Pushbuttons, switches and signal lamps

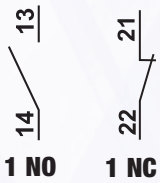
Pushbuttons and signal lamps systems are primarily used in high-current industrial applications – in control panels, control boxes, electrical power distribution systems - , but they can be found in any area of the industry, where operating and signal elements are required.

Technical data

Rated insulating voltage:	660 V
Rated impulse withstand voltage:	6 kV
Rated thermal current:	6 A (240 V, AC1)
Rated operating current	
at metal based versions:	3 A (240 V, AC15) 0,27 A (250 V, DC13)
at versions with plastic enclosure:	0,4 A (240 V, AC15)
Short circuit strength:	1000 A (10 A with gG shunt fuse)
Terminal capacity:	1×0,5…1×2,5 mm² (2×1,5 mm²)
Termination:	With screw terminals
Protection degree:	IP 42 (mounted)

Ambient temperature:	-25 ˚C … +70 ˚C
Storage temperature:	-40 ˚C … +70 ˚C
Mechanical life:	1×10⁶ switching cycle
Switching on force:	max. 20 N (closing the contacts)
Switching off force:	8…15 N (opening the contacts)
Operating moment:	max. 0,15 Nm (version with arm)
Direct opening way:	min. 3,5 mm
Operating way:	max. 8 mm
Vibration resistance (IEC 60068-2-6):	max. 8 g (40…500 Hz)
Shock resistance (IEC 60068-2-27):	max. 15 g
Thickness of the mounting plate:	max. 6 mm
with reduction ring:	max. 1,5 mm

Principal drawing of contacts



RELEVANT STANDARD
EN 60947-1
EN 60947-5-1

MEEI Type Test Certificate No.:

D0388V061

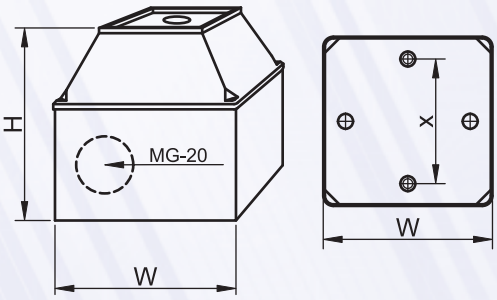
Enclosures

For most of the pushbuttons, plastic closures whith ensure IP44 protection are available.

RELEVANT STANDARD
EN 60529

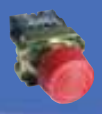
MEEI Type Test Certificate No.:

V-15180



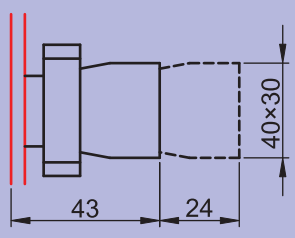
Tracon Code	Name	Color	W (mm)	H (mm)	x (mm)	Cable glands
TK/T1+F2/	Installed low enclosure for pushbuttons	Light grey base + light grey cover	68	64	44	2 pcs MG-20
TK/T2+F2/	Installed high enclosure for pushbuttons	Light grey base + light grey cover	68	80	44	2 pcs MG-20
TK/T1+F2S/	Installed low enclosure for emergency pushbuttons	Light grey base + Yellow cover	68	64	44	2 pcs MG-20
TK/T2+F2S/	Installed high enclosure for emergency pushbuttons	Light grey base + Yellow cover	68	80	44	2 pcs MG-20

Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

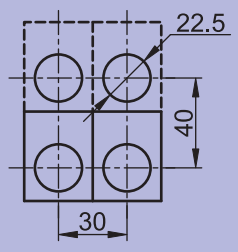


Pushbuttons, switches and signal lamps mounted on metal base

The devices can be fixed into ∅22 mm-size holes from inside with the 2 screws of the base. The number of the contact elements - to be fixed on the base - can be enlarged up to four, if needed. If elements in old control panels where the hole is ∅38 mm shall be changed, the new ones can be fixed by using reduction rings (NYGR38/22).



Dimensions of contacts

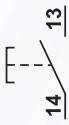


Drawing for cutting off

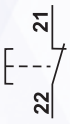
Simple pushbuttons

Tracon Code		Color	Closure	Contact
Base version	Version with closure			
NYGBA21	NYGBA21T	Black	TK/T1+F2/	1 NO
NYGBA31Z	NYGBA31ZT	Green		1 NO
NYGBA51S	NYGBA51ST	Yellow		1 NO
NYGBA61K	NYGBA61KT	Blue		1 NO
NYGBA42P	NYGBA42PT	Red		1 NC

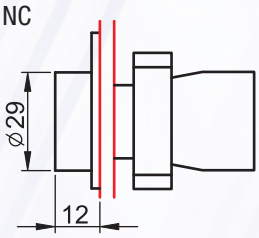
RELEVANT STANDARD
EN 60947-1
EN 60947-5-1



1 NO



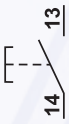
1 NC



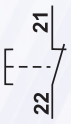
Projecting pushbuttons

Tracon Code		Color	Closure	Contact
Base version	Version with closure			
NYGBL21	NYGBL21T	Black	TK/T1+F2/	1 NO
NYGBL31Z	NYGBL31ZT	Green		1 NO
NYGBL51S	NYGBL51ST	Yellow		1 NO
NYGBL61K	NYGBL61KT	Blue		1 NO
NYGBL42P	NYGBL42PT	Red		1 NC

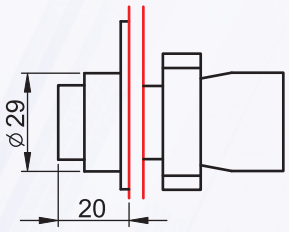
RELEVANT STANDARD
EN 60947-1
EN 60947-5-1



1 NO



1 NC

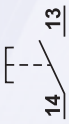


H

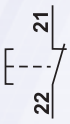
Pushbuttons with rubber boot

Tracon Code		Color	Closure	Contact
Base version	Version with closure			
NYGBP21	NYGBP21T	Black	TK/T1+F2/	1 NO
NYGBP31Z	NYGBP31ZT	Green		1 NO
NYGBP51S	NYGBP51ST	Yellow		1 NO
NYGBP61K	NYGBP61KT	Blue		1 NO
NYGBP42P	NYGBP42PT	Red		1 NC

