

The palm grip B 1 is an actuating element for our multi-axis and single-axis controller. It can also be used as an actuating element with hydraulic drives. Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements. These devices have micro changeover contacts.

The palm grip has a highly flexible cable 4 (8) x 0,25 mm² x 450 mm long.

The mounting piece for the drive rod can be supplied with a tapped hole M 8 or M 10 (standard = M 10).

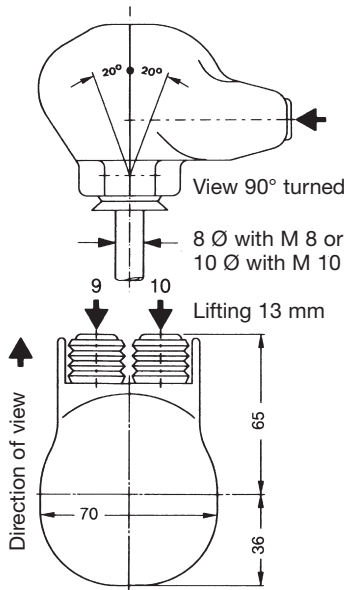
The palm grip B 1 is made of PPO plastic and is black in colour.

Contact complement 2 A 250 V AC 15 / 3 A 24 V DC 13
or 0,5 A 250 V AC 15 / 1,5 A 24 V DC 13

Permissible ambient temperature Operating -40°C to +60°C
Storage -50°C to +80°C

Climate resistance
Damp heat constant DIN IEC 68 part 2-3
Damp heat cyclic DIN IEC 68 part 2-30
Degree of protection front IP 54 IEC 529 DIN 40050

Pos.			Contact-complement	Weight gramm	Part No. 5284...	Type	Price EURO
1		Without built in	KBAD / 22	100		B 1	
2 3 4		Rocker switch top tast-0-tast T-0-T Rocker switch top tast-0-rest T-0-R Rocker switch top rest-0-rest R-0-R	KBAD / 46	120	2 change over contacts 2 A 250 V AC 15	B 1 W	
5		Rocker switch top tast-0-tast T-0-T with push button side	KBAD / 49	130	2 change over contacts 2 A 250 V AC 15 1 change over contact 0,5 A 250 V AC 15	B 1 WD	
6		Rocker switch top tast-0-tast T-0-T with 2 push button side	KBAD / 67	140	2 change over contacts 2 A 250 V AC 15 2 change over contacts 0,5 A 250 V AC 15	B 1 WDD	
7 8		Push button top with mechanical operation Push button top	KBAD / 27 KBAD / 25	120 100	1 change over contact 0,5 A 250 V AC 15	B 1 T B 1 D	
9 10		Push button top with 1 push button side Push button top with 2 push button side	KBAD / 47	120 130	2 change over contacts 0,5 A 250 V AC 15 3 change over contacts 0,5 A 250 V AC 15	B 1 DD B 1 DDD	
11 12 13		1 push button side 2 push button side 3 push button side	KBAD / 50	110 120 130	change over contacts 0,5 A 250 V AC 15	B 1 D B 1 DD B 1 DDD	
14		Push button top with Rocker switch side tast-0-tast (protection IP 41) T-0-T	KBAD / 75	120	1 change over contact 0,5 A 250 V AC 15 2 change over contacts 0,5A 250V AC 15	B 1 DW	
15 16 17		Lever switch side 0-tast mechanical operation Lever switch side 0-tast 1 contact Lever switch side 0-tast 2 contacts	KBAD / 126 KBAD / 54	150 120 130	change over contacts 2 A 250 V AC 15	B 1 KT B 1 K B 1 KK	
21 22		Cable 4 res. 8 x 0,25 mm ² x 450 mm long wired included Pos. 1-17 Additional price per metre cable 4-pole Additional price per metre cable 8-pole					



The palm grip B 2 is an actuating element for our multi-axis controller V 8. It can also be used as an actuating element for hydraulic drives. With each of the two push button one direction-contact (micro change over contact) also one potentiometer pushed. These palm grip realised the 3. direction 9-10 (3. axis) on our multi-axis controller V 8.

The palm grip has a highly flexible cable
8 x 0,25 mm² x 450 mm long.

The mounting piece for the drive rod can be adjusted steplessly up to 20° in all directions.

The palm grip B 2 is made of PPO plastic and is black in colour.

Contact complement 0,5 A 110 V AC 15 res. 1,5 A 24 V DC 13
I min > 0,2 mA 2 V DC 12 Gold plated for max. load of 0,12 Watt (standard)

Permissible ambient temperature Operating -40°C to +60°C
 Storage -50°C to +80°C

Climate resistance
Damp heat constant DIN IEC 68 part 2-3
Damp heat cyclic DIN IEC 68 part 2-30
Degree of protection front IP 54 IEC 529 DIN 40050

Pos.			Weight gramm	Part No. 5285...	Type	Price EURO
1	Palm grip with mounting piece for control-handle		200		B 2	
2	Latch for mechanical interlock for the push buttons		30		M	
3	2 direction-contacts		30		2	
4	2 wire-wound potentiometer T 239 linear life 5 x 10 ⁶ switching cycles resistance 1,2,5 kOhm 1 Watt wiper current max. 10 mA		60		PP	
5	2 conductive-plastic potentiometer T 301 linear life 10 ⁷ switching cycles resistance 1,2,5 kOhm 0,5 Watt wiper current max. 1 mA		50		PP	
6	more potentiometer e.t.c. look catalog 1/240					
10	Impedance converter Input ±15 Volt, Output ±10 V / 5 mA		50		I	
22	Cable 8 x 0,25 mm ² x 450 mm long wired included Pos. 1-10 Additional price per metre cable 8-pole					

Example for type-sign

Palm grip

Mechanical interlock

No. of contacts



Special please to describe

Impedance converter

Potentiometer e.t.c.



