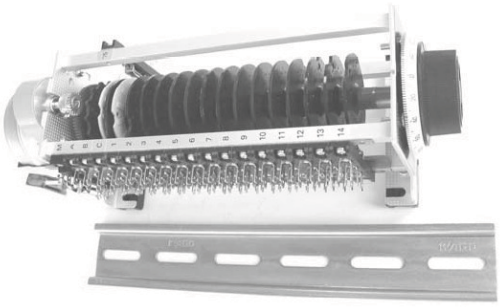
Step-by-step unit
Schrittschaltwerk

MICRONOR
automation components

Serie MSB

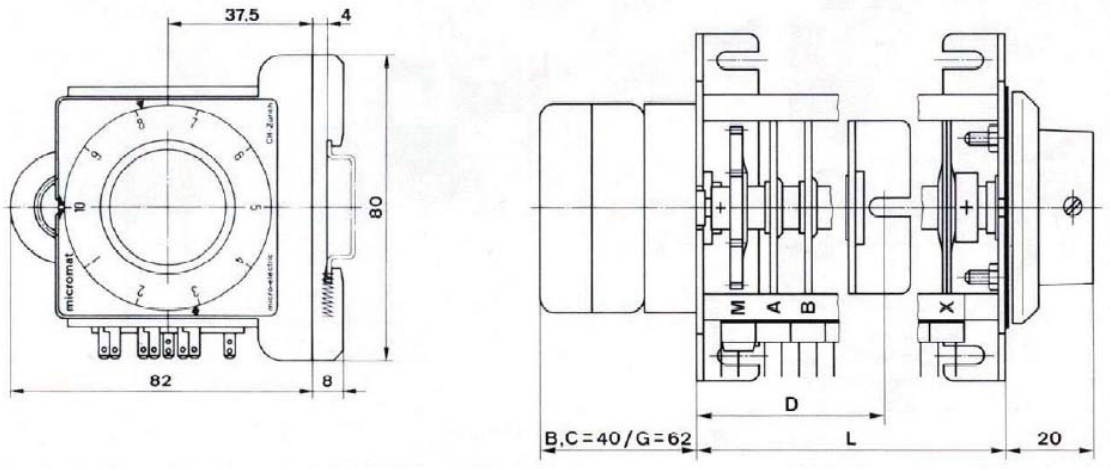


- Programmable programm channel 5 … 20
- Number of steps 5 … 24
- Micro switch standard KS 25 B4
- Breaking capacity 4 A 220 VAC / 1 A 60 VDC
- Fast mounting
- Special types on request

Technical data

Precision micro switch	
Micro switch	KS 25 B4
Contactmaterial	Ag 999 (silver)
Breaking capacity	4 A 250 VAC / 1 A 60 VDC
Transfer resistance	< 25 mΩ
Micro switch	KS 26 B4
Contactmaterial	Au 4…6 µm (gold)
Breaking capacity	4 A 250 VAC / 1 A 60 VDC
Transfer resistance	< 10 mΩ
Common contact	COM (1)
Normally open contact	NC (2)
Break contact	NO (2)
Double soldering and plug connection	2 x 2.8 x 0.5mm
Program panel with clips	NP 4160 / NP 4172
Knob scale	
Preselection of a certain position	

Outline drawing



Serie MSB

Electrical connection (Type SA)

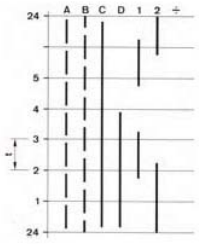
Funktion **SA**

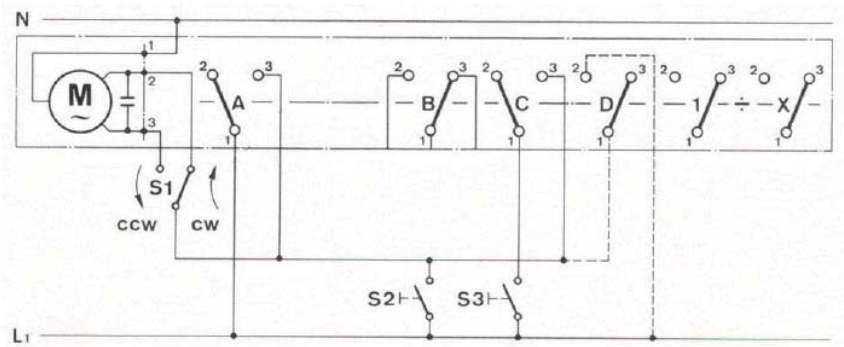
min. **60** ms. max. **180** ms.

