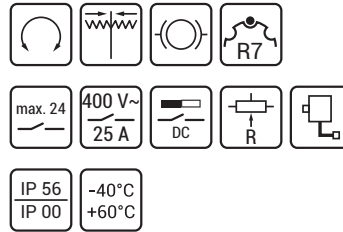


## NS20

Robust selector switch, potentiometer drive.



The NS20 is a robust rotary switch, potentiometer drive with very stable drive mechanism. The base for this is a 12 mm square metal shaft which serves as a carrier for the cam carrier tube, which is also made of metal. Cam disks are fixed onto this which actuate the contacts depending on the angle of rotation. The individual contacts are embedded in double contact elements and are available in silver, gold-plated silver or with blow magnets for DC applications. Switching operation according to Spobu standard circuits or customer-specific.

Optionally, the rotary switch can be equipped with different handles made of plastic or stainless steel. A matching black square aluminum escutcheon plate or a round escutcheon plate with or without engraving can be selected.

Together with notching discs made of metal from the Spobu standard program or in customized version, flanged potentiometers or encoders, these rotary switches reliably solve control tasks in control panels, on deck control columns or control stands.

Version rotary switch

Type, front plate	Scope of delivery
NS20...	Rotary switch with: - Free shaft end with 12 mm square, length = 26 mm - Notching disc according to standard contact circuits TI-S-... without: - Escutcheon plate - Handle
NS20-F...	Rotary switch with: - Stainless steel ball handle K269F-2 - Escutcheon plate aluminium black 96x96 mm - Notching disc according to standard contact circuits TI-S-...
NS20-FOD...	Rotary switch with: - Front side IP56 - Stainless steel ball handle K269F-2 - Waterproof round escutcheon plate 100 mm - Notching disc for standard contact circuits TI-S-...

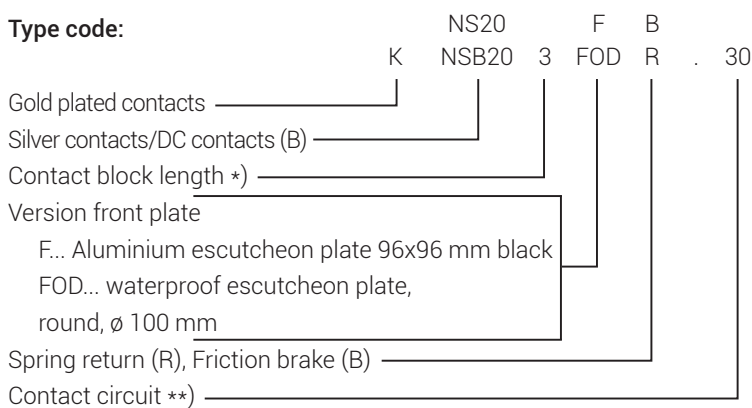
**Electrical specifications** see TI-1 (VNS2, VNS2B)

**Dimensions, construction** see TI-NS20-1/2

## Options, Type code

**Options**

- Spring return
- Friction brake
- Contact circuits see TI-S-...
- Special notching disc
- Handles:
  - Knob handles:
    - Knob handle, plastic, black
- Potentiometer
- Encoder, optical
- Encoder, inductive
- Engraving on escutcheon:
  - Labeling per line with max. 14 characters (specification in plain text)
  - Position mark
- Installation in housing of cast aluminium: IP54, grey powder coated, dimensions see TI-NS20-2/2
  - housing NS207A (244 x 196 x 130 mm)  
suitable for switches up to NS207, NS206-B, NS205-R
  - housing NS210A (319 x 194 x 130 mm)  
suitable for switches up to NS209, NS208-B, NS207-R

**Type code:**

\*) Contact block length = number of double contacts + additional function.

Additional function e.g. friction brake, double notching

- for version with friction brake, add 1 to the number of double contact elements.

\*\*\*) For standard contact circuits, see sheets TI-S-1, TI-S-2, for special circuits, please enter in forms.