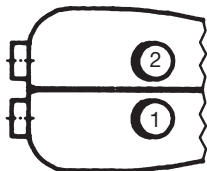
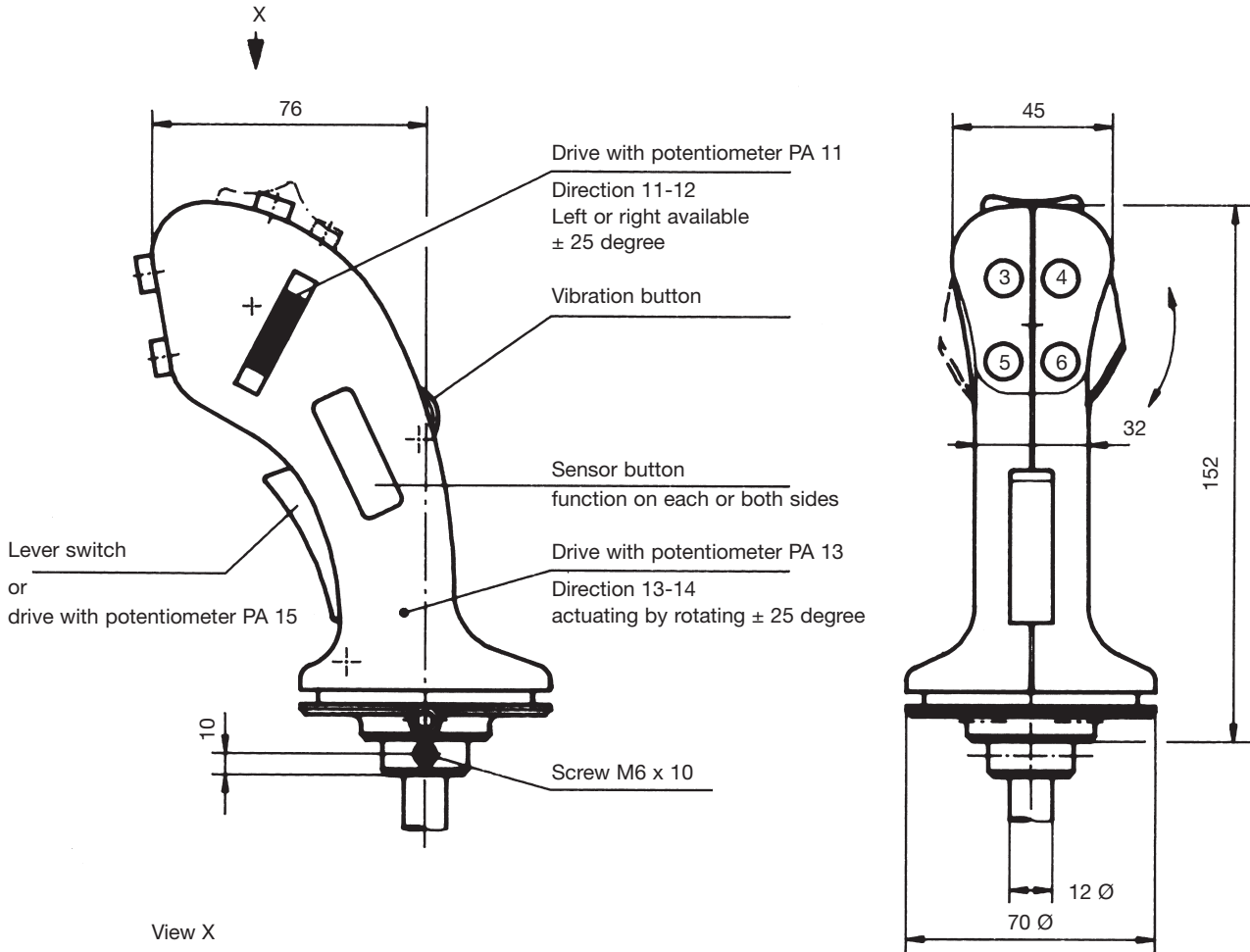
The palm grip B 3 is an actuating element for our multi-axis controller V 8, VV 8, V 6, VV 6, VV 5. It can also be used as an actuating element for hydraulic drives. Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements. The drives with potentiometer PA 11/12 and PA 13 realised the direction 11-12 resp. 13-14 (3. resp. 4 axis) on our multi-axis controllers.

The palm grip has a highly flexible single wire 0,1 mm² x 450 mm long.
The mounting piece for the drive rod can be supplied with a tapped hole 12 or 10 mm (standard = 12 mm).
The palm grip B 3 is made of PPO plastic and is black in colour.

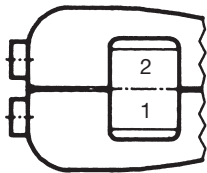
Contact complement 0,5 A 110 V AC 15 res. 1,5 A 24 V DC 13 I min > 0,2 mA 2 V DC 12 Gold plated for max. load of 0,12 Watt (standard)

Permissible ambient temperature	Operating	-40°C to +60°C
	Storage	-50°C to +80°C
Climate resistance		
Damp heat constant		DIN IEC 68 part 2-3
Damp heat cyclic		DIN IEC 68 part 2-30
Degree of protection front		IP 65 IEC 529 DIN 40050

