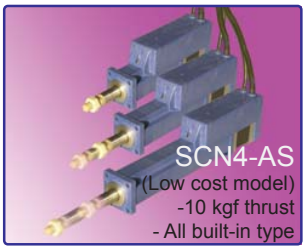
Dyadic Systems Co.,Ltd. MECHATRONICS CYLINDER

The versatile Mechatronics Cylinder series developed by Dyadic Systems is now available from US$295. (cable sold separately)

This servo actuator system is unique in that the motor, encoder, drive and the program memory are one integral package. Dyadic has developed the linear actuator drive mechanism such that the screw and nut are optimized for high accuracy, long life and low cost-high performance. This blend of low-cost and high performance could only have been realized by the advanced technology of Dyadic Systems.

These new product concepts give engineers a wider range of options to eliminate over-design.

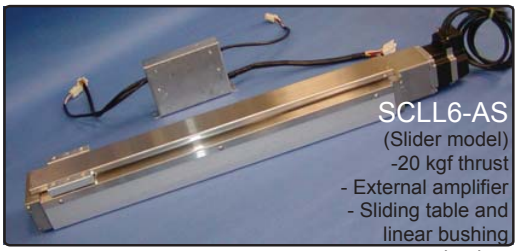


SCN4-AS
(Low cost model)
-10 kgf thrust
- All built-in type

SCN6-AB
(Standard model)
-20 kgf & 50kgf thrust
- External amplifier

SCN6-ABW
(Dust-proof model)
-20 kgf & 50kgf thrust
- Shaft seal with muffler for IP-54

RSA AC servo motor
- equivalent to 60W & 90W
- Easy programming
- External amplifier

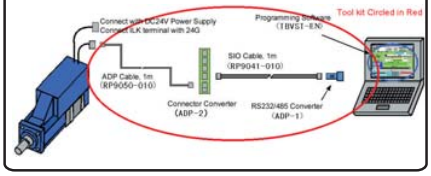


SCLL6-AS
(Slider model)
-20 kgf thrust
- External amplifier
- Sliding table and linear bushing mechanism

Teach Pendant
CTA-23

PLC Pendant
CTC-33

PC Tool
- Position programming tool
- Sequence programming tool



Products Specifications Overview

MODEL			SCN4-010-AS	SCN6-020-AB	SCN6-050-AB	SCN6-020-ABW	SCN6-050-ABW	SCLL6-020-AB	RSA0611	RSA0911
Stroke (mm)			50~150	50~300	50~300	50~300	50~300	300~1,000	(90W)	(60W)
Max. Thrust (N) / (kgf)			100 /10.2	200 / 20.4	500 / 51.0	200 / 20.4	500 / 51.0	200 / 20.2	0.6 N·m	0.9 N·m
Push mode max. Thrust (N)/(kgf)			70 / 7.1	140 / 14.2	350 / 35.5	140 / 14.2	350 / 35.5	140 / 14.2	-	-
Max. Speed (mm/s) * Typ. Data			400	200	100	200	100	300	4,500 RPM	3,500 RPM
Repeatability (mm)			± 0.1						-	
Backlash (mm)			0.3						-	
Radial Load Capacity (N)			5~15	10~30	12~75	10~30	12~75	-	49 Max.	
Rod Diameter (mm)			Ø15	Ø22	Ø22	Ø22	Ø22	-	-	
Rod Tip Thread			M10 Nylon	M14 SS	M14 SS	M14 SS	M14 SS	-	-	
Program Capacity			16 Positionings							
Power Supply			DC24V ± 10%							
		Current	Max. 2.0 Amps	Drive Power max. 3.0 Amps, Control power max. 0.2A						
Life		Other than seal	3 years after delivery or 10,000 km operation when applied within published specs							
		Seals	6 months, or 2,500 km run (Dust Proof Model Only)							
I/O	Parallel Input	Names	DC24V type DI/DO Interface (Connector PIO), Position number (4bit binary: PC1,PC2,PC4,PC8) Start (CSTR), Axis Movement Interlock (ILK)						same as SCN6 Servo ON, +/- Rotation prohibit	
		Input current	Max. 4mA / port							
	Parallel Output	Names	DC24V type DI/DO Interface (Connector PIO), Position complete(PFIN/INP), Completed Position Number (4bit binary: PM1,PM2,PM4,PM8), Homed signal(ZFIN), Zone signal(ZONE), Alarm (ALM)							
		Output current	Max. 10mA / port							
	Serial Signal		Serial Interface (Connector SIO) +5V, 5G, S+, S-							
Protection function			Over speed, Main power over voltage, Voltage fault, Overload, Sensor fault, Servo fault, Encoder wire disconnected							
Ambience	Temp., Humidity		Operating Temp.: 0 ~ 40°C, Storage Temp.:-20 ~ 60°C, Ope/Storage Humidity: Smaller than 90% RH, Non-condensing							
	Vibration		2.5G / 10G (2 times)							
	Protection		IP-40 equivalent			IP-54 equivalent		-	IP-40 equivalent	
Weight (kgs)			1~1.2	1.6~3.1	1.9~3.4	1.6~3.1	1.9~3.4	3.7~10.7		
Functions			- Positioning with speed, Accele. - Home Direction Set - Incremental movement		- Stroke Limit end set - Zone Signal output - Complete signal width set				- Push Force Mode - Servo Gain Adjust - Suitable Auto Max. Accel.	

