

ORDERING INFORMATION

MODEL : PSN3

PLEASE FILL IN THIS SECTION



Model _____
 Company _____
 Name _____
 P/O No. _____

FACTORY USE ONLY



Job No. _____ Inspected by: _____
 Ser No. _____
 Sales _____ Inspected by: _____

- **INSTRUCTION** (1) Fill in the sections enclosed with bold lines or mark with .
 (2) There is no need of this Ordering Sheet if all settings are as default.

ITEM	SET VALUE	DEFAULT	COMMENTS
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HARDWARE SETTING Adjusted with switches behind the cover.

ACTION	<input type="checkbox"/> Direct <input type="checkbox"/> Reverse	Reverse	The output stem becomes longer when the input signal decreases.
ABNORMALLY LOW INPUT OPERATION	<input type="checkbox"/> Stop <input type="checkbox"/> Retract <input type="checkbox"/> Extend	Stop	

HARDWARE OR SOFTWARE SETTING Adjusted with switches behind the cover or with Programming Unit

FULL-OPEN/-CLOSED POSITIONS EXTENDED END 66 – 126 mm 52 – 112 mm (stem button)	<input type="checkbox"/> Longest <input type="checkbox"/> mm	Longest	Length between the yoke surface and the edge of output stem with the
FULL-OPEN/-CLOSED POSITIONS RETRACTED END 66 – 126 mm 52 – 112 mm (stem button)	<input type="checkbox"/> Shortest <input type="checkbox"/> mm	Shortest	Length between the yoke surface and the edge of output stem with the shortest stem [Extended End] > [Retracted End]
EX-FAC. STEM POSITION 66 – 126 mm 52 – 112 mm (stem button)	<input type="checkbox"/> Shortest <input type="checkbox"/> mm	Shortest	Length between the yoke surface and the edge of output stem

SOFTWARE SETTING Modifiable with Programming Unit

EXTENDED SIDE LIMITER -5 – 25%, 0.1% incr.	%	0%	Specify % of the stroke span adjusted as "Extended End" and "Retracted End".
RETRACTED SIDE LIMITER 75 – 105%, 0.1% incr.	%	100%	Specify % of the stroke span adjusted as "Extended End" and "Retracted End".
FULL-OPEN/-CLOSED SIGNAL EXTENDED SIDE 0 – 25%, 0.1% incr.	%	2%	Specify when the full-open/-closed signal is required. Specify % of the stroke span adjusted as "Extended End" and "Retracted End". Full-open/-closed signal \geq (Extended side limiter +0.5%)
FULL-OPEN/-CLOSED SIGNAL RETRACTED SIDE 75 – 100%, 0.1% incr.	%	98%	Specify when the full-open/-closed signal is required. Specify % of the stroke span adjusted as "Extended End" and "Retracted End". Full-open/-closed signal \leq (Retracted side limiter -0.5%)
SPLIT RANGE	<input type="checkbox"/> Without <input type="checkbox"/> With	Without	Mark [With] when the split range is required.
SPLIT RANGE TYPE	<input type="checkbox"/> LO <input type="checkbox"/> HI	LO	Specify when the split range is required.
SPLIT RANGE POINT 30 – 70%, 0.1% incr.	%	50%	Specify when the split range is required. Specify % of the stroke span adjusted as "Extended End" and "Retracted End".
OPENING/CLOSING SPEED 1 – 50		24	The opening/closing speed affects the thrust. Refer to the next page.
DEADBAND 0.1 – 5%	%	0.5%	Specify % of the maximum stroke.
RESTART LIMITING TIMER 0 – 30 sec., 0.1 sec. incr.	sec.	2 sec.	
FAILSAFE OPENING/CLOSING SPEED, 1 – 50		24	Specify when "Failsafe Function" option is selected. The opening/closing speed affects the thrust. Refer to the next page.
FAILSAFE TARGET POSITION 0 – 100%, 0.1% incr.	%	0%	Specify when "Failsafe Function" option is selected. Specify % of the stroke span adjusted as "Extended End" and "Retracted End".

GUIDE TO ORDERING INFORMATION SHEET

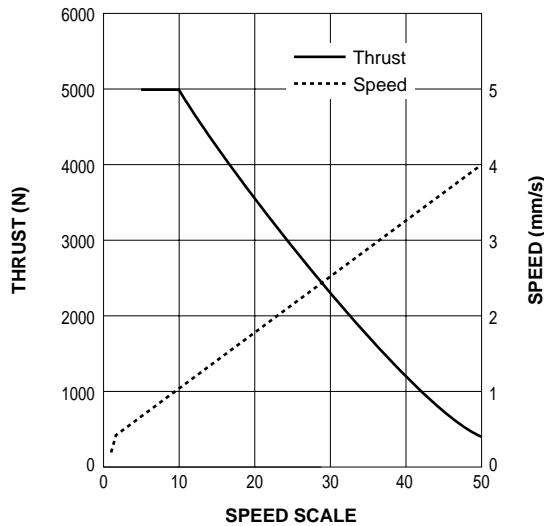
■ OPERATION AT ABNORMALLY LOW INPUT

When the input goes down to 0.37 ± 0.1 V DC or below, the PSN goes to the abnormal low input operation (stop, retract or extend).

■ OPENING/CLOSING SPEED LIMIT

Opening/closing speed affects the thrust. Refer to the table below for checking required thrust and attainable speed.

Acceleration or deceleration is not included in the speed. Acceleration or deceleration respectively requires approx. 0 to 2 sec.; takes longer with faster speed.



PSN3 OPENING/CLOSING SPEED LIMIT

SPEED SCALE [A]	SPEED [V] (mm/s)	OPERATION TIME (s/20 mm)	RATED THRUST	
			N	lbs
1	0.22	92.6	5000	1124
2	0.38	52.3	5000	1124
10	0.99	20.2	5000	1124
13	1.22	16.4	4500	1012
16	1.44	13.8	4000	899
20	1.75	11.4	3500	787
24	2.05	9.7	3000	674
28	2.35	8.5	2500	562
33	2.73	7.3	2000	450
36	2.96	6.8	1500	337
41	3.34	6.0	1000	225
48	3.87	5.2	500	112
50	4.02	5.0	350	79

Speed [V] achieved by Speed Scales [A] other than mentioned above can be approximately calculated by the following equation:

$$\text{Speed [V]} = 0.076 \times \text{Speed Scale [A]} + 0.231, \text{ where } 2 \leq A \leq 50$$

■ RESTART LIMITING TIMER

The timer is provided to protect the motor from overheating, preventing it from restarting for a certain interval once the motor has been stopped within deadband.

When the high temperature protection is activated in a high temperature ambient, adjust the timer to a longer interval.

■ SPLIT RANGE

Refer to figure below and determine the type and point of split range.

When the split range is set to OFF, the split range type and point are invalid.

