

PUSH BUTTONS NEF22M

DATA SHEET

no: KK-N_NEF22M



Drives of the NEF22M series control buttons with metal bodies are intended for installation in standardized $\varnothing 22.5$ mm holes, in numerous types of control and signal equipment or directly into bodies of machines and equipment. They are intended to work with EF22GX and EF22GY switching elements manufactured by SN PROMET and with EF22L backlight block.

Push buttons NEF22M consists of:




- a drive of NEF22M,
- 1-6 switching elements of the EF22G type, ordered separately (max 4 switching elements, when using backlit buttons and knob- or lock-operated buttons switched separately),
- an all-purpose EF22L backlight block for backlit buttons.

TECHNICAL DATA:


Parameter	Value
Insulation rated voltage U_i	500V
Rated thermal current I_{th}	10A
Rated voltages and switching currents per utilization category I_e - U_e 230V/400V (AC15) - U_e 110V/220V (DC13)	6A / 4A 1A / 0,25A
Rated impulse withstand voltage U_{imp}	4000V
Limited withstand current	1000A
Mechanical life: - for return drives - for knob-operated and key-operated drives - for interlocked drives	1 x 10 ⁶ 0,5 x 10 ⁵ 10 ⁴
Rated frequency of switching	600 switches/h
IP for button drives IP for under-desk part	IP 65, 55, 40 IP 20
Cross-sections of terminals	1x or 2x LY 0,75 – 1,5 mm ² 1x or 2x DY 1,0 – 1,5 mm ²
Working temperature	-30...+50°C
Working position	any
Minimum force for effective opening	1,7N
Travel of effective opening	3 mm
Rated voltage of the backlight block EF22L U_e	24-230 V AC/DC

The product conforms to the following standard PN-EN 60947-5-1. Drives of emergency interlocked buttons conform to standard PN-EN 60947-5-5.


RETURN DRIVES

	Type	Designation	Colour	Weight [g]
	Return drive with a covered button ☼ backlight available IP65	NEF22M-K c NEF22M-K z NEF22M-K g NEF22M-K s NEF22M-K n NEF22M-K b	red green yellow black blue white	42
	Return drive with an extending button ☼ backlight available IP65	NEF22M-W c NEF22M-W z NEF22M-W g NEF22M-W s NEF22M-W n NEF22M-W b	red green yellow black blue white	43
	Return drive with a palm button ☼ backlight available IP65	NEF22M-D c NEF22M-D z NEF22M-D g NEF22M-D s	red green yellow black	45
	Vandal-proof button with self-return mechanism IP65	NEF22M-F	metal	63
	Vandal-proof button with self-return mechanism ☼ backlight available IP65	NEF22M-FL c NEF22M-FL z NEF22M-FL g NEF22M-FL n NEF22M-FL b	red green yellow blue white	47




KNOB-OPERATED DRIVES

	Type	Designation	Colour	Weight [g]
 <p>IP 55 ⊗ backlight available</p>	0 – I stable, knob's angle of rotation 60°	NEF22M-Pa s NEF22M-Pa c NEF22M-Pa z NEF22M-Pa g NEF22M-Pa n	black red green yellow blue	52
	0 ← I unstable, knob's angle of rotation 60°	NEF22M-Pb s NEF22M-Pb c NEF22M-Pb z NEF22M-Pb g NEF22M-Pb n	black red green yellow blue	52
	I – 0 – II stable, knob's angle of rotation 2x45°, contacts of the switch are switched separately	NEF22M-Pc s NEF22M-Pc c NEF22M-Pc z NEF22M-Pc g NEF22M-Pc n	black red green yellow blue	52
	I – 0 ← II pos. I – stable, pos. II - unstable, knob's angle of rotation: 60° to pos. I, 45° to pos. II, contacts of the switch are switched simultaneously	NEF22M-Pd s NEF22M-Pd c NEF22M-Pd z NEF22M-Pd g NEF22M-Pd n	black red green yellow blue	52
	I → 0 ← II unstable, knob's angle of rotation 2x45°, contacts of the switch are switched separately	NEF22M-Pe s NEF22M-Pe c NEF22M-Pe z NEF22M-Pe g NEF22M-Pe n	black red green yellow blue	52
	I – 0 ← II pos. I – stable, pos. II - unstable, knob's angle of rotation 2x45°, contacts of the switch are switched separately	NEF22M-Pf s NEF22M-Pf c NEF22M-Pf z NEF22M-Pf g NEF22M-Pf n	black red green yellow blue	52
	I → 0 – II pos. I – unstable, pos. II - stable, knob's angle of rotation 2x45°, contacts of the switch are switched separately	NEF22M-Pg s NEF22M-Pg c NEF22M-Pg z NEF22M-Pg g NEF22M-Pg n	black red green yellow blue	52
	0 – I – II stable, knob's angle of rotation 2x45°, contacts of the switch are switched separately	NEF22M-Ph s NEF22M-Ph c NEF22M-Ph z NEF22M-Ph g NEF22M-Ph n	black red green yellow blue	52

