

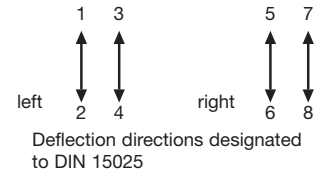
The double-handle controller is a rugged switching device according IEC 947-5-1 EN 60947 DIN VDE 0660-200 for hoisting applications. The modular design enables the switching device to be used universally. The D 64 is resistant to oil, maritime climate, ozone and UV radiation.

**Contact complement 2 A 250 V AC 15 res. 1 A 24 V DC 13 (standard)  
or 4 A 250 V AC 15 (special)**

Mechanical life D 64 10 million (operating cycles)  
Mechanical life DD 64 20 million (operating cycles)  
Permissible ambient temperature Operation -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  
Technical data look catalog 5/100  
Description data look catalog 5/002

Spindle block with schematic representation of the master controller installation and deflection directions.  
Version shown for left-hand side installation (right-hand side installation is mirror image).



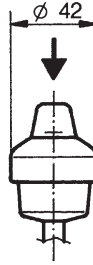
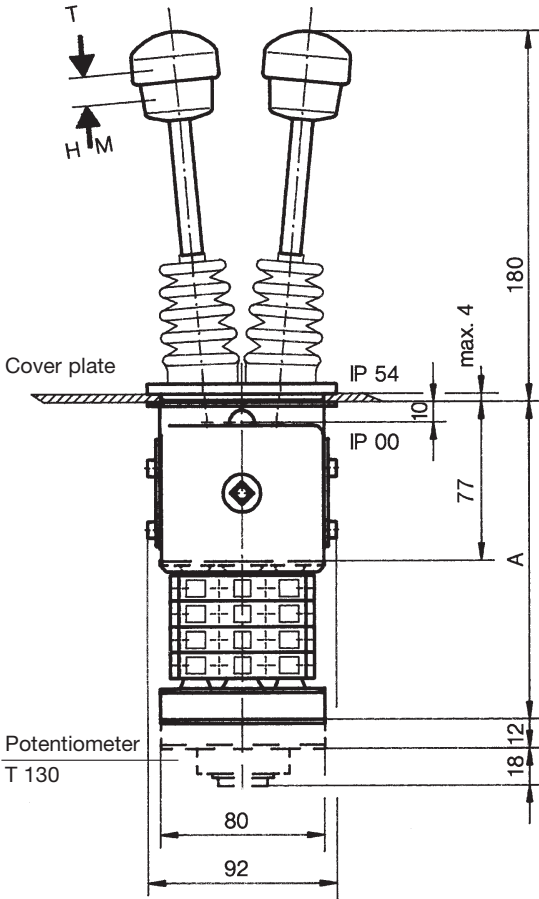
Pos.	D 64	DD 64		Weight gramm	Part No. 5160...	Type	Price EURO
1							
2							
3			1100		D 64		
4			1100		DD64		
5							
10							
11							
12	Spring return in 0-position	(for each direction)		110		Z	
13	Friction brake adjustable	(for each direction)		30		R	
14							
20	Control-handle with knob solid		(for each direction				
21	Control-handle with latch for mechanical zero interlock		for Pos. 20-28)	50		M	
22	Control-handle with dead man's button 1 NO			100		T	
23	Control-handle with signal button 1 NO			100		H	
24	Control-handle with push button 1 NO			110		D	
25	Control-handle with flat push button 1 NO			110		DV	
26	Control-handle with T-grip			40		Q	
27	Control-handle with T-grip and push button side 1 NO			60		QD	
28	Control-handle long or short 160, 200 mm						
29	More knobs, grips and T-grips with and without signal devices look catalog 1/280...						
30	Masterswitch switching sequence 4-0-4		No. of contacts 2	290		01	
31			4	350		02	
32	Direction 1-2 and 3-4 each 1 masterswitch		6	410		03	
33	Switching program according contact-arrangement MS... look catalog 5/001		8	470		04	
34	or to your contact-arrangement		10	530		05	
35			12	590		06	
36	Switching sequence 5-0-5 or 6-0-6						
40	Potentiometer e.t.c. each masterswitch with mounted Wire-wound potentiometer T 130, with centre tap linear Life 10 <sup>7</sup> switching cycles resistance 2 x 0,5/1/2/5/10 kOhm, 1,5 Watt wiper current max. 10 mA			70		P	
41	Prepared for mounting potentiometer shaft 6 mm adjusting-angle 2 x 150°					(P)	
42	Prepared for mounting potentiometer e.t.c. adjusting-angle variable.					(P)	
43	more Potentiometer e.t.c. look catalog 1/240...						
50							
51							
52	More housing look catalog 1/350						
60	Indicating labels not engraved with 2 or 4 arrows						
61	Engraved each 10 characters						
62							
70	Command and indicating devices look catalog 1/360						



