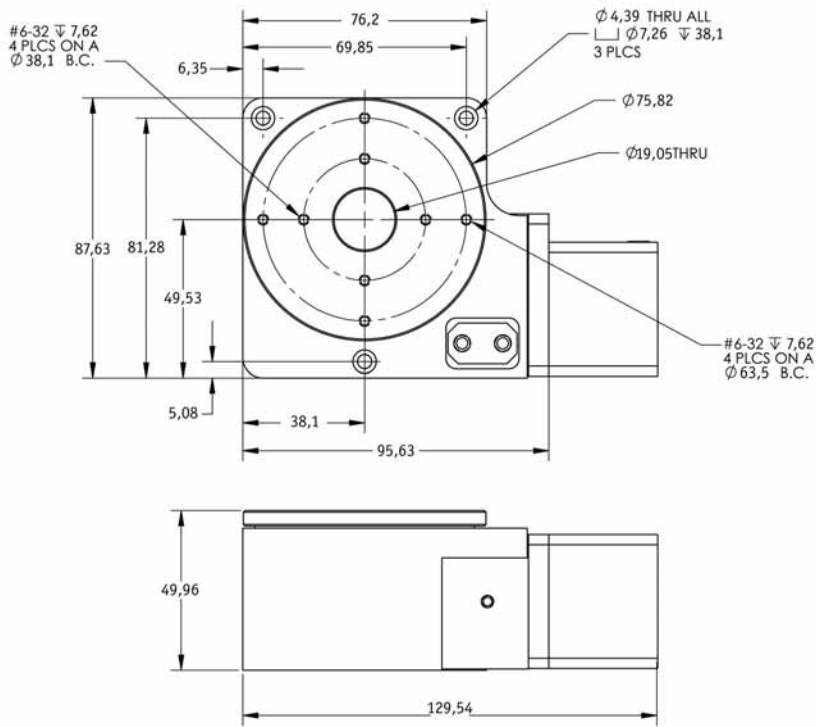


## Rotary tables Ø75mm table (approx.)



# L1164



**Material**  
Body from 6061 aluminium alloy - provides a light, yet stiff and stable stage.

**Technical Notes**  
The design utilises a thrust bearing system for the table movement. This offers excellent stability at low cost.  
The stages are offered with different gear ratio options. A proprietary preload system ensures zero backlash in the gear train.  
The travel is 360° continuous.

**Tips**  
Suitable for a wide range of uses from lightweight positioning of optics to light duty machine tool applications.

Order No.	Control	Repeatability arc-secs	Resolution arc-secs	Gear Ratio	Motor size	Max. load Kg.	Moment Nm	Max. input speed rpm	Travel Cont.	⚖️ Kg.
RT3-M17	Motor	5	0,29	90:1	Nema 17	20,4	5,1	900	360°	0,68
RT3-DR	Manual	5	0,29	90:1	-	20,4	45	900	360°	0,68





# Positioning Stages - Rotary L1163-69

**Quality and cost-effective rotary tables with stepper motors**



POSITIONING STAGES

## RT Series

- ⊙ Offers a high resolution and repeatability
- ⊙ Medium load capacity
- ⊙ Table size: Ø50 to Ø125mm.
- ⊙ Suitable for lightweight positioning to light duty machine tool applications
- ⊙ Uses a thrust bearing system for the table movement. This provides excellent stability at low cost.
- ⊙ The units are offered with different gear ratio options.

## RM Series

- ⊙ Offers high resolution and repeatability.
- ⊙ Table size: Ø75 to Ø200mm.
- ⊙ Suitable for lightweight positioning to heavy duty machine tool applications.
- ⊙ Uses a single pre-loaded roller bearing for the table movement, which eliminates the use of a dual bearing configuration, thus improving axial run-out and wobble.
- ⊙ The units are offered with different gear ratio options.



**RT-2**  
Compact Design.  
Ø50mm table.



**RM-3**  
Compact design.  
Ø75mm table.



**RT-3**  
Low cost.  
Ø75mm table.



**RM-5**  
Low cost.  
Ø125mm table.  
**RM-5**  
Sealed unit option (L1168)  
Ø125mm table.



**RT-5**  
Low profile.  
Ø125mm table.



**RM-8**  
High load capacity belt or direct drive.  
Ø200mm table.



**DRO Versions**  
Any of the RT series with manual control with digital read out.



**DRO Versions**  
Any of the RM series with manual control with digital read out.



## Positioning Stages - Motion Controllers

for stages L1160 & L1161



# L1162



POSITIONING STAGES

Order No.	No. of axis control	Encoder
NSC-1S	Single	No
NSC-1S-E	Single	Yes
NSC-1H	Single	No
NSC-1H-E	Single	Yes
NSC-M2	Two	No
NSC-M2-E	Two	Yes
NSC-M3	Three	No
NSC-M4	Four	No

