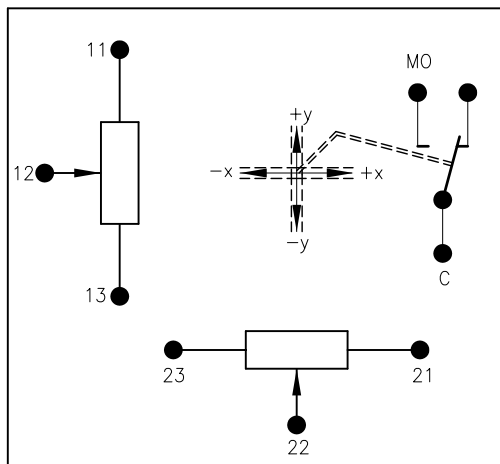
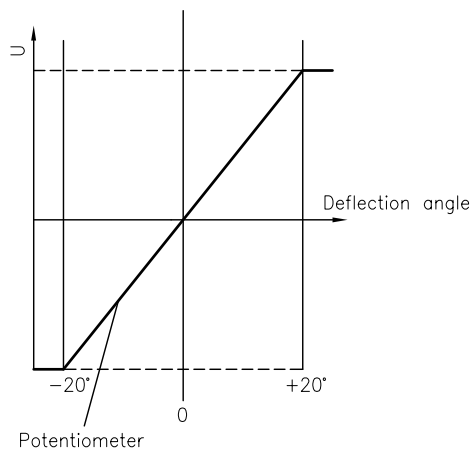
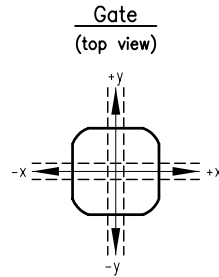
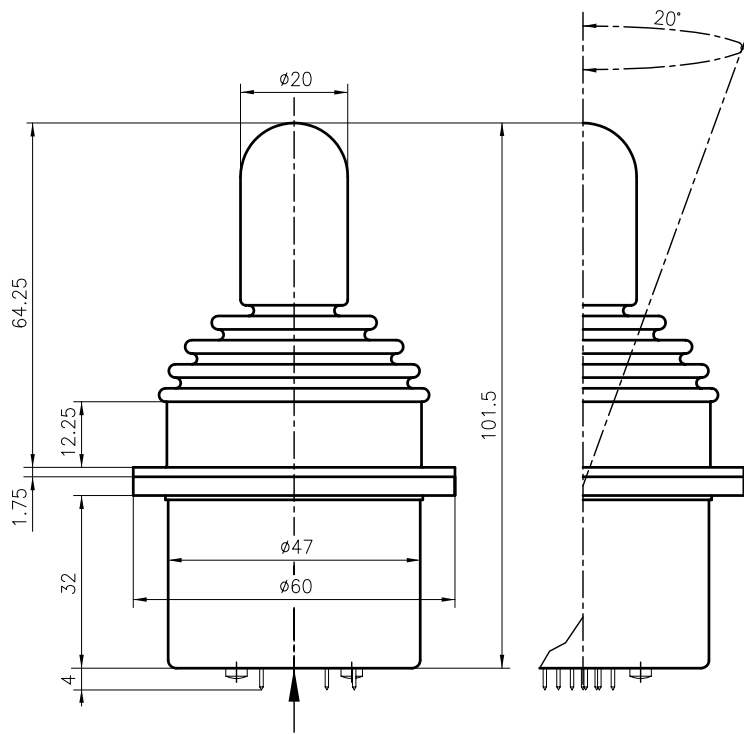


Output diagram

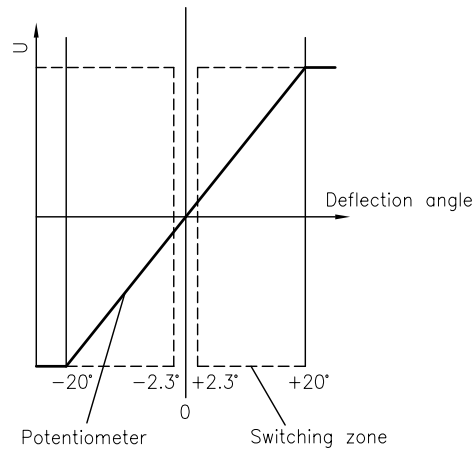


Description				
Joystick type SK 60-0200				
Number of axes	2-axes, x-axis, y-axis			
Operation by	Rubber bellow 48-203 (sealed)			
<u>Connector:</u> DUBOX Walled Header	2-poles: 76384-302 3-poles: 76384-303			
<u>Mating connector:</u> Dubox Housing <u>Anti-rotation locking</u>	2-poles: 65240-02 3-poles: 65240-03			
Cross guidance	soft			
Center tab	none			
Switch point	-			
Retaining spring	strong Z-Nr. 50-116			
Electrical characteristics				
Resistance value	5 kOhm ± 20%			
Power dissipation	0.2 Watt at 40°C per axis			
Switch capacity	1mA 5V DC resistive load			
Type of switch	Microswitch Burgess V4DT84			
Operating voltage	max. 30V DC			
Axis	Potentiometer	Connector side		
	Direction	Colour/ number	Center tab	Joystick in mid-position
x-axis	↑ +x	21 green		
	Wiper	22 blue		
	↓ -x	23 violet		
y-axis	↑ +y	11 yellow		
	Wiper	12 orange		
	↓ -y	13 red		
Microswitch	↑ common	-		
		C black		
	↓	MO white		

