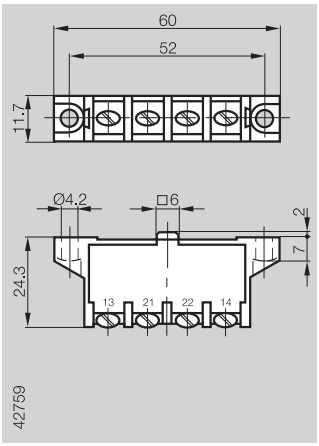
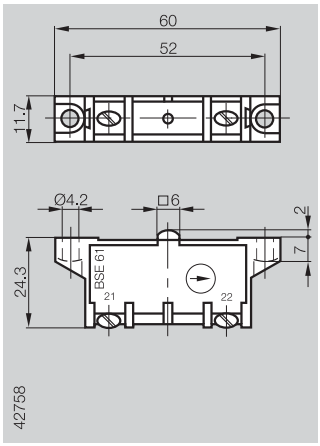
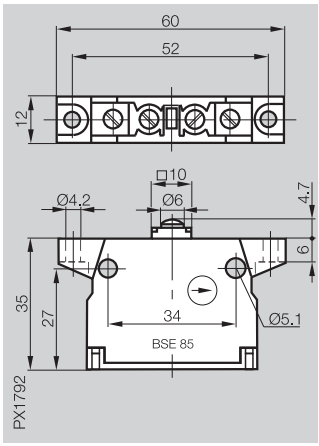
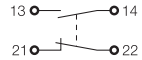
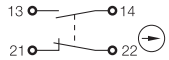
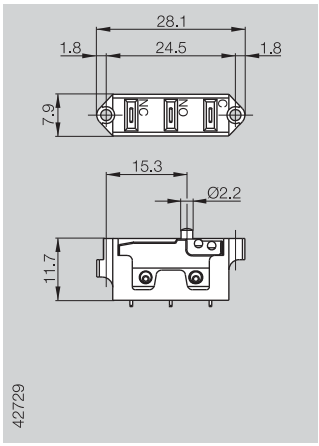
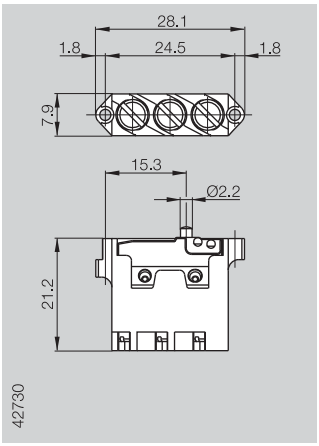
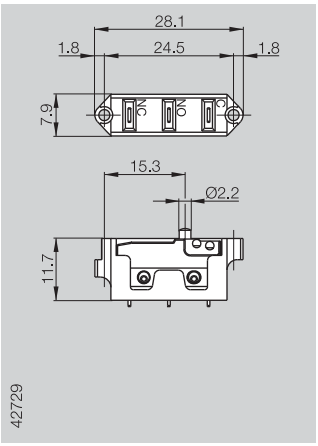
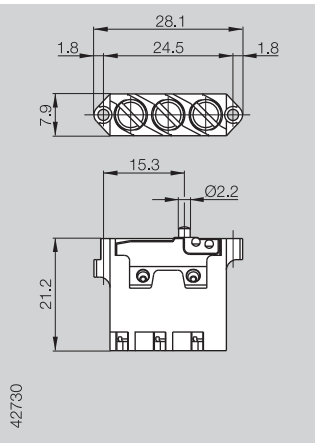
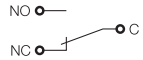
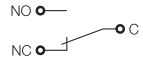
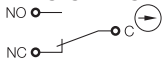
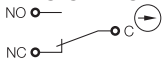
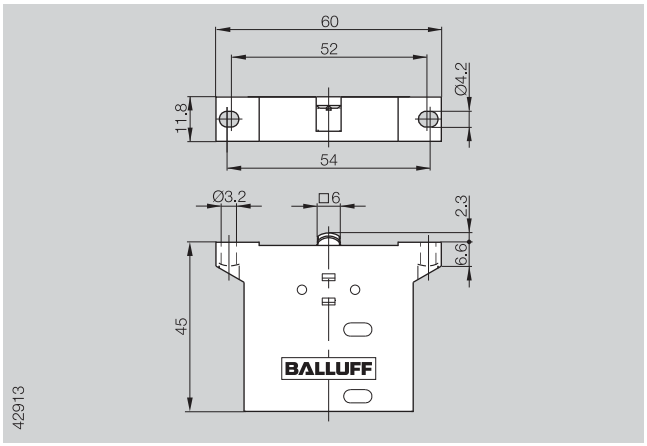
Type	Snap switch element BSE 30.0	Creep switch element BSE 61 to DIN EN 60204-1	Snap switch element BSE 85 to DIN EN 60204-1
for multiple position switches series	100, 62, 61, 72	100, 62, 61, 72	100, 62, 61, 72
for single position switches series	F 60	F 60	F 60
			
