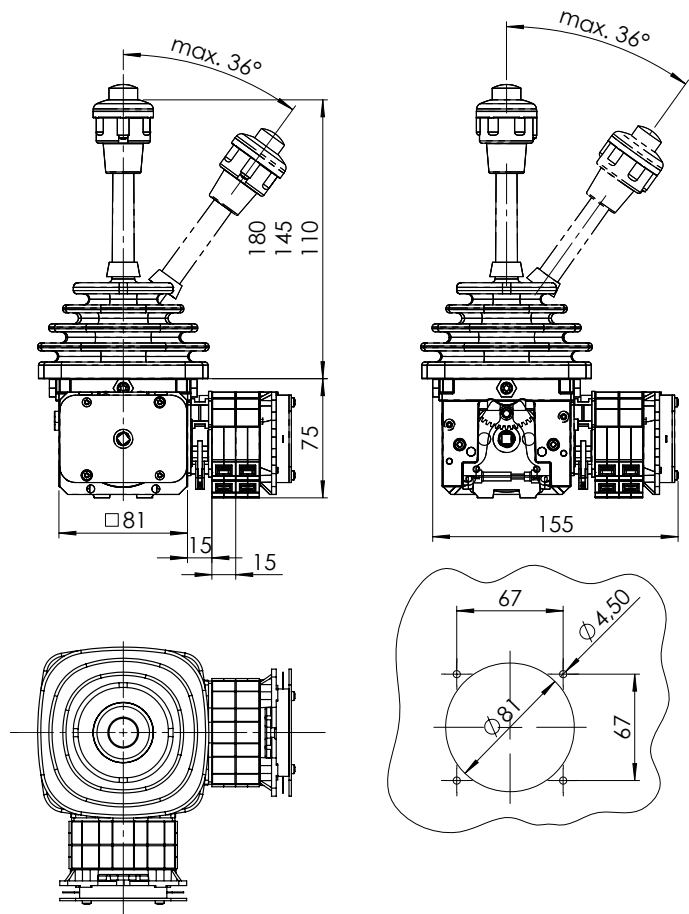
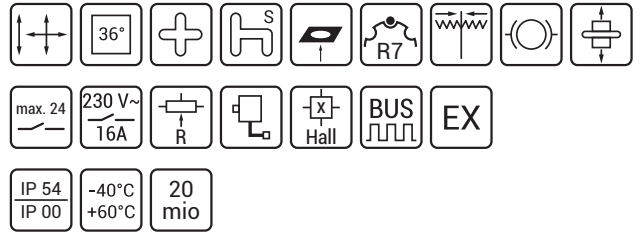


VNS0

The Allrounder.



Both the VNS0 and the NNS0 are very robust joysticks with aluminium diecast consoles and metal gears.

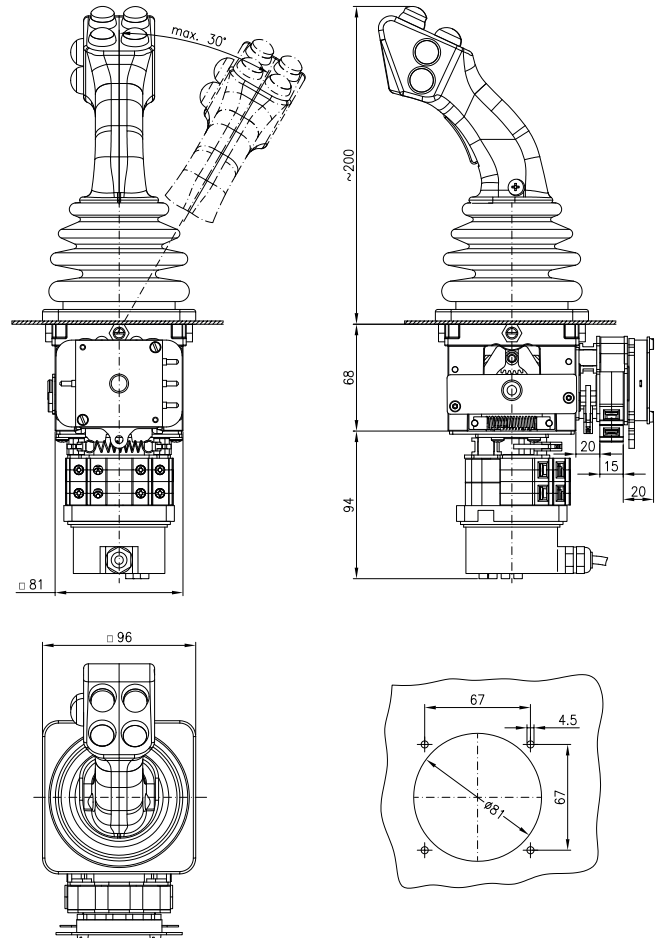
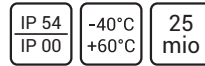
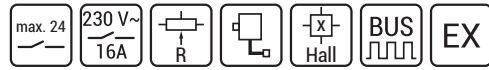
Their resistance against ozone, UV radiation, oil and maritime climate makes them especially suitable for heavy-duty applications and also in potentially explosive areas. They are available both as single and dual axis drives. The intelligent modular design allows customized solutions for contact elements for up to twelve units, each of them with two switching contacts. Those

may be flanged in the x-, y- and z-axis as well as in series. A maximum of nine double contact elements, silver or gold plated, is possible with spring return and notches.

A large standard portfolio allows to choose the notching discs as well as the cams. They are also programmable according to client's request.

NNSO

Our special type.



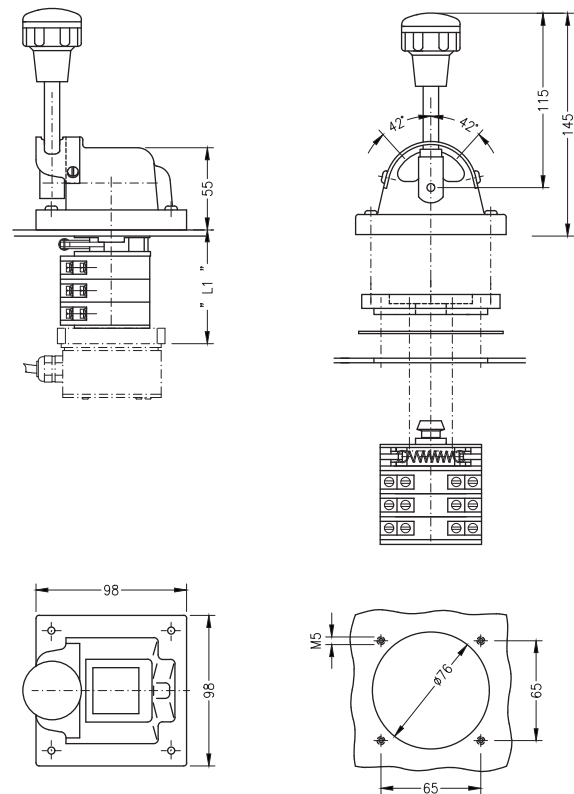
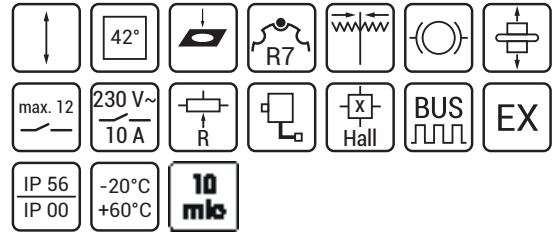
The hollow special-alloy lever (VNSO 8 mm, NNSO 12 mm diameter) allows to mount a variety of handles and the wires can be routed through the shaft of the joystick. Optionally, a rotary module mounted between the joystick and the handle extends the joystick by an additional axis. Due to the special coupling design it is easy to flange potentiometers as well as optoelectronic encoders. Moreover, various bus interfaces are

available in customized system sizes.

As an optical finish, you will get as standard a rubber boot with matching invisible holder or a rubber boot with escutcheon plate of your choice either in transparent plastic with specified engraving or as an engraved aluminium version.

NS0-SFA

For extreme environmental requirements.



The NS0-SFA with a chromated aluminum upper part, lever and drive shaft made of high-quality stainless steel as well as a shaft seal was developed with the demand of permanently ensuring a high front IP protection class.

The modular contact block is equipped with exchangeable double contact elements and allows switching with a maximum of 7-0-7 posi-

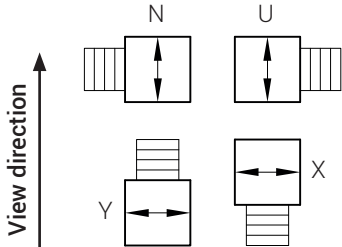
tions and the attachment of potentiometers and absolute encoders.

A Gravoply plate that can be engraved can optionally be inserted on the top of the control switch to show the switching function.

These control switches have been showing their reliability and durability under extreme operating conditions on ships, drilling rigs and steel works for years.

