

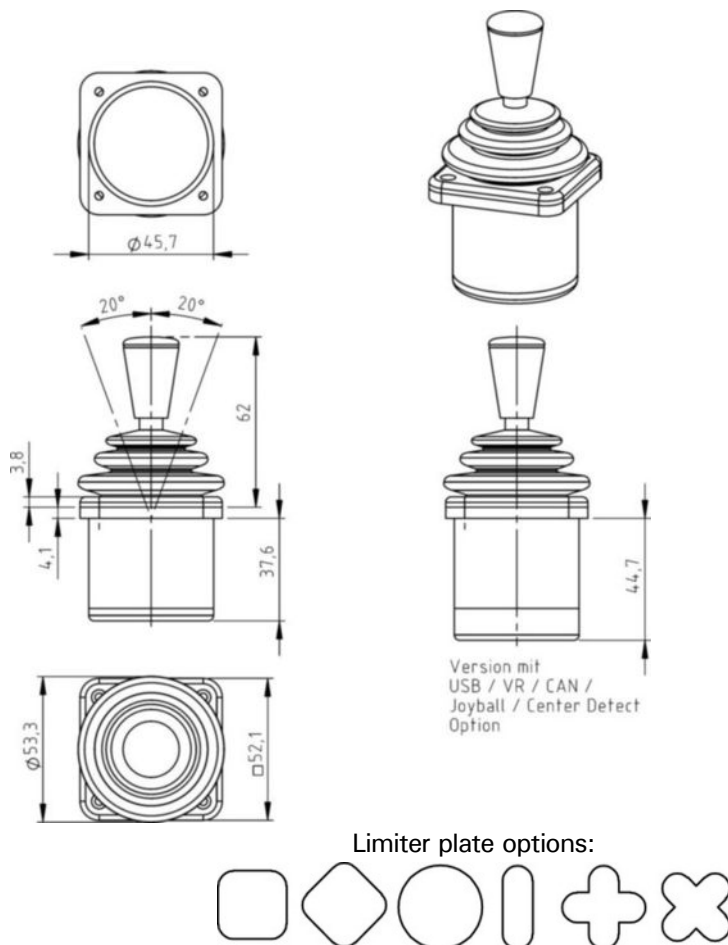
## TRY12 - Robust Finger Joystick

- 1-, 2- or 3-axes
- up to 2 buttons in the handle
- protection grade up to IP 65
- optional with USB or CAN J1939 interface
- useable as mouse-replacement (option joyball)
- ideal for controlling of wheelchairs, electric vehicles and many other drives with servo motors

The series TRY12 is the further development of the TRY10 type. Particularly the mechanical and electrical properties was upgraded. With the USB interface the joystick is useable as a mouse-replacement. With contactless hall sensors.



## Dimensions



### Cable:

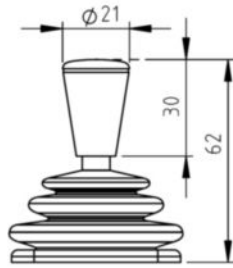
red = Vcc  
 black = ground  
 blue = X-axis  
 yellow = Y-axis  
 green = Z-axis  
 white = S1 / S2  
 orange = S1  
 violet = S2

Limiter plate options:

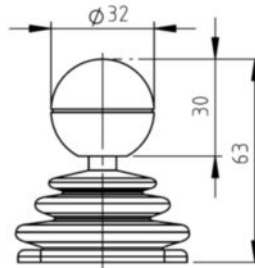


# TRY12 - Robust Finger Joystick

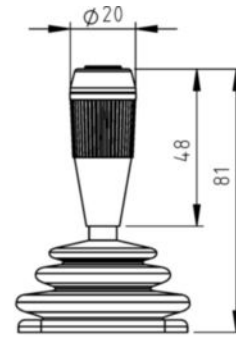
## Handles



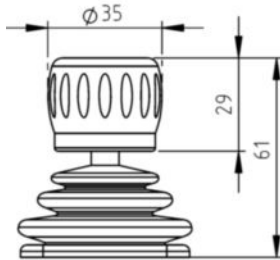
Knauf Option 1



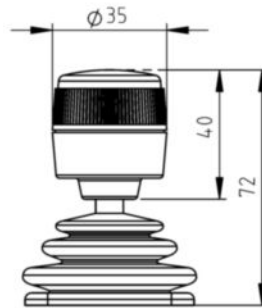
Knauf Option 3



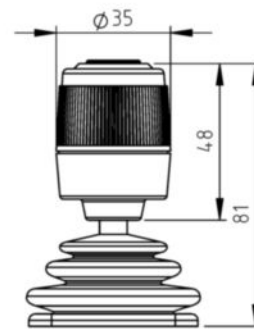
Knauf Option 4



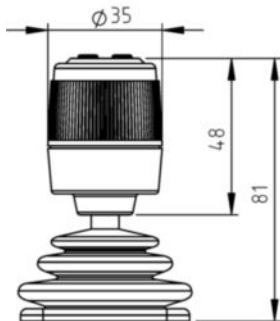
Knauf Option 6



Knauf Option 7



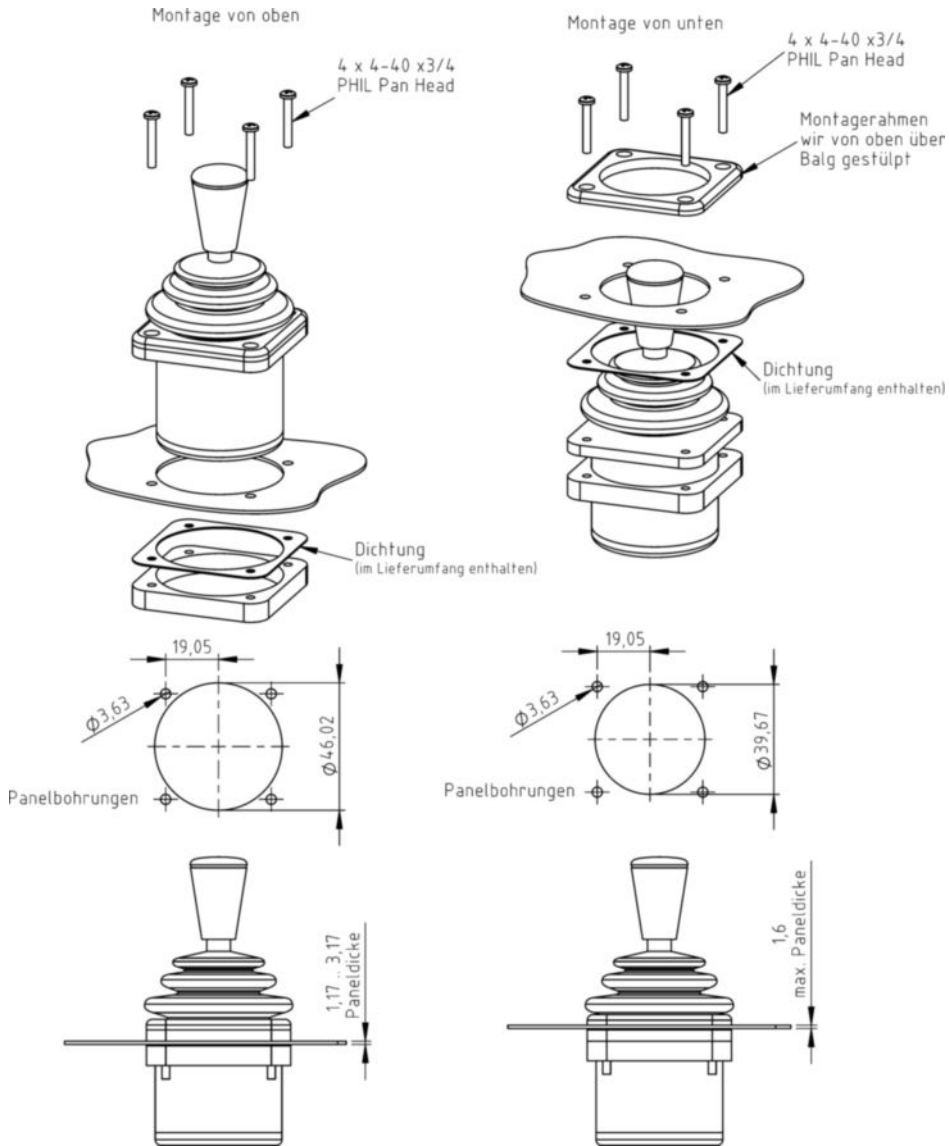
Knauf Option 9



Knauf Option A

# TRY12 - Robust Finger Joystick

## Mounting



# TRY12 - Robust Finger Joystick

## Options

### USB Interface

The optional USB output comes with a 2 m connection line with standard USB connector. The USB controller is integrated within the Joystick housing. Power will be supplied by the USB-port. The Joystick may operate with all USB capable operating systems. No guarantee of functionality for Linux systems.

