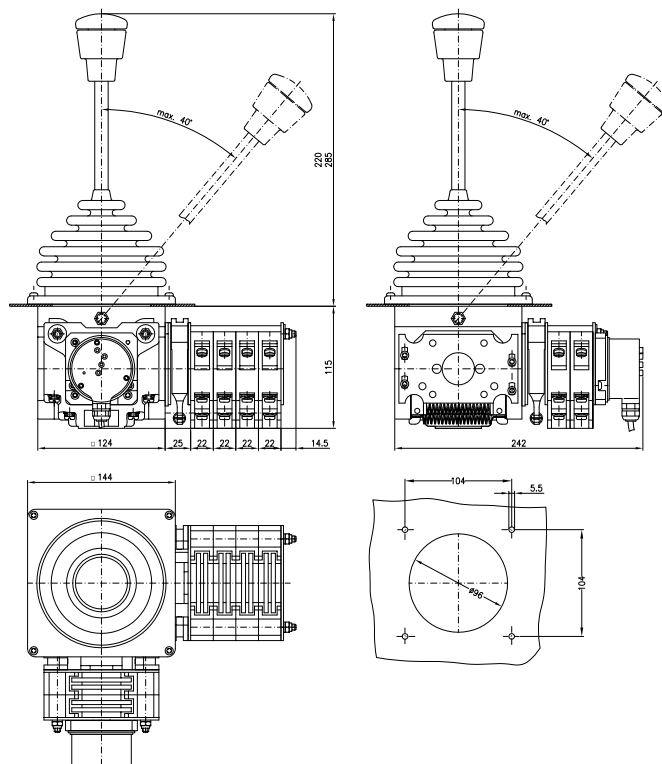
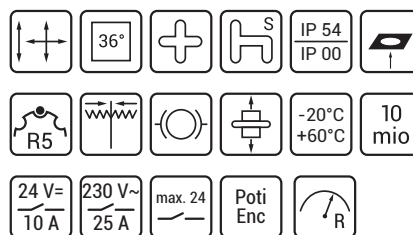


VNS2

Convincing technology for tough conditions.



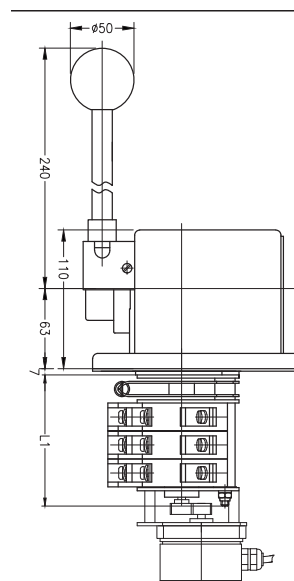
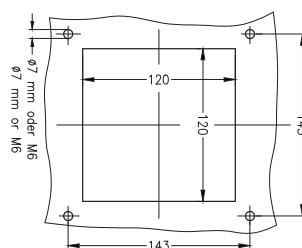
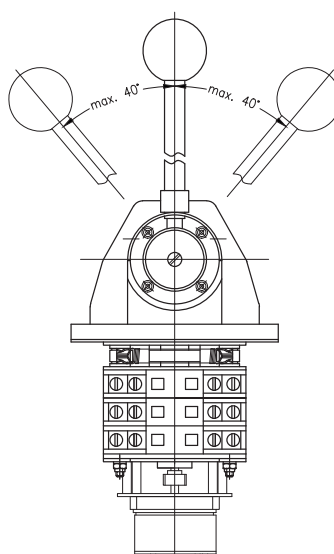
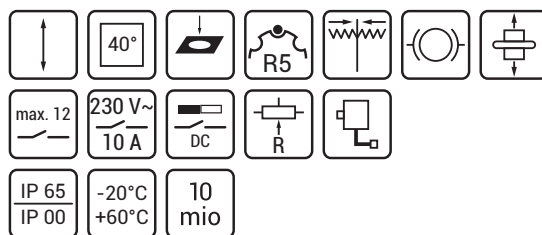
Our VNS2 is the big brother of our proven pioneer VNS0. It was developed especially for tough mechanical and environmental operating conditions. The VNS2 is available in single or dual-axis version or in combination with special handles as 3-axis version. The intelligent modular system permits the mounting of contact blocks in X, Y or Z direction, each with up to 12 double contact elements. Milled cams, programmed from our standard portfolio or customized, control the

powerful DC, AC or gold contacts.

Of course, the joystick can be completed with encoders, potentiometers or handles from our huge range of products. The 12 mm hollow lever of special alloy, an aluminium escutcheon plate, metal gears and a casted drive block contribute to the steel plant operators and crane manufacturers estimated robustness and durability.

NS2-KA

For extreme environmental requirements.



The NS2-KA with an 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.

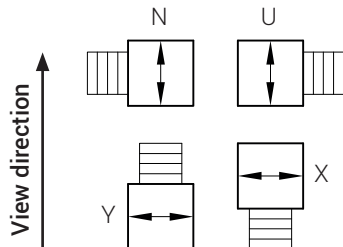
The modular contact block is equipped with exchangeable double contact elements and allows switching with a maximum of 5-0-5 positions and the attachment of potentiometers and absolute encoders.

The contacts are embedded in double contact elements and are available in silver, gold-plated silver or with blow magnets for DC applications. The execution of the contact circuit is in accordance with Spobu standard circuits or according to customized specifications. Together with notching discs made of metal from the Spobu standard program or in customized design, flanged potentiometers or encoders, these switches solve control tasks reliably under heavy duty conditions on ships, drilling rigs and steel mills.

Drives with 1- or 2-axis:

Drive E

Arrangement N, U, Y, X



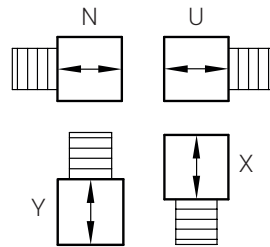
VNS2-F

N
U
Y
X

 -AK E

Drive G

Arrangement N, U, Y, X



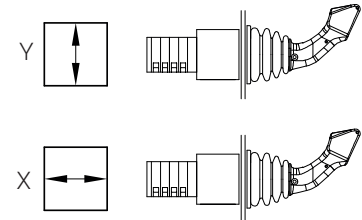
VNS2-F

N
U
Y
X

 -AK G

Drive A

Arrangement Y, X



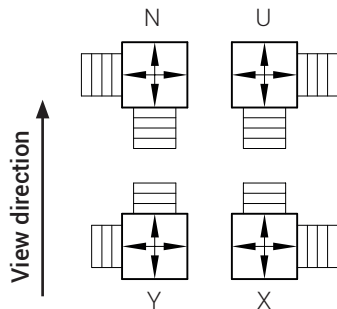
VNS2-F

Y
X

 -AK A

Drive V

Arrangement N, U, Y, X



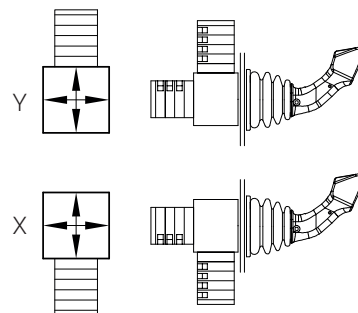
VNS2-F

N
U
Y
X

 -AK V

Drive EA

Arrangement Y, X



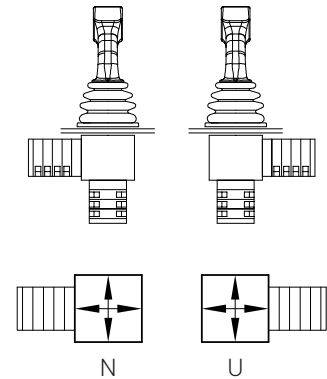
VNS2-F

Y
X

 -AK EA

Drive EA

Arrangement N, U



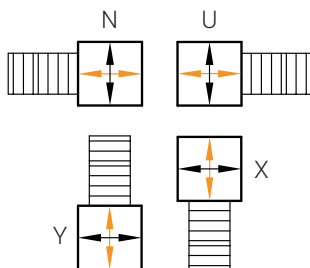
VNS2-F

N
U

 -AK EA

Drive H

Arrangement N, U, Y, X



Potentiometer and encoder coupling only for colour-coded axis

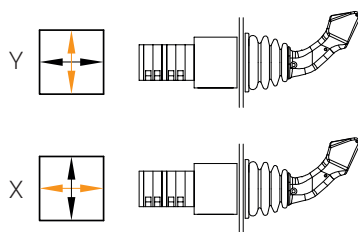
VNS2-F

N
U
Y
X

 -AK H

Drive AA

Arrangement Y, X



Potentiometer and encoder coupling only for colour-coded axis

VNS2-F

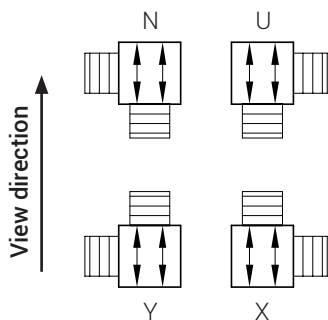
Y
X


 -AK AA

Drives with 2 levers:

Drive GGV

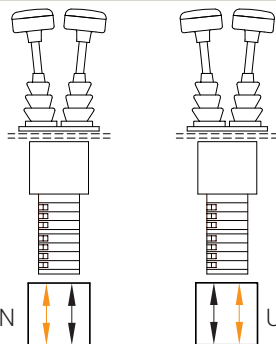
Arrangement N, U, Y, X



VNS2-F  -GGV

Drive GGAA

Arrangement N, U

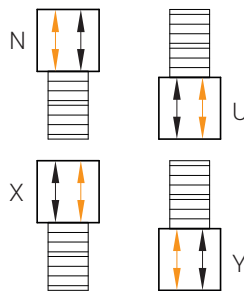


Potentiometer and encoder coupling only for colour-coded axis


VNS2-F  -GGAA

Drive GGH

Arrangement N, U, Y, X

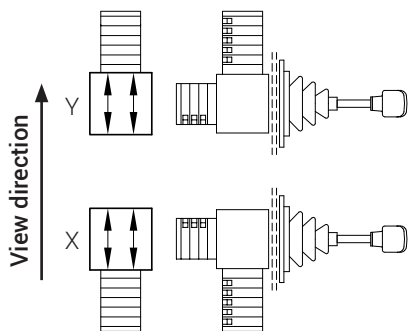


Potentiometer and encoder coupling only for colour-coded axis

VNS2-F  -GGH

Drive GGEA

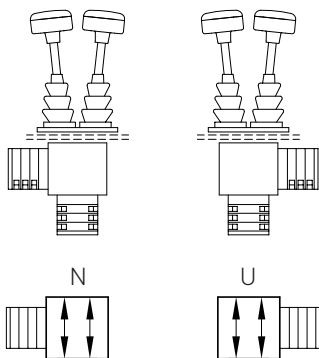
Arrangement Y, X



VNS2-F  -GGEA

Drive GGEA

Arrangement N, U



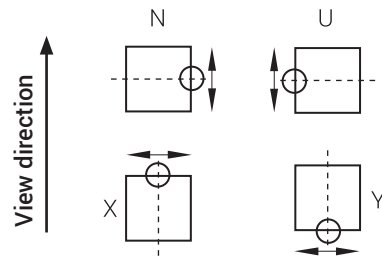
VNS2-F  -GGEA

Note GG drives:

G1 only with lever length 180, 200, 220 and 280 mm,
G13 only with lever length 160, 180, 200, 220 and 280 mm

Drives 1-axis with aluminium of housing

Drive KA
Arrangement N, U, X, Y



NS2-

N
U
X
Y

-KA

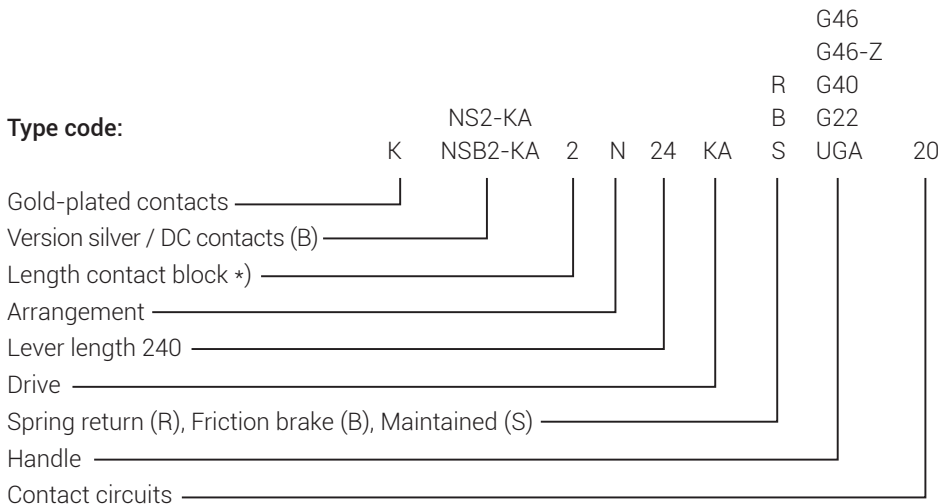
Scope of supply NS2-KA:

- Standard handle G46
- Aluminium housing top
- Lever diameter 12 mm, stainless steel
- Guiding plate for lever
- Lever deflection max. 40° (depending on contact circuit)

Options:

- | | |
|---------------------------------|-----------------------|
| Handles | see G-Ü |
| Absolute encoder, potentiometer | see E-Electronic-1,-2 |
| Notes: | |
| Technical information | see TI-VNS2-10/10 |
| Contact circuits | see TI-S-... |

- Contact circuits
- Spring return for each axis R
- Friction brake for each axis B
- Special lever deflection
- Special notching disc
- Mechanical interlock Z with handle G46-Z
- Special lever length
- Wiring to connection cable or plug



*) Contact block length = number of double contact elements + additional function (e.g. friction brake, double notching).
In case of friction brake please add 1.

Scope of supply, type code

Scope of supply VNS2:

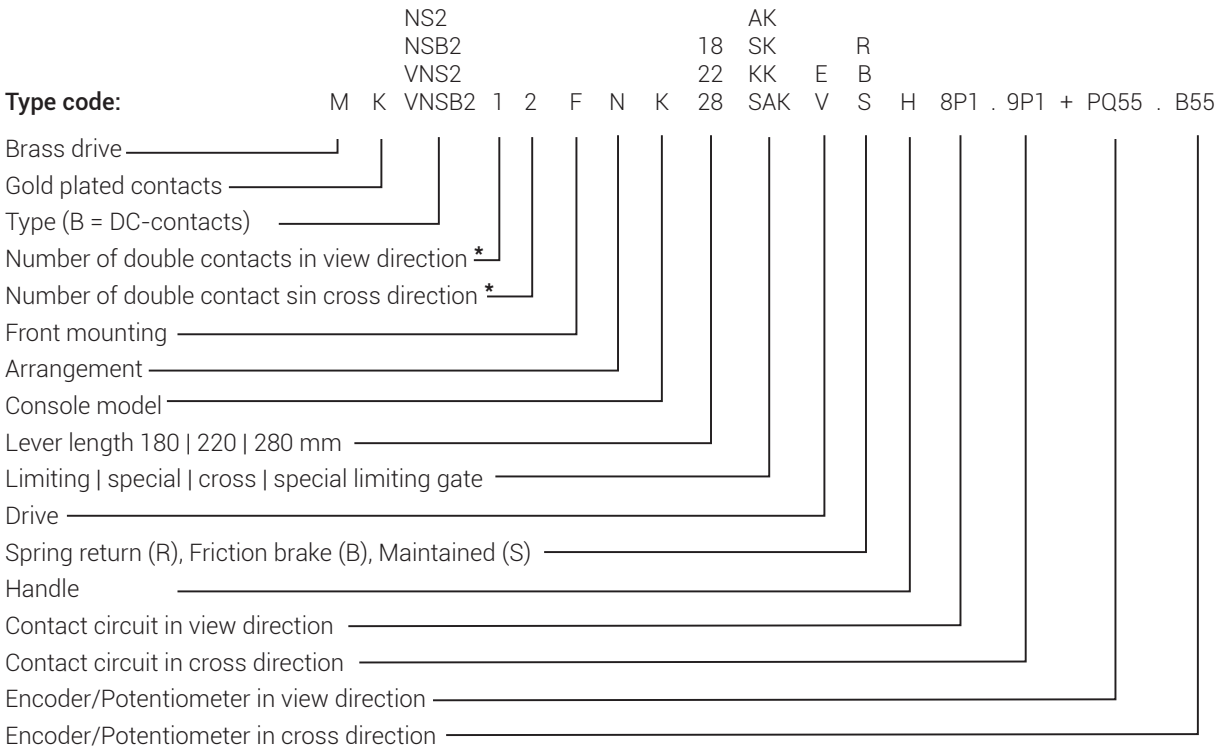
- Standard handle G46
- Rubber boot
- Aluminium escutcheon black
- Limiting gate (not for GG-version)