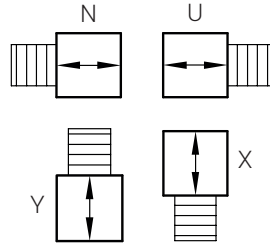
Drives 1- and 2-axis:

Drive E
Arrangement N, U, Y, X



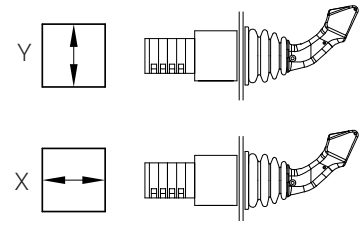
VNS0-F E- $\begin{matrix} \text{N} \\ \text{U} \\ \text{Y} \\ \text{X} \end{matrix}$ --AK

Drive G
Arrangement N, U, Y, X



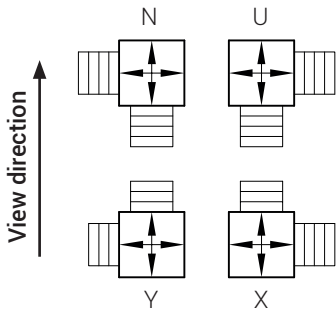
VNS0-F G- $\begin{matrix} \text{N} \\ \text{U} \\ \text{Y} \\ \text{X} \end{matrix}$ --AK

Drive A
Arrangement Y, X



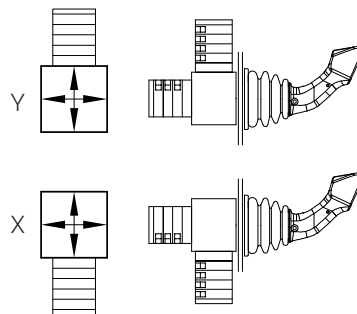
VNS0-F A- $\begin{matrix} \text{Y} \\ \text{X} \end{matrix}$ --AK

Drive V
Arrangement N, U, Y, X



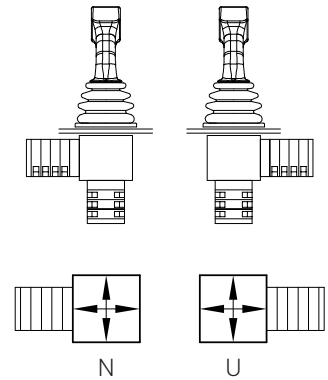
VNS0--F V- $\begin{matrix} \text{N} \\ \text{U} \\ \text{Y} \\ \text{X} \end{matrix}$ --AK

Drive EA
Arrangement Y, X



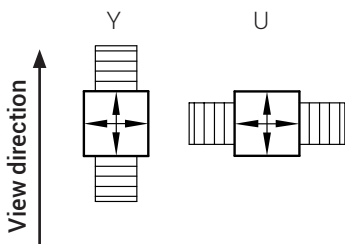
VNS0--F EA- $\begin{matrix} \text{Y} \\ \text{X} \end{matrix}$ --AK

Drive EA
Arrangement N, U



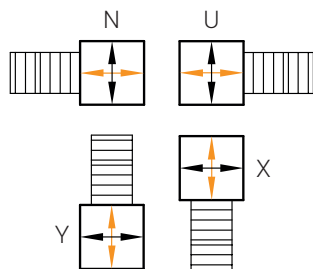
VNS0--F EA- $\begin{matrix} \text{N} \\ \text{U} \end{matrix}$ --AK

Drive M
Arrangement Y, U



VNS0--F M- $\begin{matrix} \text{Y} \\ \text{U} \end{matrix}$ --AK

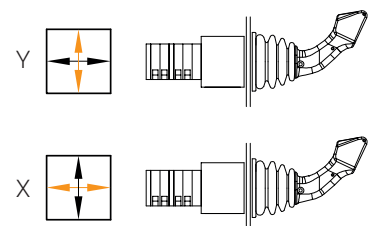
Drive H
Arrangement N, U, Y, X



Potentiometer and encoder coupling only for colour-coded axis

VNS0--F H- $\begin{matrix} \text{N} \\ \text{U} \\ \text{Y} \\ \text{X} \end{matrix}$ --AK

Drive AA
Arrangement Y, X

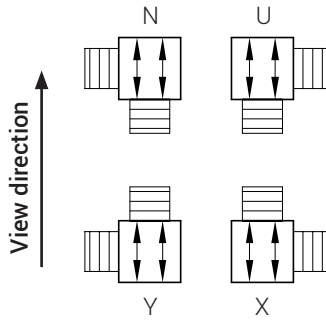


Potentiometer and encoder coupling only for colour-coded axis

VNS0-F AA- $\begin{matrix} \text{Y} \\ \text{X} \end{matrix}$ --AK

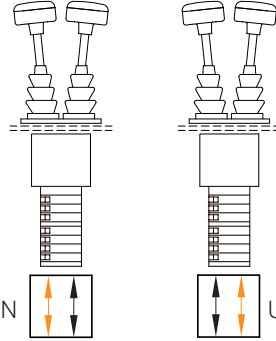
Drives with 2 levers:

Drive GGV
Arrangement N, U, Y, X



VNS0--F GGV-
N
U
Y
X

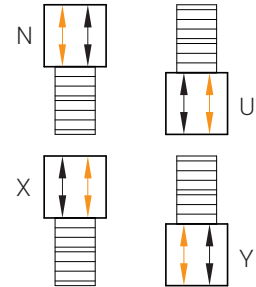
Drive GGAA
Arrangement N, U



Potentiometer and encoder coupling only for colourcoded axis

VNS0--F GGAA-
N
U

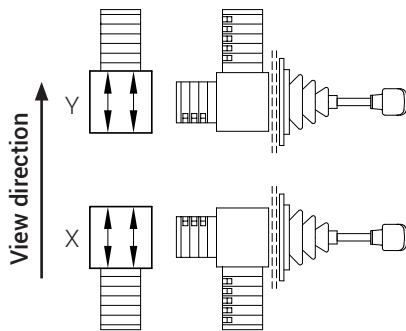
Drive GGH
Arrangement N, U, Y, X



Potentiometer and encoder coupling only for colourcoded axis

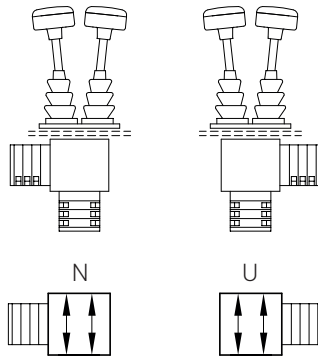
VNS0--F GGH-
N
U
Y
X

Drive GGEA
Arrangement Y, X



VNS0--F GGEA-
Y
X

Drive GGEA
Arrangement N, U



VNS0--F GGEA-
N
U

Project planning information GG-Drives:

Standard with black aluminum rosette.

GG drives are not available with mechanical locking (Z, ZS, ZO, ...).

Handles:

- Standard handle G41, only without internals/function
- G13-handle: only in combination with lever length 140 mm
- UGA-handle without handrest: only in combination with lever length 110 mm
- UGALR-handle without handrest: only in combination with lever length 140 mm
- G56, G58: not possible in combination with GG-drives

The orientation of the handles is always in the view direction.

The direction of view is determined by the drive and the arrangement.

Drives 1- and 2-axis with internal potentiometer:

Drive EPI

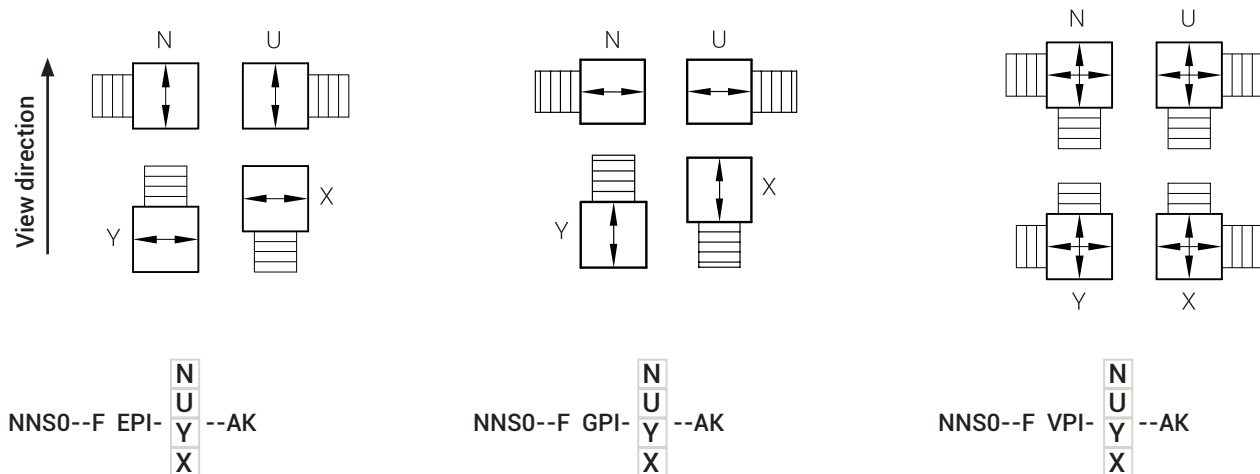
Arrangement N, U, Y, X

Drive GPI

Arrangement N, U, Y, X

Drive VPI

Arrangement N, U, Y, X



NNS0-PI: Specification for Bxx-potentiometer mounted inside of the drive block.