Order code for replacement switch elements	BSE 30.0	BSE 61	BSE 85
Construction			
Contact material	**Silver, gold plated**	**Silver**	**Silver**
Switching principle	Snap switch	Creep switch, positive-opening	Snap switch, positive opening (normally-closed)
Contact system	Dual changeover, one normally open and one normally closed, galvanically isolated.	Normally-closed, double interruption	Dual-changeover: 1. NO (snap function), 2. Positive-opening (double-interruption), all galvanically isolated
Contact arrangement	NO 13 + 14 NC 21 + 22 	NC 21 + 22 	NO 13 + 14 NC 21 + 22 
Wire cross-section (with end ferrule)	max. 2×1.5 mm²	max. 2×1.5 mm²	max. 2×1.5 mm²
Connection type	Screw connection M3	Screw connection M3	Screw terminal M3.5
Mechanical data			
Switching actuation force on telescoping plunger	min. 20 N		
Switching actuation force on rigid plunger		min. 15 N	min. 30 N
Bounce time	≤ 1.5 ms		≤ 3 ms
Switchover time	≤ 10 ms		≤ 5 ms
Switching frequency	300 operations/min	300 operations/min	160 operations/min
Housing material	Duro- and Thermoplast	Duro- and Thermoplast	Thermoplast
Tightening torque max.	0.5 Nm	0.5 Nm	0.9 Nm
Ambient temperature range T_a	–5...+85 °C	–5...+85 °C	–5...+85 °C
Electrical data			
Isolation	Group C (VDE 0110)	Group C (VDE 0110)	Group C (VDE 0110)
Nominal voltage	240 V AC	250 V AC	250 V AC
Constant current	6 A	6 A	6 A
Minimum load at 24 V DC	≥ 20 mA	≥ 20 mA	≥ 20 mA
Contact resistance	< 40 mΩ	< 40 mΩ	< 40 mΩ
Switching capacity AC 250 V, 40...60 Hz	6 A, cos φ = 1 2 A, cos φ = 0.8 1 A, cos φ = 0.4	Depends on traverse speed and switching frequency	2 A, cos φ = 0.8
DC 220 V	0.5 A, L/R = 200 ms		
DC 24 V	4 A, L/R = 200 ms		
Service life			
Mechanical data	> 30 mil. switching operations (VDE 0660)	> 30 mil. switching operations (VDE 0660)	> 1 mil. switching operations (VDE 0660)
Electrical data	Depending on load, switching frequency and traverse speed	Depending on load, switching frequency and traverse speed	Depending on load, switching frequency and traverse speed
Approval	UL, CSA, CCC	CSA, CCC	cULus, CSA, CCC

	Snap switch element BSE 69.1, BSE 73.1	Snap switch element BSE 70.1, BSE 74.1	Snap switch element with positive-opening BSE 63	Snap switch element with positive-opening BSE 64
	46, 40	46, 40	46, 40	46, 40
	99, 100	99, 100	99, 100	99, 100
				
	BSE 69.1 / BSE 73.1	BSE 70.1 / BSE 74.1	BSE 63	BSE 64
	Silver / **Gold**	**Silver** / **Gold**	**Silver**	**Silver**
	Snap switch	Snap switch	Snap switch	Snap switch
	Single-pole changeover	Single-pole changeover	Single-pole changeover	Single-pole changeover
	NO C + NO NC C + NC 	NO C + NO NC C + NC 	NO C + NO NC C + NC 	NO C + NO NC C + NC 
	max. 0.75 mm²	max. 0.75 mm²	max. 0.75 mm²	max. 0.75 mm²
	Solder connection	Screw terminal	Solder connection	Screw terminal
	min. 8 N	min. 8 N		
			min. 7.5 N	min. 7.5 N
	≤ 2 ms	≤ 2 ms	≤ 2 ms	≤ 2 ms
	≤ 10 ms	≤ 10 ms	≤ 10 ms	≤ 10 ms
	200 operations/min	200 operations/min	200 operations/min	200 operations/min
	Thermoplast	Thermoplast	Thermoplast	Thermoplast
		0.12 Nm		0.12 Nm
	–5...+85 °C	–5...+85 °C	–5...+85 °C	–5...+85 °C
	Group C (VDE 0110)	Group C (VDE 0110)	Group C (VDE 0110)	Group C (VDE 0110)
	250 V AC / 30 V DC	250 V AC / 30 V DC	250 V AC	250 V AC
	5 A	5 A	5 A	5 A
	≥ 20 mA / ≥ 10 mA	≥ 20 mA / ≥ 10 mA	≥ 20 mA	≥ 20 mA
	< 240 mΩ	< 240 mΩ	< 100 mΩ	< 100 mΩ
	2 A, cos φ = 0.8	2 A, cos φ = 0.8	5 A, cos φ = 0.75	5 A, cos φ = 0.75
	5 A, L/R = 10 ms	5 A, L/R = 10 ms	5 A, L/R = 10 ms	5 A, L/R = 10 ms
	> 10 mil. switching operations (VDE 0660)	> 10 mil. switching operations (VDE 0660)	> 10 mil. switching operations (VDE 0660)	> 10 mil. switching operations (VDE 0660)
	Depending on load, switching frequency and traverse speed	Depending on load, switching frequency and traverse speed	Depending on load, switching frequency and traverse speed	Depending on load, switching frequency and traverse speed
	UL, CSA, CCC	UL, CSA, CCC	cULus, CSA, CCC	cULus, CSA, CCC

5.1

Snap switch element BWT for wireless position switch F 60

Type	Snap switch element BWT T1-185-01
for wireless position switches series	F 60



Ordering code for replacement element	BWT T1-185-01

Construction

Switching principle	Snap switch

Mechanical data

Switching actuation force on telescoping plunger	min. 20 N
Switching frequency	max. 60 operations/min
Housing material	Duroplast
Ambient temperature range T_a	–5...+70 °C

Electrical data

Supply voltage	Electrodynamic power generator
Transmitting frequency	868 MHz
Transmission power	max. 10 mW
Protocol	14 bytes
ID number	32 bits
Duty cycle	1 %

Service life

Mechanical data	> 0.25 mil. switching operations
Electrical	Depending on load, switching frequency and traverse speed