				Oberfläche	Maßstab 1:1	Position	Menge
				Datum	Name		
				Bearb. 01.03.96	DM	Joystick	
				Gepr.			
				Norm			
c	neues Layout	15.03.02	TZ	GENGE & THOMA AG		60-0200Ec	Blatt
b	Farben geändert	11.97		AG 01-2543 Lengnau/Bl			-
a	Pinbeleg geändert 05.96	05.96		Dateiname: E:\Dwg\SK60\60-0200E.dwg			Bl
Zust.	Änderungen	Datum	Name				



Output diagram

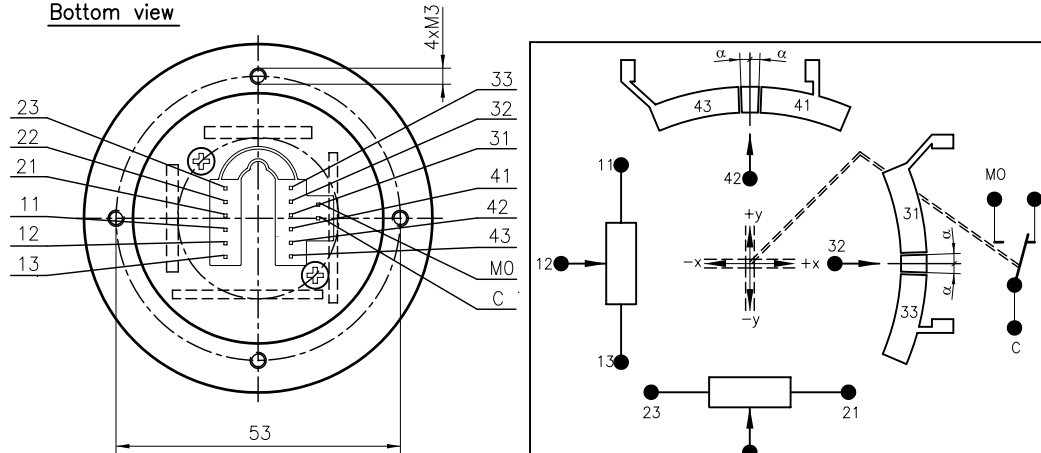


Description	
Joystick type SK 60-0203	
Number of axes	2-axes, x-axis, y-axis
Operation by	Rubber bellow 48-203 (sealed)
Pin strip	BERGSTIK straight single-row 77311-822-36
Cross guidance	soft
Center tab	none
Retaining spring	strong Z-Nr. 50-116
Switch function	2 shift segments per axis
Switchpoint $\alpha$	$\pm 2.3^\circ$

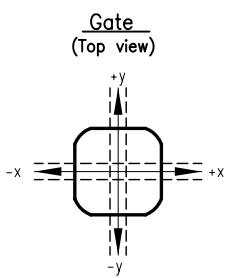
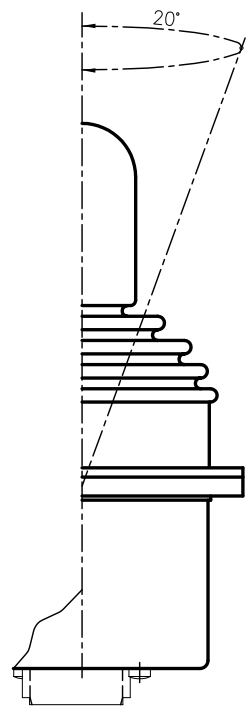
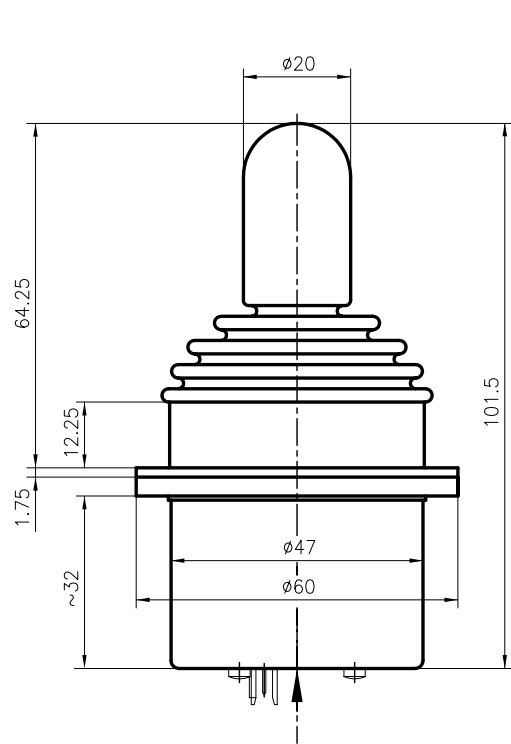
Electrical characteristics	
Resistance value	5 kOhm $\pm$ 20%
Power dissipation	0.2 Watt at 40°C per axis
Contact rating	Zero potential difference between segments 5 V DC, 5 mA
Switch capacity	5mA 6V DC resistive load
Type of switch	Microswitch NAIS ABJ 151041
Operating voltage	max. 30V DC