- | | |
|----------------------------------|--------------------------|
| Handle | see sheet G-Ü |
| Absolute encoder, potentiometer, | |
| Encoder | see sheet E-Electronic-1 |
| Contact circuit | see sheet TI-S-... |
| Technical information | see sheet TI-VNS2-... |

- Console model for E-, G-, H-, or GGH-drive arrangement (see technical sheet TI-VNS2-5/9)
- Spring return per axis R
- Friction brake per axis B
- Floor mounting (not possible for A, AA, EA; F in type code is omitted)
- Special limiting gate SAK

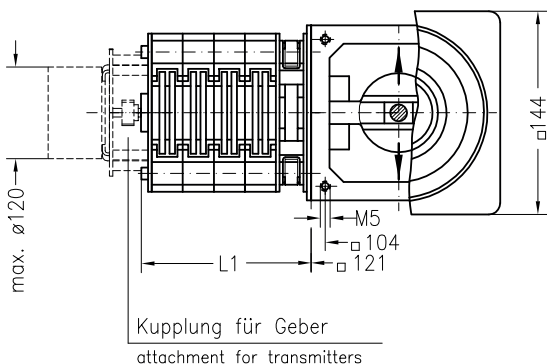
- Cross gate KK
- Special gate SK
- Special notching disc

- Engraving per line (max. 14 letters, inscription in plain text)
- Brass drive M
- Circuits
- Wiring to connection cable or plug



* contact block length = number of double contact elements + additional function (e.g., friction brake, double notching)
model with friction brake add 1
Note: special handle, engraving should be described

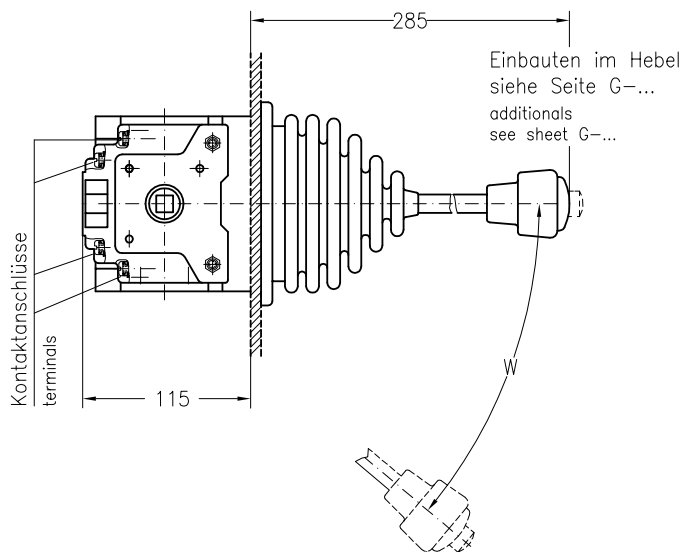
Typ **VNS2-F-E** Antrieb E siehe Seite J-VNS2-2/3
type drive E see sheet J-VNS2-2/3



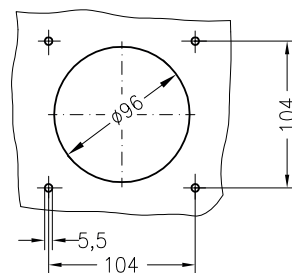
Anordnung
arrangement



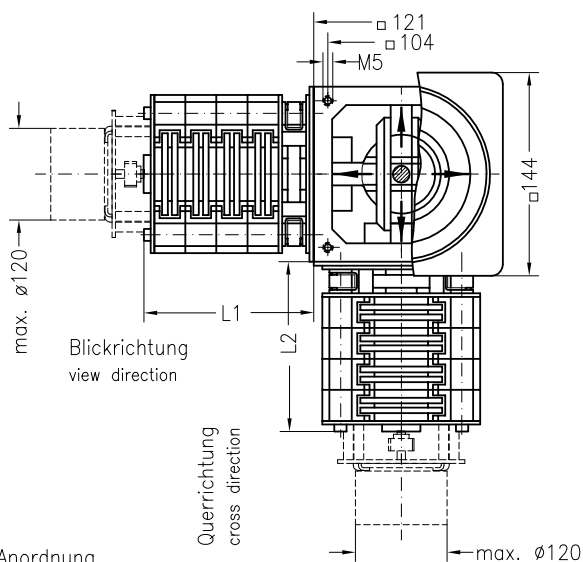
Gewicht:
Antriebsblock ~2,8 kg
je Doppelkontakt ~0,4 kg
weight:
drive ~2,8 kg
each double contact ~0,4 kg



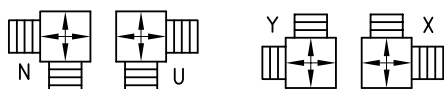
Bohrungen in der
Befestigungswand
mounting dimensions



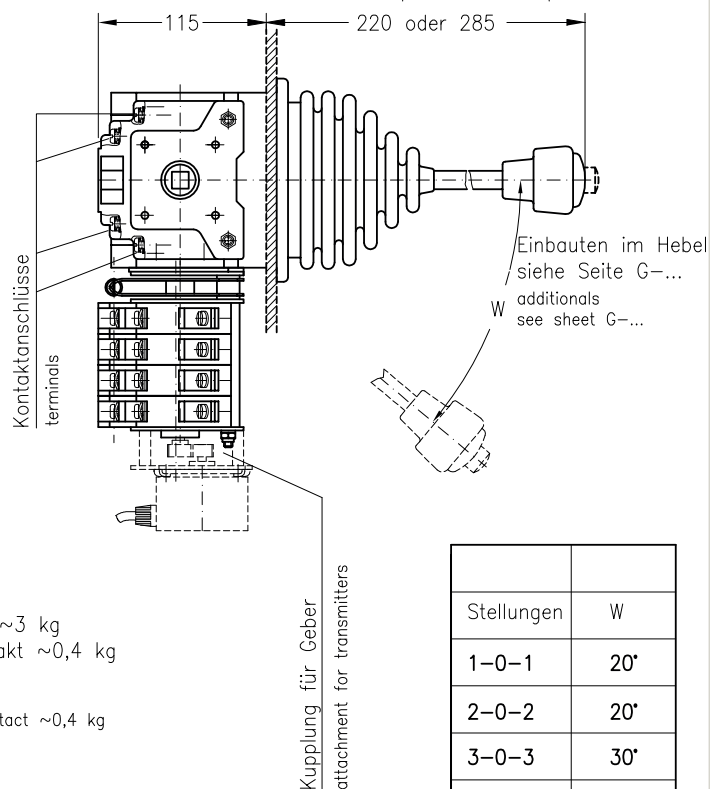
Typ **VNS2--F-V** Antrieb V siehe Seite J-VNS2-2/3
type drive V see sheet J-VNS2-2/3



Anordnung
arrangement



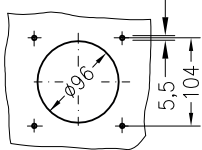
Gewicht:
Antriebsblock ~3 kg
je Doppelkontakt ~0,4 kg
weight:
drive ~3 kg
each double contact ~0,4 kg



