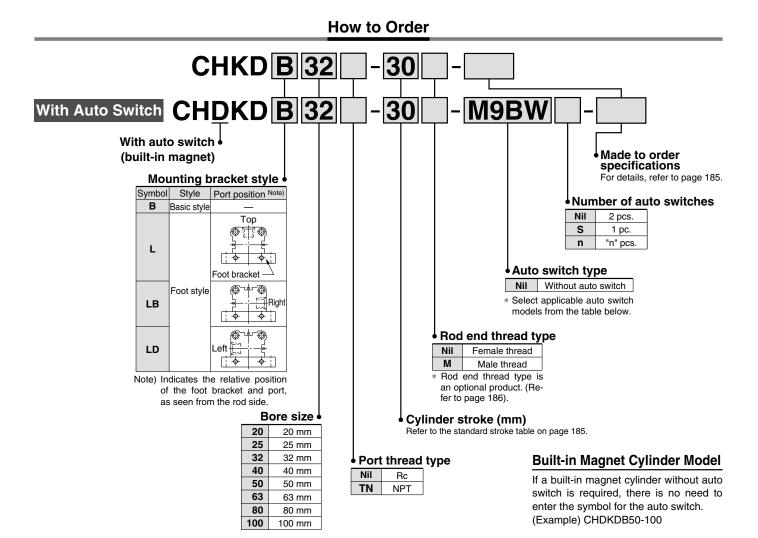
# JIS Standard Compact Hydraulic Cylinder Series CH

10 MPa

Ø20, Ø25, Ø32, Ø40, Ø50, Ø63, Ø80, Ø100



Applicable Auto Switches: Refer to pages 347 to 406 for further details on each auto switch.

			ō		Load voltage			Auto swite	Lead wire length (m)				D			
Туре	Special function	Electrical	ndicator light	Wiring		DC	AC	Electrical en	0.5	1	3 (L)	5	Pre-wired connector	Applicable load		
		entry	말	(output)		DC	AC	Perpendicular	(Nil)	(M)		(Z)	connector			
				3-wire (NPN)		5 V, 12 V		M9NV	M9N	•	•	•	0	0	10 -11	
_	<del></del>			3-wire (PNP)				M9PV	M9P	•	•	•	0	0	IC circuit	
switch				2-wire	4 15	12 V		M9BV	M9B	•	•	•	0	0	_	
	Diagnostic indication (2-color display)			3-wire (NPN)		5 V, 12 V		M9NWV	M9NW	•	•	•	0	0	IC circuit	Relay PLC
state		Grommet	Yes	3-wire (PNP)				M9PWV	M9PW	•	•		0	0		
S				2-wire		12 V		M9BWV	M9BW	•	•	•	0	0	_	1 20
Solid	Water resistant			3-wire (NPN)		5 V, 12 V		M9NAV	M9NA	0	0		0	0	IC circuit	
S	(2-color display)			3-wire (PNP)				M9PAV	M9PA	0	0	•	0	0	IC circuit	
	(2 obioi diopidy)			2-wire				M9BAV	M9BA	0	0		0	0	_	
균			Yes	3-wire (NPN)	_	5 V	_	*A96V	*A96	•	_		—	_	IC circuit	_
Reed switch		Grommet			24 V	10.1/	100 V	*A93V	*A93	•	_	•	_	_	_	Relay
			No			12 V	100 V or less	*A90V	*A90	•	_	•	_	_	IC circuit	PLC

- \* Lead wire length symbols: 0.5 m ······ Nil (Example) M9NW
  - 1 m ····· M (Example) M9NWM 3 m ···· L (Example) M9NWL
  - 5 m ····· Z (Example) M9NWZ
- \* Solid state auto switches marked "O" are produced upon receipt of order.
- The D-A9 model cannot be mounted on ø50.
- \* For ø32 to ø100, there are applicable auto switches other than listed. Refer to page 193 for details.
- \* For details about auto switches with pre-wired connector, refer to pages 389 and 390.
- \* Cylinders with auto switch will be shipped together with the auto switch and auto switch mounting bracket (ø32 to ø50) (not assembled).



## JIS Standard Compact Hydraulic Cylinder: 10 MPa Series CH KD

#### **Specifications**



Bore size (mm)	20	25	32	40	50	63	80	100			
Action	Double acting/Single rod										
Fluid	Hydraulic fluid										
Nominal pressure				10 N	ИРа						
Proof pressure	15 MPa										
Maximum allowable pressure	13 MPa										
Minimum operating pressure	0.3 MPa										
Ambient and fluid temperature	Without auto switch: -10° to 80°C										
Ambient and haid temperature	With auto switch: -10° to 60°C										
Piston speed	8 to 100 mm/s										
Cushion	None										
Rod end thread	Female thread, Male thread										
Stroke length tolerance	<sup>+0.8</sup> mm										
Mounting style	Basic style (through hole), Foot style										

Note) Refer to page 134 for definitions of terms related to pressure.



#### Made to order specifications (For details, refer to pages 195 to 197)

Symbol	Symbol Specifications						
-XC61 Compatible with CHQHB series (14 M							
-XC63 Intermediate stroke type (Built-in space							
-XC64	With air release valve						

#### JIS symbol



#### **Standard Strokes**

Stroke (mm)	5	10	15	20	25	30	35	40	45	50		ediate ilt-in sp				Interm (Bu	ediate ilt-in sp	100 stroke pacer ty	[XC63] rpe)	
(mm)											55	60	65	70		80	85	90	95	
20, 25	0	0	0	0	0	0	0	0	0	0	_	_	_	_	_	_	_	_	_	_
32	0	0	0	0	0	0	0	0	0	0					0	_	_	_	_	_
40, 50, 63 80, 100	0	0	0	0	0	0	0	0	0	0					0					0

O: Standard stroke (dedicated cylinder tube)

# Manufacture of Intermediate Stroke Cylinders [XC63] (Built-in spacer type)

Intermediate strokes in 5 mm increments can be manufactured by installing spacers inside standard stroke cylinders.

55, 60, 65 and 70 mm stroke cylinders have the same overall length as a 75 mm stroke cylinder, and 80, 85, 90 and 95 mm stroke cylinders have the same length as a 100 mm stroke cylinder.

Refer to the Made to Order Specifications on page 196 for the ordering procedure.

### **Hydraulic Fluid Compatibility**

Hydraulic fluid	Compatibility
Standard mineral hydraulic fluid	Compatible
W/O hydraulic fluid	Compatible
O/W hydraulic fluid	Compatible
Water/Glycol hydraulic fluid	*
Phosphate hydraulic fluid	Not compatible

<sup>\*</sup> Consult with SMC.

CHQ



CHN

CHM CHS

CH2□

СНА

Related Equipment





<sup>:</sup> Intermediate stroke XC63 (built-in spacer type)