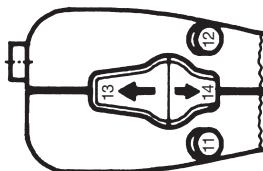
Pos.		Weight gramm	Part No. 5286...	Type	Price EURO
1	Palm grip with mounting piece for control-handle	200		B 3	
2	Push button 1 NO installed Pos. 1, 2, 3, 4, 5, 6 color red RD, black BK, yellow YE, green GN, blue BU	20		D	
3	Rocker switch tast-0-tast T-0-T 2 NO installed Pos. 1 + 2	30		W	
4	Rocker switch tast-0-rest T-0-R 2 NO installed Pos. 1 + 2	30		W	
5	Rocker switch rest-0-rest R-0-R 2 NO installed Pos. 1 + 2	30		K	
6	Lever switch 1 NO	40		ST	
7	Sliding switch tast-0-tast T-0-T 2 NO installed Pos. 13 + 14	40		SR	
8	Sliding switch rest-0-rest R-0-R 2 NO installed Pos. 13 + 14	90		ZD	
9	Push button with 2 steps Latch for mechanical zero interlock 4 contacts arrangement MS 212 look catalog 5/001				
11	Drive with potentiometer PA 11 actuating by rocker wheel installed Pos. left or right with spring return in the centre position 1 conductive-plastic potentiometer T 375 with centre tap Linear 10 ⁷ switching cycles resistance 2 x 5 kOhm 0,5 Watt wiper-current max. 1 mA 2 direction-contacts	90		PA 11	
12	Drive with potentiometer PA 12 actuating installed Pos. 11 + 12 by push button (details exactly PA 11)	90		PA 12	
13	Drive with potentiometer PA 13 actuating by rotating palm grip left resp. right with spring return in the centre position 1 conductive-plastic potentiometer T 375 with centre tap Linear 10 ⁷ switching cycles resistance 2 x 5 kOhm 0,5 Watt wiper current max. 1 mA, 2 direction-contacts	90		PA 13	
15	Drive with potentiometer PA 15 actuating by lever switch with spring return in 0-position, 1 conductive-plastic potentiometer T 375 Linear 10 ⁷ switching cycles resistance 5 kOhm 0,5 Watt wiper current max. 1 mA, 1 direction-contact	90		PA 15	
20	Vibrator button actuating through solenoid 24 V DC impulse signal 100% duty cycle factor (e.g. indication of cable movement)	60		V	
21	Sensor button and res. or annexed with a regulator electronic board EY/42-10 or -11 24 V DC (separate)	20		SE	
22					
23					
30	Bellow for palm grip B 3 drawing No. KMD 109 required for multi-axis controller V 8, VV 8				
31	Bellow for palm grip B 3 drawing No. KMD 190 and front plate with 4 screws M5 x 15 (for mounting the bellow) drawing No. KBF 905 required for multi-axis controller V 6, VV 6, VV 5				
32					
33					



Edition:
Push button



Edition:
Rocker switch
(installed Pos. 3, 4 inapplicable)



Edition:
Sliding switch installed Pos. 13, 14
installed Pos. 1, 2, 4, 6 inapplicable
Drive with potentiometer PA 12 direction 11 - 12 installed Pos. 11, 12
PA 11 inapplicable
Push button with 2 steps ZD installed Pos. 11 - 12
PA 11, 12 inapplicable

Edition:
Vibrator button only one
Drive with potentiometer PA 13 version
Drive with potentiometer PA 15 possible

Example for type-sign

Palm grip

Push button

Rocker switch

Lever switch

B 3 D W K SE PA 11 PA 13 - X

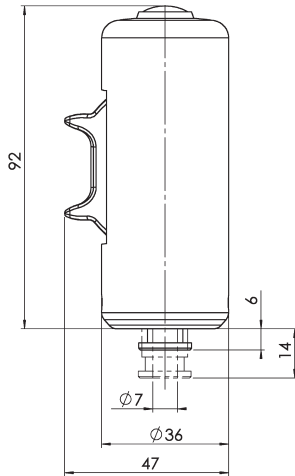


Special please to describe

Drive with potentiometer PA 13

Drive with potentiometer PA 11

Sensor button



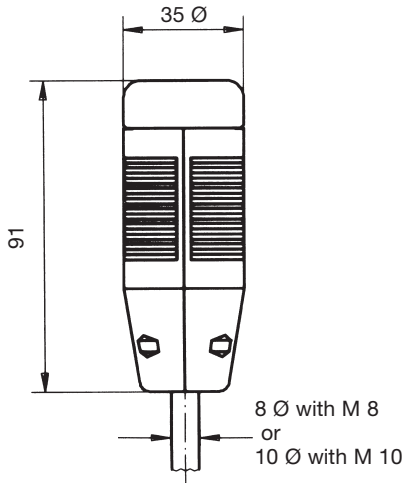
The palm grip B 4 is an actuating element for our multi-axis controller V 10, V 11, V 14. It can also be used as an actuating element for hydraulic drives. Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements. The drive with potentiometer PA 11 realised the direction 11-12 (3. axis) on our multi-axis controllers.

The palm grip has a highly flexible single wire 0,1 mm² x 450 mm long. The mounting piece for the drive rod can be supplied with a tapped hole 8 mm. The palm grip B 4 is made of PPO plastic and is black in colour.

Contact complement 0,5 A 110 V AC 15 res. 1,5 A 24 V DC 13 I min > 0,2 mA 2 V DC 12 Gold plated for max. load of 0,12 Watt (standard)

Permissible ambient temperature	Operating	-40°C to +60°C
	Storage	-50°C to +80°C
Climate resistance		
Damp heat constant		DIN IEC 68 part 2-3
Damp heat cyclic		DIN IEC 68 part 2-30
Degree of protection front		IP 65 IEC 529 DIN 40050

Pos.			Weight gramm	Part No. 5288...	Type	Price EURO
1	Palm grip with mounting piece for control-handle		120		B 4	
2	Push button	1 NO	20		D	
3						
5						
6						
10						
11	Drive with potentiometer PA 11 actuating by rocker wheel with spring return in the centre position 1 conductive-plastic potentiometer T 394 with centre tap Linear 10' switching cycles resistance 2 x 5 kOhm 0,5 Watt wiper current max. 1 mA 2 direction-contacts		90		PA 11	
30						
31						
32						
33						



The palm grip B 5 is an actuating element for our multi-axis and single-axis controller. It can also be used as an actuating element for hydraulic drives. Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements.

The palm grip has a highly flexible cable 4 (8) x 0,25 mm² x 450 mm long.

The mounting piece for the drive rod can be supplied with a tapped hole M 8 or M 10 (standard = M 10).

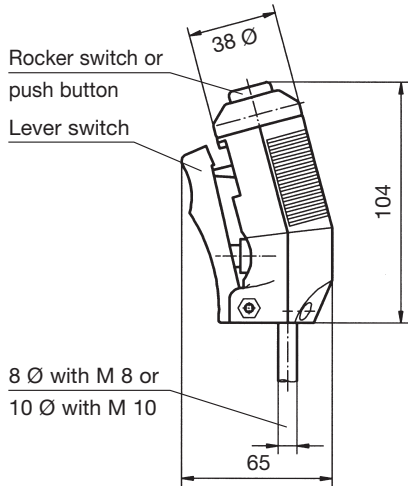
The palm grip B 5 is made of PPO plastic and is black in colour.