Axis	Potentiometer		Connector side		
	Direction	Colour/number	Center tab	Joystick in mid-position	
x-axis	↑ +x	21		41	open
	Wiper	22		42	open
y-axis	↓ -x	23		43	
	↑ +y	11			31
y-axis	Wiper	12			32
	↓ -y	13		33	
Microswitch	↑ -	-			
	common	C			
Microswitch	↓ -	-			
		-			

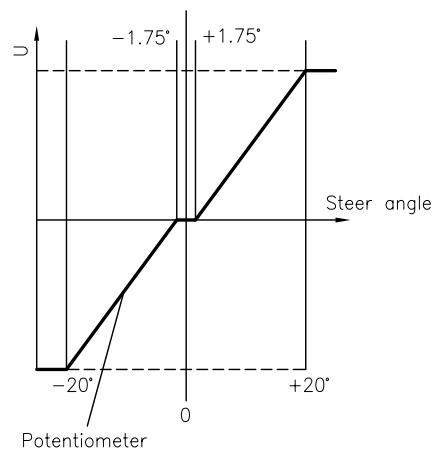
Bottom view



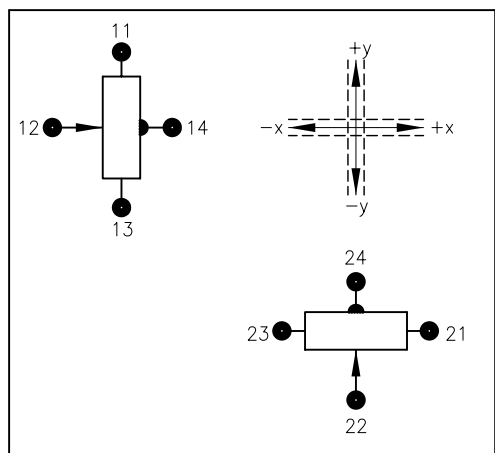
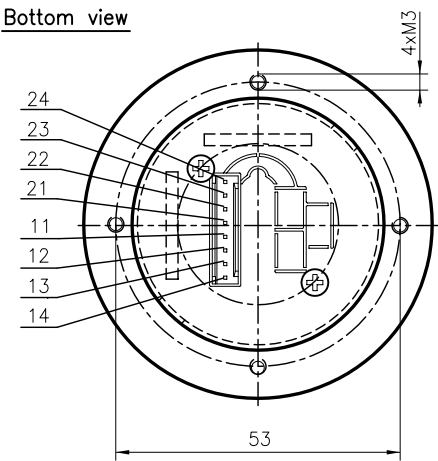
				Oberfläche	Maßstab 1:1	Position	Menge
				Datum	Name	Joystick	
				Bearb. 28.05.96	DM		
				Gepr.			
				Norm		60-0203Ea	
				<b>GENGE &amp; THOMA AG</b> <small>CH-2543 Lengnau/Blis</small>		Blatt	
a	neues Layout	16.03.04	TZ	Dateiname: E:\Dwg\SK60\60-0203E.dwg		-	Bl
Zust.	Änderungen	Datum	Name				



Output diagramm



Bottom view

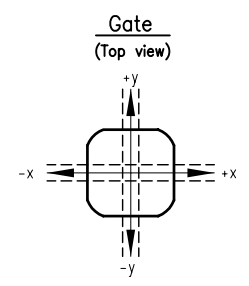
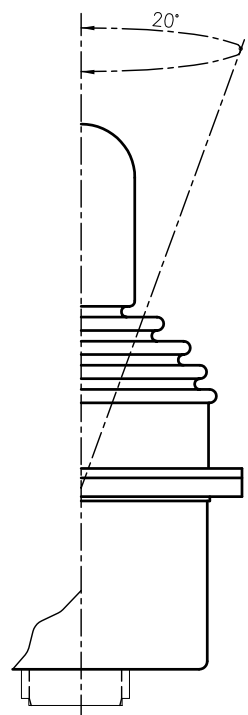
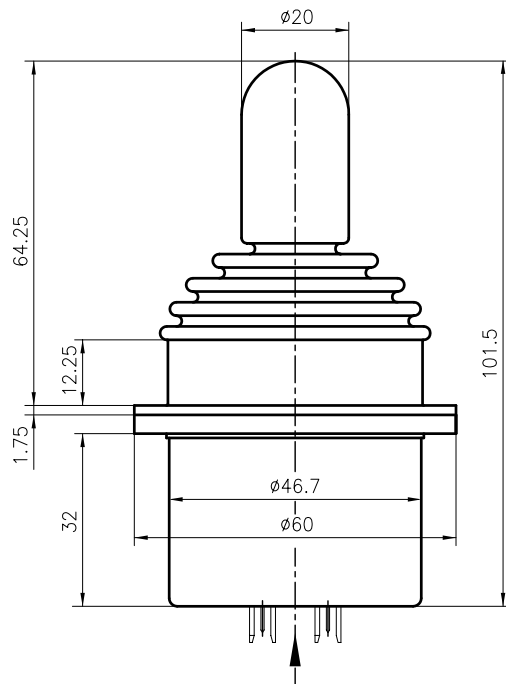