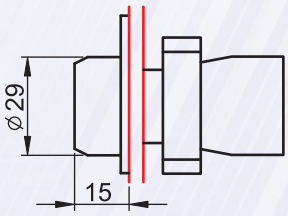
RELEVANT STANDARD
EN 60947-1
EN 60947-5-1



1 NO



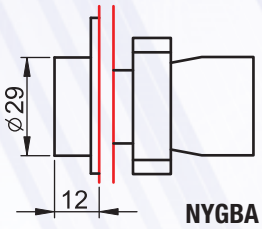
1 NC



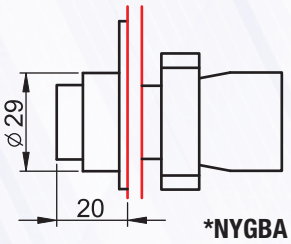
Pushbuttons with symbols

Tracon Code		Color	Symbol	Closure	Contact
Base version	Version with closure				
NYGBA3351	NYGBA3351T	Black	White arrow	TK/T1+F2/	1 NO
NYGBA3341	NYGBA3341T	White	Black arrow		1 NO
NYGBA3311Z	NYGBA3311ZT	Green	White “I”		1 NO
NYGBA4222P	NYGBA4222PT	Red	White “0”		1 NC
NYGBA4322P*	NYGBA4322PT*	Red	White “0”		1 NC
NYGBA4342P*	NYGBA4342PT*	Red	White “STOP”		1 NC

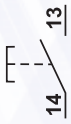
* Protruding versions



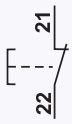
NYGBA



*NYGBA



1 NO

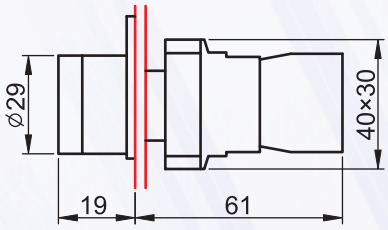


1 NC

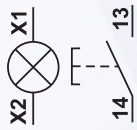
Pushbuttons with built-in signal light

Performance	Tracon Code		Color	Closure	Contact	Operating voltage	Built-in light
	Base version	Version with closure					
Normal	NYGBW33Z	NYGBW33ZT	Green	TK/T2+F2/	1 NO	max. 400 V	NYGI230*
	NYGBW33S	NYGBW33ST	Yellow		1 NO	max. 400 V	NYGI230*
	NYGBW33K	NYGBW33KT	Blue		1 NO	max. 400 V	NYGI230*
	NYGBW33P	NYGBW33PT	Red		1 NC	max. 400 V	NYGI230*
With shunt resista.	NYGBW3371Z	NYGBW3371ZT	Green	TK/T2+F2/	1 NO	230-240 V	NYGI130
	NYGBW3571S	NYGBW3571ST	Yellow		1 NO	230-240 V	NYGI130
	NYGBW3471P	NYGBW3471PT	Red		1 NC	230-240 V	NYGI130
With transformer	NYGBW3341Z	-	Green	-	1 NO	230-240 V	NYGI6
	NYGBW3541S	-	Yellow		1 NO	230-240 V	NYGI6
	NYGBW3441P	-	Red		1 NC	230-240 V	NYGI6
	NYGBW3351Z	-	Green		1 NO	400 V	NYGI6
	NYGBW3551S	-	Yellow		1 NO	400 V	NYGI6
	NYGBW3451P	-	Red		1 NC	400 V	NYGI6

* The applicable bulb should be selected in accordance to the operating voltage!

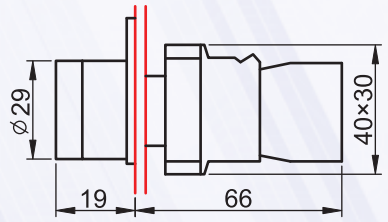


NYGBW

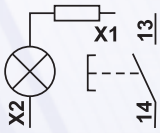


1 NO

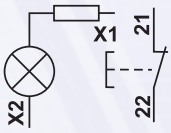
1 NC



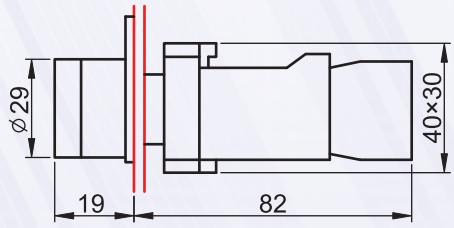
NYGBW



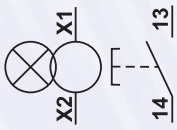
1 NO



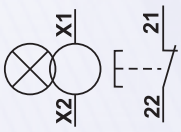
1 NC



NYGBW



1 NO

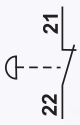


1 NC

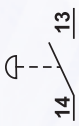
Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

Pushbuttons with mushroom head

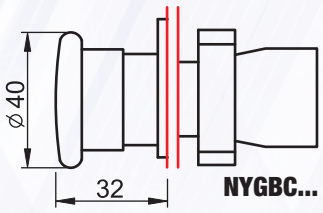
Tracon Code			Color	Closure	Contact
Base version	Version with closure	Version with emergency closure			
NYGBC21	NYGBC21T	-	Black	TK/T1+F2/	1 NO
NYGBC31Z	NYGBC31ZT	-	Green		1 NO
NYGBC51S	NYGBC51ST	-	Yellow		1 NO
NYGBC61K	NYGBC61KT	-	Blue		1 NO
NYGBC42P	NYGBC42PT	NYGBC42PTS	Red	TK/T1+F2S/	1 NC
NYGBR42P	NYGBR42PT	NYGBR42PTS	Red		1 NC



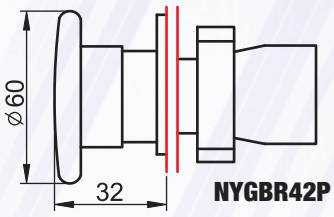
1 NC



1 NO



NYGBC...

