

New handling system X-axis module

NSR Series

- Stroke: 50 to 2000 mm
- Load capacity: 10, 15, 30, 50kg

RoHS CAD

Specifications

Item		NSR-10	NSR-15	NSR-30	NSR-50
Bore size	mm	ø20		ø32	ø40
Slider speed	mm/s	100 to 1000			
Shock absorber		NCK-00-1.2-C	NCK-00-2.6-C	FCK-M-3-C	FCK-M-5-C
Stroke	mm	50 to 2000 (1 mm pitch)			
Max. stroke	mm	2000			
Allowable moment	N·m	M1=36.4,M2=30.6,M3=34.2		M1,M3=85.9 M2=82.9	M1,M3=156.2 M2=150.7
Tilt of slider		±0.1° or less			
Piping port size		Rc1/8		Rc1/4	Rc1/2
Position detection sensor		T type proximity switch lead wire 3 m			
Max. horizontal load capacity	kg	10	15	30	50
Speed controller (option)		SC3W-6-6		SC3W-8-8	SC3W-15-10
Working fluid		Clean compressed air			
Working pressure	MPa	0.2 (≈29 psi, 2 bar) to 0.7 (≈100 psi, 7 bar)			
Proof pressure	MPa	1.05 (≈150 psi, 10.5 bar)			
Ambient temperature	°C	5 (41°F) to 60 (140°F)			
Lubrication		Refer to page 1460 for lubrication.			
Repeatability	mm	±0.02			
Weight	kg	(stx0.0109)+5.5	(stx0.0109)+5.6	(stx0.0176)+10.7	(stx0.0311)+17.9

Stroke adjustment specifications

Item	Blank	R	L	D
Adjustable stroke right mm	-15 to 0	Full stroke	-15 to 0	Full stroke
Adjustable stroke left mm	-15 to 0	-15 to 0	Full stroke	Full stroke

Shock absorber specifications

Item	NCK-00-1.2-C	NCK-00-2.6-C	FCK-M-3-C	FCK-M-5-C
Max. absorbing capacity J	12	26	30	50
Absorbing stroke mm	10	15	16	25
Max. colliding speed mm/s	2000			
Max. operating frequency cycle/min	30	25	20	12

Cableveyor specifications

Item	Cableveyor model No.	Bore size (mm)	Load capacity (kg/m)
For NSR-10, 15-B, F	TKP35H22-30W25R37	22x25	MAX1.6
For NSR-10, 15-X	TKP35H22-30W50R37	22x50	MAX1.6
For NSR-10, 15-W	TKP45H25-30W38R50	25x38	MAX3.0
For NSR-30-B, F	TKP45H25-30W58R50	25x58	MAX3.0
For NSR-50-B, F	TKP45H25-30W78R50	25x78	MAX3.0

Adjustable stroke block additional weight list

Model No.	Additional weight (kg)
NSR-1-10-R	0.685
NSR-1-10-L	0.685
NSR-1-10-D	1.370
NSR-1-15-R	0.810
NSR-1-15-L	0.810
NSR-1-15-D	1.620
NSR-1-30-R	1.140
NSR-1-30-L	1.140
NSR-1-30-D	2.280
NSR-1-50-R	1.750
NSR-1-50-L	1.750
NSR-1-50-D	3.499

Mounting bracket LB additional weight list

Model No.	Additional weight (kg)
NSR-10	0.8
NSR-15	0.8
NSR-30	2.9
NSR-50	4.8

Cableveyor additional weight list

Model No.	Additional weight (kg)
NSR-1-10,15-B	(st ÷ 2 x 0.0011) +0.482
NSR-1-10,15-W	(st ÷ 2 x 0.0018) +0.55
NSR-1-10,15-F	(st+178)x0.0024+0.125
NSR-1-10,15-X	(st+178)x0.003+0.13
NSR-1-30-B	(st ÷ 2 x 0.0028) +1.148
NSR-1-30-F	(st+234)x0.0042+0.2
NSR-1-50-B	(st ÷ 2 x 0.0034) +1.234
NSR-1-50-F	(st+178)x0.0049+0.22

2-head specifications

Item		NSR-2-10	NSR-2-15	NSR-2-30	NSR-2-50
Max. horizontal transfer weight	kg / 1 head	5	7.5	15	25
Stroke	mm	50 to 1000			
Max. stroke	mm	1800		1740	1690
Pitch between heads	mm	200 to 999		260 to 999	310 to 999
Max. pitch between heads	mm	999			
Product additional weight	kg	(Pitch between heads x 0.0109) + 1.7		(Pitch between heads x 0.0176) + 2.79	(Pitch between heads x 0.0311) + 4.66

*1 : Select so that the pitch between heads and strokes total 2000 mm or less.