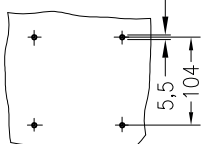
Stellungen	W
1-0-1	20°
2-0-2	20°
3-0-3	30°
4-0-4	33°
5-0-5	30°
6-0-6	35°

Maß L1 oder L2 dimension L1 or L2	58	80	102	124	146	168	190	212	234	256
Anzahl Doppelkontakte number of double contacts	1	2	3	4	5	6	7	8	9	10

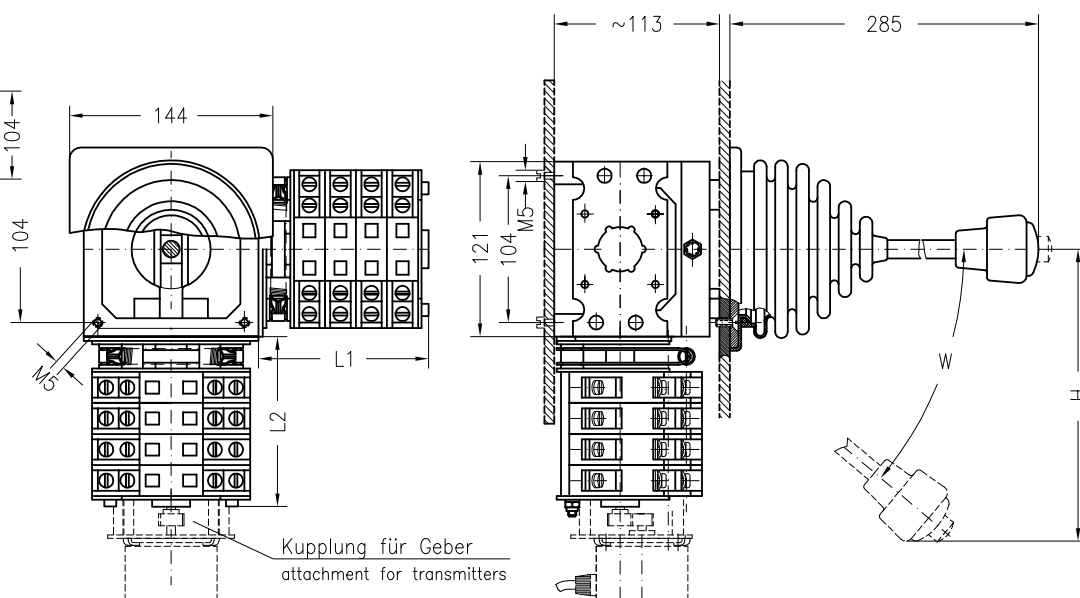
Bohrungen im
Gehäusedeckel
bores at cover



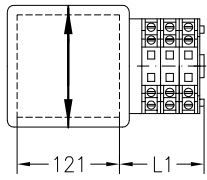
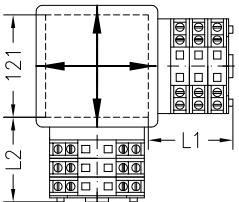
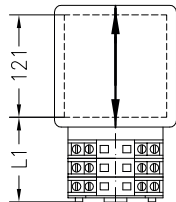
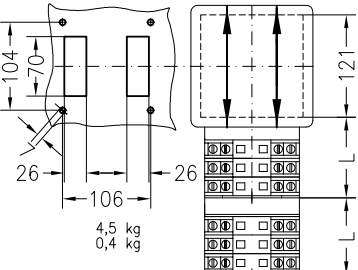
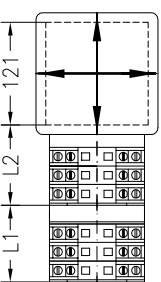
Bohrungen in der
Rückwand
bores at back board



	Anordnung arrangement		VNS2--V(R)		VNS2--V(R)		Schalttrichtung 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	linke Hand left hand	rechte Hand right hand
Blick- richtung view direction	N left	U right	N left	U right	U left	N right	1 L	5 R
Quer cross	U left	N right	Y left	X right	X left	Y right	3 L	7 R
							4 L	8 R
							2 L	6 R



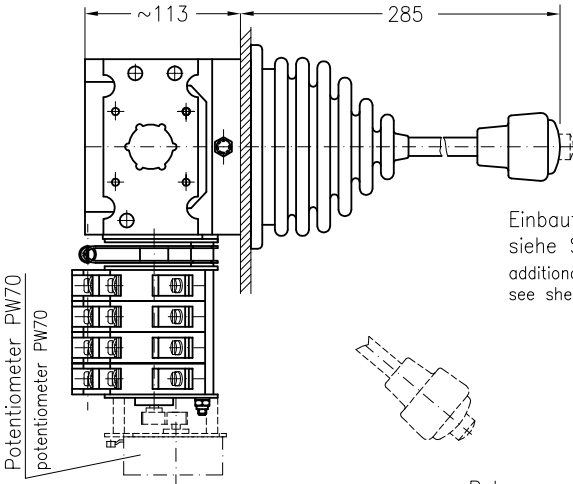
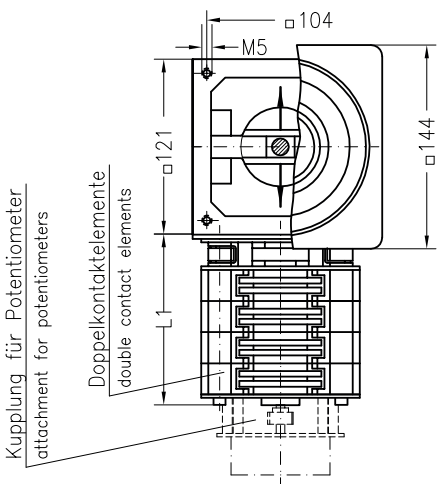
Anzahl Doppelkontakte number of double contacts			für Wechselstrom für Gleichstrom mit Blasung										VNS2- VNSB2-		for AC with permanent magnet for DC		Stellungen steps		Hebelausschlag Stellungen		lever deflection		Stellungen steps		A	W
			1	2	3	4	5	6	7	8	9	10	1-0-1	H	W	20°	3-0-3	H	W	30°	40°	5-0-5	A	W		
L1	L2	L3	58	80	102	124	146	168	190	212	234	256	2-0-2	120	200	40°	4-0-4	162	200	40°	40°	6-0-6	200	40°		

<p>Antriebsart: drive: Typ VNS(B)2_TNE(R) type L1</p> <p>Zusatz bei Dauer- magnetblasung addition by permanent magnet</p> <p>Anzahl Doppelkontaktelemente number of double contact elements</p>  <p>Gewicht: Antriebsblock: je Doppelkontakt: weight: driver: each double contact:</p> <p>2,8 kg 0,4 kg</p>			<p>VNS(B)2_TTV(R) L1 L2</p>  <p>3 kg 0,4 kg</p>			<p>G VNS(B)2_TG(R) L1</p>  <p>3 kg 0,4 kg</p>			<p>GG NS(B)2_TGG(R) L1 L2</p>  <p>4,5 kg 0,4 kg</p>		
<p>H VNS(B)2_TTH(R) L1 L2</p>  <p>4 kg 0,4 kg</p>											

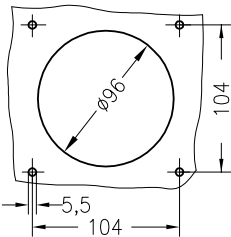
Typ **VNS2-F-G**
type

Antrieb G
siehe Seite J-VNS2-2/3
drive G
see sheet J-VNS2-2/3

Gewicht:
Antriebsblock ~3 kg
je Doppelkontakt ~0,4 kg
weight:
drive ~3 kg
each double contact ~0,4 kg