Description	
Joystick Type SK 60-0230	
Number of axis	2-axis, x-axis, y-axis
Operation by	Rubber bellow 48-203 (sealed)
Plug: DUBOX Walled Header	8-poles: 76384-308
Counter plug: Dubox Housing	8-poles: 65240-008
Crossguide	light
Center tab	±1.75°
Switchpoint α	-
Retaining spring	strong Z-Nr. 50-116
Electrical characteristics	
Resistance value	5 kOhm ± 20%
Power disipation	0.2 Watt at 40°C pro axis
Operating voltage	max. 30V DC
Pushbutton in Toggle	
Switch contact	
open	
closed	

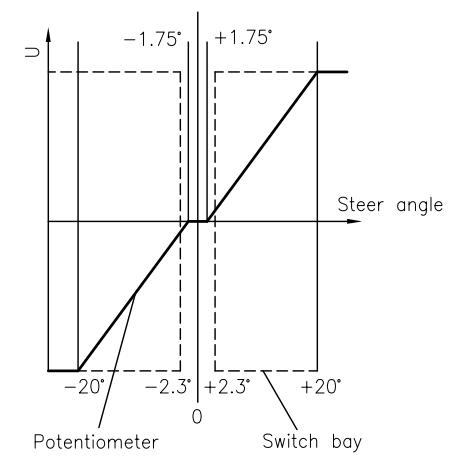
  

Axis	Potentiometer		Connector side	
Direction	Color/number	Center tab	Joystick in Mid-position	
x-axis	↑ +x	21 green	24 grey	
	Wiper	22 blue		
	↓ -x	23 violet		
y-axis	↑ +y	11 yellow	14 brown	
	Wiper	12 orange		
	↓ -y	13 red		

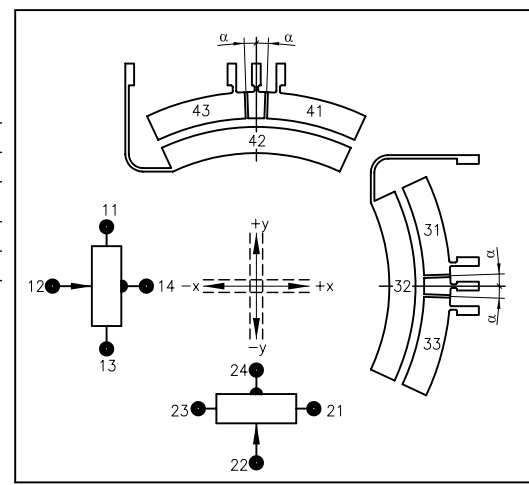
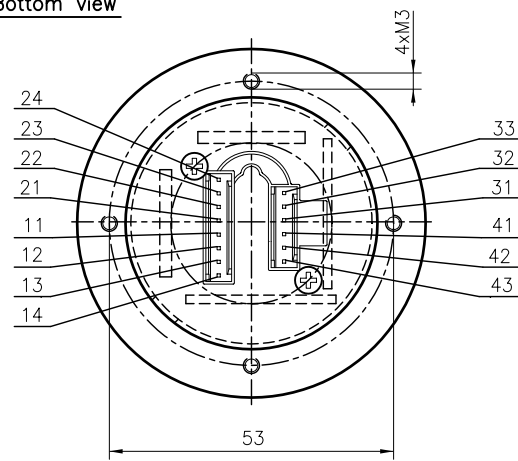
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		Datum	Name	<b>Joystick</b>	
		Bearb. 01.10.97	DM		
		Gepr.			
		Norm			
		<b>GENGE &amp; THOMA AG</b>		<b>60-0230E a</b>	
		<small>AG 01-2543 Lengnau/Bl</small>			
a	neues Layout	29.03.04	TZ	<b>60-0230E a</b>	
Zust.	Änderungen	Datum	Name		
		Dateiname: E:\DWg SK60\60-0230Ea.dwg		Blatt	-
				Bl	