S1 = wahlschalter
S2 = Start
S3 = Nullstellung

K = Hilfsrelais

Programm





Electrical connection (Type SE)

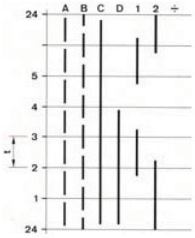
Funktion **SE**
Dauerimpulse **SE**

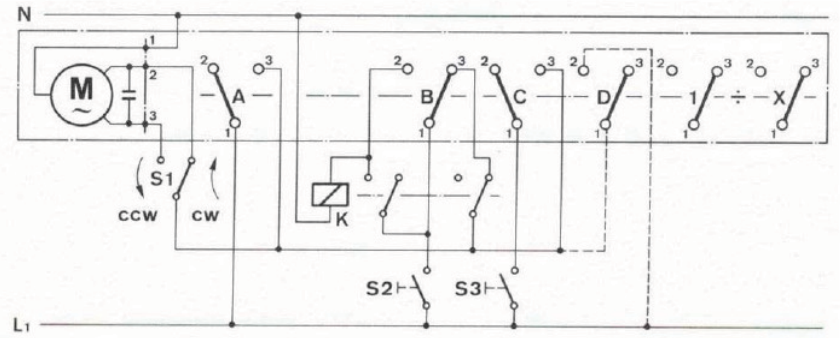
min. **60** ms. ...
max.

S1 = Wahlschalter
S2 = Start
S3 = Nullstellung

K = Hilfsrelais

Programm





Schaltkanäle (**festes programm**)
Schrittscheibe — A = NF 4100
Schrittverriegelung — B = NF 4100
Nullstellung — C = NF 4101
Schrittbegrenzung — D = NK 4201

Serie MSB

Order key

			MSB41	09	S1	C1	1
Switches left							
Dimension / Size (mm) / Number of switches:							
		9 -->Dimension:					
		95 mm -->Size (L)					
09	=	5 -->Number of steps					
		5 -->Indication (division)					
		4 -->Switching channels					
		5 -->Program channels					
		9 Channels --> Total					
		15 -->Dimension:					
		143 mm -->Size (L)					
15	=	10 -->Number of steps					
		10 -->Indication (division)					
		4 -->Switching channels					
		11 -->Program channels					
		15 Channels --> Total					
		18 -->Dimension:					
		167 mm -->Size (L)					
18	=	12 -->Number of steps					
		12 -->Indication (division)					
		4 -->Switching channels					
		14 -->Program channels					
		18 Channels --> Total					
		21 -->Dimension:					
		191 mm -->Size (L)					
21	=	15 -->Number of steps					
		15 -->Indication (division)					
		4 -->Switching channels					
		17 -->Program channels					
		21 Channels --> Total					
		24.1 -->Dimension:					
		223 mm -->Size (L)					
		118 mm -->Size (D)					
24.1	=	18 -->Number of steps					
		20 -->Indication (division)					
		4 -->Switching channels					
		20 -->Program channels					
		24 Channels --> Total					
		24.2 -->Dimension:					
		223 mm -->Size (L)					
		118 mm -->Size (D)					
24.2	=	20 -->Number of steps					
		20 -->Indication (division)					
		4 -->Switching channels					
		20 -->Program channels					
		24 Channels --> Total					
		30 -->Dimension:					
		271 mm -->Size (L)					
		142 mm -->Size (D)					
30	=	24 -->Number of steps					
		24 -->Indication (division)					
		4 -->Switching channels					
		26 -->Program channels					
		30 Channels --> Total					

Serie MSB

Cycle times (s):

S1 = 3s	**M1** = 2min.	**H1** = 2h
S2 = 3,6s	**M2** = 3min.	**H2** = 3h
S3 = 4,5s	**M3** = 3,6min.	**H3** = 3,6h
S4 = 6s	**M4** = 4,5min.	**H4** = 4,5h
S5 = 7,5s	**M5** = 6min.	**H5** = 6h
S6 = 10s	**M6** = 7,5min.	**H6** = 7,2h
S7 = 12s	**M7** = 10min.	**H7** = 10h
S8 = 15s	**M8** = 12min.	**H8** = 12h
S9 = 20s	**M9** = 15min.	**H9** = 24h
S10 = 30s	**M10** = 20min.	
S11 = 36s	**M11** = 30min.	
S12 = 45s	**M12** = 36min.	
S13 = 60s	**M13** = 45min.	
S14 = 90	**M14** = 60min.	
	M15 = 90min.	

Synchronus motor: Power supply (AC / DC) Frequency 50Hz (60Hz) --> ?

		CW	CCW	
C1 = 24	/	24V		AC
C2 = 48	/	48...	50V	AC
C3 = 110	/	110...	120V	AC
C4 = 220	/	220...	240V	AC
G1 = 24	/	24V	± 0.7	DC
G2 = 12	/	12V	± 0.7	DC

Programming cam with clips:

1 = NP4160
2 = NP4172

additionally per NF disk programs