## Rotary switch installed in cast aluminum housing

### Scope of delivery:

Switch NS20 installed in aluminium cast housing  
 Housing in protection class IP56 grey powder coated  
 Switch with ball handle K269F-2 made of stainless steel, maximum angle of rotation  $\pm 120^\circ$ .  
 Notching disc for standard contact circuits according to TI-S...

Electrical specifications see TI-1 (VNS2, VNS2B)

Dimensions see TI-NS20-2/2

## Versions

Switch, stay put

Contact circuits according to TI-S-1, -2, -3, suitable for the number of double contacts

Number of double contacts	Type code
1	NS207A G1
2	NS207A G2
3	NS207A G3
4	NS207A G4
5	NS207A G5
6	NS207A G6
7	NS207A G7
8	NS210A G8
9	NS210A G9

Switch, stay put

Contact circuits according to TI-S-1, -2, -3, suitable for the number of double contacts with heating Z and mushroom push button P

Number of double contacts	Type code
1	NS207A GZP1
2	NS207A GZP2
3	NS207A GZP3
4	NS207A GZP4
5	NS207A GZP5
6	NS210A GZP6

Switch, with spring return

Contact circuits according to TI-S-1, -2, -3, suitable for the number of double contacts

Number of double contacts	Type code
1	NS207A GR1
2	NS207A GR2
3	NS207A GR3
4	NS207A GR4
5	NS207A GR5
6	NS210A GR6

## Versions

Switch, with spring return

Contact circuits according to TI-S-1, -2, -3, suitable for the number of double contacts with heating Z and mushroom push button P

Number of double contacts	Type code
1	NS207A GRZP1
2	NS207A GRZP2
3	NS207A GRZP3
4	NS210A GRZP4
5	NS210A GRZP5

### Additional charge:

for each DC double contact

Engraving per word

per position mark

Special notching disc

Housing hinges

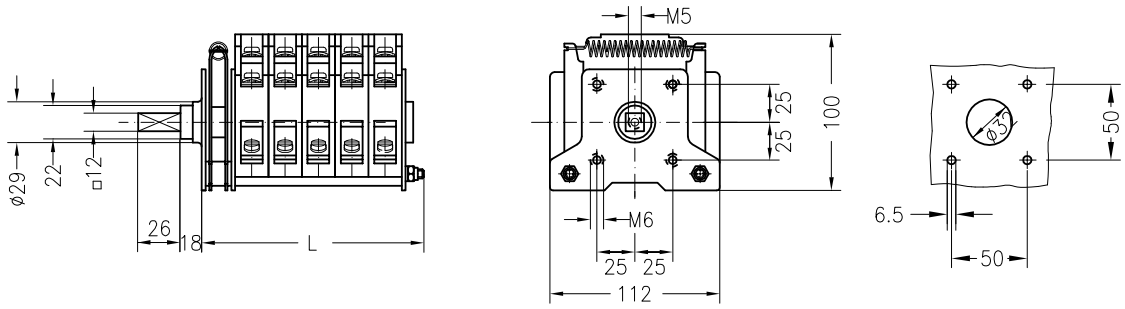
### Price reduction:

without heating (Z)

without mushroom push button (P)

