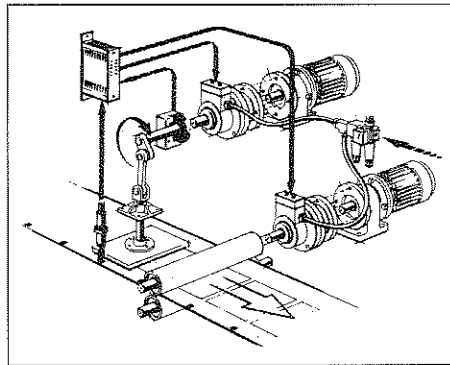


Precision Step Systems

5-2000

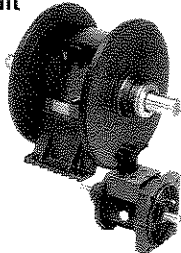
Introduction



Precision Step Systems provide the ideal solutions where the following facilities are required:

- High production capacity
- Greater automation
- High precision
- Reliability of operation
- Low service costs

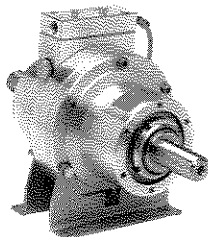
SRA – Vacuum Operated – Precision Step Unit



| Type | Code no. | Dyn. Torque (Nm) | Max. rpm | Shaft (mm) |
|-------|------------|------------------|----------|------------|
| SRA10 | ND080B*022 | 5 | 1700 | 15 |
| SRA15 | ND080B*001 | 11 | 1200 | 25 |
| SRA18 | ND080B*002 | 21 | 1040 | 25 |
| SRA20 | ND080B*003 | 33 | 920 | 25 |
| SRA23 | ND080B*004 | 44 | 800 | 25 |
| SRA25 | ND080B*011 | 57 | 760 | 40 |
| SRA30 | ND080B*012 | 102 | 600 | 40 |
| SRA36 | ND080B*013 | 167 | 500 | 40 |

*Insert 0 or 3 for smooth or keyway shaft

Rotastep – Compressed Air Operated – Clutch/ Brake

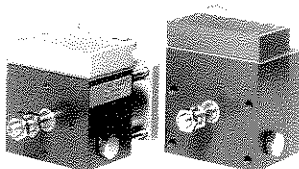


| Type | Code No. | Dyn. Torque (Nm) | Shaft (mm)** |
|-----------|------------|------------------|--------------|
| Rota 0610 | ND080H1111 | 3 - 9 | 14 |
| Rota 0810 | ND080H2111 | 6 - 18 | 19 |
| Rota 1010 | ND080H3111 | 12 - 36 | 24 |
| Rota 1210 | ND080H4111 | 22 - 66 | 28 |
| Rota 1510 | ND080H5111 | 40 - 120 | 28 |

Rotasteps are available with :
 - Solid or hollow shafts, Foot or flange mounted.
 - Wide adjustable torque range.

Note: **Other shaft sizes are available

FLA – Vacuum or Compressed Air Operated – Fast Linear Actuator

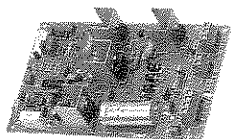


| Type | Code no. | Stroke (mm) | Force (N) | Enclosure |
|---------|------------|-------------|-----------|-----------|
| FLA0551 | ND080F0057 | 5 | 140 | IP54 |
| FLA1251 | ND080F0059 | 12 | 140 | IP54 |
| FLA2051 | ND080F0061 | 20 | 140 | IP54 |
| FLA2551 | ND080F0058 | 25 | 140 | IP54 |
| FLA6041 | ND080F0110 | 4 | 200 | IP54 |
| FLA6081 | ND080F0112 | 8 | 200 | IP54 |

The FLA is the ideal solution where the requirement is:

- Fast linear movement
- High number of cycles

**Electronic control
SRB3100**



| | |
|------------------------|--------------------|
| Type | SRB 3100 |
| Code no. | ND080B1047 |
| Supply voltage | 24 V a.c. +10/-15% |
| Supply frequency | 50 - 60 Hz |
| Power consumption | 35 W max. |
| max. cycling frequency | 30 Hz |
| d.c. output | 24 V, 100mA max. |
| Timer setting | 7 - 400 msec |
| Signal source | NPN or PNP |

Electronic control SRB3100 is designed for operation of linear actuators type FLA, providing the following functions:

- Control of 2 x 1 valve
- Signals for forward/backward motion from the same signal source (or two signal sources)
- Voltage supply for signal source
- Status signal (piston rod : forward/backward)
- Timer setting on return motion

**Electronic control
SRB3102**

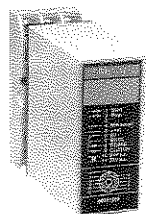


| | |
|---------------------|--------------------|
| Type | SRB 3102 |
| Code no. | ND080B1054 |
| Supply voltage | 24 V a.c. +10/-15% |
| Supply frequency | 50 - 60 Hz |
| Power consumption | 40 W max. |
| d.c. output | 24V±1V,350mA max |
| Max cycle frequency | |
| Rotastep | 20 Hz |
| SRA 10 | 30 Hz |
| SRA 15-36 | 20 Hz |
| Signal source | NPN or PNP |

Electronic control SRB3102 is designed for operation of the Rotastep and SRA units, providing the following functions:

- Start and stop from two signal sources
- Start and stop from the same signal sources
- Control of 1 x 2 or 2 x 2 valves
- D.C. output for signal source supply
- Activation on positive or negative edge of signals
- Free mode (output shafts rotate freely)
- Status signal (clutch/brake mode)
- Start/stop inhibit
- Output error signal

**Electronic control
SRB3103**

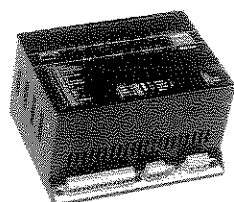


| | |
|-------------------|--------------------|
| Type | SRB 3103 |
| Code no. | ND080B1053 |
| Supply voltage | 24 V a.c. +10/-15% |
| Supply frequency | 50 - 60 Hz |
| Power consumption | 40 W max. |
| cycle frequency | 15 Hz max. |
| Signal source | PNP or NPN |
| Socket code no. | ND080B2091 |

Electronic control SRB 3103 is designed for operation of the Rotastep clutch/brake units, providing the following functions:

- Separate level controlled start and stop input
- PNP or NPN signal selection
- For mounting on octal base (din rail mounting)

**Electronic control
SRB3110**

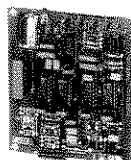


| | |
|---------------------|---------------------------------------|
| Type | SRB 3110 |
| Code no. | ND080B1049 |
| Supply voltage | 100,115,200,220, 240V a.c.+10/-15% |
| Supply frequency | 50 - 60 Hz |
| Power consumption | 80 W max. |
| d.c. output | 24V, 500mA max. |
| Max cycle frequency | |
| 2 x 1 valve | 50 Hz |
| 2 x 2 valves | 20 Hz |
| 3 x 2 valves | 13 Hz |
| Enclosure | IP20 |
| Signal source | PNP or NPN |

Electronic control SRB3110 is designed for operation of SRA, Rotastep or FLA, providing the following functions:

- Start and stop from the same signal source
- Start and stop from two signal sources
- Control of 1 x 2, 2 x 2, or 3 x 2 valves
- Free mode
- Activation on positive or negative edge of signals
- D.C. output for signal sources
- Status signal (brake/clutch mode)
- Manual start stop (manual/auto selection)
- Connection for overload protection and options

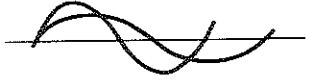
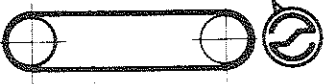

Overload protection



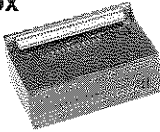
| | |
|----------|-----------------|
| Type | SRB 3211 |
| Code no. | ND080B1063 |

The Overload protection type SRB 3211 is used to protect the SRA, Rotastep or FLA unit from mechanical overload. The card is to be mounted inside the SRB 3110.

