

# Technical Data

## Buttons, Commutators and Signal Lights

Applicable standards	IEC 60947-5-1, VDE 0660, UL 508, CENELEC EN 50007, ISO 13850 (EN 418), IEC 60947-5-5
Certifications	CE, cULus, BV, IRAM, PCT, RCC, IECNTEC
Degree of protection	IP66 and IP40 (CSW-BD) according to IEC 60529 NEMA1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 12K and 13 according to UL 508
Materials of the frontal parts	Polyamide (PA66) or Polycarbonate (PC)
Mechanical life	
Pushbuttons	$3 \times 10^6$ operations
CSW-BD e CSW2-BT pushbuttons	$2 \times 10^6$ operations
CSW-BEG/EY/CT/CY pushbuttons	$3 \times 10^5$ operations
CSW-BESG/P/Y emergency-stop pushbuttons	$1 \times 10^5$ operations
Selector switches	$1 \times 10^6$ operations
Use in environments	Outdoors (UV rays) or indoors

## Contact Blocks

Applicable standards	IEC 60947-5-1, VDE 0660, UL 508, CENELEC EN 50007, ISO 13850 (EN 418), IEC 60947-5-5					
Certifications	CE, cULus, BV, IRAM, PCT, RCC, IECNTEC					
Rated insulation voltage $U_i$	690 V					
Rated impulse withstand voltage $U_{imp}$	4 kV					
Degree of protection (IEC 60529)	IP20					
Conventional thermal current $I_{th}$	10 A					
Electrical performance according to IEC 60947-5-1						
Utilization category AC-15	BC...-CSW		BCM01-CSW			
	$U_e$ (V ac)	$I_e$ (A)	$U_e$ (V ac)	$I_e$ (A)		
	24	10	24	6		
	48	10	48	6		
	60	10	60	6		
	110	6	110	6		
	220	3	220	3		
	380	2	380	2		
	500	1.5	500	1.5		
Utilization category DC-13	$U_e$ (V dc)	$I_e$ (A)	$U_e$ (V dc)	$I_e$ (A)		
	24	2.5	24	2.5		
	48	1.4	48	1.4		
	60	1	60	1		
	110	0.55	110	0.55		
	220	0.27	220	0.27		
	300	0.2	300	0.2		
	600	0.1	600	0.1		
Performance according to UL and CSA	AC / Heavy Duty (A600) e DC / Standard Duty (Q600)		-			
Resistance of the contacts (IEC 60255)	$\leq 25\text{m}\Omega$					
Protection against short circuit (IEC 60269-1 / IEC 60269-3)	BC...-CSW: Fuse of 16 A / 690 V gL/gG (1 kA) Mini-circuit breaker of 16 A (MDW-B16)		Fuse of 6 A / 500 V gL/gG (0.5 kA) Mini-circuit breaker of 6 A (MDW-B6)			
	BC...F-CSW ( <i>Front-back</i> ) and BC...B-CSW ( <i>Control Stations</i> ): Fuse of 10 A / 690 V gL/gG (1 kA) Mini-circuit breaker of 10 A (MDW-B10)					
Protection against electric shock (IEC 61140)	Class II					
Section of the conductors (wire/cable with or without terminal)	Minimum (1 x 0.5 mm <sup>2</sup> ) and maximum (2 x 2.5 mm <sup>2</sup> )					
Tightening torque	0.8 N.m					
Working temperature range	-25 °C...+70 °C					
Resistance to mechanical shock	Without damages or disassembly 100 g (1/2 sinusoidal 11ms, according to MIL 202 B method 202 A)					
Resistance to vibration (IEC 60068-2-6)	16 g for a frequency range from 40 to 500 Hz, Maximum displacement 0.75 mm (peak to peak)					
Mechanical endurance of contact blocks BC10F / BC01F / BCA10F / BCR01F	$1 \times 10^6$ operating cycles					