### Specification - NSC-1 Series

Output current NSC-1S	2A Typ., 4A peak (programmable to lower current settings)
Output Current NSC-1H	3A Typ., 6A peak (programmable to lower current settings)
Motor type	2/4 phase bipolar stepper
MicrostepResolution	Programmable up to 51200 steps per rev (1,8° motor)
Communications	RS-232, 4800 to 38,8kbps
User programme space	8175 bytes
Program and data storage	Flash
Number of I/O	6 (software selectable as dedicated or general purpose)
Encoder feedback	High speed differential inputs
Encoder functions	Stall detection and position maintenance

### Technical Notes

#### NSC-1:

A powerful single axis machine control system combining a bipolar microstepping driver with a programmable controller in a compact envelope.

The motion controller can operate as a stand alone system through the RS-232 port. It utilizes a 32-bit microprocessor to control the trajectory, profile, acceleration, velocity and deceleration.

If closed loop the NSC-1 can be expanded to handle different inputs from an encoder.

#### NSC-M Series:

The controller can communicate with the host computer through an RS232 interface. It can manage up to four axis and perform co-ordinated or independent motion of each or all of the axis simultaneously.

With built-in high level functionality, such as circular and linear interpolation, multi-tasking and custom profiling the controller is greatly simplified.

The multi-axis controller is commanded using virtually any programming language to pass simple ASCII command strings to the controller through the RS-232 port.





# L1160-62 Positioning Stages

Motorised

POSITIONING STAGES

## L1160 - Type NB-4

### Specification - NB4

	Type	Accuracy
Resolution	1,5748mm/ rev lead	0,03µm @50,000 steps/ rev motor resolution
Resolution	6,35mm/ rev lead	0,13µm @50,000 steps/ rev motor resolution
Resolution	1,5748mm/ rev lead with encoder	0,8µm @2,000 counts/ rev encoder resolution (-E option) 0,4µm @4,000 counts/ rev encoder resolution (-E1 option)
Resolution	1,35mm/ rev lead with encoder	3,2µm @2,000 counts/ rev encoder resolution (-E option) 1,6µm @4,000 counts/ rev encoder resolution (-E1 option)
Max. Travel Speed	1,5748mm/ rev lead	12,7mm/ second
Max. Travel Speed	6,35mm/ rev lead	50,8mm/ second
Repeatability Bidirectional		±5µm

### Specification - NB4

Motor Connection		Signal Connection		Signal Connection (encoder option)	
DB9 male	Description	DB9 female	Description	HD-15 female	Description
1	Phase A	1	Positive limit	1	Positive limit switch
2	Phase A'	2	Negative limit	2	Negative limit switch
3	Phase B	3	Gnd	3	Gnd (limits)
4	Phase B'	4	NC	4	Gnd (encoder)
5	A centre tap	5	NC	5	+5V
6	A centre tap	6	NC	6	Ch. A
7	NC	7	NC	7	Ch. A-
8	NC	8	NC	8	Ch. B
9	NC	9	NC	9	Ch. B-
				10	Index
				11	Index-

## L1161 - Type NLS-4

### Specification - NLS4

	Type	Accuracy
Resolution	1,5748mm/ rev lead	0,03µm @50,000 steps/ rev motor resolution
Resolution	6,35mm/ rev lead	0,13µm @50,000 steps/ rev motor resolution
Resolution	1,5748mm/ rev lead with encoder	0,8µm @2,000 counts/ rev encoder resolution (-E option) 0,4µm @4,000 counts/ rev encoder resolution (-E1 option)
Resolution	6,35mm/ rev lead with encoder	3,2µm @2,000 counts/ rev encoder resolution (-E option) 1,6µm @4,000 counts/ rev encoder resolution (-E1 option)
Max. Travel Speed	1,5748mm/ rev lead	12,7mm/ second
Max. Travel Speed	6,35mm/ rev lead	50,8mm/ second
Repeatability Bidirectional		±0,5µm

### Specification - NLS-4

Motor Connection		Signal Connection		Signal Connection (encoder option)	
DB9 male	Description	DB9 female	Description	HD-15 female	Description
1	Phase A	1	Positive limit	1	Positive limit switch
2	Phase A'	2	Negative limit	2	Negative limit switch
3	Phase B	3	Gnd	3	Gnd (limits)
4	Phase B'	4	NC	4	Gnd (encoder)
5	A centre tap	5	NC	5	+5V
6	A centre tap	6	NC	6	Ch. A
7	NC	7	NC	7	Ch. A-
8	NC	8	NC	8	Ch. B
9	NC	9	NC	9	Ch. B-
				10	Index
				11	Index-