### USB-Joystick as Mouse-Replacement: Option Joyball

Cursor emulation available for USB or Sun.

### Option Center Detect

Produces an electrical HI signal when stick is moved off center and produces an electrical LO signal at center position and if the sensor output voltage deviates from range ( $<0.5V$  or  $>4.5V$ ).

### Option Dual Decode

Provides center detect function and monitors dual sensors. If the sum and the difference of the sensor outputs vary by more than 9%, the circuit becomes electrically LO. Requires dual sensors and output option 0.5V to 4.5V.

### Option Friction Clutch

The joystick does not mechanically return to center, maintains present position. Requires "round" limiter plate option.

### Option Can Bus

Provides J1939 interface and requires Sensor Output Option (0.25V - 4.75V). Contact us for configuration chart.

### Voltage Regulator (Option Vxxxx)

Used when input or output voltage is greater than 5V or when bipolar output is required.

Available Configurations:		
Supply	Output	Order Description (Code)
17..30 VDC	$\pm 5VDC$	V2405b
	$\pm 10VDC$	V2410b
	0-5VDC	V2405
	0-10VDC	V2410
5 VDC	$\pm 5VDC$	V0505b
10..17 VDC	$\pm 10VDC$	V1210b
	0-10VDC	V1210
7..17 VDC	0-5VDC	V1205

### Option Wwitchstick

Electronic "Switch Stick".

### Analog Deadband

Assures return to center voltage

## TRY12 - Robust Finger Joystick

### Technical Data

Supply Voltage	5V $\pm$ 10% (without option VR)
Power Consumption 2 Axes	typical 20 mA
Power Consumption 3 Axes	typical 30mA
Resolution	unendlich
Center Voltage	2,5V ( $\pm$ 40mV)
Electrical Life	1 Mio. h
Mechanical Life (Operations)	10 Mio. (normal use)
Output Voltage	0 ... 5 V / 0,25 ... 4,75 V / 0,5 ... 4,5
Linearity Tolerance	$\pm$ 2% F.S.
Deflection X-,Y- Axis	$\pm$ 20°
Deflection Z- Axis	$\pm$ 40°
Operation Force in X-Y- Direction	2,25 N
Reset Accuracy to Center	$\pm$ 1%
Operating Temperature	-40 ... +85° C
Storage Temperature	-55 ... +165° C
Weight (Example: 2-Axes with round handle)	150 g
Protection Class	Standard IP40, depending on knob type IP50 / IP54 / IP65
Inflammability	94HB
Panel Thickness	1,2 ... 3,2 mm

# TRY12 - Robust Finger Joystick

## Options and Order Description

	Series	Axes	Bezel/Mounting	Reset Device	Handle	Limiter Plates	Output	Special Options
<b>Order Code:</b>	<b>TRY12</b>	x	x	x	x	x	x	x
1 axis		1						
2 axes		2						
3 axes		3						
Rubber boot mouting from top			5					
Rubber boot mouting from bottom			6					
Spring return				1				
Friction clutch				6		(3)		
Handle conical					1			
Handle ball tip					3			
Handle with push button					4			
Handle with 3 axes, low profile					6			
Handle with 3 axes					7			
Handle with 3 axes, 1 push button					9			
Handle with 3 axes, 2 push buttons					A			
Limiter plate square						1		
Limiter plate square, 45° shifted						2		
Limiter plate round						3		
Limiter plate X-axis						7		
Limiter plate Y-axis						8		
Limiter plate X/Y axes (+)						9		
Limiter plate X/Y axes (x)						4		
Output VR option							0	
Output 0-5V Rail to Rail							1	
Output 0,5-4,5V							2	
Output 0,25-4,75V							3	
Output USB interface							5	
Output USB joyball interface							6	
Output CAN J1939 interface							CAN	
Output switch stick							S	
- / -								
Center Detect							(2)	C
Dual Decode							(2)	D
Voltage Regulator							(0)	Vxxxx

## TRY12 - Robust Finger Joystick

Analog Deadband

A

The specifications and information in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product.

July 2009. All specifications are subject to change without notice.