Output diagram

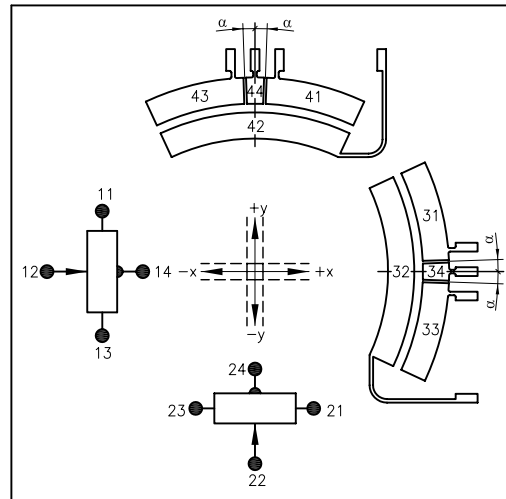
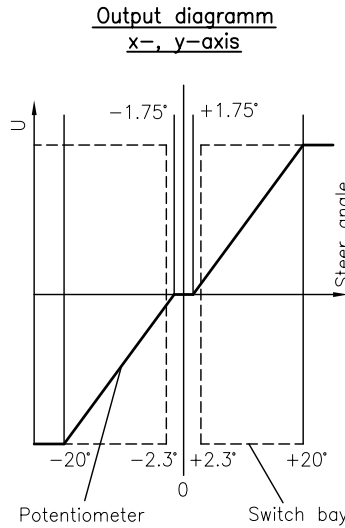
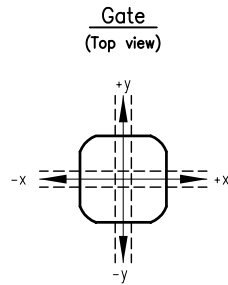
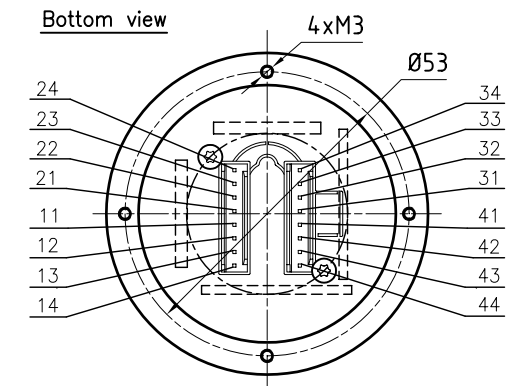
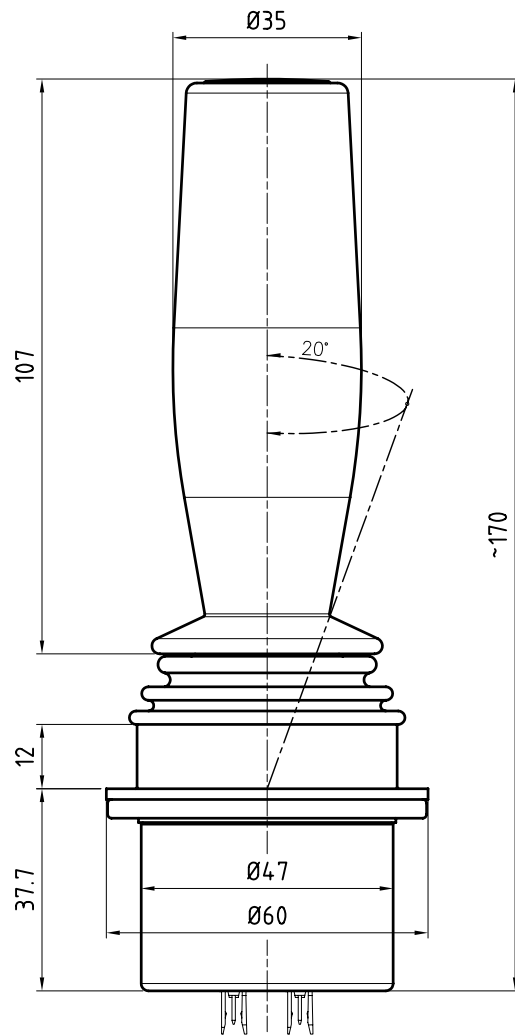


Bottom view



Description						
Joystick Type SK 60-0262						
Number of axes	2-axes, x-axis, y-axis					
Operation by	Rubber bellows 48-203 (sealed)					
Connector: DUBOX Walled Header	8-poles: 76384-308 6-poles: 76384-306					
Mating connector: Dubox Housing Rotated not insertable	8-poles: 65240-008 6-poles: 65240-006					
Cross guidance	soft					
Center tab	±1.75°					
Retaining spring	strong Z-Nr. 50-116					
Switch funktion	2 shifts segments per axis					
Switchpoint α	±2.3°					
Electrical characteristics						
Resistance value	5 kOhm ± 20%					
Power dissipation	0.2 Watt at 40°C per axis					
Contact rating	Zero potential difference between segments 5 V DC, 5 mA					
Operating voltage	max. 30V DC					
Axis	Potentiometer	Connector side				
	Direction	Colour/Number	Center tab	Joystick in mid-position		
x-axis	↑ +x	21 green	24 grey	41 orange	open	
	Wiper	22 blue		42 red	43 brown	open
	↓ -x	23 violet		31 yellow		
y-axis	↑ +y	11 yellow	14 brown	31 yellow	open	
	Wiper	12 orange		32 green	33 blue	open
	↓ -y	13 red		42 red		