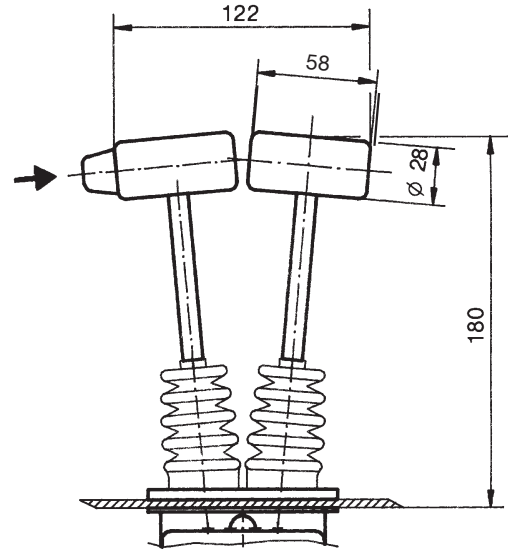
T = dead man's button  
H = signal button  
M = latch for mechanical zero interlock

Knob solid  
D = -push button

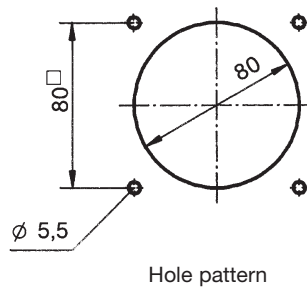
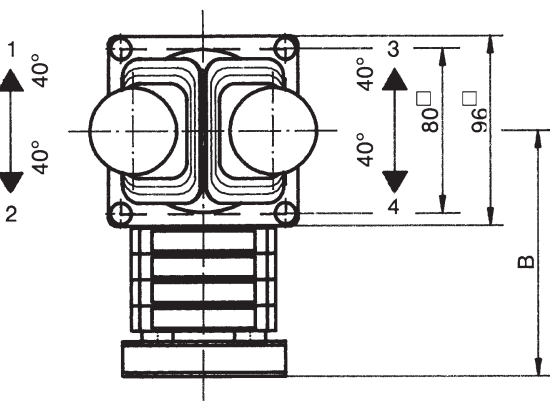
T-grip  
D = -push button



To build in:  
direction 1-2  
direction 3-4



Type	No. of contacts	Dimension A	Dimension B
01	2	119	82
02	4	131	94
03	6	144	107
04	8	156	119
05	10	169	132
06	12	181	144



Example for type-sign

Double-handle controller

T-grip with push button direction 1-2

T-grip direction 3-4

Masterswitch direction 1-2

Spring return direction 1-2

D 64 QD Q - 03 Z + 02 R P - X

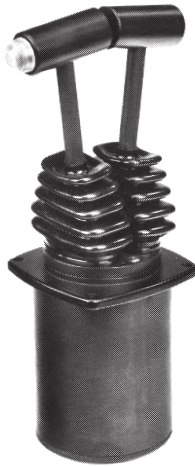


Special please to describe

Potentiometer e.t.c. direction 3-4

Spring return direction 3-4

Masterswitch direction 3-4



The double-handle controller D 8 is a rugged switching device according IEC 947-5-1 EN 60947 DIN VDE 0660-200 for electro-hydraulic applications. The modular design enables the switching device to be used universally. The D 8 is resistant to oil, maritime climate, ozone and UV radiation.

