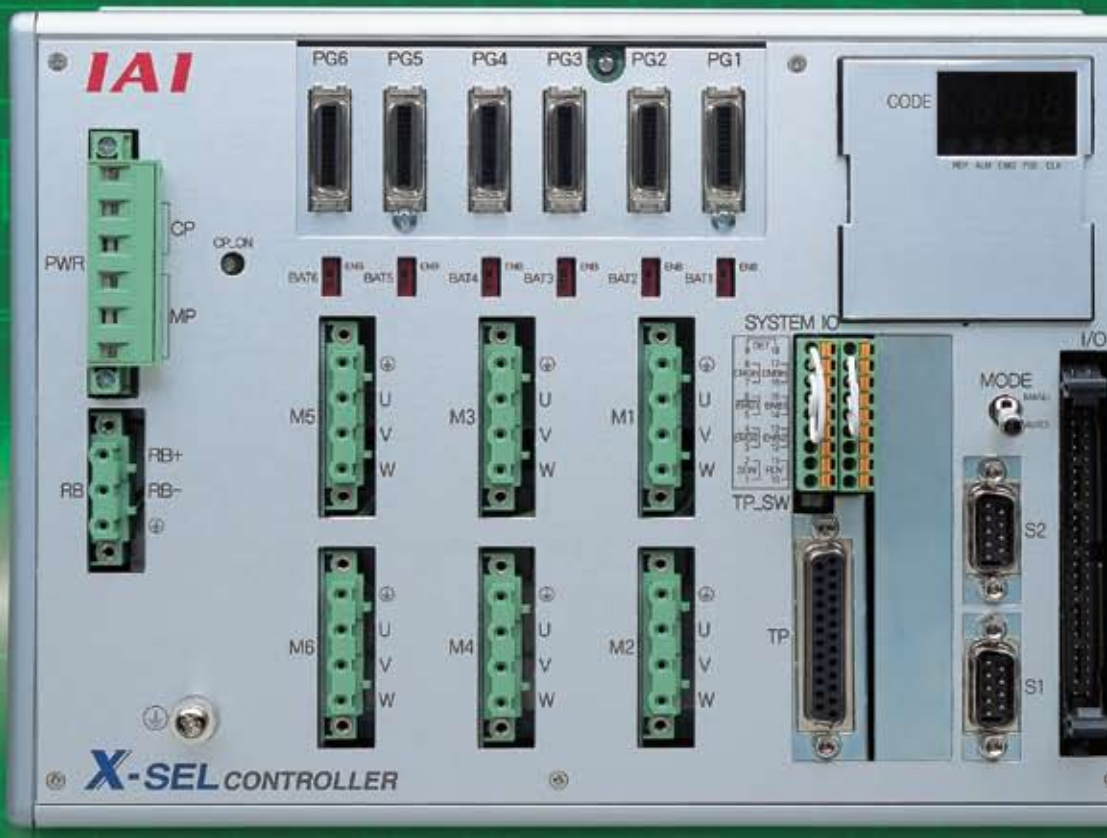
IAI
Quality and Innovation

Large-Capacity Controller

X-SEL P/Q/PX/QX

The New X-SEL P/Q/PX/QX!



1 Larger Program Data Capacity

The numbers of positions and programs supported by these controllers have increased dramatically to support various conditions.

Number of Positions

4,000 Points ▼ **Increased to 20,000**

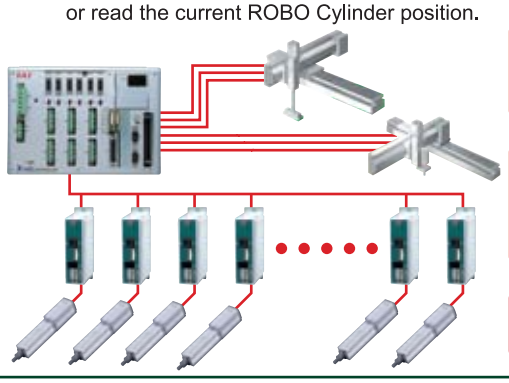
Number of Programs

64 Points ▼ **Increased to 128**

2 New ROBO Cylinder Gateway Function

(Standard Feature)

- Up to 16 ROBO Cylinder axes can be operated via serial communication.
- ROBO Cylinders can be operated using SEL language programs. You can also change the position data of your ROBO Cylinder or read the current ROBO Cylinder position.



Up to 6 axes can be operated using the XSEL alone

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Up to 16 axes can be operated using the gateway function

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A total of 22 axes can be operated

The improved XSEL-P/Q/PX/QX controllers will be offered at the same prices as their previous models

Larger Program Data Capacity

The program data capacity of the XSEL controller has increased as follows:

		Current Model P/Q/PX/QX	Enhancement Specifications P/Q/PX/QX
Programs	Number of Programs	64	128
	Number of Program Steps	6000	9999
Position Data	Number of Positions (Positions that can be backed up by the battery)	4000 (4000)	20000 (10000)
Number of Error Records		100	200
ROBO Cylinder Gateway Function		None	Standard Feature

- The enhanced XSEL controllers are available only with controller firmware (main CPU application) of version 0.68 or later (P/Q types) or version 0.34 or later (PX/QX types).
- The enhanced XSEL controllers only support PC software (IA-101-X-MW) of version 7.2.0.0 or later.
- The enhanced XSEL controllers only support IA-T-X (XD) teaching pendants version 1.4.4 or later and SEL-T (TD) teaching pendants of version 1.0.1 or later.

New ROBO Cylinder Gateway Function

The ROBO Cylinder gateway function controls ROBO Cylinders from an XSEL controller via serial communication. Use of the gateway function significantly reduces the hassle of wiring compared to the PIO control method, and you can also operate ROBO Cylinders using SEL language programs from your XSEL controller.

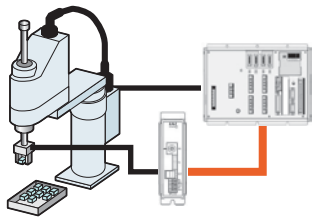
Specifications

Item	Description
Maximum number of connectable ROBO Cylinder axes	16
Maximum number of axes operable by XSEL controller	6
Supported ROBO Cylinder series	ERC2/RCP2/RCP3/RCA/RCA2/RCS2
Connectable controllers	ERC2/PCON/ACON/SCON/ROBONET
Communication protocol	Modbus

Examples of Use (Example of replacing a PIO-controlled system with a gateway system)

Operate a SCARA robot chuck consisting of a ROBO Gripper using the gateway function.

While the PIO-controlled system had to measure loads in the previous process and sort them based on their size to transfer accordingly, the gateway system allows length measurement to be performed by the ROBO Gripper. As a result, the process has become shorter.



<Comparison of PIO Control and Gateway Function>

	PIO Control	Gateway Function
Hassle of Wiring	Many cables must be wired	Only two cables need to be wired
Control Method	ON/OFF control of I/Os only	Programs can be used
Moving Positions	Positions must be input to the controller before hand	Positions can be instructed from an XSEL controller
Current chuck position	Checked by the completed position number	The current position can be checked numerically

Connected Units

The following units are needed to use the ROBO Cylinder gateway function. (Contact IAI for the wiring method and other details)

Name	Model	Remarks
RS232 conversion unit	RCB-CV-GW	One RS232 conversion unit is required for one XSEL controller
Communication cable	CB-RCB-SI0050	One communication cable is required for one XSEL controller
Controller link cable	CB-RCB-CTL002	The number of controller link cables must be the same as the number of ROBO Cylinder controllers connected

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