		Oberfläche	Maßstab 1:1	Position	Menge
		Datum	Name	Joystick	
		Bearb. 08.02.99	DM		
		Gepr.			
		Norm			
		GENCE & THOMA AG		60-0262Eb	
		AG 01-2543 Lengnau/Bliz			
b	mit Doppelscheifer	11.05.09	MK	Blatt -	
a	neues Layout	14.04.04	TZ	Bl	
Zust.	Änderungen	Datum	Name	Dateiname: E:\DWG SK60\60-0262Eb.dwg	

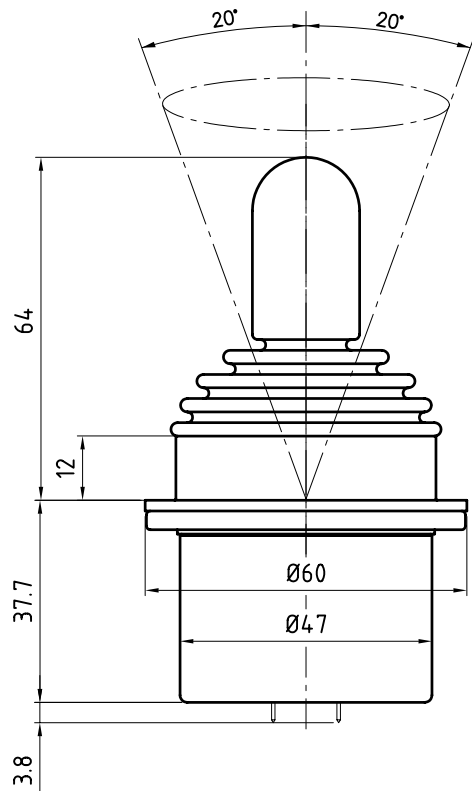


Description	
Joystick Type SK 60-0720	
Number of axis	2-axis, x-, y-axis
Operating by	Handle
Cross guide	light
Plug: DUBOX Walled Header	2x8-poles: 76384-308
Counter plug: Dubox Housing <u>ROTATED NOT INSERTABLE</u>	2x8-poles: 65240-08
Retaining spring	strong Z-Nr. 50-116
Switch function	1-1-1

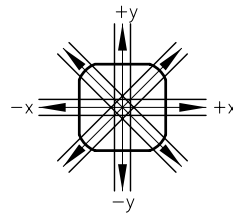
Electrical characteristics	
Contact rating	Zero potential difference between segments 5 V DC, 5 mA
Resistance value	5 kOhm ±20%
Power disipation	0.2 Watt at 40° per axis
Operating voltage	max. 30 V DC

Axis	Potentiometer		Connector side		
	Direction	Colour/ Number	Center tab	Joystick in mid-position	
x-axis	↑ +x	21 green	24 grey	41 yellow	open
	Wiper	22 blue		42 orange	44 brown
	↓ -x	23 violet		43 red	open
y-axis	↑ +y	11 yellow	14 brown	31 green	open
	Wiper	12 orange		32 blue	34 grey
	↓ -y	13 red		33 violet	open

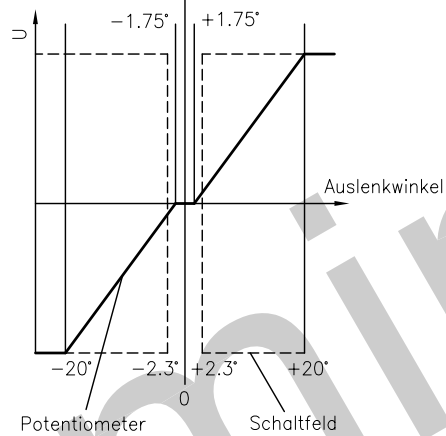
Oberfläche		Maßstab 1:1	Position	Menge
Datum		Name		
Bearb.	31.08.10	Kiener M.		
Gepr.				
Norm				
GEGE & THOMA AG		Blatt		
AG 01-2543 Lengnau/Blä		60-0720		
Dateiname: E:\DWQ_SK60\60-0720.dwg		Bl		
Zust.	Änderungen	Datum	Name	



