

Magnetically Coupled Rodless Cylinder: Low Profile Guide Type

Series CY1F

ø10, ø15, ø25

How to Order

CY1F 10 R - 300 - M9BW -

Bore size (mm)

10	10
15	15
25	25

Thread type

Symbol	Type	Bore size (mm)
Nil	M	10, 15
	Rc	
TN	NPT	25
TF	G	

• Made to Order
Refer to page 1240 for details.

• Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

• Auto switch

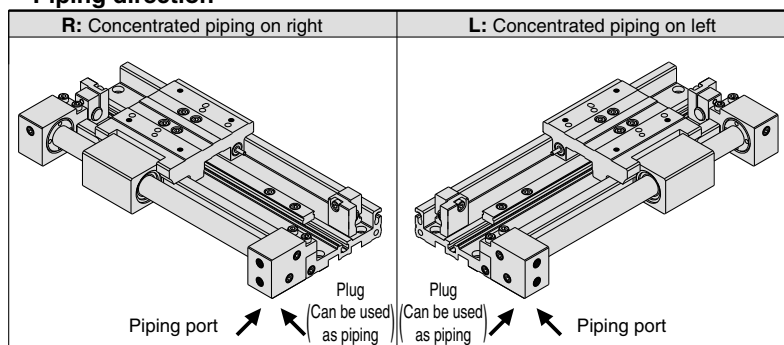
Nil	Without auto switch (Built-in magnet)
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* For the applicable auto switch model, refer to the table below.

• Adjustment bolt

Nil	Both sides are standard
AL	Right: Standard For 25 mm adjustment on left
AR	For 25 mm adjustment on right Left: Standard
A	For 25 mm adjustment on both sides

• Piping direction



CY3B
CY3R

CY1S

CY1L

CY1H

CY1F

CYP

Applicable Auto Switch/Refer to pages 1263 to 1371 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage		Auto switch model		Lead wire length (m)				Pre-wired connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
Solid state switch	Diagnostic indication (2-color display)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)		12 V	M9PV	M9P	●	●	●	○	○		
				2-wire		12 V	M9BV	M9B	●	●	●	○	○		
				3-wire (NPN)		5 V, 12 V	M9NWV	M9NW	●	●	●	○	○		
				3-wire (PNP)	24 V	12 V	M9PWV	M9PW	●	●	●	○	○	IC circuit	Relay, PLC
				2-wire		12 V	M9BWV	M9BW	●	●	●	○	○		
Feed switch		Grommet	Yes	3-wire (NPN equiv.)	—	5 V	A96V	A96	●	—	●	—	●	IC circuit	—
				2-wire	24 V	12 V	A93V	A93	●	—	●	—	●	—	Relay, PLC
						100 V or less	A90V	A90	●	—	●	—	●	IC circuit	Relay, 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 with a "○" symbol are produced upon receipt of order.

* For details about auto switches with pre-wired connector, refer to pages 1328 and 1329.

* Normally closed (NC = b contact) solid state auto switches (D-F9G/F9H types) are also available. Refer to page 1290 for details.

* The auto switch is shipped together, but not assembled.

D-□

-X□

Individual

-X□

Technical data

Series CY1F



Made to Order Specifications
(For details, refer to pages 1401 and 1405.)

Symbol	Specifications
-XB10	Intermediate stroke (Using exclusive body)
-XB11	Long stroke

Specifications

Bore size (mm)	10	15	25
Fluid	Air		
Lubrication	Non-lube		
Action	Double acting		
Maximum operating pressure (MPa)	0.7		
Min. operating pressure (MPa)	0.2		
Proof pressure (MPa)	1.05		
Ambient and fluid temperature (°C)	-10 to 60		
Piston speed (mm/s)	50 to 500		
Cushion	Built-in shock absorber		
Stroke length tolerance (mm)	0 to 250st: $^{+1.0}_0$	251 to 1000st: $^{+1.4}_0$	1001st to: $^{+1.8}_0$
Stroke adjustment movable range (mm) ^{Note 1)}	-1.2 to 0.8		-1.4 to 0.6
Piping type	Centralized piping		
Port size ^{Note 2)}	M5 x 0.8		Rc 1/8

Note 1) The stroke adjustment movable range in the above table is that for the standard adjustment bolt. For more information, please refer to page 1247.

Note 2) With ø25, piping screws can be selected by the customer. (Refer to "How to Order".)

Shock Absorber Specifications

Applicable bore size (mm)		10, 15	25
Shock absorber model		RB0805-X552	RB1006-X552
Max. energy absorption (J)		0.98	3.92
Stroke absorption (mm)		5	6
Max. impact speed (m/s) ^{Note 1)}		0.05 to 5	
Max. operating frequency (cycle/min)		80	70
Spring force (N)	When extended	1.96	4.22
	When retracted	3.83	6.18
Mass (g)		15	25

Note 1) Represents the maximum absorption energy per cycle. Thus, the operation frequency can be increased with the absorption energy.

Note 2) The shock absorber service life is different from that of the CY1F cylinder depending on operating conditions. Refer to the Specific Product Precautions for the replacement period.

Standard Stroke

Bore size (mm)	Standard stroke (mm)	Maximum manufacturable stroke (mm)
10	50, 100, 150, 200, 250, 300	500
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	750
25	100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600	1200



* The stroke is available in 1 mm increments with the maximum stroke as the upper limit. For a stroke in the standard stroke range, suffix the part number with -XB10. If the stroke does not fall within the standard stroke range, suffix the part no. with -XB11. Refer to the Made to Order Specifications on pages 1401 and 1405.

Magnetic Holding Force

Unit: N

Bore size (mm)	10	15	25
Magnetic holding force	53.9	137	363