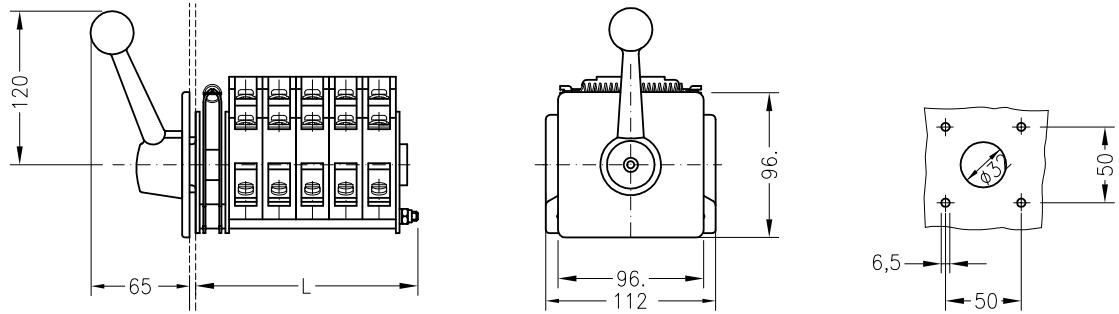
with knob handle instead ball handle

Einsatzschalter  
switch



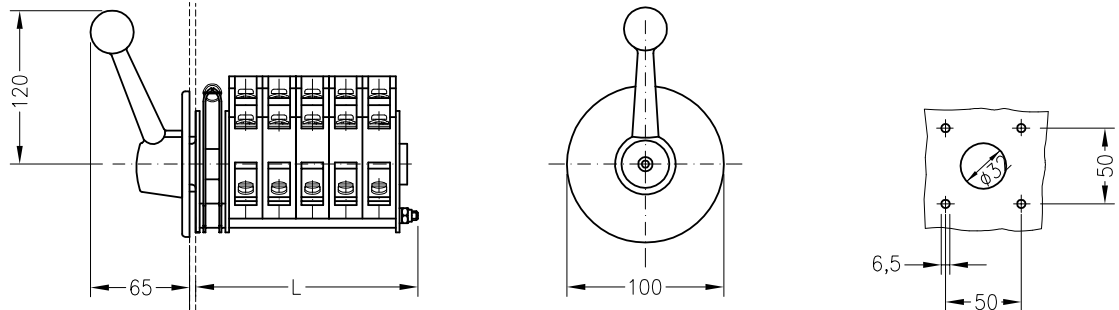
Fabrik-Norm	mit Rastung notching	NS201	NS202	NS203	NS204	NS205	NS206	NS207	NS208	NS209	NS210	
	mit Selbstrückgang spring return	NS201R		NS202R	NS203R	NS204R	NS205R	NS206R	NS207R	NS208R	NS209R	NS210R
	Länge L mm length	62	84	106	128	150	172	194	216	238	260	282
	Gewicht ~kg weight ~kg	0,8	1,4	2,0	2,6	3,2	3,8	4,4	5,0	5,6	6,2	6,8

Einsatzschalter mit Rosette 96x96 mm  
switch with escutcheon 96x96 mm



Fabrik-Norm	mit Rastung notching	NS201F	NS202F	NS203F	NS204F	NS205F	NS206F	NS207F	NS208F	NS209F	NS210F	
	mit Selbstrückgang spring return	NS201FR		NS202FR	NS203FR	NS204FR	NS205FR	NS206FR	NS207FR	NS208FR	NS209FR	NS210FR
	Länge L mm length	62	84	106	128	150	172	194	216	238	260	282
	Gewicht ~kg weight ~kg	0,8	1,4	2,0	2,6	3,2	3,8	4,4	5,0	5,6	6,2	6,8

Einbauschalter mit wasserdichter Rundrosette  
switch with escutcheon, water resistant