Scope of supply for NNS0-EPI, -GPI, -VPI:

- Deflection max. 30° (depending on contact circuit)
- With zero notching
- Limiting gate, symmetrical, 26°
- Lever with 12 mm diameter
- Rubber boot with invisible holder (S3 combination)
- Handle G48

Options for drive arrangement EPI, GPI, VPI:

- Spring return R
- Without zero notching (only in combination with spring return)
- Housing for bus interfaces 1)
- Limiting gate 18° (depending on contact circuit)
- Additional
- Contact circuits
- Encoder, Electronic

see sheet J-NS0-8/14
see sheet J-NS0-12/14
see sheet E-Electronic-1,-2,-3

Project planning information:

Type code see page J-NS0-8/14

The orientation of the handles is always in the view direction.
The view direction is defined by the drive and the arrangement.
1) Housing needed in combination with a bus system integrated in the joystick.

01.01.2023



J-NS0-S-11/14

VNS0, NNS0, NS0, NS00, NS0-SFA

J-NS0-11/14

Errors and technical changes reserved.

01.01.2023



J-NS0-12/14

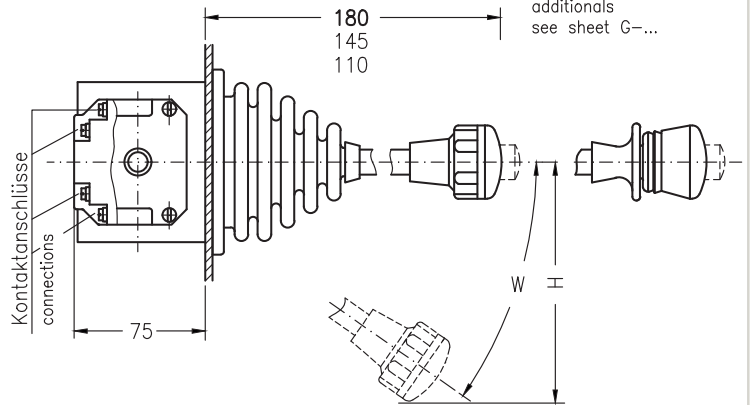
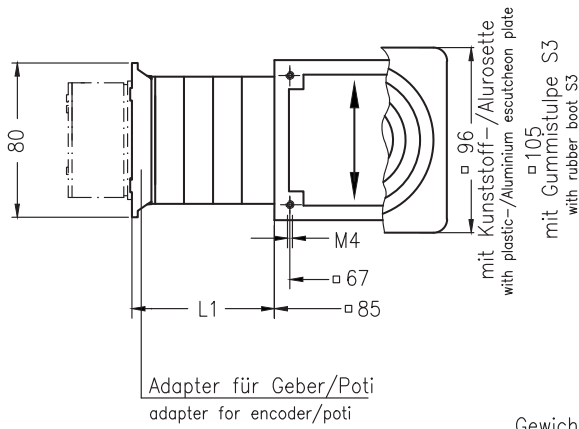
VNS0, NNS0, NS0, NS00, NS0-SFA

J-NS0-12/14

Errors and technical changes reserved.

Typ **VNS0-F-E** Antrieb E siehe Kapitel J-NS0
 type drive E see chapter J-NS0

Einbauen im Hebel
 siehe Seite G-...
 additional
 see sheet G-...

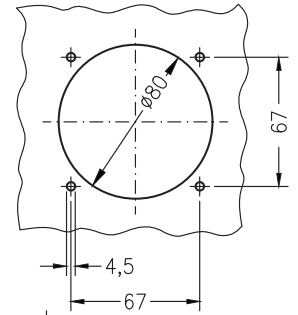


Anordnung
 arrangement



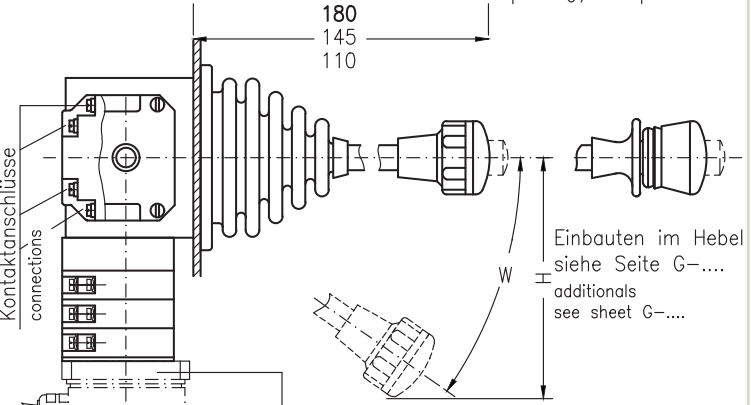
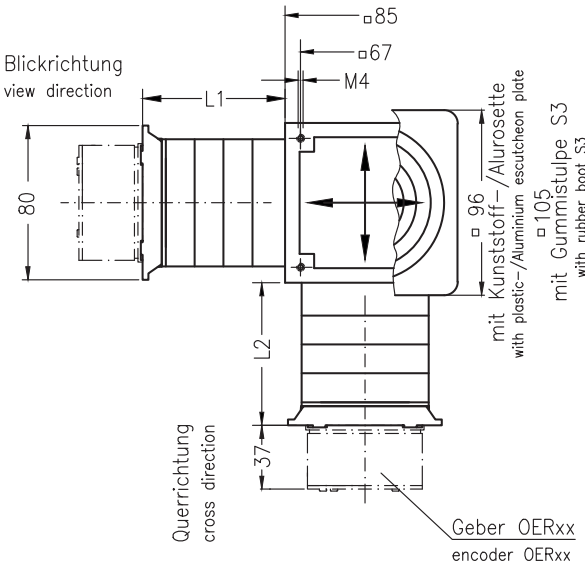
Gewicht:
 Antriebsblock ~0,9 kg
 je Doppelkontakt ~0,08 kg
 weight:
 drive ~0,9 kg
 each double contact ~0,08 kg

Bohrungen in der
 Befestigungswand
 mounting pattern



Typ **VNS0-F-V** Antrieb V siehe Kapitel J-NS0
 type drive V see chapter J-NS0

Blickrichtung
 view direction



Einbauen im Hebel
 siehe Seite G-...
 additional
 see sheet G-...

Anordnung
 arrangement



Gewicht:
 Antriebsblock ~1,2 kg
 je Doppelkontakt ~0,08 kg
 weight:
 drive ~1,2 kg
 each double contact ~0,08 kg

Adapter für Geber /Poti
 adapter for encoder/poti

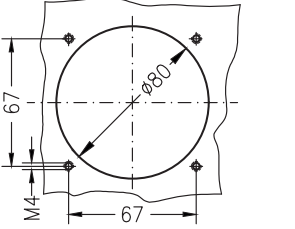
bei 180 mm Hebel by lever 180 mm		
Position	W	~ H mm
1-0-1	14°	70
2-0-2	20°	100
3-0-3	30°	135
4-0-4	30°	135
5-0-5	36°	155
6-0-6	36°	155
7-0-7	30°	135
Poti/ Encoder	36°	155

Maß L1 oder L2 (mm) dimension L1 or L2 (mm)	40	55	70	85	100	115	130	145	160	175
Anzahl Doppelkontaktelemente number of double contact elements	1	2	3	4	5	6	7	8	9	10

Anordnungsbezeichnung: arrangement description:						Schaltrichtungsbezeichnung		switch direction arrangement	
VNS0-E		VNS0-V		VNS0-V		linke Hand left hand		rechte Hand right hand	
linke Hand left hand	rechte Hand right hand	linke Hand left hand	rechte Hand right hand	linke Hand left hand	rechte Hand right hand	1	3	5	7
N	U	N	U	U	N				
U	N	Y	X	X	Y				
Blick- richtung view direction		Blick- richtung view direction		Blick- richtung view direction					
Quer- cross direction		Quer- cross direction		Quer- cross direction					