**Kulissenform**  
(Ansicht von oben)



**Ausgangskennlinie/  
Schaltprogramm**



**Beschreibung**

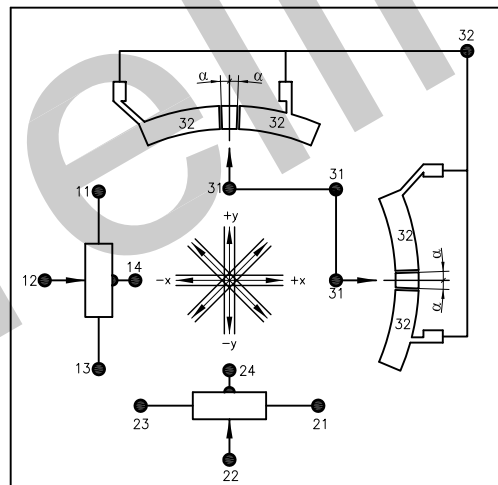
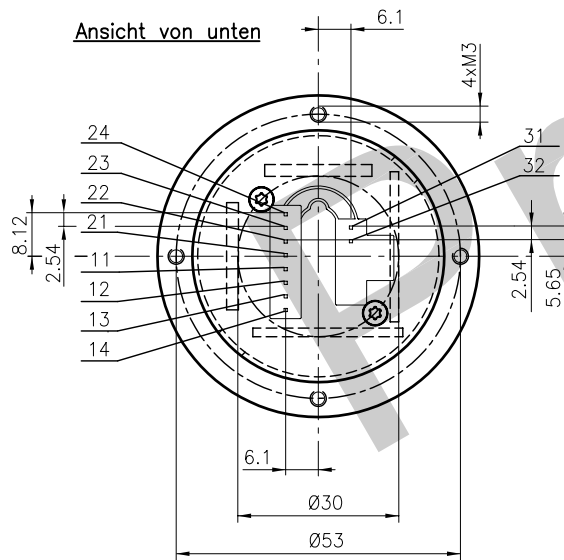
Steuerknüppel Type SK 60-0820	
Anzahl Achsen	2-achsig, x-Achse, y-Achse
Betätigung	via Faltenbalg 48-203 (gedichtet)
Siflleiste	BERGSTIK gerade, einreihig 77311-822-36
Kreuzführung	Stark mit 8 Richtungen
Mittelabgriff	±1.75°
Rückstellfeder	stark Z-Nr. 50-116
Schalterfunktion	2 Schaltsegmente je Achse
Schaltpunkt α	±2.3°

**Elektrische Daten**

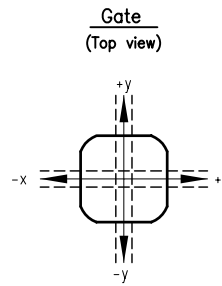
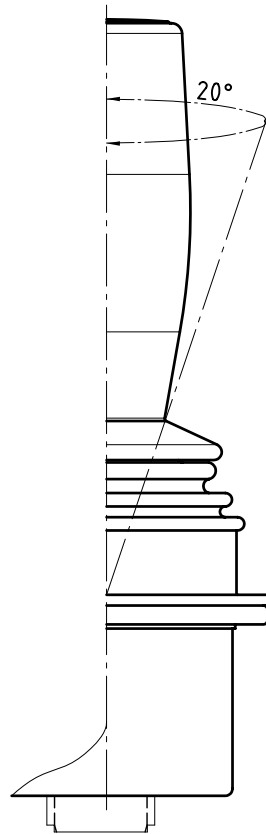
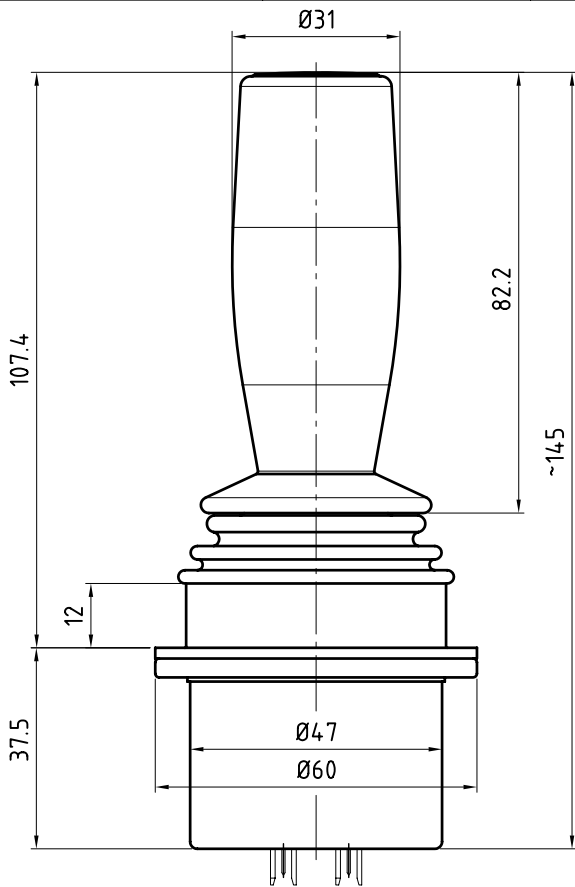
Widerstandswert	5 kOhm ± 20%
Verlustleistung	0.2 Watt bei 40°C pro Achse
Betriebsspannung	max. 30V DC