Options

| Type | Code no. | Application | |
|----------|------------|--|---|
| SRB 3203 | ND080B1061 | Zero cross & speed compensation for sinusoidal feeding |  |
| SRB 3233 | ND080B1078 | Start by counter feeding |  |
| SRB 3234 | ND080B1079 | stop by counter feeding |  |

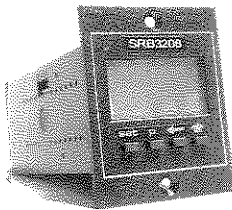
Option box



| | |
|-----------|-----------------|
| Type | SRB 3200 |
| Code no. | ND080B1060 |
| Enclosure | IP00 |

The option box, SRB 3200 is used together with an electronic control unit, SRB 3110 and would contain above option controls

Counter



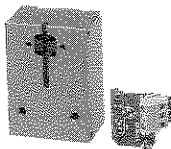
| | |
|--------------------|---------------------|
| Type | SRB 3208 - 9 |
| Code no. | ND080B1068 - 9 |
| Number of digits | 6 |
| Counting range | 0 - 999,999 |
| Counting frequency | 100kHz max. |
| Supply voltage | 20 - 30 V dc |
| Power consumption | 5 W max. |
| Dimensions | 50 x 50 x 136mm |
| Cabinet | black plastic |

The SRB 3208 is a 6 digit, general purpose, programmable counter giving the following functions:

- programming of 2 different preset values
- 3 independent opto-isolated outputs for 2 presets and zero count
- shift of preset values during operation
- programmable scale factor and decimal points for engineering units
- one or two channel encoders can be used
- internal or external reset conditions
- gate stops counting >
- high input frequency up to 100kHz

The SRB 3209 comprises two SRB 3208 counters and an interface card mounted on a fascia. Dimensions 150 x 150 x 136mm (fixing holes 4 x 3.5 dia. on 135mm centres). This is for use with more complex applications e.g. SRB3233 & SRB3234.

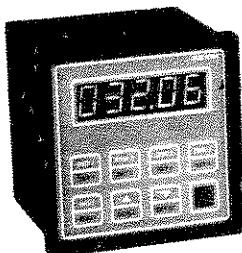
Photocell



| Type | SRC 1301 | SRC 1501 |
|-----------------|---------------------|----------------------|
| Code no. | ND080B1203 | ND080B1205 |
| Signal (output) | NPN, open collector | NDPn, open collector |
| Enclosure | IP00 | IP54 |

Photocell type SRC1301/1501. Used with external position disc type SRC 1100 to generate signal for SRB control units.

Counter



| | |
|--------------------|----------------------------|
| Type | SRB 3206 |
| Code no. | ND080B1062 |
| Number of digits | 5 |
| Counting range | 0 - 999.99/0 - 99,999 |
| Counting frequency | 50 Hz max. |
| Supply voltage | 24 V d.c ± 6 V |
| Power consumption | 3 W max. |
| Dimensions | 96 x 96 x 83 mm .DIN 43700 |
| Cabinet | black plastic NORYL® |

The SRB 3206 is a 5 decade, general purpose, programmable counter. The SRB 3206 gives the following functions:

- programming of 4 different preset values
- shift of preset values during operation
- setting SI units/values by inputting a scale factor
- choice of digit ranges
- one or two channel incremental encoders can be used
- internal or external reset conditions
- inverting of counter direction (counting up/down)
- counter blocking
- error messages on display

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