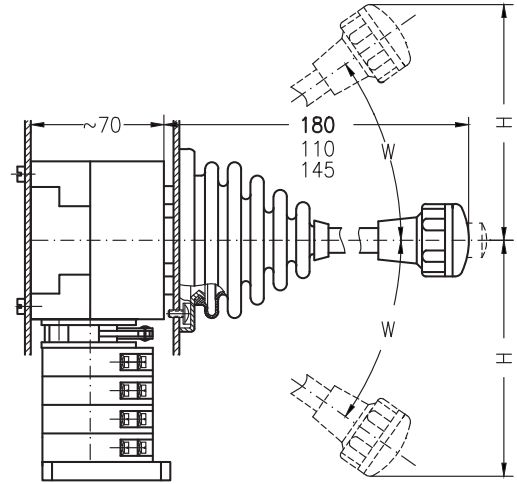
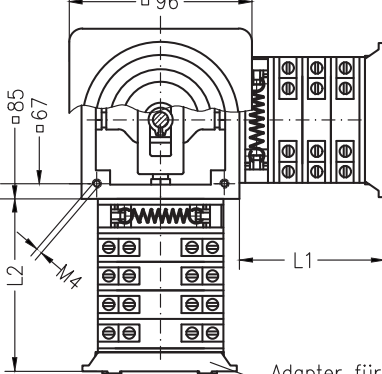
Bohrungen in der Abdeckung

mounting pattern

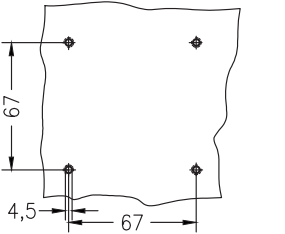


mit Gummistulpe S3
with rubber boot S3
□ 105

mit Kunststoff-/Alurosette
with plastic-/Aluminium escutcheon plate
□ 96



Bohrungen in der Rückwand

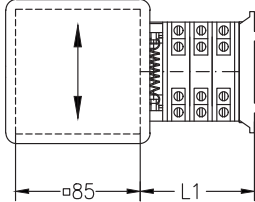


Adapter für Geber/Poti
adapter for encoder/poti

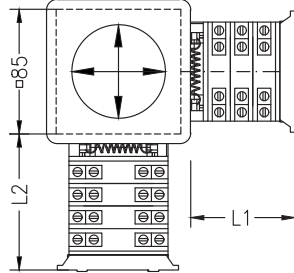
Anzahl Doppelkontaktelemente number of double contact elements	1 ohne Rastung (without notches)		3	4	5	6	7	8	9	10	Hebelausschlag (Hebel 180 mm) lever deflection (lever 180 mm)										
	L1	L2									Stellungen steps	H	W	Stellungen steps	H	W	Stellungen steps	H	W		
	40	(22)	55	(37)	70	85	100	115	130	145	160	175	1-0-1	70	14'	3-0-3	135	30'	5-0-5	155	35'
													2-0-2	100	20'	4-0-4	135	30'	6-0-6	155	36'

Antriebsart: drive arrangement:
Typ VNS0 E(R)

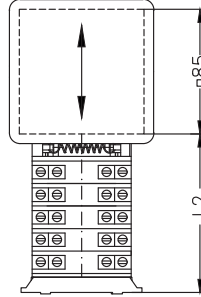
Gew.: Antriebsblock: weight: drive block 0,9 kg
je Doppelkontakt- element: each double contact element 0,08 kg



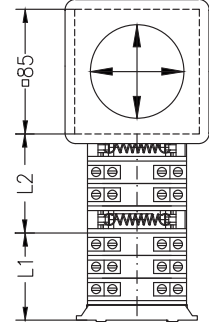
Antriebsart: drive arrangement:
Typ VNS0 V(R)



Antriebsart: drive arrangement:
Typ VNS0 G(R)

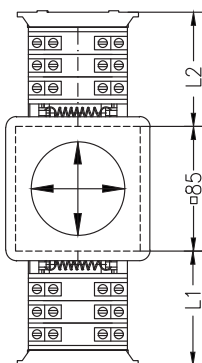


Antriebsart: drive arrangement:
Typ VNS0 H(R)

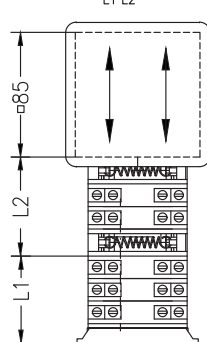


Antriebsart: drive arrangement:
Typ VNS0 M(R)

Gew.: Antriebsblock: weight: drive block 1,4 kg
je Doppelkontakt- element: each double contact element 0,08 kg



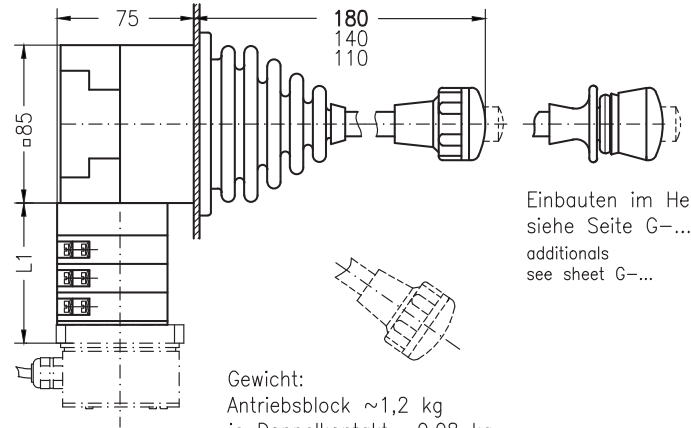
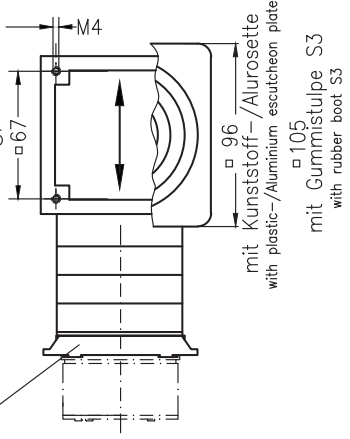
Antriebsart: drive arrangement:
Typ VNS0 GG(R)



Typ VNS0-FG
type

Antrieb G
siehe Seite J-NS0-4/5
drive G
see sheet J-NS0-4/5

Adapter für Geber/Poti
adapter for encoder/poti



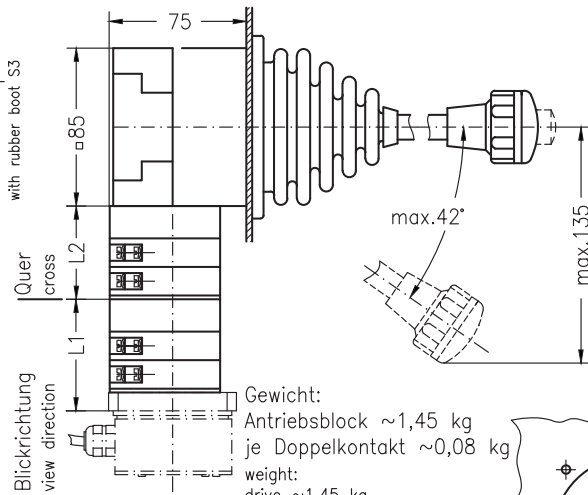
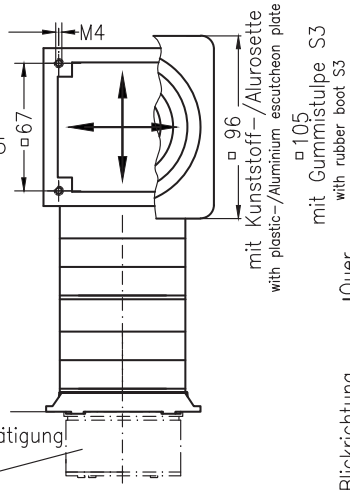
Einbauen im Hebel
siehe Seite G-...
additional
see sheet G-...

Gewicht:
Antriebsblock ~1,2 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,2 kg
each double contact ~0,08 kg

Typ VNS0--FH
type

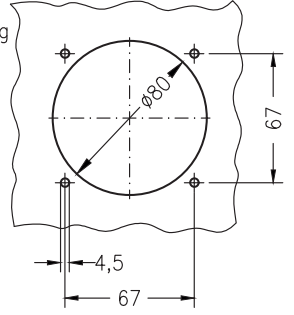
Antrieb H
siehe Seite J-NS0-4/5
drive H
see sheet J-NS0-4/5

Geber/Poti nur für Betätigung
in Blickrichtung möglich
encoder/poti
only in view direction



Bohrungen in der
Befestigungswand
mounting pattern

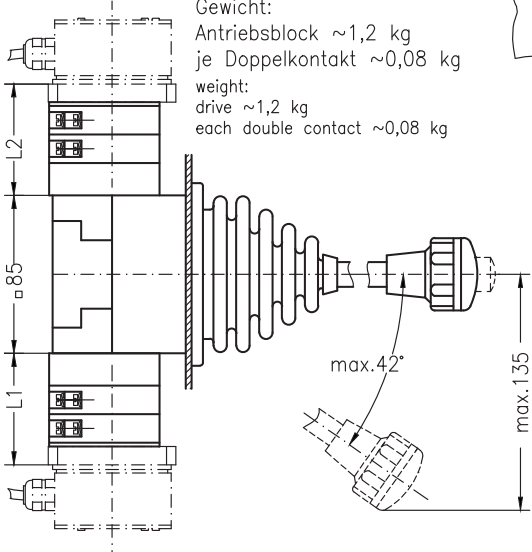
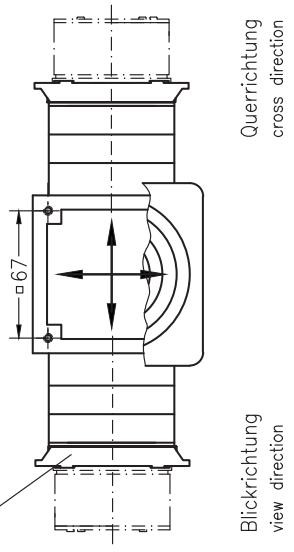
Gewicht:
Antriebsblock ~1,45 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,45 kg
each double contact ~0,08 kg



Typ VNS0--FM
type

Antrieb M
siehe Seite J-NS0-3/5
drive H
see sheet J-NS0-3/5

Adapter für Geber/Poti
adapter for encoder/poti



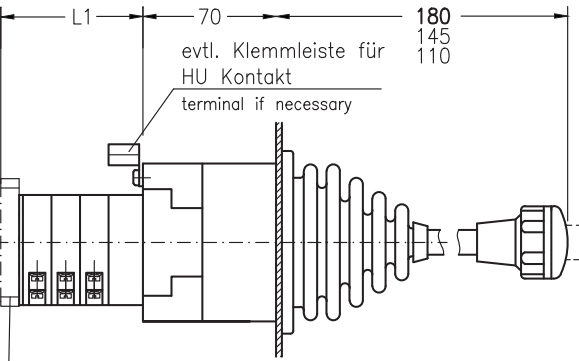
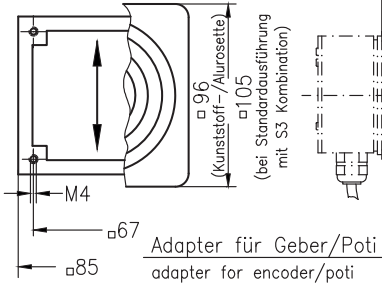
Einbauen im Hebel
siehe Seite G...
additional
see sheet G...