Contact complement 2 A 250 V AC 15 / 3 A 24 V DC 13
or 0,5 A 250 V AC 15 / 1,5 A 24 V DC 13

Permissible ambient temperature Operating -40°C to +60°C
Storage -50°C to +80°C

Climate resistance
Damp heat constant DIN IEC 68 part 2-3
Damp heat cyclic DIN IEC 68 part 2-30
Degree of protection front IP 54 IEC 529 DIN 40050

Pos.			Contact-complement	Weight gramm	Part No. 5289...	Type	Price EURO
1		without built in	KBAD / 254	100		B 5	
2		Rocker switch top tast-0-tast T-0-T	KBAD / 248	120		B 5 W	
3		Rocker switch top tast-0-rest T-0-R					
4		Rocker switch top rest-0-rest R-0-R					
5		Rocker switch top tast-0-tast with push button side	KBAD / 294	130		B 5 WD	
7		Push button top mechanical operation	KBAD / 311	120		B 5 T B 5 D	
8		Push button top	KBAD / 250	100			
9		Push button top with 1 push button side	KBAD / 252	120		B 5 DD	
11		1 push button side	KBAD / 246	110		B 5 D B 5 DD	
12		2 push button side		120			
21 22		Cable 4 res. 8 x 0,25 mm ² x 450 mm long wired included in Pos. 1-12 Additional price per metre cable 4-pole Additional price per metre cable 8-pole					



The palm grip B 6 is an actuating element for our multi-axis and single-axis controller. It can also be used as an actuating element with hydraulic drives. Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements. These devices have micro changeover contacts.

The palm grip has a highly flexible cable 4 (8) x 0,25 mm² x 450 mm long.

The mounting piece for the drive rod can be supplied with a tapped hole M 8 or M 10 (standard = M 10).

The palm grip B 6 is made of PPO plastic and is black in colour.

Contact complement 2 A 250 V AC 15 / 3 A 24 V DC 13
or 0,5 A 250 V AC 15 / 1,5 A 24 V DC 13

Permissible ambient temperature Operating -40°C to +60°C
Storage -50°C to +80°C

Climate resistance
Damp heat constant DIN IEC 68 part 2-3
Damp heat cyclic DIN IEC 68 part 2-30
Degree of protection front IP 54 IEC 529 DIN 40050

Pos.			Contact-complement	Weight gramm	Part No. 5290...	Type	Price EURO
1		with built in lever switch side 0-tast	KBAD/ 1 change over contact 0,5 A 250 V AC 15	120		B 6 K	
2		Lever switch side 0-tast					
3		with rocker switch top tast-0-tast T-0-T					
4		with rocker switch top tast-0-rest T-0-R	KBAD/ 3 change over contacts 0,5 A 250 V AC 15	130		B 6 KW	
		with rocker switch top rest-0-rest R-0-R					
5		Lever switch side 0-tast with push button top	KBAD/ 2 change over contacts 0,5 A 250 V AC 15	130		B 6 KD	
21		Cable 4 res. 8 x 0,25 mm ² x 450 mm long wired included Pos. 1-5					
22		Additional price per metre cable 4-pole Additional price per metre cable 8-pole					



The palm grip B 7 is an actuating element for our multi-axis controller V 8, VV 8, V 6, VV 6, VV 5 design left, B 8 for design right.
It can also be used as an actuating element for hydraulic drives.
Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements.

The palm grip has a highly flexible single wire 0,1 mm² x 450 mm long.

The mounting piece for the drive rod can be supplied with a tapped hole 12 or 10 mm (standard = 12 mm).

The palm grip B 7/8 is made of PPO plastic and is black in colour.

**Contact complement 0,5 A 110 V AC 15 res. 1,5 A 24 V DC 13
I min > 0,2 mA 2 V DC 12 Gold plated for max. load of 0,12 Watt (standard)**

Permissible ambient temperature

Operating -40°C to +60°C
Storage -50°C to +80°C

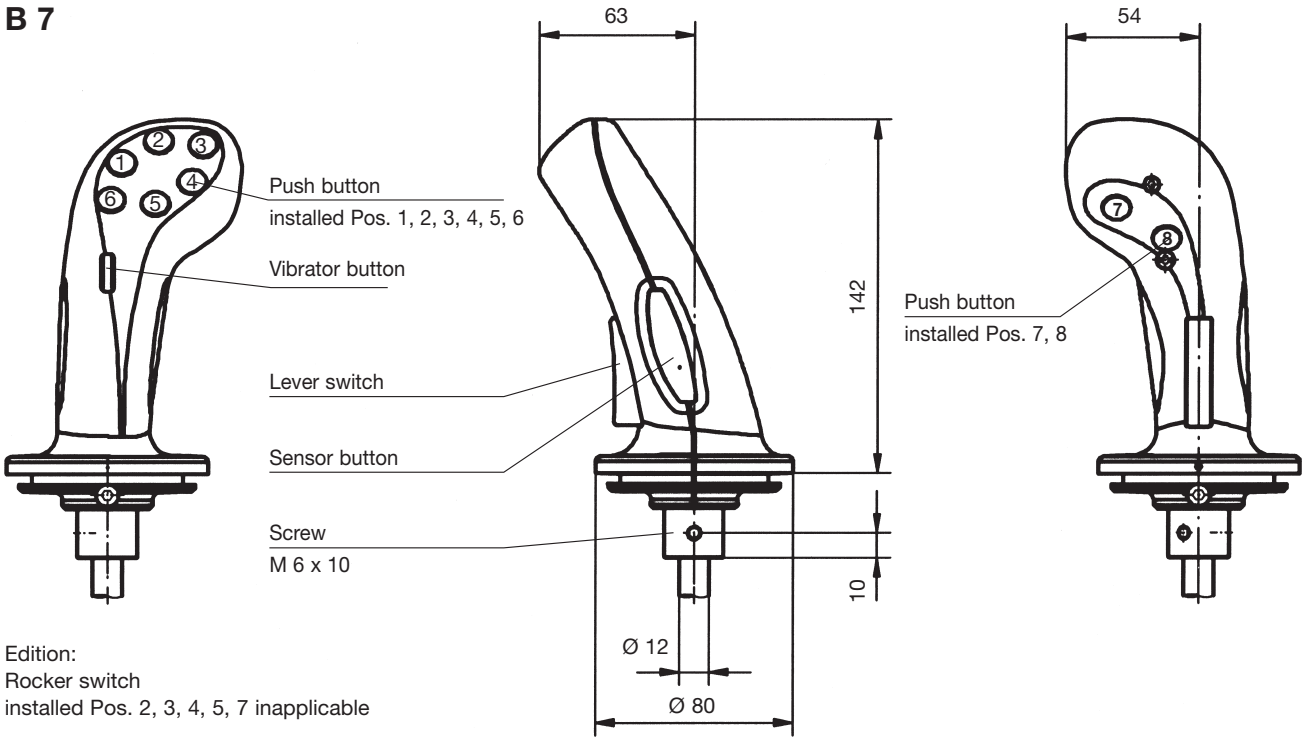
Climate resistance
Damp heat constant
Damp heat cyclic
Degree of protection front

