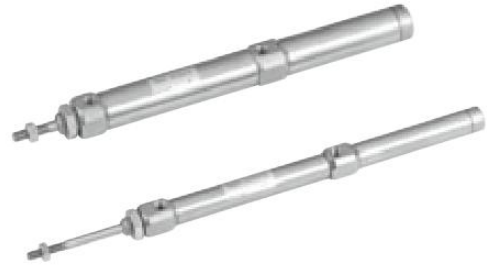
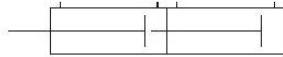


PEN CYLINDERS

Tandem Cylinders

Symbol



PEN CYLINDERS

Specifications

Item	Bore size mm [in.]	10 [0.394]	16 [0.630]
Operation type		Double acting type	
Mounting type		See the table at lower right.	
Media		Air	
Operating pressure range MPa [psi.]		0.15~0.7 [22~102]	
Proof pressure MPa [psi.]		1.05 [152]	
Operating temperature range °C [°F]		0~70 [32~158]	
Operating speed range mm/s [in./sec.]		50~750 [2.0~29.5]	
Cushion		Fixed type (Rubber bumper)	
Lubrication		Not required	
Port size		M5 X 0.8	

Bore Size and Stroke

Bore size	Stroke1 (standard) ^{Note}	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60	Maximum available stroke (St1 X2)+St2	mm [in.]	
				Stroke tolerance	
10	0, 5, 10, 15, 20, 25, 30		150	+1.5 0	
16	0, 5, 10, 15, 20, 25, 30		150	+0.059 0	

Remark: Figures in the table are a combination of stroke 1 (standard) and its corresponding stroke 2 (standard).

Note: For non-standard strokes, consult us.

Mounting Type

Mounting type	Name	Remark
1	Double foot type	Included at shipping
1A	Single foot type ^{Note}	Included at shipping
3	Flange type	Included at shipping
7	Clevis type (with pin)	Assembled and shipped
7-7C	Clevis type with supporting bracket (with pin)	Supporting bracket included at shipping

Note: When the total stroke (St1 X2 + St2) exceeds 60mm, use the double foot type for the foot bracket.

Order Codes

PB **DAT** **10 X 30 X 30** - - - - -

Pen cylinder series

DAT — Double acting single rod type, tandem cylinder

Cylinder specification
Blank — Standard cylinder
S — Cylinder with magnet

Bore size
 X
Stroke 1
 X
Stroke 2

Number of sensor switches
1 — With 1 sensor switch
2 — With 2 sensor switches
3 — With 3 sensor switches
 :
 :

Lead wire length
A — 1000mm [39in.]
B — 3000mm [118in.]

Sensor switch
Blank — No sensor switch
ZC253 — 3-lead wire, solid state type
ZC230 — 2-lead wire, solid state type
ZC201 — 2-lead wire, reed switch type
ZC205 — 2-lead wire, reed switch type
 ● For details, see p.1544.

Rod end accessory (Included at shipping)
Blank — No rod end accessory
I — With I type knuckle
Y — With Y type knuckle (with pin)
 ● As for the cylinder joints and the cylinder rod ends, order separately.

Mounting type (Brackets included at shipping other than clevis mounting type)
Blank — Basic type
1 — Double foot mounting type (Mountable only on head cover -M specification)
1A — Single foot mounting type ^{Note}
3 — Flange mounting type
7 — Clevis mounting type (with pin)
7-7C — Clevis mounting type with supporting bracket (with pin)

Note: When the total stroke (St1 X2 + St2) exceeds 60mm, use the double foot mounting type for the foot bracket.

Head cover piping specification (Not available for clevis mounting type)
Blank — Axial direction piping
A — Lateral piping
M — Lateral piping with mounting thread

● About Stroke 1 and Stroke 2

Stroke 1 is the stroke for cylinder 1.
 Stroke 2 is obtained by subtracting Stroke 1 from the stroke of cylinder 2.