Gewicht:
Antriebsblock ~1,2 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,2 kg
each double contact ~0,08 kg

Maß L1 oder L2 (mm) dimension L1 or L2 (mm)	40	55	70	85	100	115	130	145	160	175
Anzahl Doppelkontaktelemente number of double contact elements	1	2	3	4	5	6	7	8	9	10

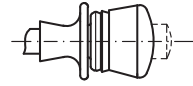
Typ VNS0-A

type Antrieb A siehe Seite J-NS0-3/5
drive A see sheet J-NS0-3/5



Gewicht:
Antriebsblock ~1,2 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,2 kg
each double contact ~0,08 kg

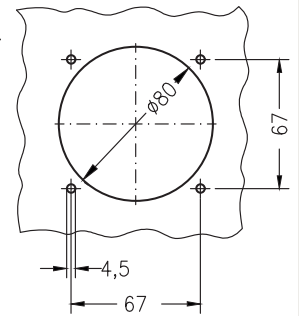
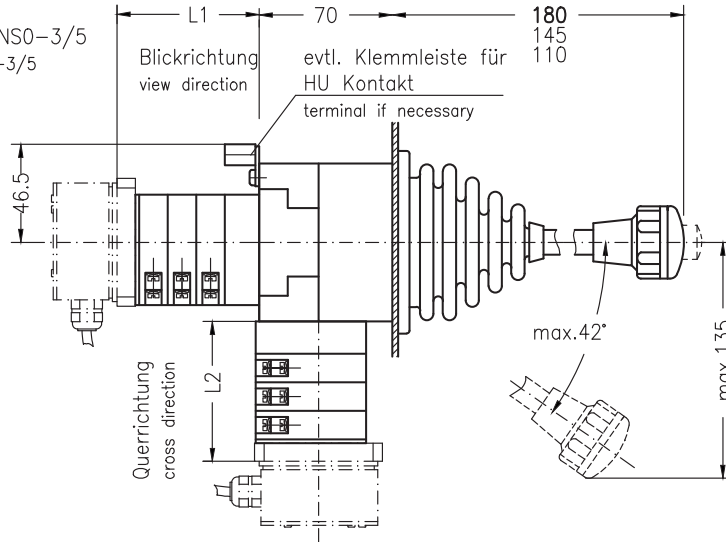
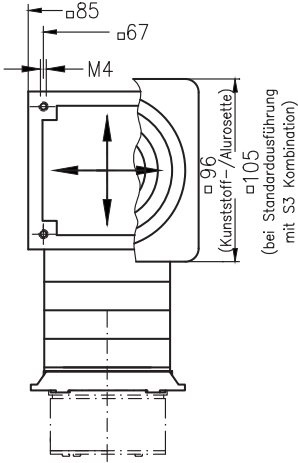
Einbauen im Hebel
siehe Seite G-4/4
additional
see sheet G-4/4



Bohrungen in der Befestigungswand
mounting pattern

Typ VNS0--EA

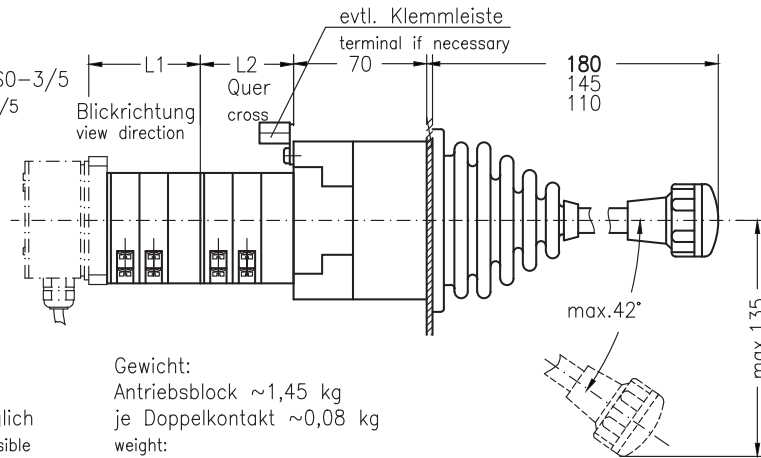
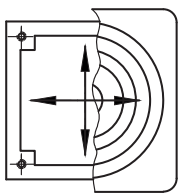
type Antrieb EA siehe Seite J-NS0-3/5
drive EA see sheet J-NS0-3/5



Gewicht:
Antriebsblock ~1,2 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,2 kg
each double contact ~0,08 kg

Typ VNS0--AA

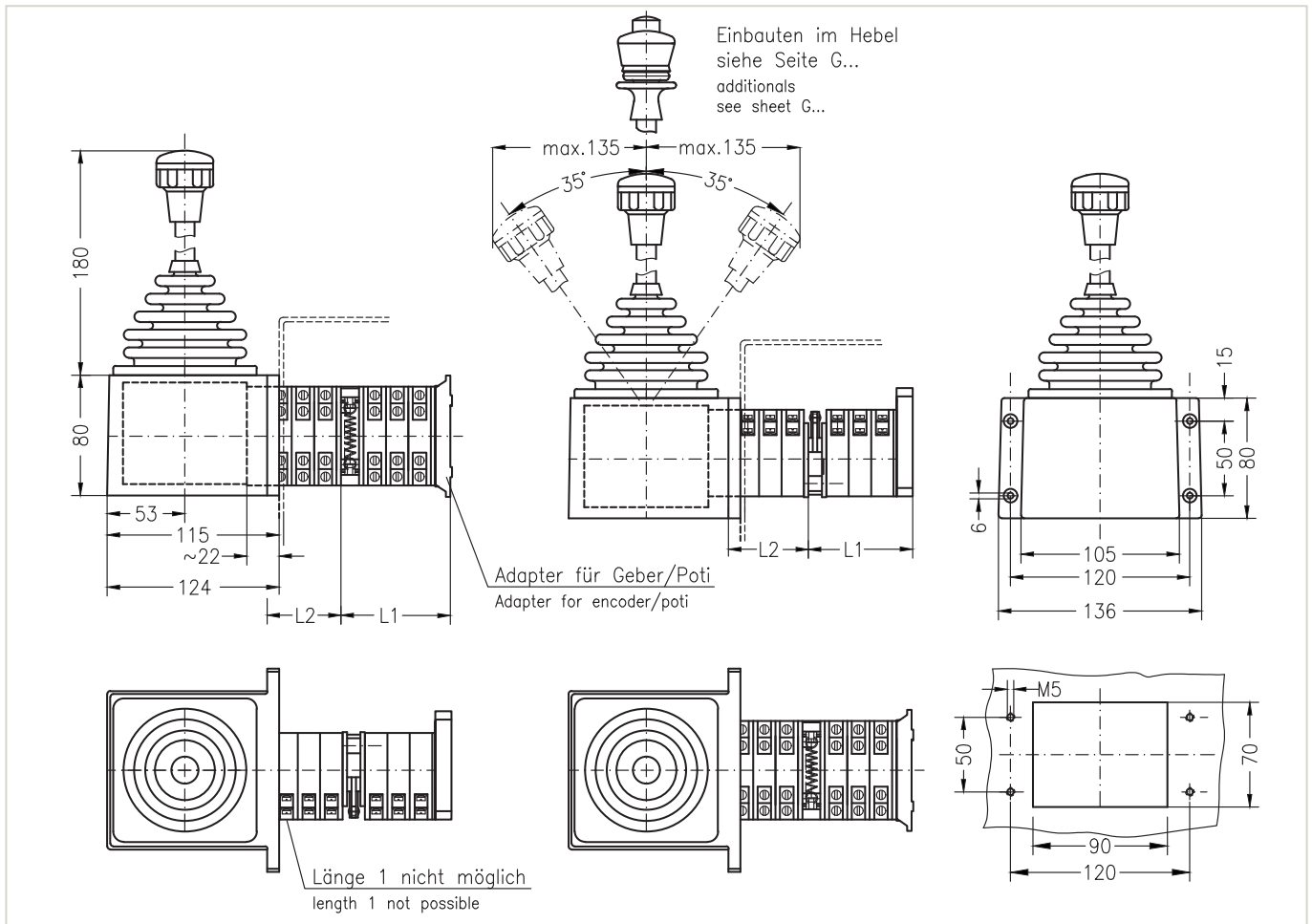
type Antrieb AA siehe Seite J-NS0-3/5
drive AA see sheet J-NS0-3/5