DIN IEC 68 part 2-3
DIN IEC 68 part 2-30
IP 65 IEC 529 DIN 40050

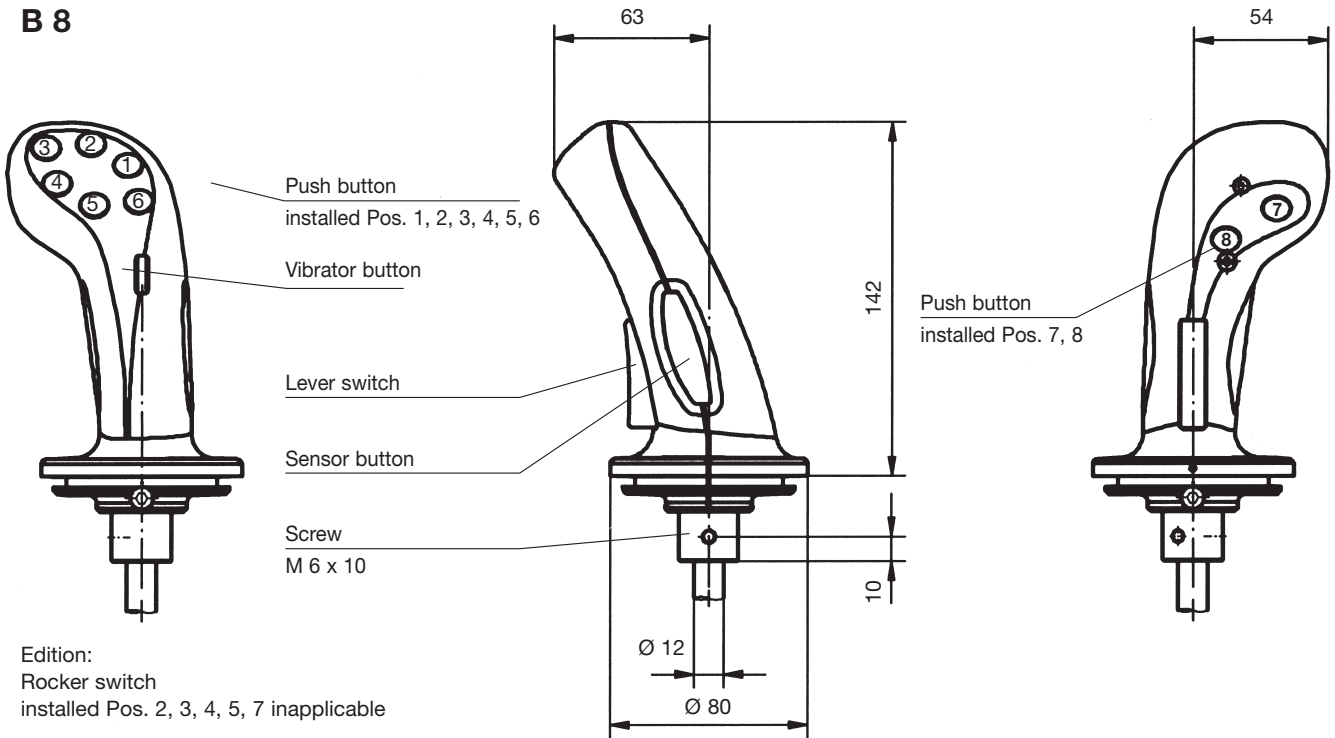
Pos.			Weight gramm	Part No. 5292...	Type	Price EURO
1	Palm grip with mounting piece for control-handle design left		200		B 7	
2	Palm grip with mounting piece for control-handle design right		200		B 8	
3	Push button 1 NO installed Pos. 1, 2, 3, 4, 5, 6, 7, 8 color red RD, black BK, yellow YE, green GN, blue BU, white WH		20		D	
4	Rocker switch tast-0-tast T-0-T 2 NO installed Pos. 2, 3, 4		30		W	
5	Rocker switch tast-0-rest T-0-R 2 NO installed Pos. 2, 3, 4		30		W	
6	Rocker switch rest-0-rest R-0-R 2 NO installed Pos. 2, 3, 4		30		W	
7	Lever switch 1 NO		30		K	
20	Vibrator button actuating through solenoid 24 V DC impulse signal 100% duty cycle factor		60		V	
21	Sensor button and res. or annexed with a regulator electronic board EY / 42-10 or -11 24 V DC (separate)		20		SE	
22						
23						
30	Bellow for palm grip B 7/8 drawing No. KMD 109 required for multi-axis controller V 8, VV 8					
31	Bellow for palm grip B 7/8 drawing No. KMD 190 and front plate with 4 screws M5 x 15 (for mounting the bellow) drawing No. KBF 905 required for multi-axis controller V 6, VV 6, VV 5					
32						
33						



B 7



B 8



Example for type-sign

B 7 D K V SE - X

Palm grip
 Push button
 Lever switch



Special please to describe
 Sensor button
 Vibrator button



The palm grip B 9 is an actuating element for our multi-axis controller V 8, VV 8, V 6, VV 6, VV 5. It can also be used as an actuating element for hydraulic drives. Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements. The drives with potentiometer PA 11 and PA 13 realised the direction 11-12 resp. 13-14 (3. resp. 4 axis) on our multi-axis controllers.