Achsen	Potentiometer		Schalter		
	Richtung	Farbe/Nummer	Mittelabgriff	Steuerknüppel in der Mitte	
x-Achse	↑ +x	21	24	32	offen
	Schleifer	22		31	
	↓ -x	23		32	offen
y-Achse	↑ +y	11	14	32	offen
	Schleifer	12		31	
	↓ -y	13		32	offen

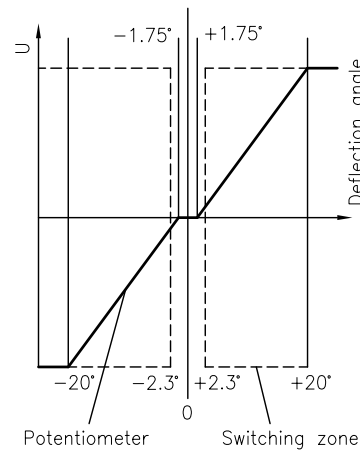
**Ansicht von unten**



		Oberfläche	Maßstab 1:1	Position	Menge
		Datum	Name	Joystick	
		Bearb. 01.11.11	Kiener M.		
		Gepr.			
		Norm			
		<b>GENGE &amp; THOMA AG</b> <small>CH-2543 Lengnau/Biel</small>			Blatt
		Dateiname: E:\Dwg\Qwg_SK60_160-0820.dwg			Bl
Zust.	Änderungen	Datum	Name		



Output diagram



Description

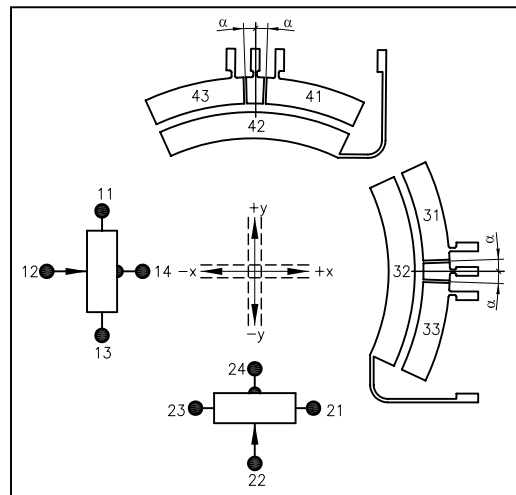
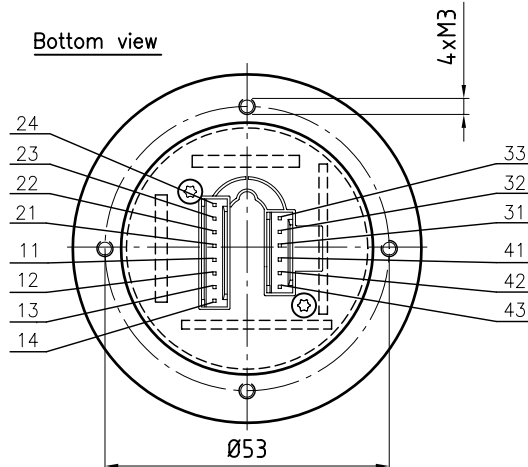
Joystick type SK 60-0920	
Number of axes	2-axes, x-axis, y-axis
Operation by	Sleek handle
Connector:	8-poles: 76384-308
DUBOX Walled Header	6-poles: 76384-306
Mating connector:	8-poles: 65240-08
Dubox Housing	6-poles: 65240-06
Anti-rotation locking	
Cross guidance	soft
Retaining spring	normal Z-Nr. 60-112
Center tab	$\pm 1.75^\circ$
Switch point $\alpha$	$\pm 2.3^\circ$
Switch function	2 shift segments per axis

Electrical characteristics

Resistance value	5 kOhm $\pm 20\%$
Power dissipation	0.2 Watt at 40°C per axis
Operating voltage	max. 30V DC
Contact rating	Zero potential difference between segments
	5 V DC, 5 mA

Axes	Potentiometer		Connector side		
	Direction	Colour/number	Center tab	Joystick in mid-position	
x-axis	$\uparrow +x$	21 green	24 grey	41 orange	open
	Wiper	22 blue		42 red	
	$\downarrow -x$	23 violet		43 brown	open
y-axis	$\uparrow +y$	11 yellow	14 brown	31 yellow	open
	Wiper	12 orange		32 green	
	$\downarrow -y$	13 red		33 blue	open

Bottom view



Oberfläche		Maßstab 1:1	Position	Menge
Datum		Name		
Bearb. 15.01.13		Kiener M.		
Gepr.				
Norm				
GENTE & THOMA AG		Blatt		
AG 01-2543 Lengnau/Blatt		60-0920		
Dateiname: E:\Dwg\LSK_60\LSK60-0920.dwg		Bl		
Zust.	Änderungen	Datum	Name	