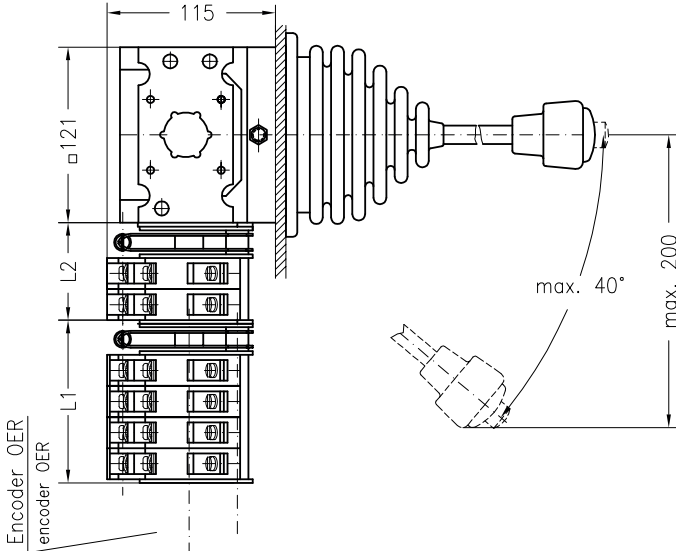
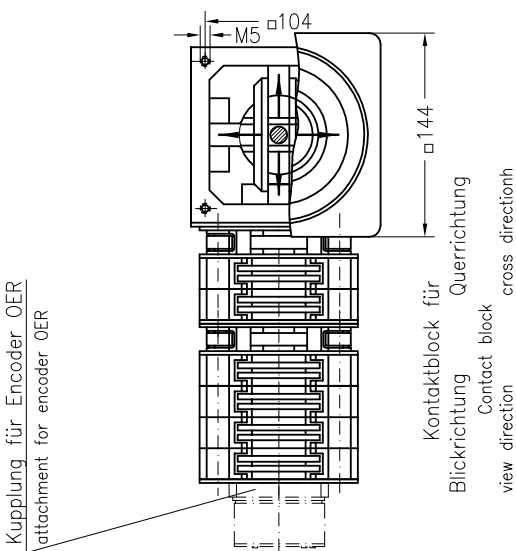
Bohrungen in der Befestigungswand
mounting dimensions



Typ **VNS2--F-H**
type

Antrieb H
siehe Seite J-VNS2-2/3
drive H
see sheet J-VNS2-2/3

Gewicht:
Antriebsblock ~4 kg
je Doppelkontakt ~0,4 kg
weight:
drive ~4 kg
each double contact ~0,4 kg



Anzahl Doppelkontakte number of double contacts	1	2	3	4	5	6	7	8	9	10
Maß L1 oder L2 dimension L1 or L2	58	80	102	124	146	168	190	212	234	256

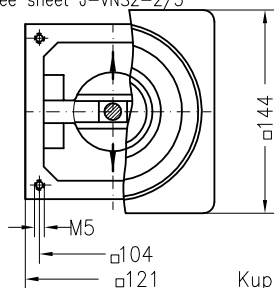
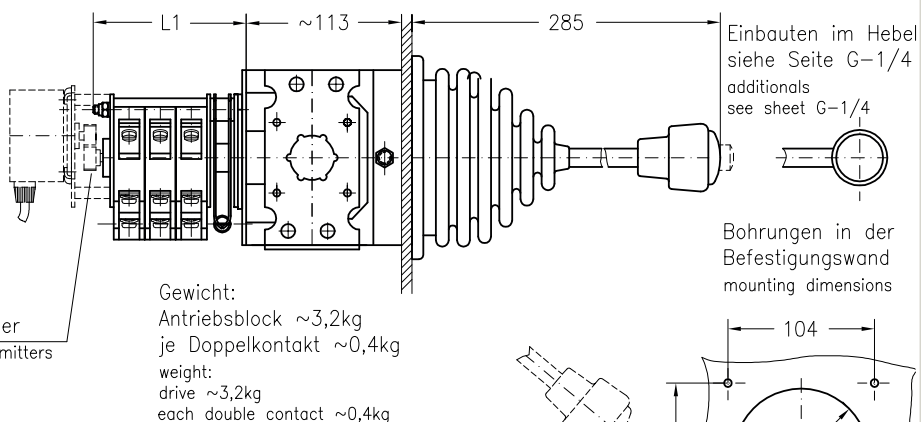
Typ VNS2-A
 type

Antrieb A

siehe Seite J-VNS2-2/3

drive A

see sheet J-VNS2-2/3

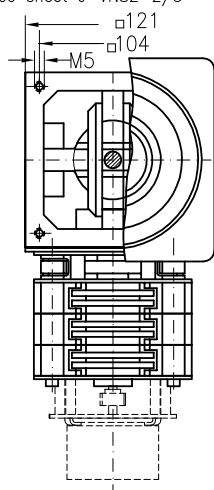
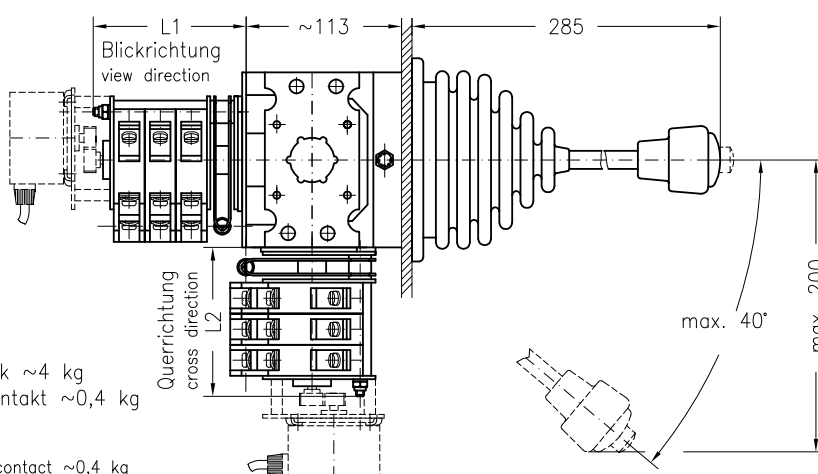

 Kupplung für Geber
 attachment for transmitters

Typ VNS2--EA
 type

Antrieb EA

siehe Seite J-VNS2-2/3

drive EA

see sheet J-VNS2-2/3

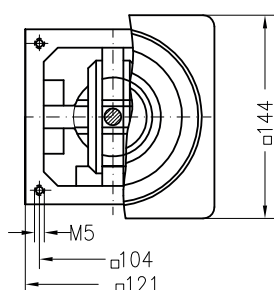
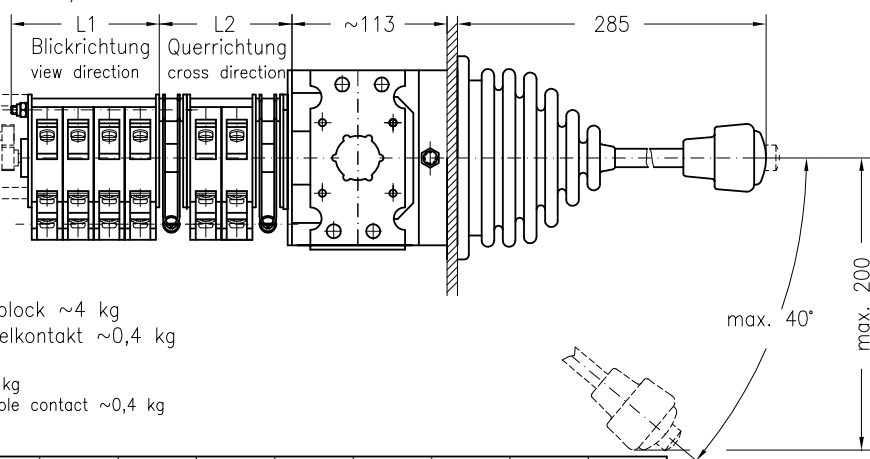

 Gewicht:
 Antriebsblock ~4 kg
 je Doppelkontakt ~0,4 kg
 weight:
 drive ~4 kg
 each double contact ~0,4 kg