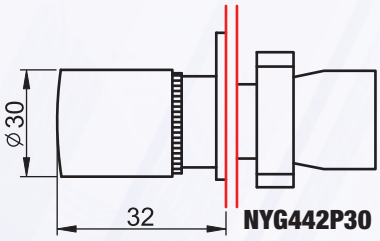


NYGBR42P

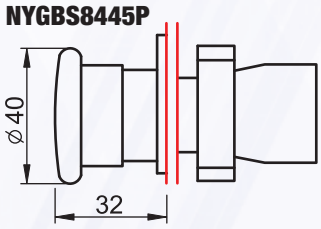
Emergency pushbuttons with mushroom head

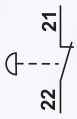
Tracon Code			Color	Closure	Contact	Size	Releasing
Base version	Version with closure	Version with emergency closure					
NYG442P30	NYG442P30T	NYG442P30TS	Red	TK/T1+F2/	1 NC	30 mm	By turning
NYG542P40	NYG542P40T	NYG542P40TS	Red		1 NC	40 mm	By turning
NYG642P60	NYG642P60T	NYG642P60TS	Red		1 NC	60 mm	By turning
NYGBS142P	NYGBS142PT	NYGBS142PTS	Red	TK/T1+F2S/	1 NC	40 mm	With key
NYGBS8445P	NYGBS8445PT	NYGBS8445PTS	Red		1 NC+1 NO	40 mm	By turning
NYGBS9445P	NYGBS9445PT	NYGBS9445PTS	Red		1 NC+1 NO	40 mm	With key

NYG542P40, NYGBS8445P



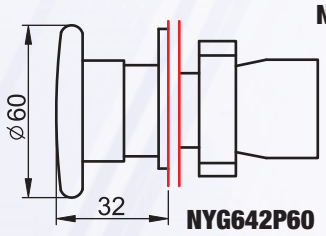
NYG442P30



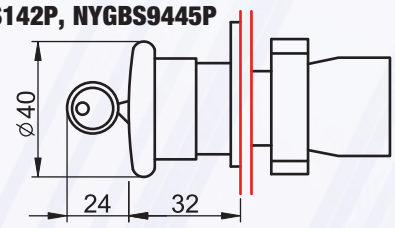


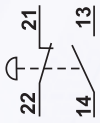
1 NC

NYGBS142P, NYGBS9445P



NYG642P60



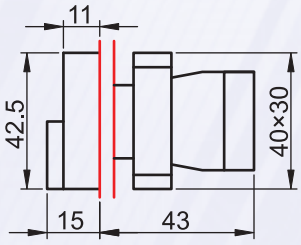


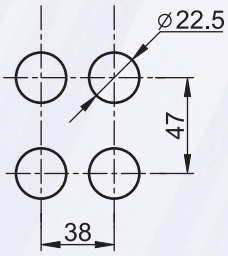
1 NC + 1 NO

H

Double on-off pushbuttons

Tracon Code		Color and marking		Closure	Contact
Base version	Version with closure	Green	Red		
NYKK8325	NYKK8325T	-	-	TK/T1+F2/	1 NC+1 NO
NYKK8425	NYKK8425T	"I"	"0" (outst.)		1 NC+1 NO



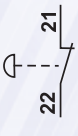


RELEVANT STANDARD

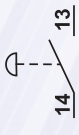
EN 60947-1

RELEVANT STANDARD

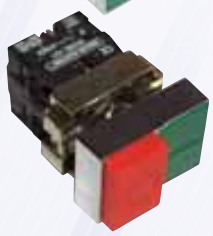
EN 60947-5-1



1 NC



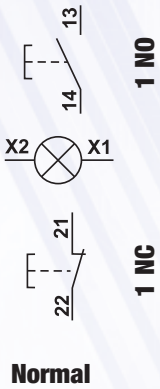
1 NO



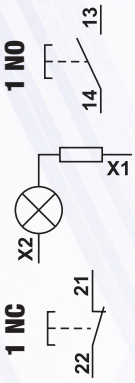
Double, on-off pushbuttons with pilot light

Perform.	Tracon Code	Color and marking		Contact	Operating voltage	Bulb
		Green	Red			
Normal	NYKK8365	"I"	"0"	1 NC+1 NO	max. 400 V	NYGI230*
	NYKK8465	"I"	"0" (outst.)	1 NC+1 NO	max. 400 V	NYGI230*
With shunt res.	NYKK8375	"I"	"0"	1 NC+1 NO	240 V	NYGI130
	NYKK8475	"I"	"0" (outst.)	1 NC+1 NO	240 V	NYGI130

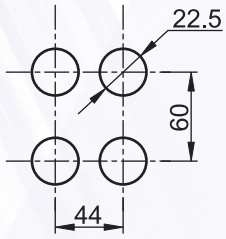
* The applicable bulb should be selected in accordance to the operating voltage!

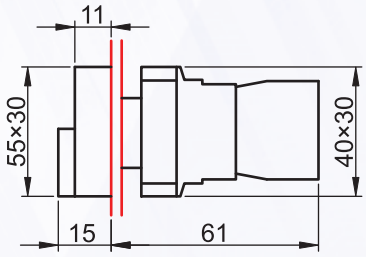


Normal



With shunt resistance

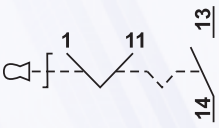




Key switches

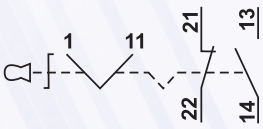
Perfor-mance	Tracon Code		Type	Closure	Contact	Key takeout position
	Base version	Version with closure				
Normal	NYBG21KK	NYBG21KKT	Two position	TK/T1+F2/	1 NO	left
	NYBG41KK	NYBG41KKT	Two position		1 NO	left or right
	NYBG25KK	NYBG25KKT	Two position		1 NC+1 NO	left
	NYBG53KK	NYBG53KKT	Three position		2 NO	middle
With spring return	NYBG61KK	NYBG61KKT	Two position		1 NO	left
	NYBG65KK	NYBG65KKT	Two position		1 NC+1 NO	left
	NYBG73KK	NYBG73KKT	Three position		2 NO	middle