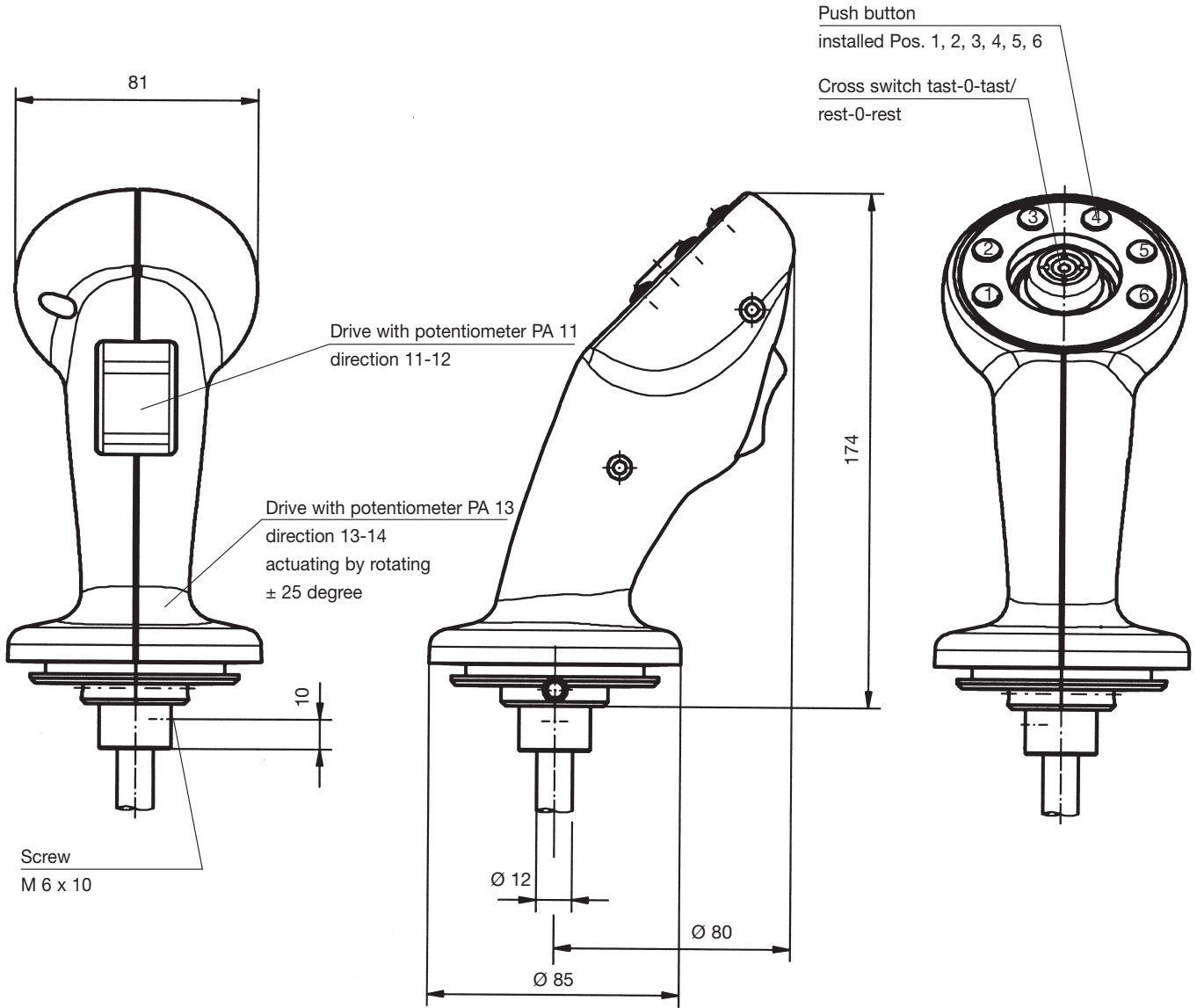
The palm grip has a highly flexible single wire 0,1 mm² x 450 mm long. The mounting piece for the drive rod can be supplied with a tapped hole 12 or 10 mm (standard = 12 mm). The palm grip B 9 is made of PA plastic and is grey in colour.

**Contact complement 0,5 A 110 V AC 15 res. 1,5 A 24 V DC 13
I min > 0,2 mA 2 V DC 12 Gold plated for max. load of 0,12 Watt (standard)**

Permissible ambient temperature	Operating	-40°C to +60°C
	Storage	-50°C to +80°C

Climate resistance	DIN IEC 68 part 2-3
Damp heat constant	DIN IEC 68 part 2-30
Damp heat cyclic	IP 65 IEC 529 DIN 40050
Degree of protection front	

Pos.		Weight gramm	Part No. 5294...	Type	Price EURO
1	Palm grip with mounting piece for control-handle	230		B 9	
2	Push button 1 NO installed Pos. 1, 2, 3, 4, 5, 6 color red RD, black BK, yellow YE, green GN, blue BU, white WH	20		D	
3	Cross switch tast-0-tast T-0-T / T-0-T 4 NO	60		KT	
5	Cross switch rest-0-rest R-0-R / R-0-R 4 NO	60		KR	
6					
10					
11	Drive with potentiometer PA 11 actuating by rocker wheel with spring return in the centre position 1 conductive-plastic potentiometer T 394 with centre tap Linear 10 ⁷ switching cycles resistance 2 x 5 kOhm 0,5 Watt wiper current max. 1 mA, 2 direction-contacts	90		PA 11	
13	Drive with potentiometer PA 13 actuating by rotating palm grip left resp. right with spring return in the centre position 1 conductive-plastic potentiometer T 375 with centre tap Linear 10 ⁷ switching cycles resistance 2 x 5 kOhm 0,5 Watt wiper current max. 1 mA, 2 direction-contacts	90		PA 13	
30	Bellow for palm grip B 9 drawing No. KMD 109 required for multi-axis controller V 8, VV 8				
31	Bellow for palm grip B 9 drawing No. KMD 190 and front plate with 4 screws M5 x 15 (for mounting the bellow) drawing No. KBF 905 required for multi-axis controller V 6, VV 6, VV 5				
32					
33					



Example for type-sign

B 9 D KT PA 11 PA 13 - X

Palm grip
Push button
Cross switch



Special please to describe
Drive with potentiometer PA 13
Drive with potentiometer PA 11



The palm grip B 10-1 is an actuating element for double-handle controller D 64, DD 64, D8. Control-handle left, B10-2 for control-handle right. It can also be used as an actuating element for hydraulic drives. Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements.