Typ VNS2--AA
 type

Antrieb AA

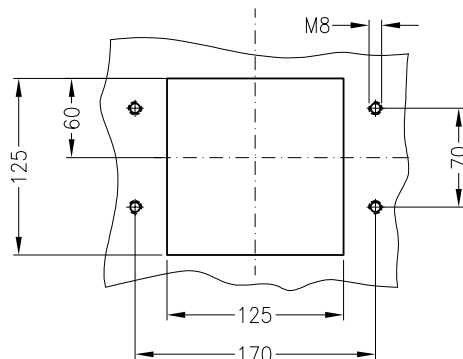
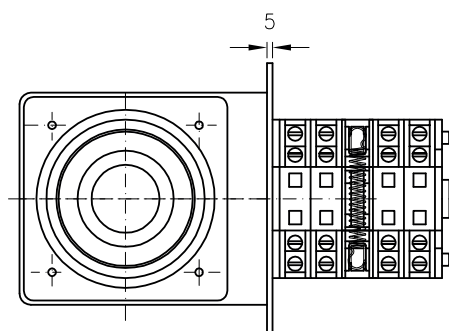
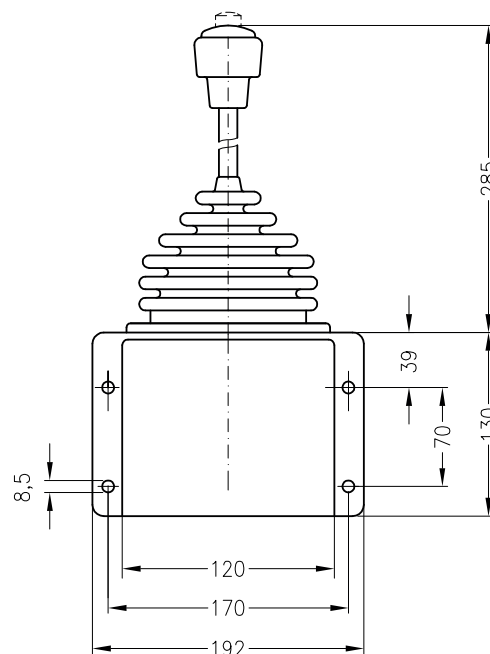
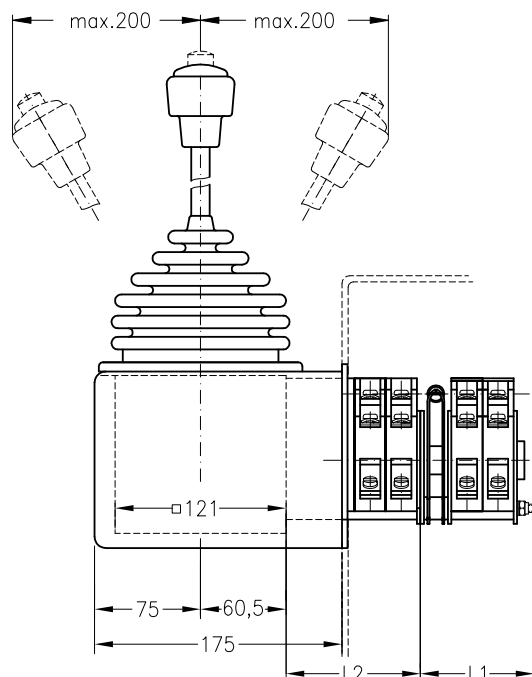
drive AA

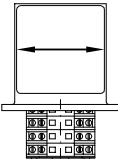
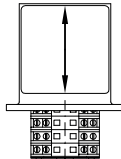
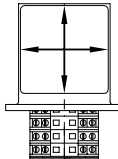
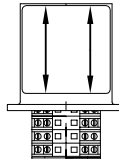
siehe Seite J-VNS2-2/3

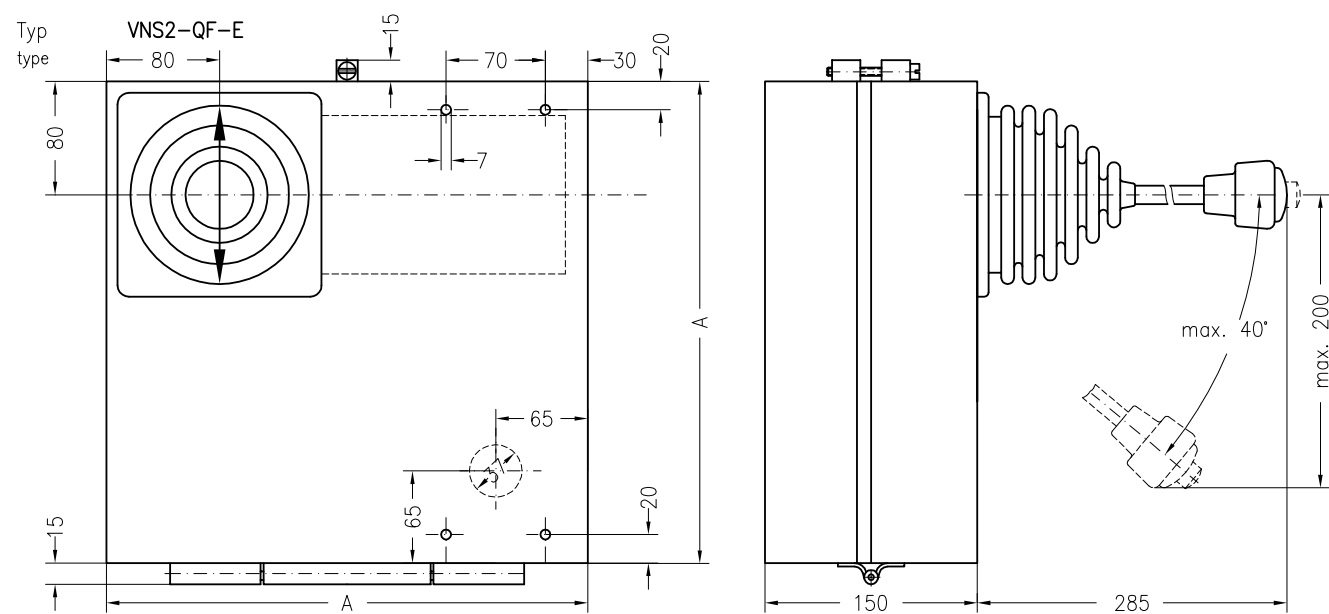
see sheet J-VNS2-2/3

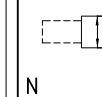
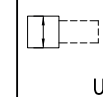



 Gewicht:
 Antriebsblock ~4 kg
 je Doppelkontakt ~0,4 kg
 weight:
 drive ~4 kg
 each double contact ~0,4 kg


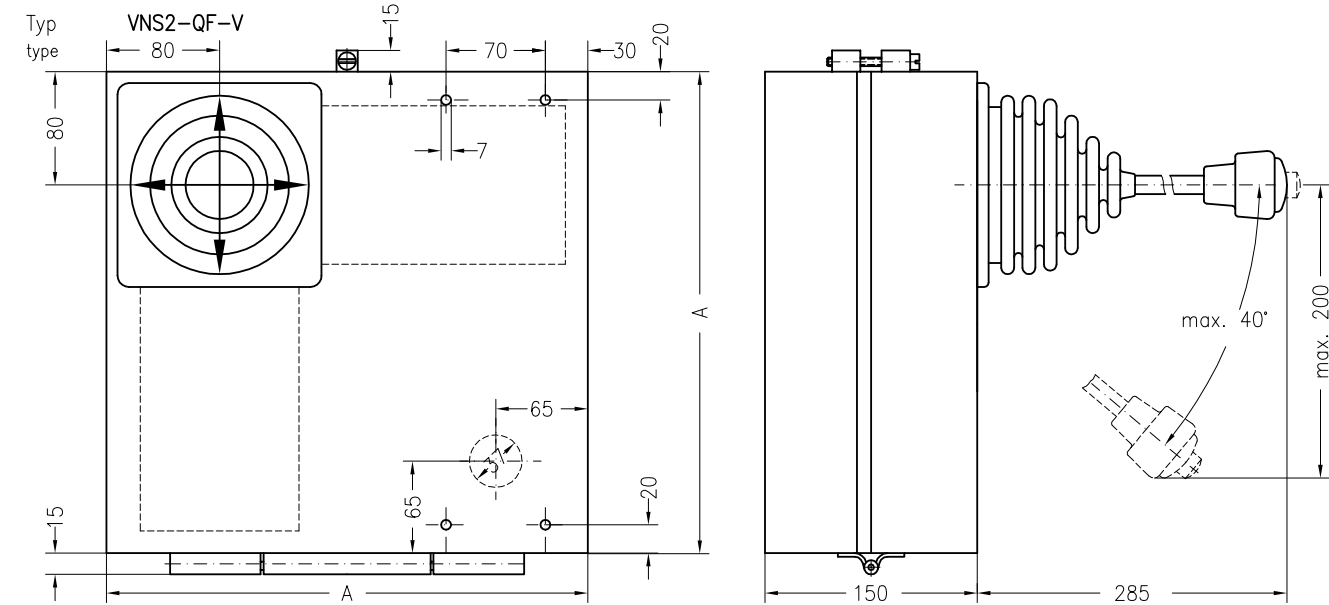
Maß L1 oder L2 dimension L1 or L2	58	80	102	124	146	168	190	212	234	256
Anzahl Doppelkontakte number of double contacts	1	2	3	4	5	6	7	8	9	10