Two position normal



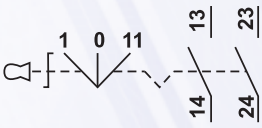
1 NO

Two position normal



1 NC + 1 NO

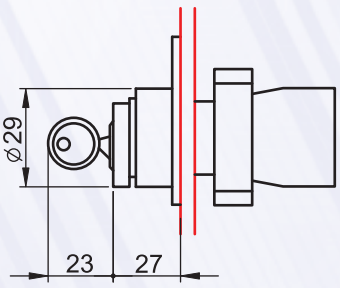
Three position normal



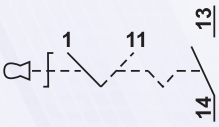
2 NO

RELEVANT STANDARD
EN 60947-1

RELEVANT STANDARD
EN 60947-5-1

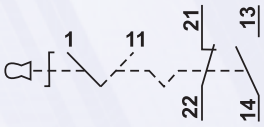


Two position with spring return



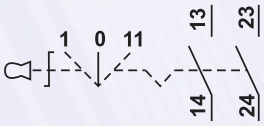
1 NO

Two position with spring return



1 NC + 1 NO

Three position with spring return



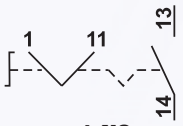
2 NO

Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

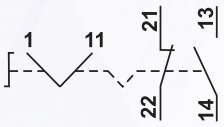
Selector switches

Performance	Tracon Code		Type	Closure	Contact	Arm
	Base version	Version with closure				
Normal	NYBD21KST	NYBD21KSTT	Two position	TK/T1+F2/	1 NO	Normal
	NYBJ21KLO	NYBJ21KLOT	Two position		1 NO	Long
	KBD25ST	KBD25STT	Two position		1 NC+1 NO	Normal
	KBJ25LO	KBJ25LOT	Two position		1 NC+1 NO	Long
	NYBD33KST	NYBD33KSTT	Three position		2 NO	Normal
	NYBJ33KLO	NYBJ33KLOT	Three position		2 NO	Long
With spring return	NYBD41KST	NYBD41KSTT	Two position		1 NO	Normal
	NYBJ41KLO	NYBJ41KLOT	Two position		1 NO	Long
	NYBD45KST	NYBD45KSTT	Two position		1 NC+1 NO	Normal
	NYBJ45KLO	NYBJ45KLOT	Two position		1 NC+1 NO	Long
	NYBD53KST	NYBD53KSTT	Three position		2 NO	Normal
	NYBJ53KLO	NYBJ53KLOT	Three position		2 NO	Long

Two position normal

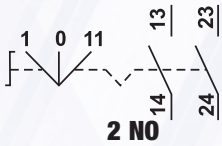


1 NO

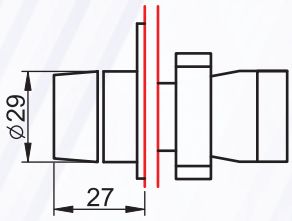


1 NC + 1 NO

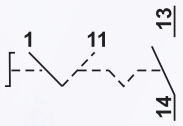
Three position normal



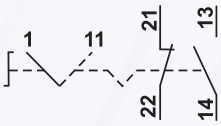
2 NO



Two position with spring return

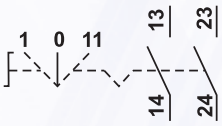


1 NO

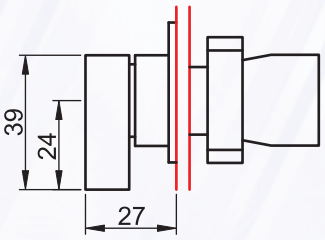


1 NC + 1 NO

Three position with spring return



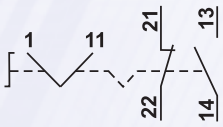
2 NO



Selector switches with built-in signal light

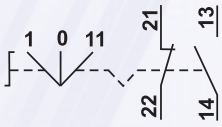
Performance	Tracon Code		Color	Type	Closure	Contact	Operating voltage	Bulb
	Base version	Version with closure						
Normal	NYGBK2365Z	NYGBK2365ZT	Green	Two position	TK/T2+F2/	1 NC+1 NO	max. 400 V	NYGLZ
	NYGBK2565S	NYGBK2565ST	Yellow	Two position		1 NC+1 NO	max. 400 V	NYGLS
	NYGBK2665K	NYGBK2665KT	Blue	Two position		1 NC+1 NO	max. 400 V	NYGLK
	NYGBK2465P	NYGBK2465PT	Red	Two position		1 NC+1 NO	max. 400 V	NYGLP
	NYGBK3365Z	NYGBK3365ZT	Green	Three position		1 NC+1 NO	max. 400 V	NYGLZ
	NYGBK3565S	NYGBK3565ST	Yellow	Three position		1 NC+1 NO	max. 400 V	NYGLS
With spring return	NYGBK3665K	NYGBK3665KT	Blue	Three position		1 NC+1 NO	max. 400 V	NYGLK
	NYGBK3465P	NYGBK3465PT	Red	Three position		1 NC+1 NO	max. 400 V	NYGLP
	NYGBK5365Z	NYGBK5365ZT	Green	Three position		1 NC+1 NO	max. 400 V	NYGLZ
	NYGBK5565S	NYGBK5565ST	Yellow	Three position		1 NC+1 NO	max. 400 V	NYGLS
	NYGBK5665K	NYGBK5665KT	Blue	Three position		1 NC+1 NO	max. 400 V	NYGLK
	NYGBK5465P	NYGBK5465PT	Red	Three position		1 NC+1 NO	max. 400 V	NYGLP