LOCK-OPERATED DRIVES

	Type	Designation	Weight [g]
	0 – I stable, key's angle of rotation 60° 1 – removing the key at position 0 2 – removing the key at position 0 and I	NEF22M-Za1 NEF22M-Za2	82
	0 ← I unstable, key's angle of rotation 60° 1 – removing the key at position 0	NEF22M-Zb1	82
	I – 0 – II stable, key's angle of rotation 2x45°, contacts of the switch are switched separately 1 – removing the key at position 0 2 – removing the key at position 0 and I 3 – removing the key at position 0, I and II	NEF22M-Zc1 NEF22M-Zc2 NEF22M-Zc3	82
	I – 0 ← II pos. I – stable; pos. II - unstable, key's angle of rotation: 60° to pos. I, 45° to pos.II, contacts of the switch are switched simultaneously 1 – removing the key at position 0 2 – removing the key at position 0 and I	NEF22M-Zd1 NEF22M-Zd2	82
	I → 0 ← II unstable, key's angle of rotation 2x45°, contacts of the switch are switched separately 1 – removing the key at position 0	NEF22M-Ze1	82
	I – 0 ← II pos. I – stable; pos. II - unstable, key's angle of rotation 2x45°, contacts of the switch are switched separately 1 – removing the key at position 0 2 – removing the key at position 0 and I	NEF22M-Zf1 NEF22M-Zf2	82
	I → 0 – II pos. I – unstable; pos. II – stable, key's angle of rotation 2x45°, contacts of the switch are switched separately 1 – removing the key at position 0	NEF22M-Zg	82
	0 – I – II stable, key's angle of rotation 2x45°, contacts of the switch are switched separately 2 – removing the key at position 0 and I 3 – removing the key at position 0, I and II	NEF22M-Zh2 NEF22M-Zh3	82
	0 – I ← II pos. I – stable; pos. II – unstable, key's angle of rotation 2x45°, contacts of the switch are switched separately 2 – removing the key at position 0 and I	NEF22M-Zi2	82

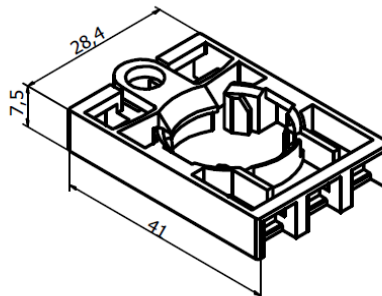
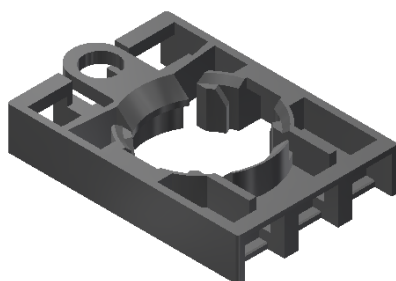
EMERGENCY INTERLOCKED PALM DRIVES

	Type	Designation	Colour	Weight [g]
	Interlocked palm drive, unlocked by rotating the button; diameter of the mushroom head $\varnothing 40$ IP 55	NEF22M-DR/P c	red	86
	Interlocked palm drive, sealed, unlocked by extending the button; diameter of the mushroom head $\varnothing 40$ IP65	NEF22M-DR c	red	91
	Interlocked palm drive, unlocked by rotating the button; triangular IP55	NEF22M-DR/P TR c	red	91


INTERMEDIATE ELEMENT EF22

Necessary element of NEF22M is intermediate element EF22 (plastic, in black colour).

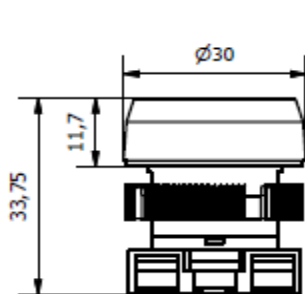
It is used to connect the individual components of the button (drive, switching element, backlight block).



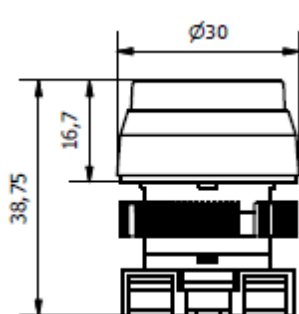
SWITCHING ELEMENTS EF22G AND BACKLIGHT BLOCK EF22L

	Type	Designation	Colour	Weight [g]
	Switching element EF22GX (1NO) IP20	EF22GX	transparent/green	11
	Switching element EF22GY (1NC) With effective opening IP 20	EF22GY	transparent/red	12
	All-purpose LED backlight block, operating under 24-230V AC/DC, continuous illumination IP 20	EF22LN c EF22LN z EF22LN g EF22LN n EF22LN b	red green yellow blue white	12
	All-purpose LED backlight block, operating under 24-230V AC/DC, flashing light IP 20	EF22LB c EF22LB z EF22LB g EF22LB n EF22LB b	red green yellow blue white	12