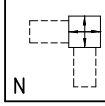
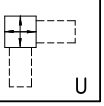
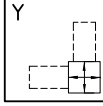
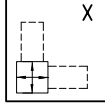
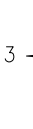



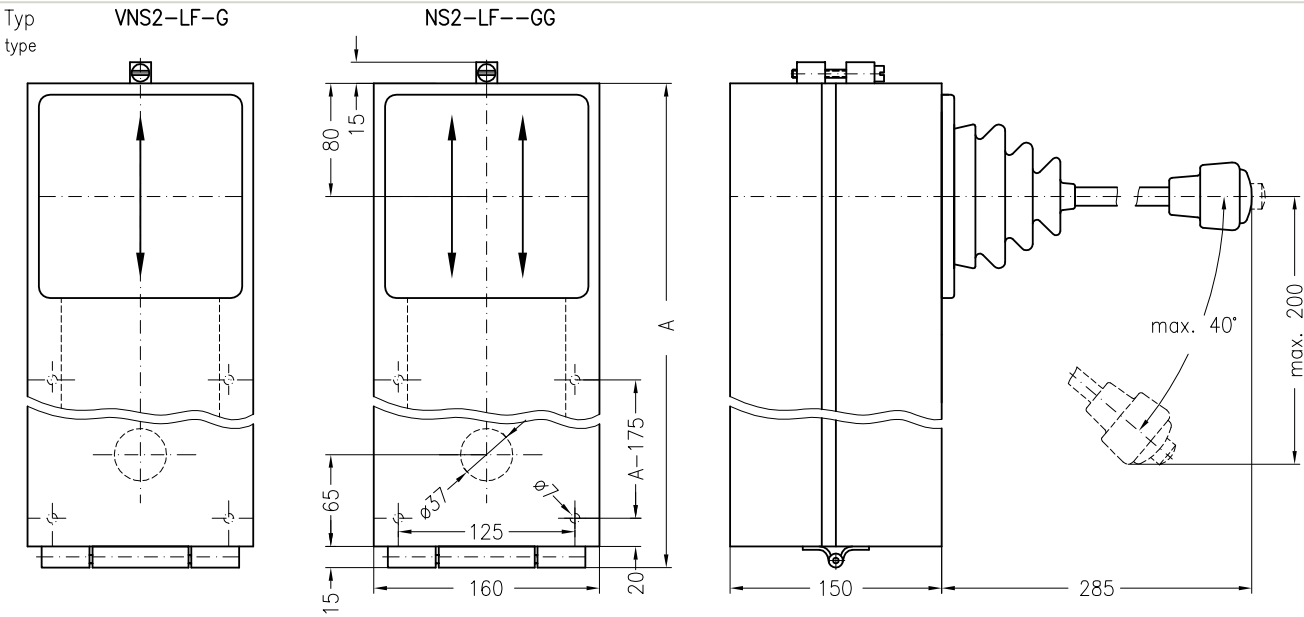
Anzahl Doppelkontakte number of double contact elements		für Wechselstrom für Gleichstrom mit Blasung				for AC with permanent magnet for DC		VNS2- VNSB2-			
	1	2	3	4	5	6	7	8	9	10	
	L1 od. L2	58	80	102	124	146	168	190	212	234	256
Antriebsart type of drive F. Norm	E VNS(B)2-KE(R)		G VNS(B)2-KG(R)			H VNS(B)2--KH(R)		GG NS(B)2--KGG(R)			
											
Kontaktanschlüsse seitlich connections on the side	Gewicht: Antriebsblock: je Doppelkontakt:		weight: drive: each double contact:			5,9 kg 0,4 kg		6,4 kg 0,4 kg			
	4,7 kg 0,4 kg		4,9 kg 0,4 kg								



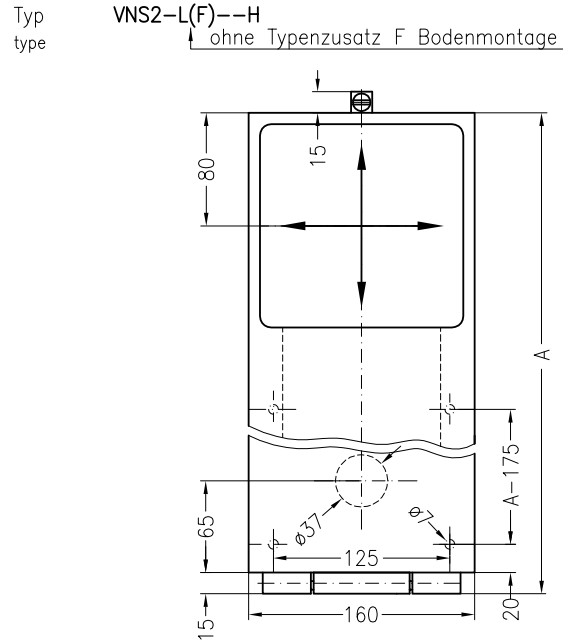
Typ type	MAB A dim.	Gewicht weight	Anordnung linke Hand rechte Hand left right		Schalttrichtung linke Hand rechte Hand left right	
VNS24 QF-E	290	14-17 kg				
VNS26 QF-E	340					
VNS29 QF-E	380					
			mounting arrangement		switch direction	



Typ type	MAB A dim.	Gewicht weight	Anordnung				Schalttrichtung			
			linke Hand	rechte Hand	linke Hand	rechte Hand	linke Hand	rechte Hand		
VNS24 QF-V	290	17-20 kg	left	right	left	right	left	right		
VNS26 QF-V	340									
VNS29 QF-V	380		mounting arrangement				switch direction			



Typ type		MAB A dim.	Gewicht weight	Schalttrichtung switch direction			
				linke Hand left	rechte Hand right	linke Hand left	rechte Hand right
VNS26 LF-G	NS26 LF--GG	340	12-16 kg	1	5	1 3	5 7
VNS29 LF-G	NS29 LF--GG	440		L	R	2 4	6 8
VNS214 LF-G	NS214 LF--GG	550		2	6	2 4	6 8



Typ type		MAB A dim.	Gewicht weight	Schalttrichtung switch direction	
				linke Hand left	rechte Hand right
VNS26 L(F)--H		340	12-16 kg	1	5
VNS29 L(F)--H		440		3 L 4	7 R 8
VNS214 L(F)--H		550		2	6

Typ VNS2--GGH

type

Antrieb GGH

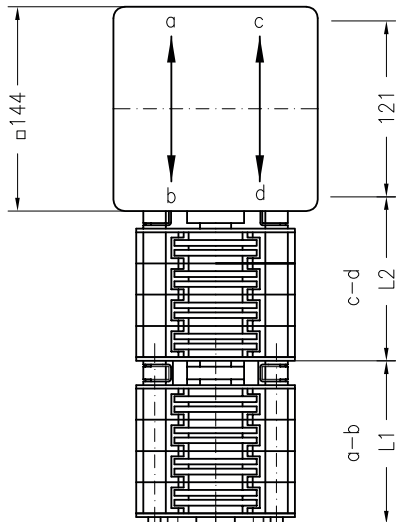
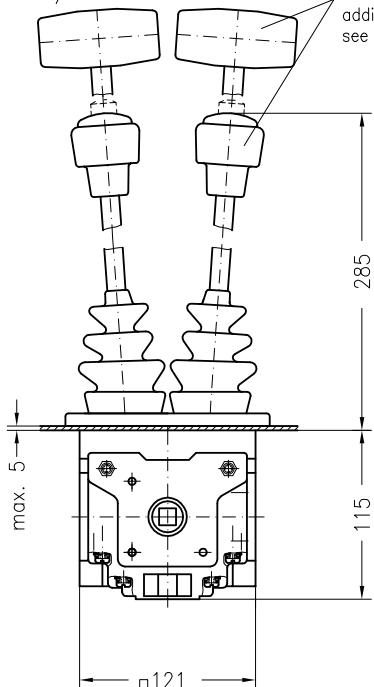
siehe Seite J-VNS2-3/3

drive GGH

see sheet J-VNS2-3/3

Einbauen im Hebel
siehe Seite G...

additional
see sheet G...