Two position normal



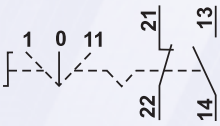
1 NC + 1 NO

Three position normal

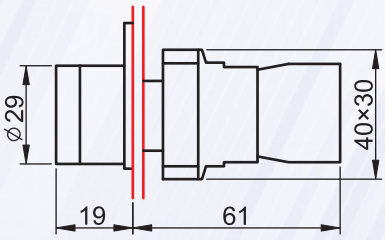


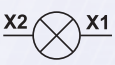
1 NC + 1 NO

Three position with spring return



1 NC + 1 NO



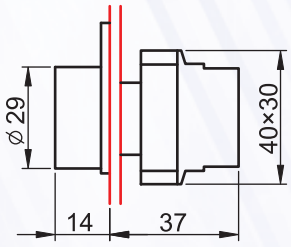


H

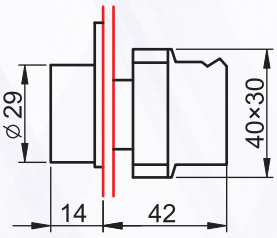
Signal lamps

Performance	Tracon Code: Base version	Tracon Code: Version with closure	Color	Operating voltage	Closure	Bulb
Normal	NYGBV61	NYGBV61T	White	max. 400 V	TK/T1+F2/	NYGI230*
	NYGBV63Z	NYGBV63ZT	Green	max. 400 V		NYGI230*
	NYGBV64P	NYGBV64PT	Red	max. 400 V		NYGI230*
	NYGBV65S	NYGBV65ST	Yellow	max. 400 V		NYGI230*
	NYGBV66K	NYGBV66KT	Blue	max. 400 V		NYGI230*
With shunt resistance	NYGBV73Z	NYGBV73ZT	Green	230-240 V		NYGI130
	NYGBV74P	NYGBV74PT	Red	230-240 V		NYGI130
	NYGBV75S	NYGBV75ST	Yellow	230-240 V		NYGI130
With transformer	NYGBV43Z	NYGBV43ZT	Green	230-240 V	TK/T2+F2/	NYGI6
	NYGBV44P	NYGBV44PT	Red	230-240 V		NYGI6
	NYGBV45S	NYGBV45ST	Yellow	230-240 V		NYGI6
	NYGBV53Z	NYGBV53ZT	Green	400 V		NYGI6
	NYGBV54P	NYGBV54PT	Red	400 V		NYGI6
	NYGBV55S	NYGBV55ST	Yellow	400 V		NYGI6

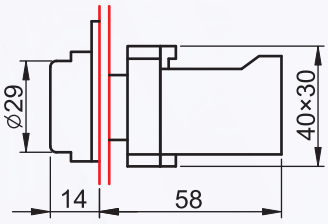
* The applicable bulb should be selected in accordance to the operating voltage!



Normal

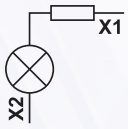


With shunt resistance

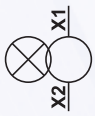


With transformer

Normal



With shunt resistance



With transformer

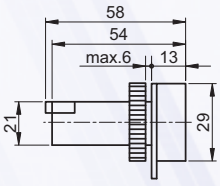
Signal lamps with ballast are operated under 130 V, by versions with transformer the operating voltage is 6 V.

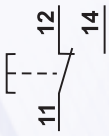
Pushbuttons, switches and signal lamps with plastic body

The devices can be fixed - by the help of a pressing ring – into ∅22 mm-size holes. The size of the mounting hole for NYLBV type is ∅25 mm

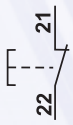
H

Pushbuttons

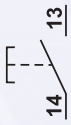




1 CO



1 NC

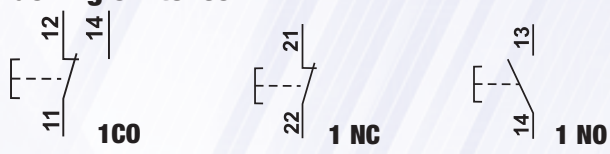


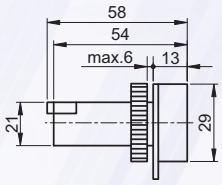
1 NO

Performance	Tracon Code: Base version	Tracon Code: Version with closure	Color	Closure	Contact
Pushbuttons	NYGEA121	NYGEA121T	Black	TK/T1+F2/	1 NO
	NYGEA131Z	NYGEA131ZT	Green		1 NO
	NYGEA151S	NYGEA151ST	Yellow		1 NO
	NYGEA161K	NYGEA161KT	Blue		1 NO
	NYGEA142P	NYGEA142PT	Red		1 NC
	NYGEA125	NYGEA125T	Black		1CO
	NYGEA135Z	NYGEA135ZT	Green		1CO
	NYGEA145P	NYGEA145PT	Red		1CO
	NYGEH155S	NYGEH155ST	Yellow		1CO
	NYGEH155S	NYGEH155ST	Yellow		1CO

Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

Pushing switches

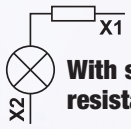




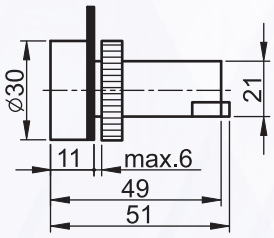
Performance	Tracon Code: Base version	Tracon Code: Version with closure	Color	Closure	Contact
Pushing switches	NYGEA121	NYGEA121T	Black	TK/T1+F2/	1 NO
	NYGEA131Z	NYGEA131ZT	Green		1 NO
	NYGEA151S	NYGEA151ST	Yellow		1 NO
	NYGEA161K	NYGEA161KT	Blue		1 NO
	NYGEA142P	NYGEA142PT	Red		1 NC
	NYGEA125	NYGEA125T	Black		1CO
	NYGEA135Z	NYGEA135ZT	Green		1CO
	NYGEA145P	NYGEA145PT	Red		1CO
	NYGEH155S	NYGEH155ST	Yellow		1V
	NYGEH165K	NYGEH165KT	Blue		1V

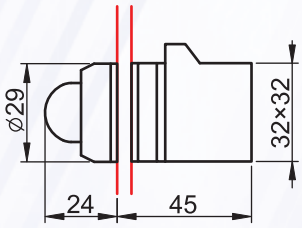
Signal lamps

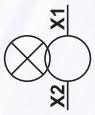
Normal



With shunt resistance







With transformer

Signal lamps with ballast are operated under 130 V, by versions with transformer the operating voltage is 6 V.