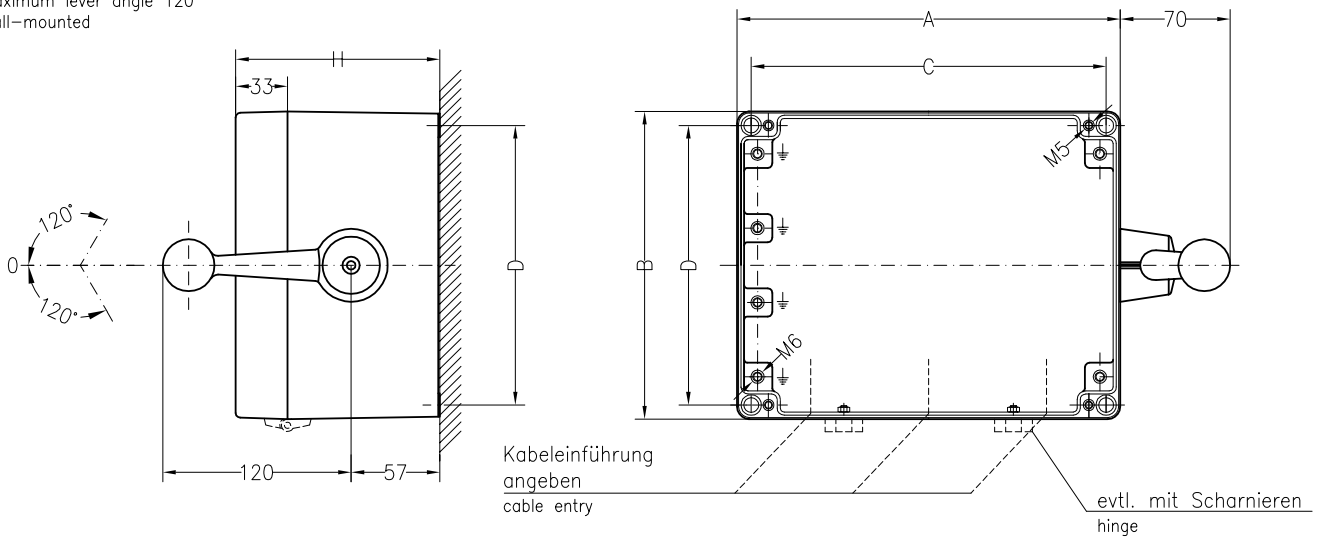


Fabrik-Norm	mit Rastung notching	NS201FD	NS202FD	NS203FD	NS204FD	NS205FD	NS206FD	NS207FD	NS208FD	NS209FD	NS210FD	
	mit Selbstrückgang spring return	NS201FDR		NS202FDR	NS203FDR	NS204FDR	NS205FDR	NS206FDR	NS207FDR	NS208FDR	NS209FDR	NS210FDR
	Länge L mm length	62	84	106	128	150	172	194	216	238	260	282
	Gewicht ~kg weight ~kg	0,8	1,4	2,0	2,6	3,2	3,8	4,4	5,0	5,6	6,2	6,8

Mit Kugelgriff Kg2A  
 Deckel- und Anschlußschrauben nichtrostend  
 mit auswechselbaren Kontaktelementen und  
 Nockenscheiben, Abwicklung beliebig.

Ball handle Kg2A  
 cover and stainless steel screws  
 double contact elements and  
 cams replaceable, any circuits.

Maximaler Drehwinkel 120°  
 bei Wandmontage  
 Maximum lever angle 120°  
 wall-mounted



Fabrik Norm									Kabeleinführung cable entry					
mit Rastung notching	1) mit Heizung-Z und Pilztaste-P with heating-Z and emergency off button-P	mit Selbstrückgang spring return	1) mit Heizung-Z und Pilztaste-P with heating-Z and emergency off button-P	A	B	C	D	H	oben above	unten below	Gew. ~kg weight			
normal		normal		244	196	226	178	130						
normal		normal												
NS 207A G1	NS 207A GZP1	NS 207A GR1	NS 207A GRZP1											
NS 207A G2	NS 207A GZP2	NS 207A GR2												
NS 207A G3	NS 207A GZP3	NS 207A GR3												
NS 207A G4														
NS 207A G5														
NS 207A G6	NS 207A GZP4	NS 207A GR4	NS 207A GRZP2											
NS 207A G7	NS 207A GZP5	NS 207A GR5	NS 207A GRZP3											
NS 210A G8	NS 210A GZP6	NS 210A GR6		319	194	301	176	130						
NS 210A G9	NS 210A GZP7	NS 210A GR7												

letzte Zahl = Anzahl der eingebauten Doppelkontakte  
 last number = quantity of mounted double contact elements

1) Bitte Spannung angeben  
 please give supply voltage