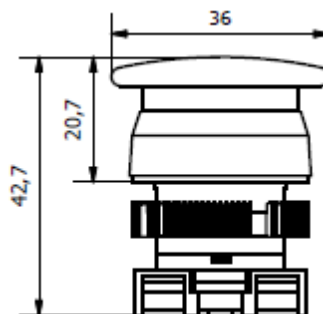
DIMENSIONS



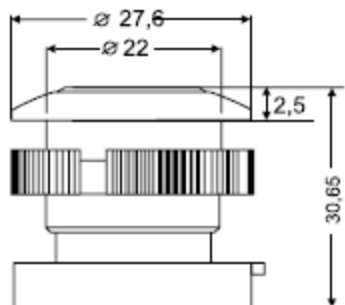
NEF22M-K,



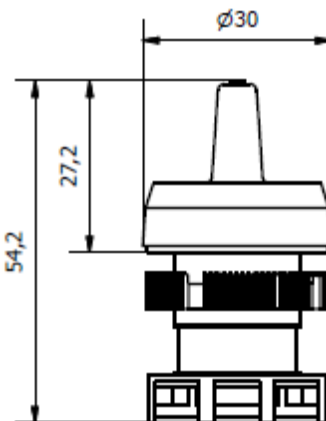
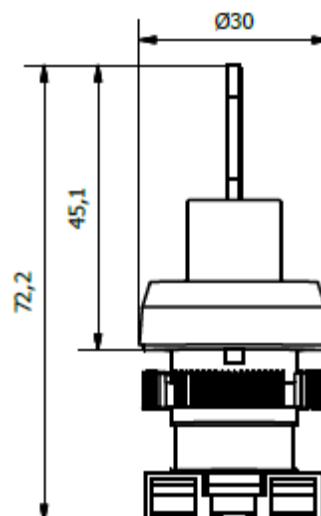
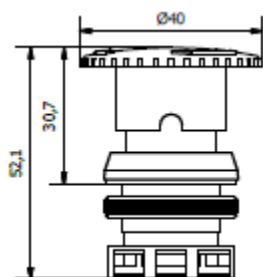
NEF22M-W



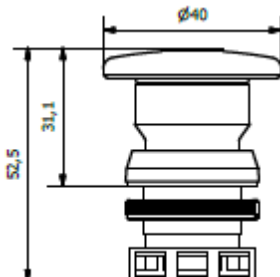
NEF22M-D



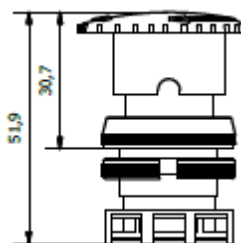
NEF22M-F, NEF22M-FL


 NEF22M-Pa, NEF22M-Pb,
 NEF22M-Pc, NEF22M-Pd
 NEF22M-Pe, NEF22M-Pf
 NEF22M-Pg, NEF22M-Ph

 NEF22M-Za1, NEF22M-Za2,
 NEF22M-Zb1, NEF22M-Zc1,
 NEF22M-Zc2, NEF22M-Zc3,
 NEF22M-Zd1, NEF22M-Zd2,
 NEF22M-Ze1, NEF22M-Zf1,
 NEF22M-Zf2, NEF22M-Zg1,
 NEF22M-Zh2, NEF22M-Zh3,
 NEF22M-Zi2


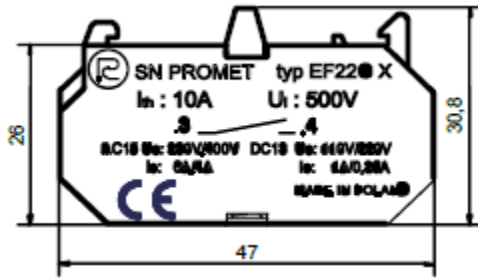
NEF22M-DR/P c



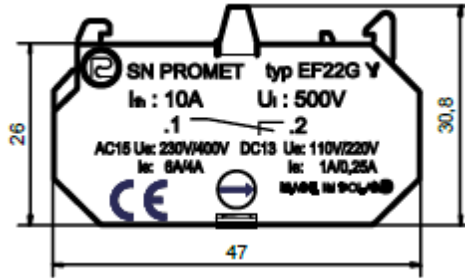
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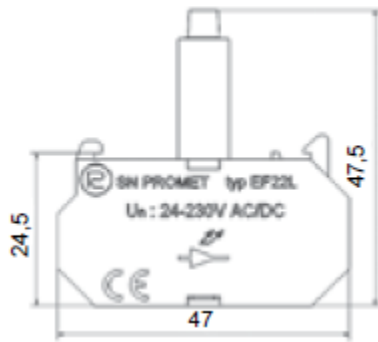
NEF22M-DR/P TR c



EF22GX



EF22GY



EF22LN, EF22LB