Gewicht:

Antriebsblock ~4,5 kg

je Doppelkontakt ~0,4 kg

weight:

drive ~4,5 kg

each double contact ~0,4 kg

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

Typ VNS2--GGAA

type

Antrieb GGAA

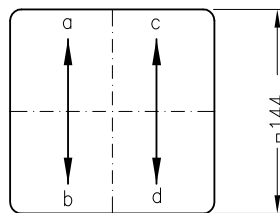
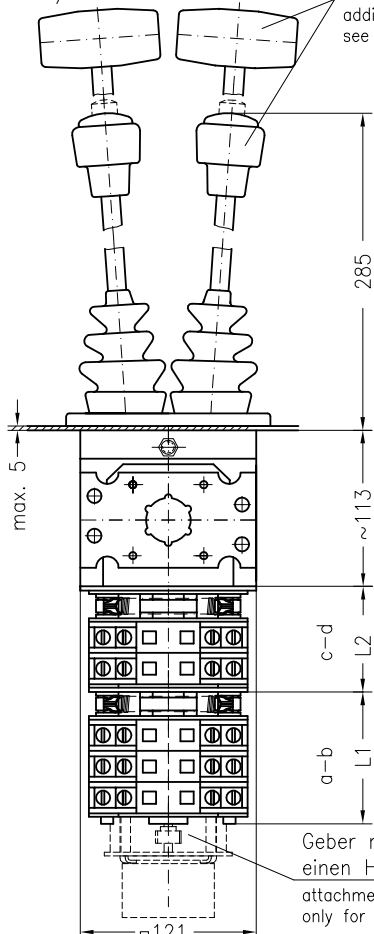
siehe Seite J-VNS2-3/3

drive GGAA

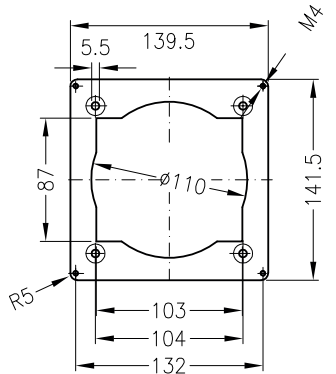
see sheet J-VNS2-3/3

Einbauen im Hebel
siehe Seite G...

additional
see sheet G...



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



Bohrungen in der
Befestigungswand
nach NS275-GG
mounting dimensions

Maß L1 oder L2 dimension L1 or L2	58	80	102	124	146	168	190	212	234	256
Anzahl Doppelkontakte number of double contacts	1	2	3	4	5	6	7	8	9	10

Typ VNS2--GGEA

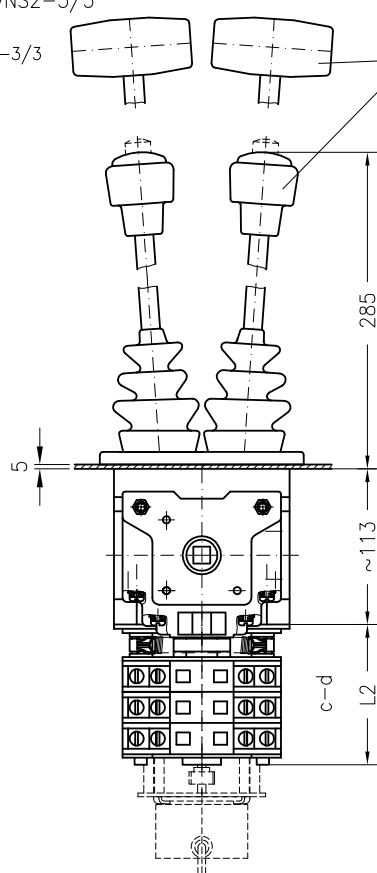
type

Antrieb GGEA

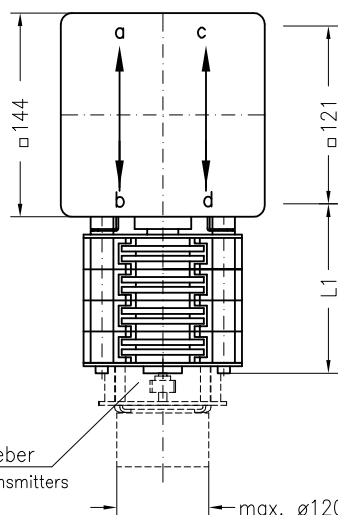
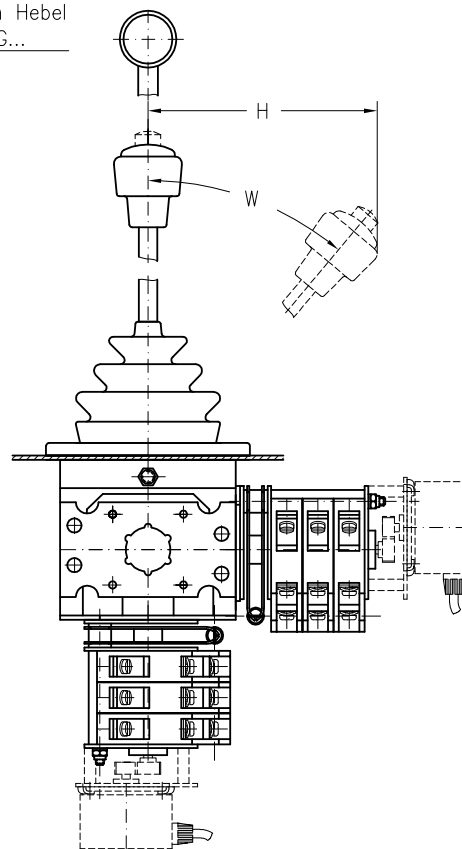
siehe Seite J-VNS2-3/3

drive GGEA

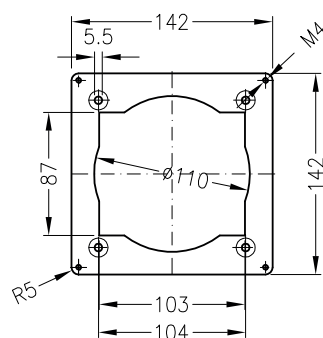
see sheet J-VNS2-3/3



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



Kupplung für Geber
attachment for transmitters



Bohrungen in der
Befestigungswand
nach NS275-GG
mounting dimensions

Gewicht:

Antriebsblock ~4,5 kg

je Doppelkontakt ~0,4 kg

weight:

drive ~4,5 kg

each double contact ~0,4 kg

Bei 180 mm Hebel by level 180 mm			
Pos.	W	H	
1-0-1	20°	120	
2-0-2	40°	200	
3-0-3	30°	162	
4-0-4	40°	200	
5-0-5	40°	200	
6-0-6	40°	200	
7-0-7	40°	200	

Maß L1 oder L2 dimension L1 or L2	58	80	102	124	146	168	190	212	234	256		
Anzahl Doppelkontakte number of double contacts	1	2	3	4	5	6	7	8	9	10	7-0-7	200