**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)**  
**or I max < 300 mA 0,4 V DC 12 max. capacity 0,12 Watt do not exceed!**  
**I min >0,2 mA 2 V DC 12 max. contact reliability for very low current (special)**

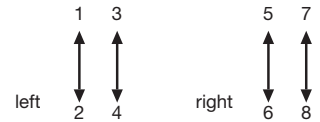
Mechanical life 8 million (operating cycles)  
 Permissible ambient temperature Operation -40° C to +60° C  
 Storage -50° C to +80° C

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

Technical data look catalog 5/100  
 Description data look catalog 5/002

Spindle block with schematic representation of the master controller installation and deflection directions.

Version shown for left-hand side installation (right-hand side installation is mirror image).



Deflection directions designated to DIN 15025

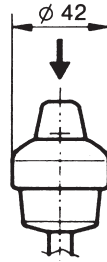
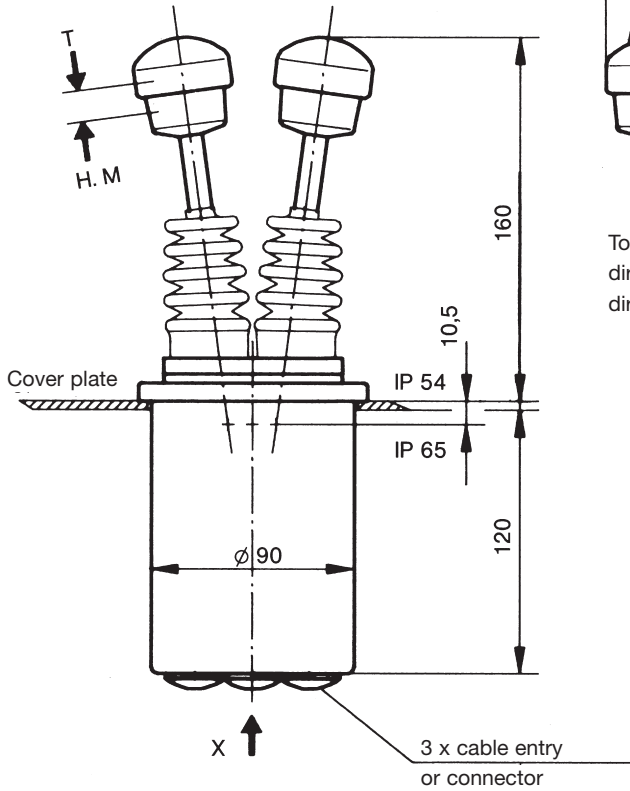
Pos.	D 8		Weight gramm	Part No. 5162...	Type	Price EURO
1						
2						
3			1000		D 8	
4						
5						
10	Spring return in 0-position (for each direction) Friction brake adjustable (for each direction)		30		Z	
11			30		R	
12						
13						
14						
20	Control-handle with knob solid Control-handle with latch for mechanical zero interlock Control-handle with dead man's button 1 NO Control-handle with signal button 1 NO Control-handle with push button 1 NO Control-handle with flat push button 1 NO Control-handle with T-grip Control-handle with T-grip and push button side 1 NO Control-handle long or short 180, 140 mm More knobs, grips and T-grips with and without signal devices look catalog 1/280...	(for each direction for Pos. 20-28)	50		M	
21			100		T	
22			100		H	
23			110		D	
24			110		DV	
25			40		Q	
26			60		QD	
27						
28						
29						
30	Masterswitch switching sequence -0- Direction 1-2 and 3-4 each 1 masterswitch Switching program according contact-arrangement MS... look catalog 5/001 or to your contact-arrangement Switching sequence 3-0-3	No. of contacts 1	20		1	
31		2	40		2	
32		3	60		3	
33						
34						
35						
36						
40	Potentiometer e.t.c. each masterswitch with mounted Conductive-plastic potentiometer T 301, with centre tap linear Life 10 <sup>7</sup> switching cycles resistance 2 x 5 kOhm, 0,5 Watt wiper current max. 1 mA Prepared for mounting potentiometer shaft 6 mm adjusting-angle 2 x 120° Prepared for mounting potentiometer e.t.c. adjusting-angle variable. more Potentiometer e.t.c. look catalog 1/240...		70		P	
41					(P)	
42					(P)	
43						
45	Electronic (Amplifier, Profi-Bus, CAN-Bus) look catalog 3/510/...					
50	Cover housing Filter plug M 20 for air-condition Cable entry M 20 with anti-kink protection and strain relief Plug in socket 14-pole female insert CPC 17 unwired Connector 14-pole male insert CPC 17 unwired Wiring plug in socket or connector each wired-connection		300		B	
51			20			
52			30			
53			150			
54			150			
55						
60	Indicating labels not engraved with 2 or 4 arrows					
61	Engraved each 10 characters					