Performance	Tracon Code: Base version	Tracon Code: Version with closure	Color	Operating voltage	Closure	Bulb
Normal	NYGEV133Z	NYGEV133ZT	Green	max. 130 V	TK/T1+F2/	NYGI130*
	NYGEV134P	NYGEV134PT	Red	max. 130 V		NYGI130*
	NYGEV163Z	NYGEV163ZT	Green	max. 250 V		-*
	NYGEV164P	NYGEV164PT	Red	max. 250 V		-*
	NYGEV165S	NYGEV165ST	Yellow	max. 250 V		-*
	NYGEV166K	NYGEV166KT	Blue	max. 250 V		-*
	NYGEV443Z	NYGEV443ZT	Green	max. 250 V		NYGI230*
	NYGEV444P	NYGEV444PT	Red	max. 250 V		NYGI230*
	NYGEV445S	NYGEV445ST	Yellow	max. 250 V		NYGI230*
	NYGEV446K	NYGEV446KT	Blue	max. 250 V		NYGI230*
	NYGEV453Z	NYGEV453ZT	Green	max. 400 V		NYGI230*
	NYGEV454P	NYGEV454PT	Red	max. 400 V		NYGI230*
	NYGEV455S	NYGEV455ST	Yellow	max. 400 V		NYGI230*
	NYGEV456K	NYGEV456KT	Blue	max. 400 V		NYGI230*
With shunt resist.	NYGEV173Z	NYGEV173ZT	Green	230-240 V	TK/T1+F2/	NYGI130
	NYGEV174P	NYGEV174PT	Red	230-240 V		NYGI130
	NYGEV175S	NYGEV175ST	Yellow	230-240 V		NYGI130
	NYGEV176K	NYGEV176KT	Blue	230-240 V		NYGI130
With transformer	NYLBV853Z	-	Green	230-240 V	-	NYGI6
	NYLBV854P	-	Red	230-240 V		NYGI6
	NYLBV855S	-	Yellow	230-240 V		NYGI6
	NYLBV856K	-	Blue	230-240 V		NYGI6
	NYLBV873Z	-	Green	400 V		NYGI6
	NYLBV874P	-	Red	400 V		NYGI6
	NYLBV875S	-	Yellow	400 V		NYGI6
	NYLBV876K	-	Blue	400 V		NYGI6

* The applicable bulb should be selected in accordance to the operating voltage!

Accessories

The following accessories can be ordered to the pushbuttons, switches and signal lamps mounted on metal plates or with plastic body.

Normal signal bulbs

Tracon Code	Operating voltage	Power	Lamp holder
NYGI6	6 V	1,2 W	Ba9s
NYGI12	12 V	2 W	Ba9s
NYGI24	24 V	2 W	Ba9s
NYGI48	48 V	2 W	Ba9s
NYGI130	130 V	2,6 W	Ba9s
NYGI230	230 V	glimm	Ba9s

LED signal bulbs

Tracon Code	Operating voltage	Color	Lamp holder
NYGLS	48-230 V	Yellow	Ba9s
NYGLP	48-230 V	Red	Ba9s
NYGLK	48-230 V	Blue	Ba9s
NYGLF	48-230 V	White	Ba9s
NYGLZ	48-230 V	Green	Ba9s

LED signal bulbs (new version)

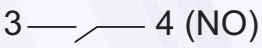
Tracon Code	Operating voltage	Power	Lamp holder
NYGL-AC400B	400 V AC	Blue	Ba9s
NYGL-AC400G	400 V AC	Green	Ba9s
NYGL-AC400R	400 V AC	Red	Ba9s
NYGL-AC400W	400 V AC	White	Ba9s
NYGL-AC400Y	400 V AC	Yellow	Ba9s
NYGL-ACDC230B	230 V AC/DC	Blue	Ba9s
NYGL-ACDC230G	230 V AC/DC	Green	Ba9s
NYGL-ACDC230R	230 V AC/DC	Red	Ba9s
NYGL-ACDC230W	230 V AC/DC	White	Ba9s
NYGL-ACDC230Y	230 V AC/DC	Yellow	Ba9s
NYGL-ACDC24B	24 V AC/DC	Blue	Ba9s
NYGL-ACDC24G	24 V AC/DC	Green	Ba9s
NYGL-ACDC24R	24 V AC/DC	Red	Ba9s
NYGL-ACDC24W	24 V AC/DC	White	Ba9s
NYGL-ACDC24Y	24 V AC/DC	Yellow	Ba9s

H

Contact elements

If necessary, a maximum number of four contact elements can be fixed to the base unit.

Tracon code	Contact	Denomination
NYAE101	1 × NO	Closing contact element
NYAE102	1 × NC	Opening contact element



NYAE101

NYAE102

Reduction rings

If control devices shall be replaced in older type distribution boards with ∅38 mm holes, reduction rings can be intercalated for proper fixation to the board.

Tracon code	Denomination
NYGR38/22	Reduction rings from D=38 mm to d=22 mm (pairs)

Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

Relay safety switches

The SSTM type switches are appropriate for safe ON/OFF switching of various machine tools or electric devices, as they ensure automatic protection against unwanted start, when power supply returns after a network failure. The switches are meant for installation in boxes. Once built in, the operating button face affords IP 55 degree of protection, i.e. the switches can be used in dusty and/or wet environment. Wire connection is made with quick connecting terminals, 6.3 × 0.8 mm.

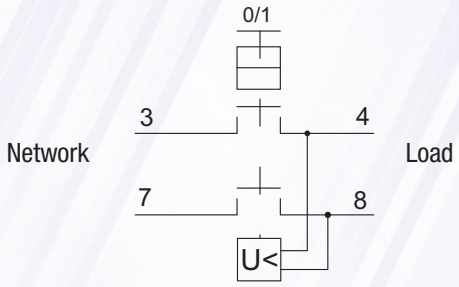
The switches are of two-poles type, with two closing contacts. The pushbuttons are of spring-return type, independently operated.

The power failure relay is factory built-in, without own output contacts, the operating voltage is ensured by the load-side contacts of the switch. In case of power failure, the relay disconnects the controlled device from the power supply line. Re-start is only possible with repeated operation of the green (I) pushbutton, by the user.

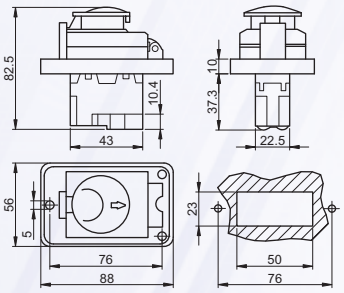
The SSTM-01 version is equipped with a special cover, functioning like an emergency button. Upon being actuated, it produces a locked stop. The device can only be re-started after repair of the fault, by lifting the cover and thus resetting the error condition.