The palm grip has a highly flexible single wire 0,1 mm² x 450 mm long.

The mounting piece for the drive rod can be supplied with a tapped hole 10 mm. The palm grip B 10 is made of PPO plastic and is black in colour.

**Contact complement 0,5 A 110 V AC 15 res. 1,5 A 24 V DC 13
I min > 0,2 mA 2 V DC 12 Gold plated for max. load of 0,12 Watt (standard)**

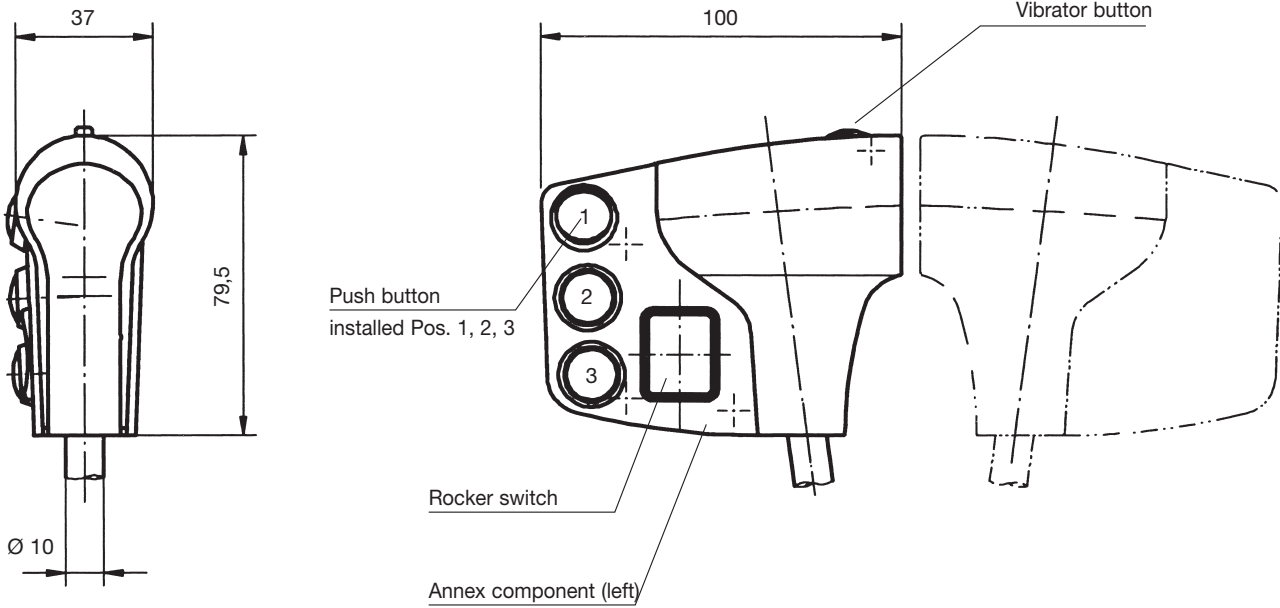
Permissible ambient temperature	Operating	-40°C to +60°C
	Storage	-50°C to +80°C

Climate resistance	DIN IEC 68 part 2-3
Damp heat constant	DIN IEC 68 part 2-30
Damp heat cyclic	DIN IEC 68 part 2-30
Degree of protection front	IP 65 IEC 529 DIN 40050

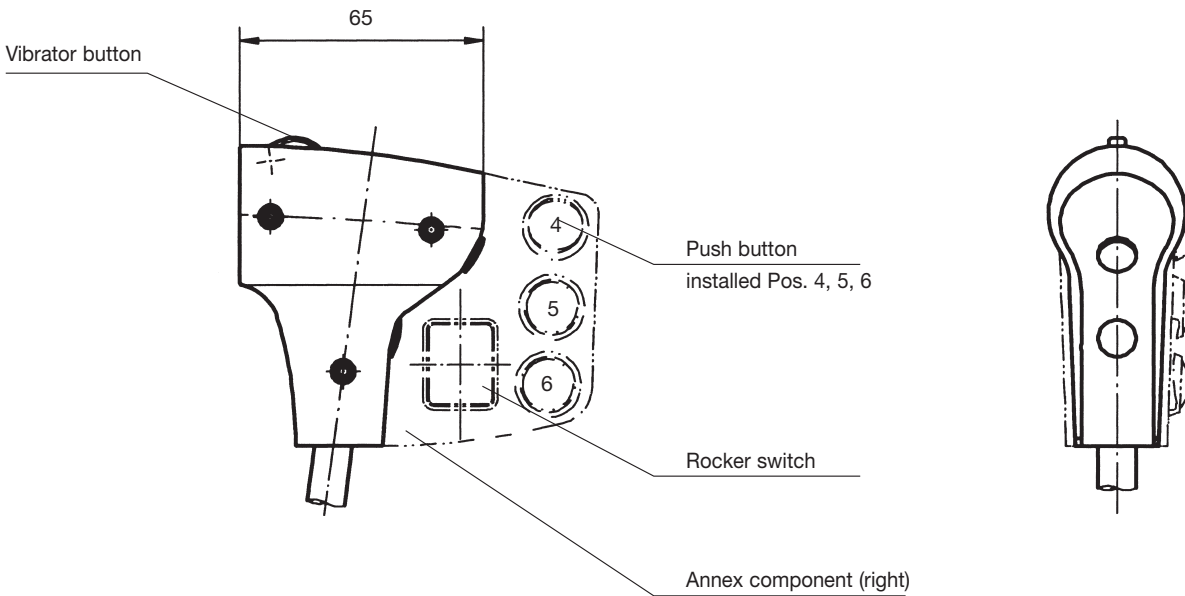
Pos.		Weight gramm	Part No. 5296...	Type	Price EURO
1	Palm grip with mounting piece for control-handle left	100		B 10-1	
2	Palm grip with mounting piece for control-handle left with annex component	130		B 10-1-1	
3	Palm grip with mounting piece for control-handle right	100		B 10-2	
4	Palm grip with mounting piece for control-handle right with annex component	130		B 10-2-2	
5	Push button 1 NO B 10-1 installed Pos. 1, 2, 3 B 10-2 installed Pos. 4, 5, 6	30		D	
6	Rocker switch tast-0-tast T-0-T 2 NO	30		W	
7	Rocker switch tast-0-rest T-0-R 2 NO	30		W	
8	Rocker switch rest-0-rest R-0-R 2 NO	30		W	
20	Vibrator button actuating through solenoid 24 V DC impulse signal 100% duty cycle factor	60		V	



B 10-1



B 10-2



Example for type-sign

B 10-1 - 1 D W V - X

- Palm grip
- Palm grip with annex component
- Push button



- Special please to describe
- Vibrator button
- Rocker switch



The palm grip B 14 is an actuating element for our multi-axis controller V 8, VV 8, V 6, VV 6, VV 5 design left, B 15 for design right.
It can also be used as an actuating element for hydraulic drives.
Push buttons, rocker switches, e.t.c., can also be fitted to suit appropriate requirements.