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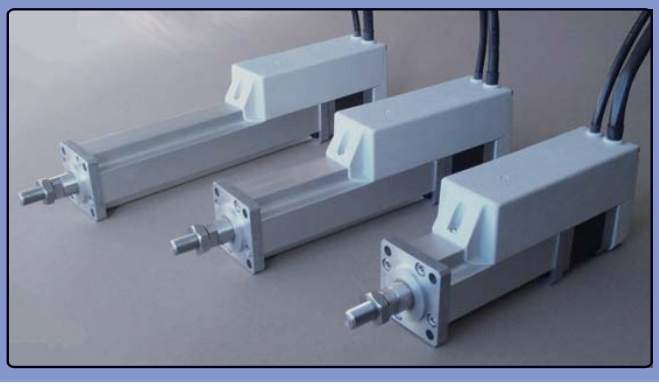
Dyadic
MECHATRONICS CYLINDER

SCN5 Model
10kgf, Aluminum Body



The SCN5 model Mechatronics Cylinder has been introduced in response to popular demand for a compact, affordable servo linear actuator capable of long stroke and fabricated from aluminum.

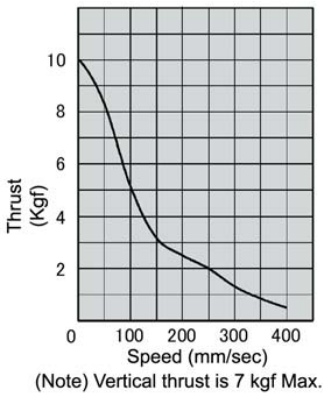
With speed up to 400mm/s and strokes up to 300mm the SCN5 is suited to a wide variety of applications. The extruded aluminum body and fiber-reinforced delrin electronics covers provide the toughness required in industrial environments.

The SCN5 offers the same control and feedback characteristics as the SCN4, can be connected in networks of up to 16 axes, and can be programmed from your PC or the Mechatronics Cylinder Pendants.

Specifications

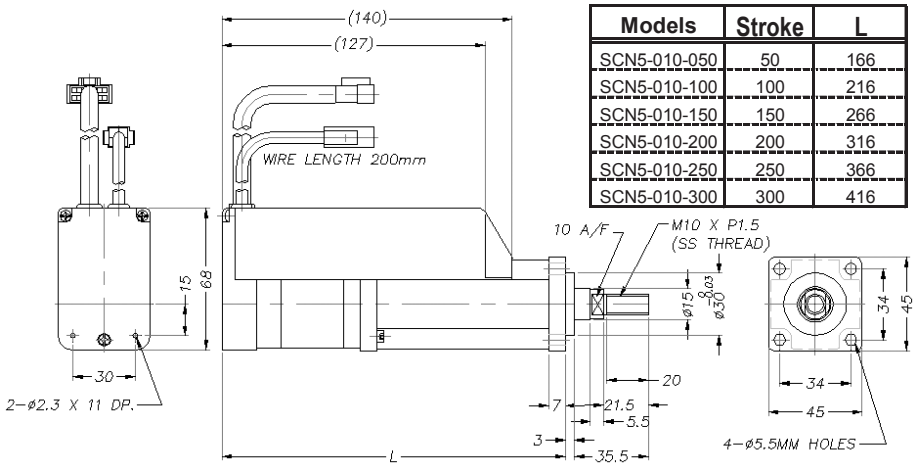
Models	SCN5-010-050AS03	SCN5-010-100AS03	SCN5-010-150AS03	SCN5-010-200AS03	SCN5-010-250AS03	SCN5-010-300AS03
Price	US$325	US$400	US$475	US$550	US$625	US$695
Stroke (mm)	50	100	150	200	250	300
Max. Thrust (N) / (kgf)	100 / 10.2					
Push mode Max. Thrust (N)/(kgf)	70 / 7.1					
Max. Speed (mm/s) * Typ.	400					
Radial Load Capacity (N)	15	10	5	4	3	2.5
Rod Diameter (mm)	Ø15					
Rod Tip Thread	M10 Pitch 1.25 (303SS)					
Weight (kgf)	1.1	1.2	1.4	1.6	1.8	2.0

Speed-Thrust Curve



(Note) Vertical thrust is 7 kgf Max.

Dimensions



Models	Stroke	L
SCN5-010-050	50	166
SCN5-010-100	100	216
SCN5-010-150	150	266
SCN5-010-200	200	316
SCN5-010-250	250	366
SCN5-010-300	300	416

Accessories

**** Mirai Inter-Technologies Systems Ltd. ****
35 Pollard St., Richmond Hill, Ontario Canada L4B 1A8, www.miraiintertech.com
Tel:(905)763-9442 Fax: (905)731-3165, e-mail: sales@miraiintertech.com

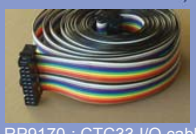
Parallel Cables (power & I/O)

RP9100-030: for SCN4 & 5 ($45)
RP9120-030: 3m for other M.S. ($55)

PC Tool Parts

RP9050-010: ADP cable

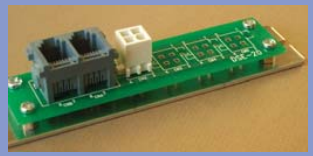
ADP-1: 232/485 Adaptor



RP9170-: CTC33 I/O cable

I/O Terminal block

ADP-2: Connector junction



RP9041-010: SIO Cable

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