Technical data

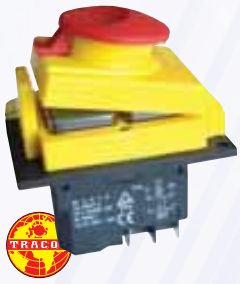
Nominal voltage:	250 V AC
Nominal frequency:	50 Hz
Rated current:	15 A (AC-3)
Connection:	quick terminals, 6.3 × 0.8 mm
Ambient temperature:	-25 °C ÷ +80 °C
Max air humidity:	95 %, at 40°C
Degree of protection:	IP 55



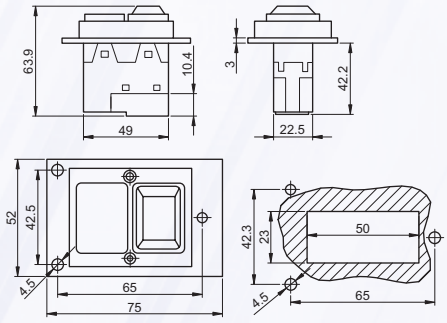
RELEVANT STANDARD	RELEVANT STANDARD	RELEVANT STANDARD	RELEVANT STANDARD
EN 60947-1	EN 60947-3	EN 61058-1	EN 60529



SSTM-01

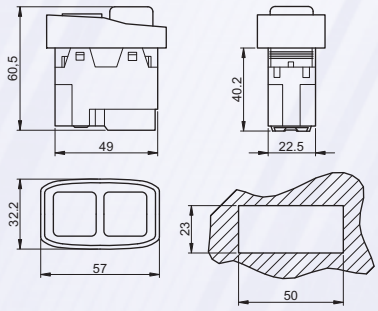


Fixation: by two screws, ∅ 5 mm, in the slot of the mounting plate



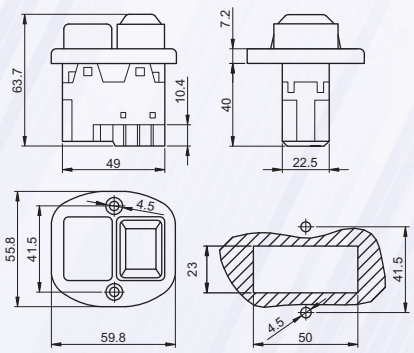
SSTM-02

Fixation: by three screws, ∅ 5 mm, into he slot of the mounting plate



SSTM-03

Fixation: snapping-in into the slot of the mounting plate



SSTM-04

Fixation: by two screws, ∅ 5 mm, in the slot of the mounting plate

H

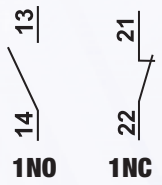
NYG2 Pushbutton product family

The advantage of using the NYG2 pushbutton family is consisted in the possibility of free combination of the selected units.
It gives freedom and simple installation for users. These products are designed for basic actuation purposes; the user can freely build-up the customized control device, selecting among the available basic units.

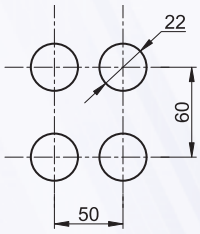
Technical data

Rated insulation voltage:	600 V
Rated impulse resistance voltage:	6 kV
Rated thermal current:	6 A (240V, AC 1)
Rated operation current:	3 A (240 V, 50 Hz; AC 15) 0,27 A (250 V DC; DC 13)
Short circuit strength:	1000 A (with 10 A gG shunt fuse)
Terminal capacity:	1 × 0.5 … 1 × 2.5 mm^2 (2 × 1.5 mm^2)
Terminals:	screw terminals
Ambient temperature:	-25 °C … +70 °C
Storage temperature:	-40 °C … +70 °C
Vibration resistance (IEC 60068-2-6):	max. 8 g (40…500 Hz)
Impact resistance (IEC 60068-2-27):	max. 15 g
Protection degree:	IP 42 (after mounting)
Mechanical life:	1 × 10^6 switching cycles
Operation force:	max. 20 N (to close the contacts) min. 8 N, max. 15 N (to open the contacts)
Operation torque:	max. 0.15 Nm versions with arms)
Direct opening way:	min. 3.5 mm
Operation way:	max. 8 mm
Thickness of mounting plate:	max. 6 mm max. 1.5 mm (with reduction ring) see on page H/28!

Scheme of contacts



Drawing for cutting off



RELEVANT STANDARD	RELEVANT STANDARD
EN 60947-1	EN 60947-5-1

H

Construction

The units can be chosen from 4 groups:
- **head units (1)**
- **bases (2)**
- **light (LED) units (3)**
- **contact units (4)**

The primary unit of pushbutton is the base **(NYG2-T)**; it will be the same at every combination because the other parts shall be attached to this device.

The head and contact units can be selected by the user. The contact units can simply be clipped-on to the base. The head units can be attached to the base with bayonet lock.

The combinations can be installed into ∅ 22 mm boreholes; fixation can be made with the fixing screws on the base unit.

Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

Head units

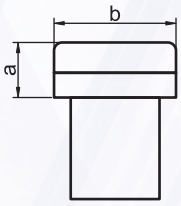
Users can choose from 12 different heads, such as buttons, switches or emergency mushrooms.
The head units can be attached to the bases with bayonet lock.