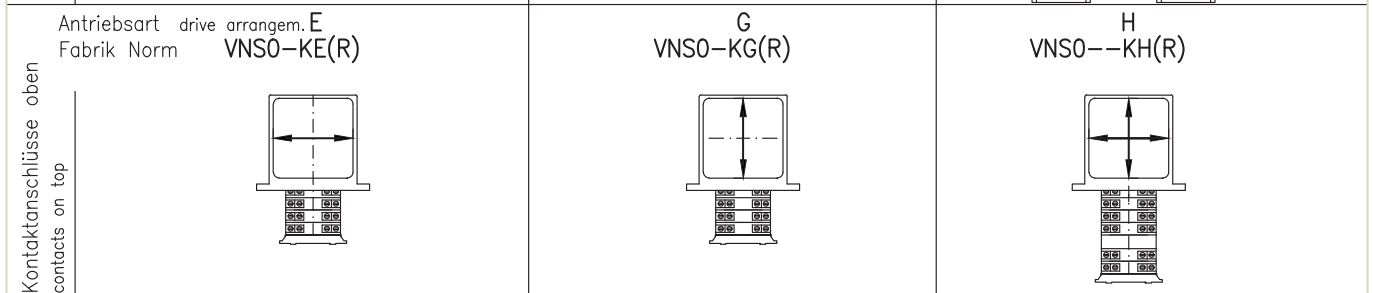
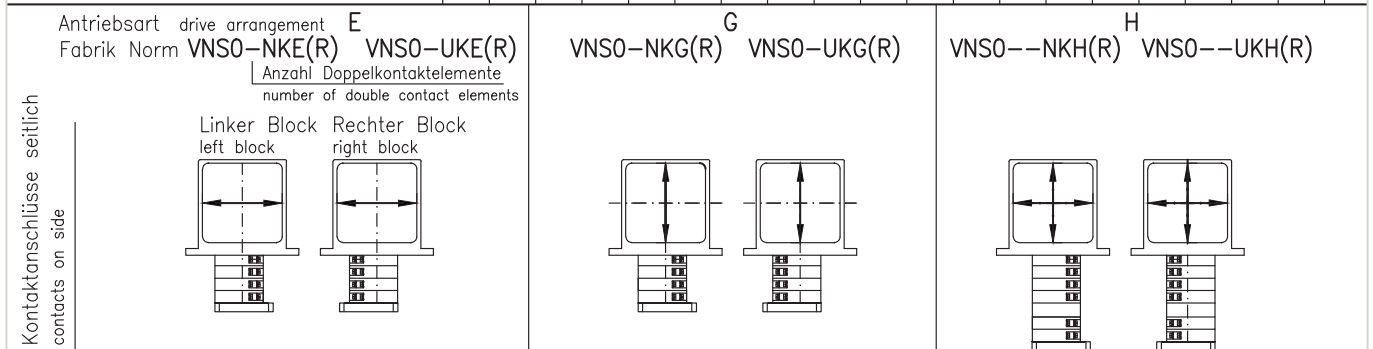
Geber nur in Blickrichtung möglich
attachment only possible for view direction

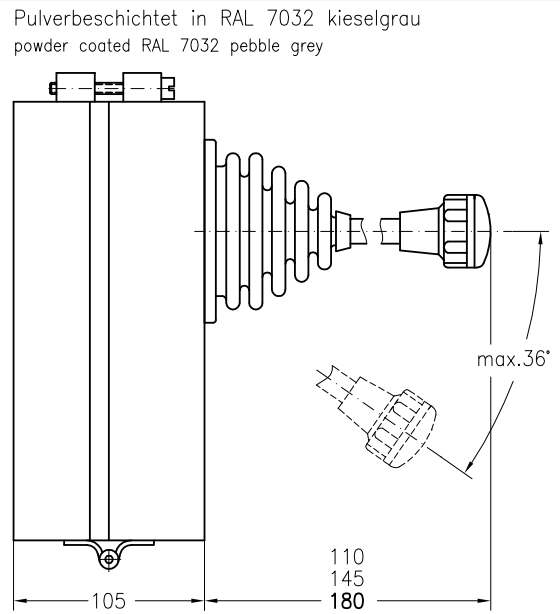
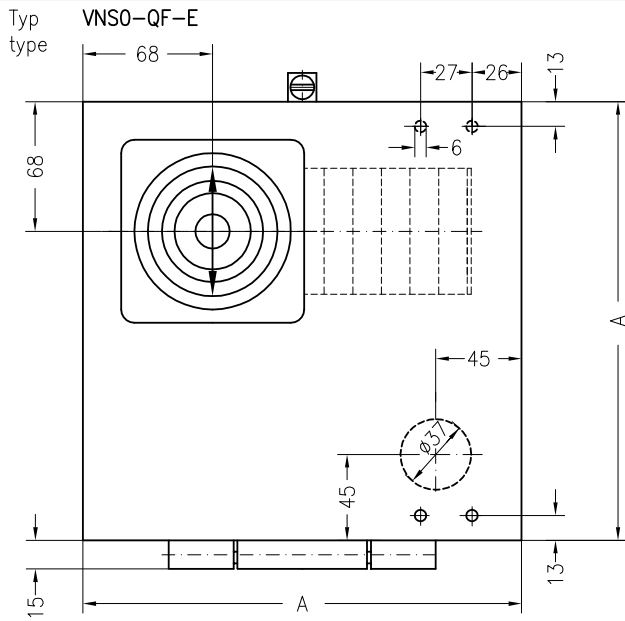
Gewicht:
Antriebsblock ~1,45 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,45 kg
each double contact ~ 0,08 kg

Maß L1 oder L2 (mm) dimension L1 or L2 (mm)	40	55	70	85	100	115	130	145	160	175
Anzahl Doppelkontaktelemente number of double contact elements	1	2	3	4	5	6	7	8	9	10

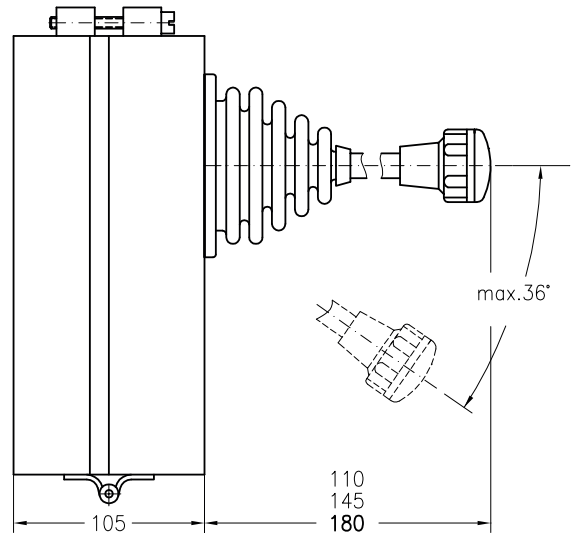
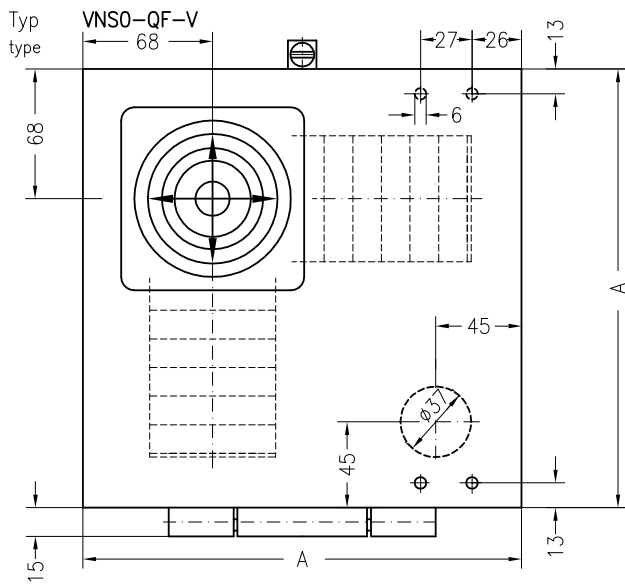


	Schalterlänge bei Anzahl Doppelkontaktelemente											number of double contact elements								
Fabrik Norm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VNSOK $\frac{E}{H}$ (R) VNS0-KE(R)																				
VNSOK-H(R)	40	55	70	85	100	115	130	145	160	175	190	205	220	235	250	265	280	295	315	330
Gewicht weight ~kg																				