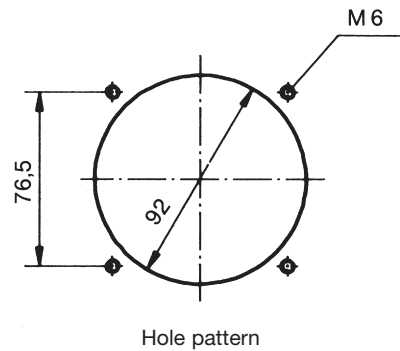
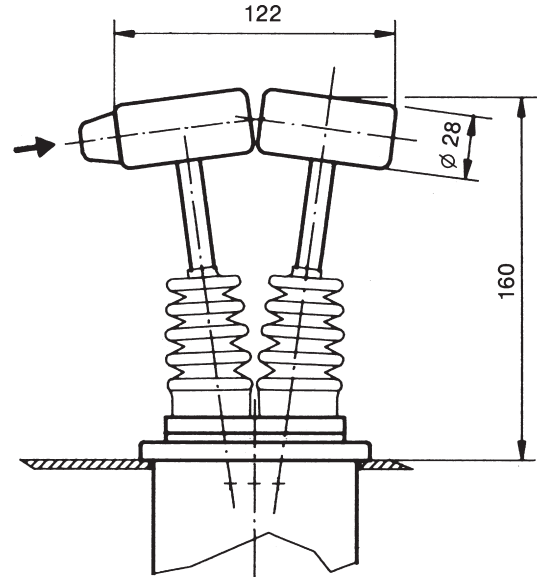
T = dead man's button  
H = signal button  
M = latch for mechanical zero interlock

**Knob solid**  
D = push button

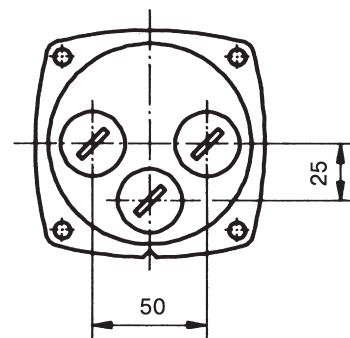
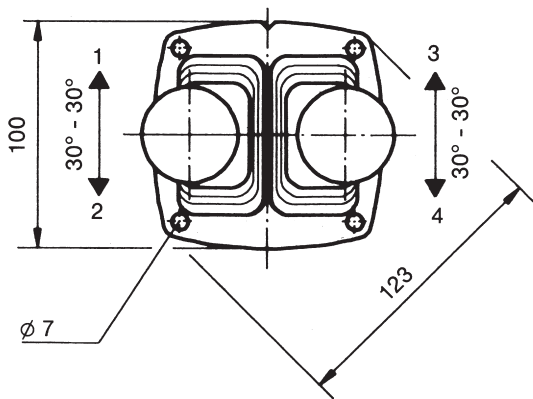
**T-grip**  
D = push button