How to order

NSR - 2 - 10 - 1000 - 500 - L - 3 - B - A

Code	Description
Ⓐ Head number	
1	1 pieces
2	2 pieces
Ⓑ Load capacity (kg)	
10	10
15	15
30	30
50	50
Ⓒ X-axis stroke (1 mm pitch)	
50	50
to	to
2000	2000

Ⓓ Pitch between heads (1 mm pitch)

	Load capacity (kg)			
	10	**15**	**30**	**50**
200	200	200	260	310
to	to	to	to	to
999	999	999	999	999

Ⓔ Adjustable stroke block	
Blank	None
L	Left
R	Right
D	Both sides
Ⓕ Port position/speed controller/mounting bracket	
Blank	Port position L
2	Port position R
3	Port position L, with speed controller
4	Port position R, with speed controller
5 *7	Port position L, with mounting bracket LB
6 *7	Port position R, with mounting bracket LB
7 *7	Port position L, with speed controller, mounting bracket LB
8 *7	Port position R, with speed controller, mounting bracket LB
Ⓖ Cableveyor	
Blank	None
B	Vertical installation
F	Horizontal installation
W	Vertical installation
X	Horizontal installation
Ⓗ Switch	
Blank	2-wire proximity T2H3 (with 2 pcs.)
A	3-wire proximity T3H3 (with 2 pcs.)

Ⓐ Head number

Ⓑ Load capacity

Ⓒ X-axis stroke *1

Ⓓ Pitch between heads *2, *3

Ⓔ Adjustable stroke block

Ⓕ Port position/speed controller/mounting bracket *4, *5

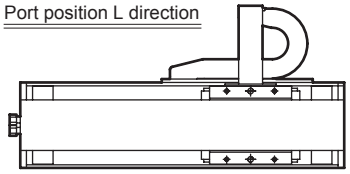
Ⓖ Cableveyor *6

Ⓗ Switch

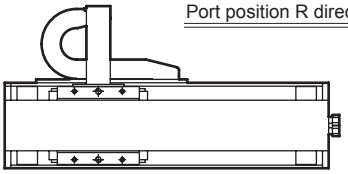
⚠ Precautions for model No. selection

*1 : If X-axis stroke of NSR-30, 50 and NSR-10, 15 are 1001 mm or more, front cover uses tension method.
*2 : Can be selected only for 2-head.
*3 : Select so that the pitch between heads and strokes total 2000 mm or less.
*4 : Speed controller is SC3W-6-6 (NSR-10/15), SC3W-8-8 (NSR-30) or SC3W-15-10 (NSR-50) x 2 pieces.
*5 : If port position R is selected, mounting orientation of the cableveyor is reversed. (Exit is port side)

Port position L direction



Port position R direction



*6 : Refer to table below for the cableveyor capacity.

Item	B	F	W	X
For NSR-*-10,15	22x25	22x25	25x38	22x50
For NSR-*-30	25x58	25x58	-	-
For NSR-*-50	25x78	25x78	-	-

● Only NSR-10 and 15 can be selected for “W” and “X”.

*7 : Options 5, 6, 7 and 8, and cableveyor B and W cannot be combined.

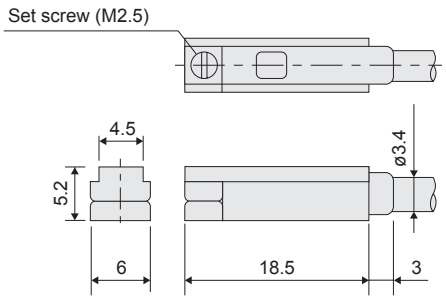
Switch specifications (T Series)

Item	Proximity 2-wire	Proximity 3-wire
	T2H3	T3H3
Applications	Dedicated for programmable controller	For programmable controller, relay
Output method	-	NPN output
Power supply voltage	-	10 to 28 VDC
Load voltage	10 to 30 VDC	30 VDC or less
Load current	5 to 20 mA (*1)	100 mA or less
Current consumption	-	10 mA or less at 24 VDC (when ON)
Internal voltage drop	4V or less	0.5V or less
Indicator	LED (Lit when ON)	
Leakage current	1 mA or less	10 μA or less
Lead wire (standard)	3 m (oil resistant vinyl cabtyre cable 2-conductor 0.2 m^2)	3 m (oil resistant vinyl cabtyre cable 3-conductor 0.2 m^2)
Max. shock resistance	980 m/s^2	
Insulation resistance	20 MΩ and over with 500 VDC megger	
Withstand voltage	No failure after 1 minute of 1,000 VAC application.	
Ambient temperature	-10 to +60°C	
Degree of protection	IEC standards IP67, JIS C0920 (dust proof), oil resistance	
Weight	49 g	

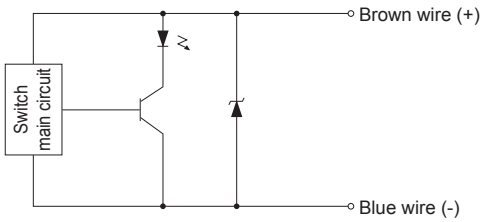
*1 : Max. load current: 20 mA at 25˚C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25˚C. (5 to 10 mA at 60°C)

Dimensions

● T*H Series (straight lead wire)



● T2H



● T3H