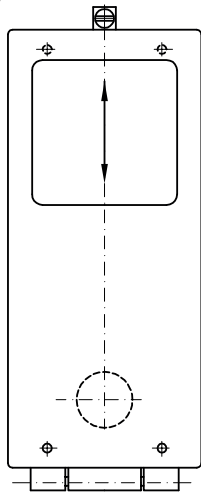


Typ type	Maß A dimension A	Gewicht weight	Anordnung arrangement		Schaltrichtung switching direction	
			linke Hand left hand	rechte Hand right hand	linke Hand left hand	rechte Hand right hand
VNS03QF-E	180	3-6 kg			1	5
VNS06QF-E	230				L	R
VNS09QF-E	280				2	6

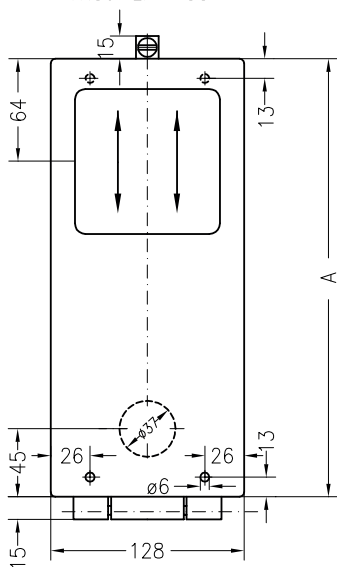


Typ type	Maß A dimension A	Gewicht weight	Anordnung arrangement				Schaltrichtung switching direction	
			linke Hand left hand	rechte Hand right hand	linke Hand left hand	rechte Hand right hand	linke Hand left hand	rechte Hand right hand
VNS03QF-V	180	4-8 kg					1	5
VNS06QF-V	230						L	R
VNS09QF-V	280						3	8

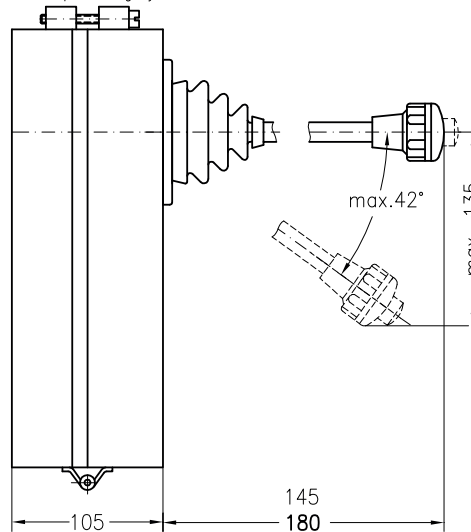
Typ VNS0-LF-G
type



VNS0-LF--GG



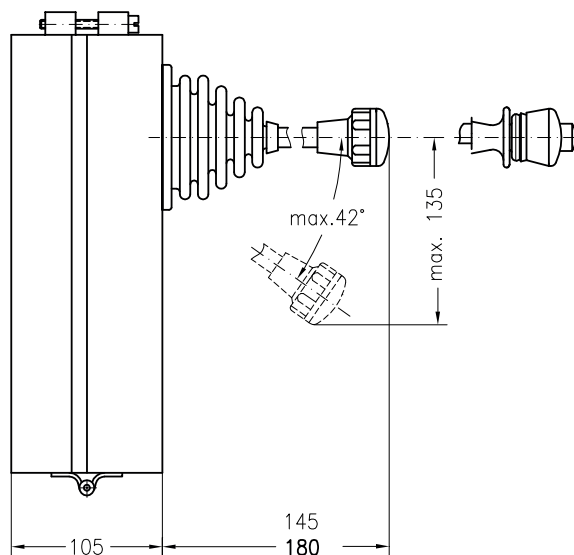
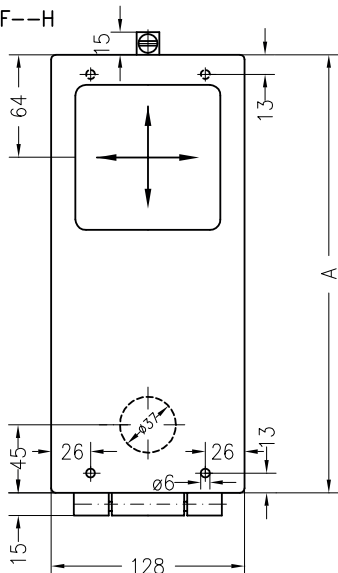
Lackierung RAL 7032 kieselgrau
color RAL 7032 pebble grey



Typ type	MAß A dimension A	Gewicht weight	Schaltrichtungsbezeichnung						
			linke Hand left	rechte Hand right	linke Hand left	rechte Hand right			
VNS04 LF-G	195	3-6 kg	1 ↓ L 2	5 ↓ R 6	1 ↓ 2	3 ↓ 4	5 ↓ 6	7 ↓ 8	
VNS06 LF-G	290								
VNS09 LF-G	350								

circuit direction and engraving code

Typ VNS0-LF--H
type



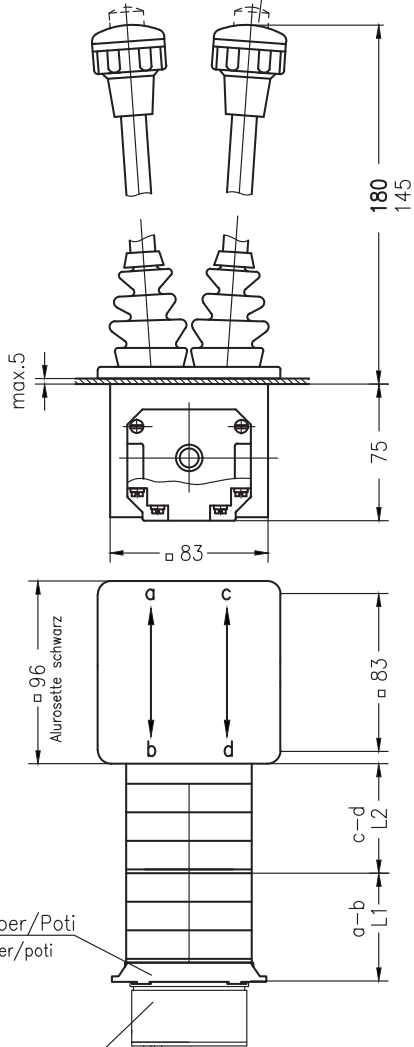
Typ type	MAß A dimension A	Gewicht weight	Schaltrichtungsbezeichnung	
			linke Hand left	rechte Hand right
VNS04 LF--H	195	3-6 kg	1 ↓ L 2	5 ↓ R 6
VNS06 LF--H	290			
VNS09 LF--H	350			

circuit direction and engraving code

Typ NS0--FGGH
type

Antrieb GGH
siehe Seite 9/5
drive GGH
see sheet 9/5

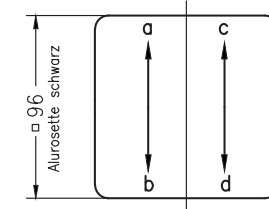
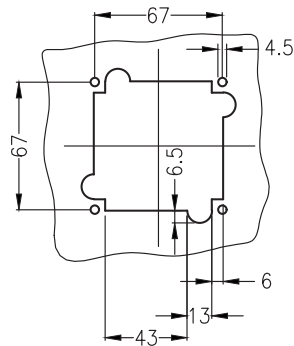
Einbauen im Hebel
siehe Seite 2/1...
additional
see sheet 2/1...



Adapter für Geber/Poti
adapter for encoder/poti

Geber nur für
einen Hebel möglich
attachment for encoder
only for one handle

Gewicht:
Antriebsblock ~1,6 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,6 kg
each double contact ~0,08 kg

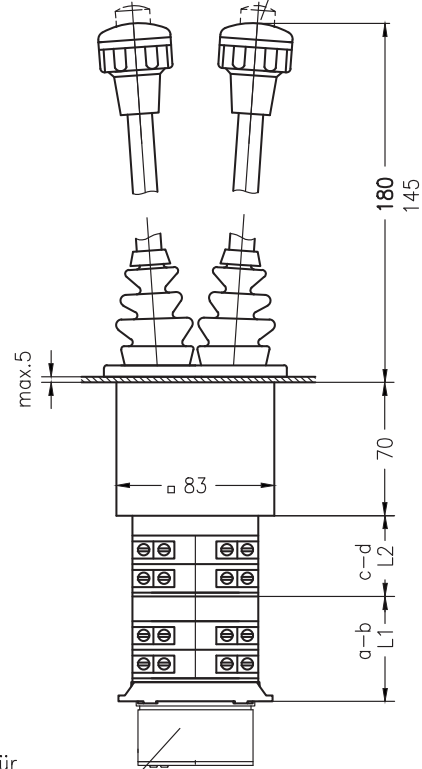


Bohrungen in der
Befestigungswand
mounting pattern

Typ NS0--FGGAA
type

Antrieb GGAA
siehe Seite 9/5
drive GGAA
see sheet 9/5

Einbauen im Hebel
siehe Seite 2/1...
additional
see sheet 2/1...