To build in:  
direction 1-2  
direction 3-4



Hole pattern



View x

Example for type-sign

Cover housing

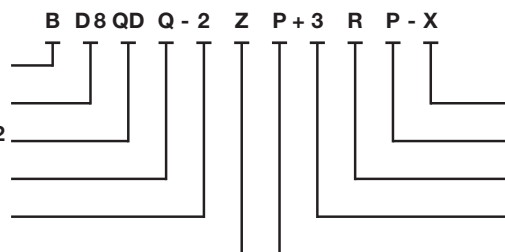
Double-handle controller

T-grip with push button direction 1-2

T-grip direction 3-4

Masterswitch direction 1-2

Spring return direction 1-2



Special please to describe

Potentiometer e.t.c. direction 3-4

Friction brake direction 3-4

Masterswitch direction 3-4

Potentiometer e.t.c. direction 1-2



The double-handle controller D 3 is a rugged switching device according IEC 947-5-1 EN 60947 DIN VDE 0660-200 for nautical navigation applications. The modular design enables the switching device to be used universally. The D 3 is resistant to oil, maritime climate, ozone and UV radiation.

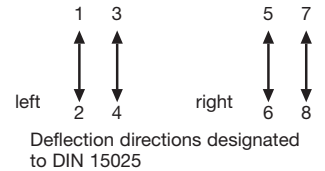
**Contact complement 0,5 A 110 V AC 15 res. 1,5 A 24 V DC 13**  
**I min > 0,2 mA 2 V DC 12 Gold plated for max. load of 0,12 Watt (standard)**

Mechanical life 12 million (operating cycles)  
Permissible ambient temperature Operation -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 66 IEC 529 DIN 40050

Technical data look catalog 5/100  
Description data look catalog 5/002

Spindle block with schematic representation of the master controller installation and deflection directions.  
Version shown for left-hand side installation (right-hand side installation is mirror image).



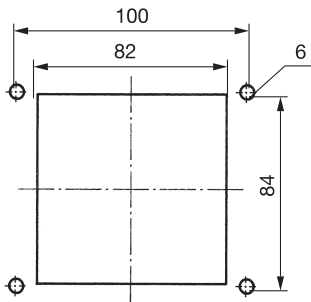
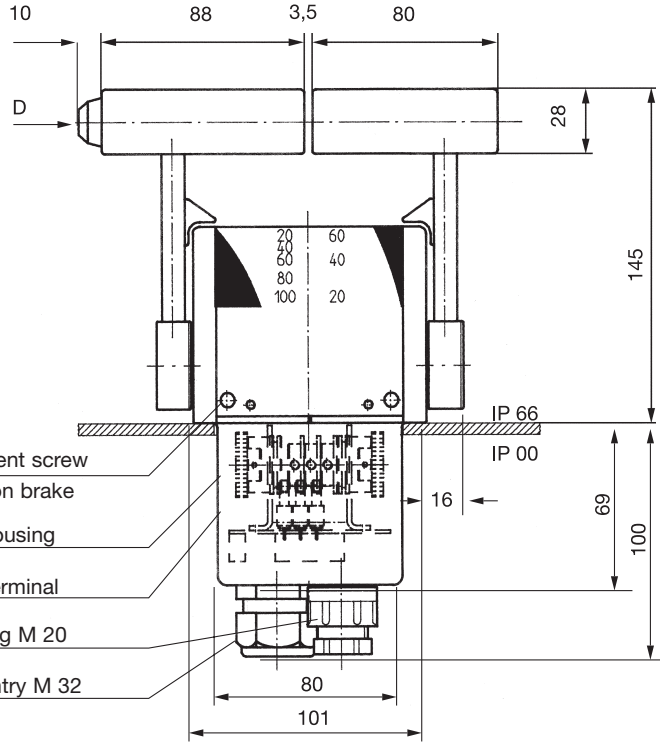
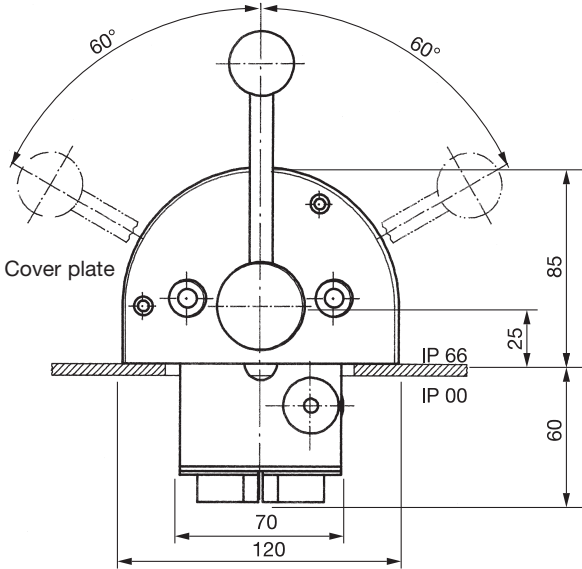
Pos.	D 3		Weight gramm	Part No. 5164...	Type	Price EURO
1						
2						
3			4000		D 3	
4						
5						
10						
11						
12	Spring return in 0-position (only 1 direction)		30		Z	
13	Friction brake adjustable (for each direction)		30		R	
14						
20	Control-handle with knob solid					
21						
22						
23						
24	Control-handle with push button 1 NO		110		D	
25						
26	Control-handle with T-grip		40		Q	
27	Control-handle with T-grip and push button side 1 NO		60		QD	
28	Control-handle long or short 180, 140 mm					
29						
30	Masterswitch switching sequence -0-	No. of contacts 1	20		1	
31		2	40		2	
32	Direction 1-2 and 3-4 each 1 masterswitch	3	60		3	
33	Switching program according contact-arrangement MS... look catalog 5/001					
34	or to your contact-arrangement					
35						
36	Switching sequence special					
40	Potentiometer e.t.c. each masterswitch with mounted Conductive-plastic potentiometer T 246, with centre tap linear Life 10 <sup>7</sup> switching cycles resistance 2 x 5 kOhm, 0,5 Watt wiper current max. 1 mA		70		P	
41	Prepared for mounting potentiometer shaft 6 mm adjusting-angle 2 x 75°				(P)	
42	Prepared for mounting potentiometer e.t.c. adjusting-angle variable.				(P)	
43	more Potentiometer e.t.c. look catalog 1/240...					
50	Cover housing		300		B	
51	Filter plug M 20 for air-condition		20			
52	Cable entry M 32 with anti-kink protection		30			
53						
54						
55						
56						
60	Indicating label eloxal aluminium plate silvery (include in the spindle block)					
61	Engraved each 10 characters					