The palm grip has a highly flexible single wire 0,1 mm² x 450 mm long.

The mounting piece for the drive rod can be supplied with a tapped hole 12 or 10 mm (standard = 12 mm).

The palm grip B 14/15 is made of PPO plastic and is black in colour.

Contact complement 0,125 A 110 V AC 15 res. 0,1 A 24 V DC 13

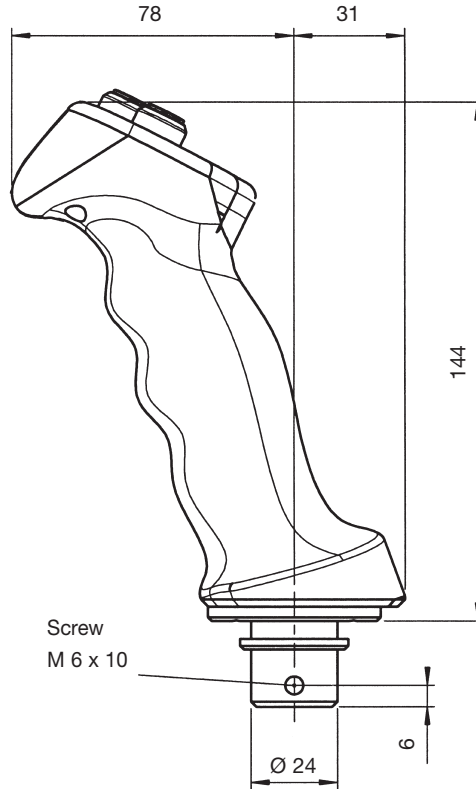
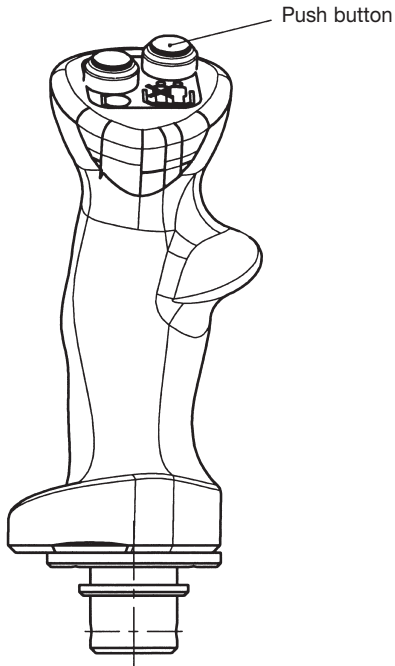
Permissible ambient temperature	Operating	-40°C to +60°C
	Storage	-50°C to +80°C

Climate resistance	DIN IEC 68 part 2-3
Damp heat constant	DIN IEC 68 part 2-30
Damp heat cyclic	
Degree of protection front	IP 65 IEC 529 DIN 40050

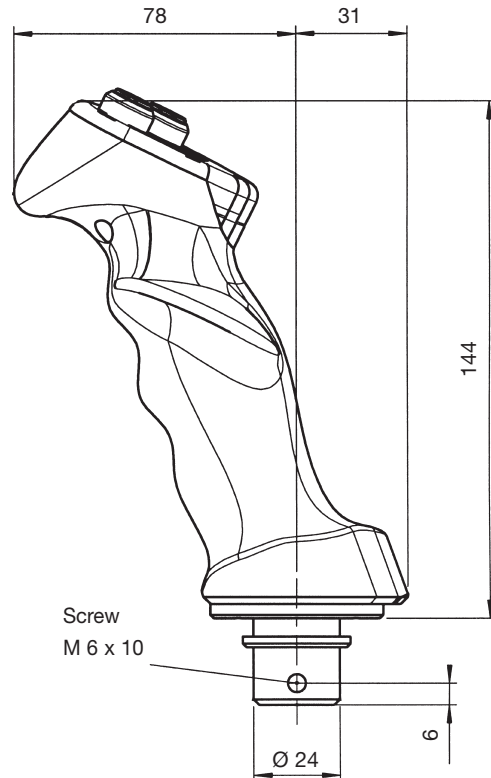
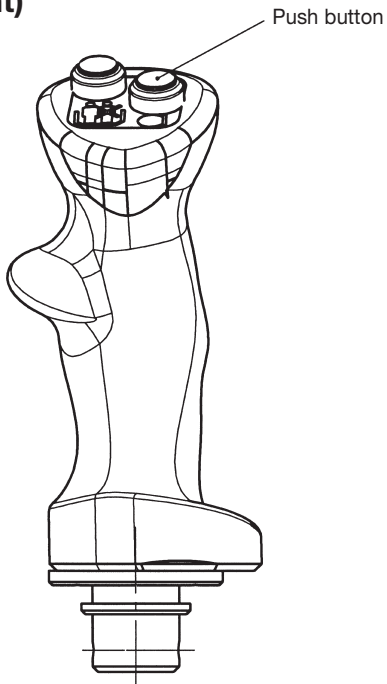
Pos.		Weight gramm	Part No. 5292...	Type	Price EURO
1	Palm grip with mounting piece for control-handle design left	200		B 14	
2	Palm grip with mounting piece for control-handle design right	200		B 15	
3	Push button 1 NO installed Pos. 1, 2 color red RD, black BK, yellow YE, green GN, blue BU, white WH	20		D	
30					
31					
32					
33					



B 14 (left)



B 15 (right)



Example for type-sign

B 14 D



Palm grip

Push button

X



Special please to describe