\* See page Pre-47 for details on the model descriptions

# P2-GRLS

Model Specification Items

RCP2 - GRLS -

ı

\* The Simple absolute

considered type "I".

I: Incremental

encoder is also

20P - 30

20□ size

**– 180** –

— Encoder type — Motor type — Deceleration Ratio — Stroke — Applicable controller — Cable length — Options 20P: Pulse motor, 30: 1/30 deceleration ratio

180: 180 dearees (90 degrees per side)

P1: PCON-PL/PO/SE **PSEL** 

P3: PCON-CA PMEC/PSEP **MSEP** 

N: None P: 1m S: 3m

NM: Non-motor end FB: Flange bracket SB: Shaft bracket

M:5m X□□: Custom Length





Technical References

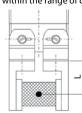


Notes on selection

- (1) The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this value.
- (2) The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work piece. As a rough quide, a work piece's weight should not exceed 1/10 to 1/20 of the gripping force. (See page A-86 for details.)
- (3) The rated acceleration while moving is 0.3G.

#### ■ Gripping Force vs. Current Limit

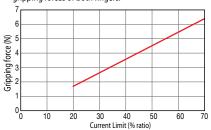
The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.



- \* The gripping force of the graph below is measured on the top face of the lever. The actual gripping force drops in inverse proportion to the distance from the opening/closing fulcrum. Calculate the effective gripping force using the formula below.
- \* Operate with the L distance up to 40mm.

Effective gripping force (GRLS) =  $F \times 15.5/(L + 15.5)$ 

\* In the graph below, the gripping force value is the sum of gripping forces of both fingers.



- \*The gripping force graph above shows reference numbers. Please allow margins up to  $\pm$  15%.
- Please note that, when gripping (pushing), the speed is fixed at 5 degrees/s.

### Actuator Specifications

#### ■ Lead and Payload

Model number	Deceleration Ratio	Maximum Gripping Force (N)	Stroke (deg)
RCP2-GRLS-I-20P-30-180-①-②-③	30	6.4 (3.2 per side)	180 (90 per side)

## ■ Stroke and Max. Opening/Closing Speed

= stroke and maxi opening, crossing speed			
Stroke  Deceleration ratio	180 (deg)		
30	600 (per side)		

(Unit: degree/s)

Stroke

Stroke (deg)	Standard price
180	_

### ③ Options

Name	Option code	See page	Standard price
Non-motor end specification	NM	→ A-52	_
Flange bracket	FB	→ A-43	_
Shaft bracket	SB	→ A-55	_

#### ②Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	<b>P</b> (1m)	_
	<b>S</b> (3m)	_
	<b>M</b> (5m)	_
Special length	<b>X06</b> (6m) ~ <b>X10</b> (10m)	_
	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

- \* The standard cable is the motor-encoder integrated robot cable.
  \* See page A-59 for cables for maintenance.

Actuator Specifications	
ltem	Description
Drive System	Worm gear + helical gear
Positioning repeatability	±0.01deg.
Backlash	1 degree or less per side (constantly pressed out by a spring)
Lost motion	1 degree or less
Guide	
Allowable static load moment	_
Weight	0.2kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

#### Dimensional Drawings

# CAD drawings can be downloaded www.intelligentactuator.com

For Special Orders





\*The opening side of the slider is the home position. 2-ø3 <sup>+0.03</sup> depth 3 (\*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables. (same for opposite side) 8-M3 depth 5 Cable joint (same for opposite side) 2-3 +0.05 depth 3 (same for opposite side) 2-ø3 +0.03 depth 3 (same for opposite side) 2-ø4 +0.03 depth 2.5 ø3 <sup>+0.03</sup> depth 3 4-M4 through MAX 180° MIN 0° 9 4-M3 depth 5 15.5 8-M3 depth 5 2-3 +0.05 depth 3 (same for opposite side) 36 3 <sup>+0.05</sup> depth 3 49 (same for opposite side) H

Weight (kg)

0.2

#### ① Applicable Controllers

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Referen page
61 1111 7	PMEC-C-20PI-①-2-⑪	Easy-to-use controller, even for beginners		AC100V AC200V	Refer to P541	_	→ P53	
Solenoid Valve Type		PSEP-C-20PI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points		Refer to P555	_	→ P54
Solenoid valve multi-axis type PIO specification	m	MSEP-C	Positioner type based on PIO control, allowing up to 8 axes to be connected		Refer to		DECO	
Solenoid valve multi-axis type Network specification		MSEP-C	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points		P572	_	→ P563
Positioner type High-output specification	-	PCON-CA-20PI-①-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points			_	
Pulse-train type High-output specification		PCON-CA-20PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)	DC24V	Refer to P618	_	→ P60
Field network type High-output specification		PCON-CA-20PI-W-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points	DC24V		_	
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-20PI-①-2-0	Pulse train input type with differential line driver support	(—)	(—) 64 points		_	→ P623
Pulse Train Input Type (Open Collector)	-	PCON-PO-20PI-①-2-0	Pulse train input type with open collector support			Refer to P628	_	
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated Serial Communication	64 points			_	
Program Control Type		PSEL-CS-1-20PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	_	→ P66

IAI

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