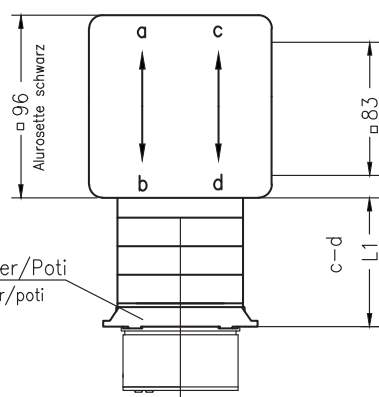
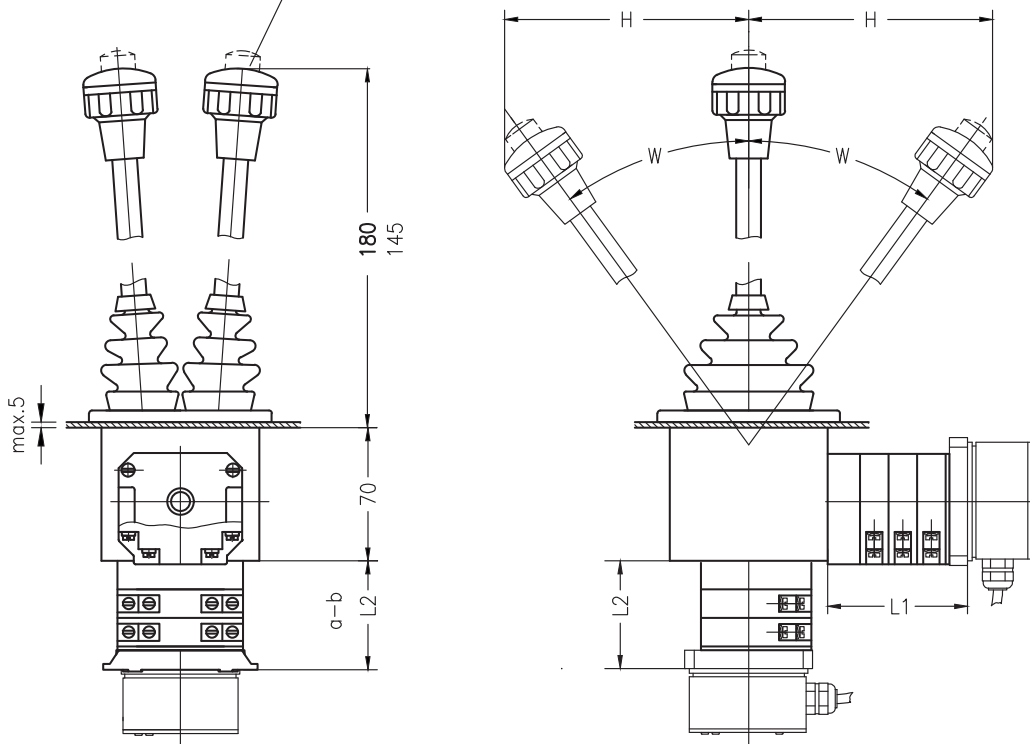
Geber nur für
einen Hebel möglich
attachment for encoder
only for one handle

Maß L1 oder L2 (mm) dimension L1 or L2 (mm)	40	55	70	85	100	115	130	145	160	175
Anzahl Doppelkontaktelemente number of double contact elements	1	2	3	4	5	6	7	8	9	10

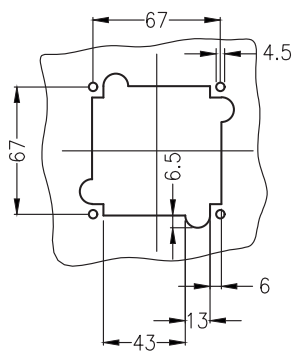
Typ NS0--FGGEA
type

Antrieb GGEA
siehe Seite 9/5
drive GGEA
see sheet 9/5

Einbauen im Hebel
siehe Seite 2/1...
additional
see sheet 2/1...



Adapter für Geber/Poti
adapter for encoder/poti



Bohrungen in der Befestigungswand
mounting pattern

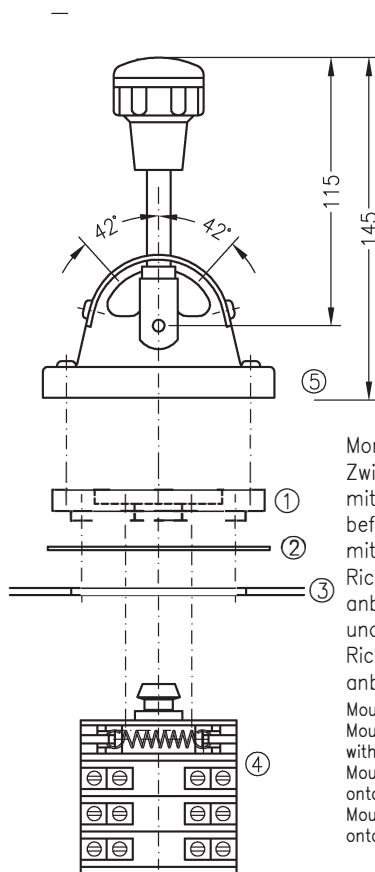
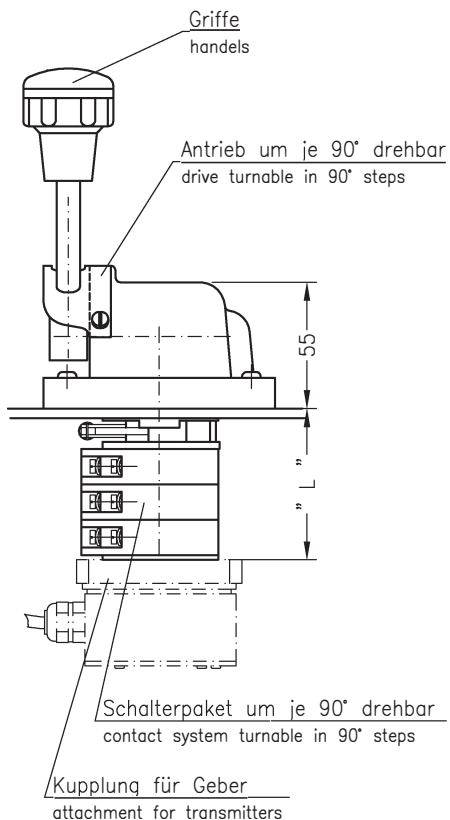
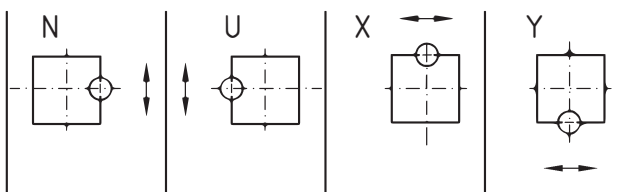
Gewicht:
Antriebsblock ~1,6 kg
je Doppelkontakt ~0,08 kg
weight:
drive ~1,6 kg
each double contact ~0,08 kg

bei 180 mm Hebel by lever 180 mm		
Position	W	~ H mm
1-0-1	14°	70
2-0-2	20°	100
3-0-3	30°	135
4-0-4	30°	135
5-0-5	36°	155
6-0-6	36°	155
7-0-7	30°	135
Poti/ Encoder	36°	155

Maß L1 oder L2 (mm) dimension L1 or L2 (mm)	40	55	70	85	100	115	130	145	160	175
Anzahl Doppelkontaktelemente number of double contact elements	1	2	3	4	5	6	7	8	9	10

Typ NS0--SFA R
type

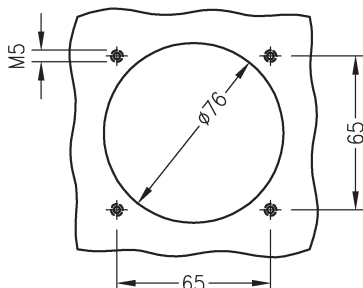
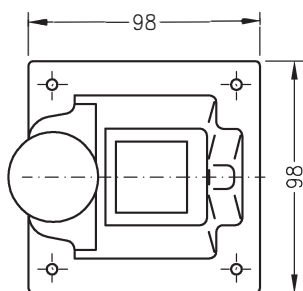
Anordnung – nur erforderlich bei unsymmetrischer Abwicklung
arrangement – important if the circuit isn't symmetrical



Schutzart IP56 frontseitig
degree of protection IP56

Montage:
Zwischenplatte ① und Dichtung ② mit 4 Schrauben M5 am Gehäuse ③ befestigen, Schalterpaket ④ mit 4 Schrauben in der gewünschten Richtung an der Zwischenplatte ① anbauen. Antrieb ⑤ mit 4 Schrauben und Dichtungen in gewünschter Richtung an Zwischenplatte ① anbauen.

Mounting:
Mount attachment plate ① and sealing ② with 4 screws M5 at the housing ③. Mount the contact system ④ with 4 screws onto the attachment plate ①. Mount the drive ⑤ with 4 screws and seals in the desired direction onto the attachment plate ①.



Gewicht:
Antriebsblock ~1,2 kg
je Doppelkontakt ~0,1 kg
weight:
drive ~1,2 kg
each double contact ~0,1 kg

Anzahl Doppelkontaktelemente numbers of double contact blocks	1	2	3	4	5	6	7	8	9	10
Länge length	40	55	70	85	100	115	130	145	160	175