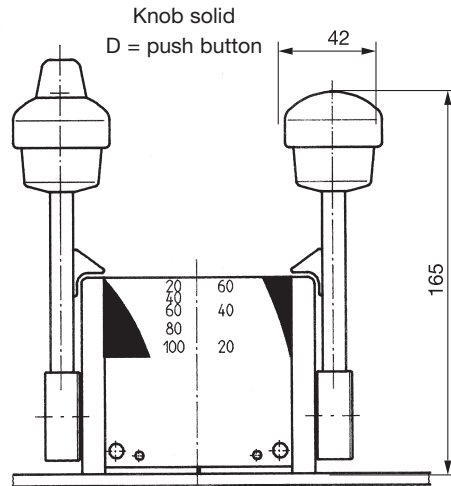
**T-grip**

D = push button

Direction 1-2      Direction 3-4



Hole pattern



Knob solid  
D = push button

Example for type-sign

Cover housing

Double-handle controller

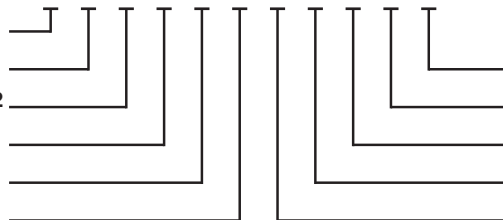
T-grip with push button direction 1-2

T-grip direction 3-4

Masterswitch direction 1-2

Friction brake direction 1-2

B D 3 QD Q - 2 R P + 2 R P - X



Special please to describe

Potentiometer e.t.c. direction 3-4

Friction brake direction 3-4

Masterswitch direction 3-4

Potentiometer e.t.c. direction 1-2