Tracon code	Description	a (mm)	b (mm)
NYG2-F1	Pushbutton head, red	14	30
NYG2-F2	Pushbutton head, green	14	30
NYG2-F3	Pushbutton head, yellow	14	30
NYG2-F4	Selector switch, with 2-position switch arm (0-1)	28	30
NYG2-F5	Selector switch, with 3-position switch arm (1-0-1)	28	30
NYG2-F6	Double pushbutton head (ON-OFF) with yellow lamp	18	55
NYG2-F7	Mushroom button head, red with STOP sign	22	40
NYG2-F8	Mushroom button head, green	22	40
NYG2-F9	Mushroom emergency button head, with turn release, 40 mm	28	40
NYG2-F10	Mushroom emergency button head, with turn release, 60 mm	30	60
NYG2-F11	Mushroom emergency button head, with key release, 40 mm	28	40
NYG2-F12	Mushroom button head, transparent orange, 40 mm	26	40

NYG2-F1

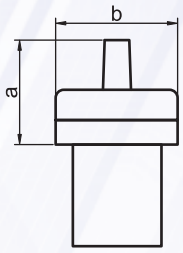
NYG2-F2

NYG2-F3

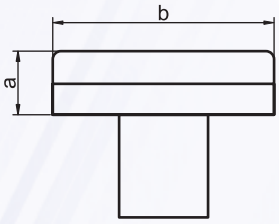


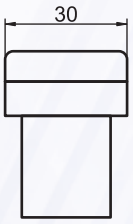
NYG2-F4

NYG2-F5



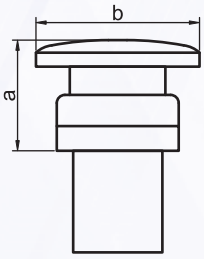
NYG2-F6





RELEVANT STANDARD
EN 60947-1
EN 60947-5-1

NYG2-F11



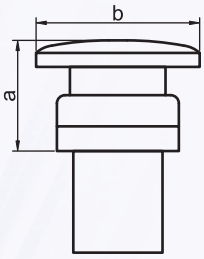
NYG2-F7

NYG2-F8

NYG2-F9

NYG2-F10

NYG2-F12



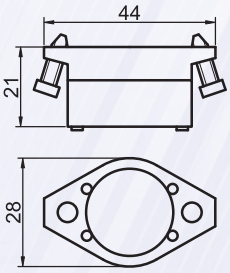
H

Bases

The primary unit of pushbuttons is the base; it will be the same at every combination because the other parts can be attached to this device. The combinations can be installed into ∅ 22 mm boreholes; fixing can be made with the fixing screws on the basis element..

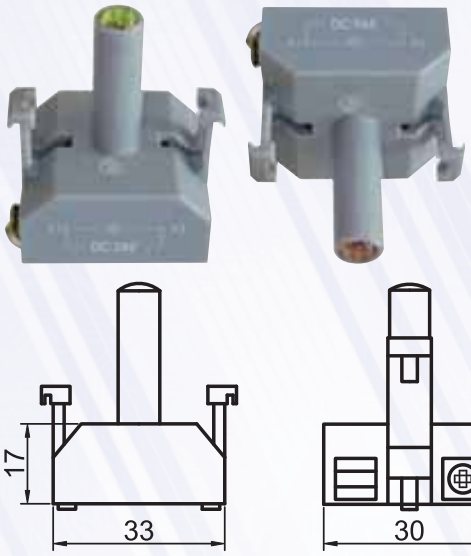
Tracon code	Description
NYG2-T	NYG2 base with screws

Fixing screws: 2 pcs M4
Tightening torque: 1,2 Nm



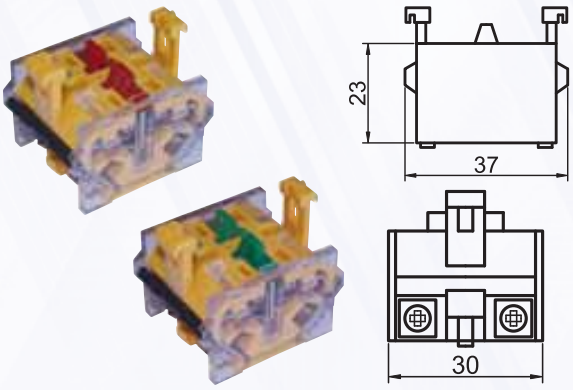
Light (LED) units

The LED units can be chosen for 12-24-230V AC and 12-24V DC voltage level in red, green or yellow color.



Tracon code	Description
NYG2-L1	LED unit, red, 12 V AC
NYG2-L2	LED unit, red, 24 V AC
NYG2-L3	LED unit, red, 230 V AC
NYG2-L4	LED unit, green, 12 V AC
NYG2-L5	LED unit, green, 24 V AC
NYG2-L6	LED unit, green, 230 V AC
NYG2-L7	LED unit, yellow, 12 V AC
NYG2-L8	LED unit, yellow, 24 V AC
NYG2-L9	LED unit, yellow, 230 V AC
NYG2-L10	LED unit, red, 12 V DC
NYG2-L11	LED unit, red, 24 V DC
NYG2-L12	LED unit, green, 12 V DC
NYG2-L13	LED unit, green, 24 V DC
NYG2-L14	LED unit, yellow, 12 V DC
NYG2-L15	LED unit, yellow, 24 V DC

Contact units



Every unit contains 2 pcs double contacts, this way 3 different combinations can be chosen. In order to ensure reliable contacts, we advise the grouping of contact units up to 2 levels. The contact units can be simply clipped-on to the bases.

Tracon code	Description
NYG2-E20	2 pcs normally open contacts (NO + NO)
NYG2-E11	1 pc normally open and 1 pc normally closed contact (NO + NC)
NYG2-E02	2 pcs normally closed contacts (NC + NC)

Enclosures

Every combination can be placed into enclosure to increase the protection degree of device up to IP44 (only when using 1 contact unit).

Tracon code	Description	Color	W (mm)	H (mm)	x (mm)	Cable-glands
TK/T1+F2/	Assembled low enclosure	Grey basis + grey cover	68	64	44	2 pcs MG-20
TK/T1+F2S/	Assembled low enclosure	Grey basis + yellow cover	68	64	44	2 pcs MG-20
TK/T2+F2/	Assembled high enclosure	Grey basis + grey cover	68	80	44	2 pcs MG-20
TK/T2+F2S/	Assembled high enclosure	Grey basis + yellow cover	68	80	44	2 pcs MG-20

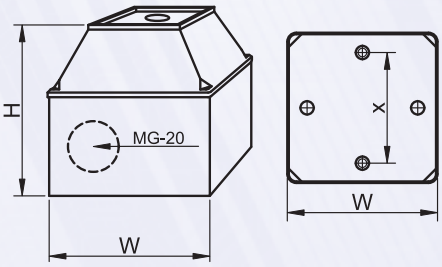
RELEVANT STANDARD

EN 60947-1

EN 60947-5-1

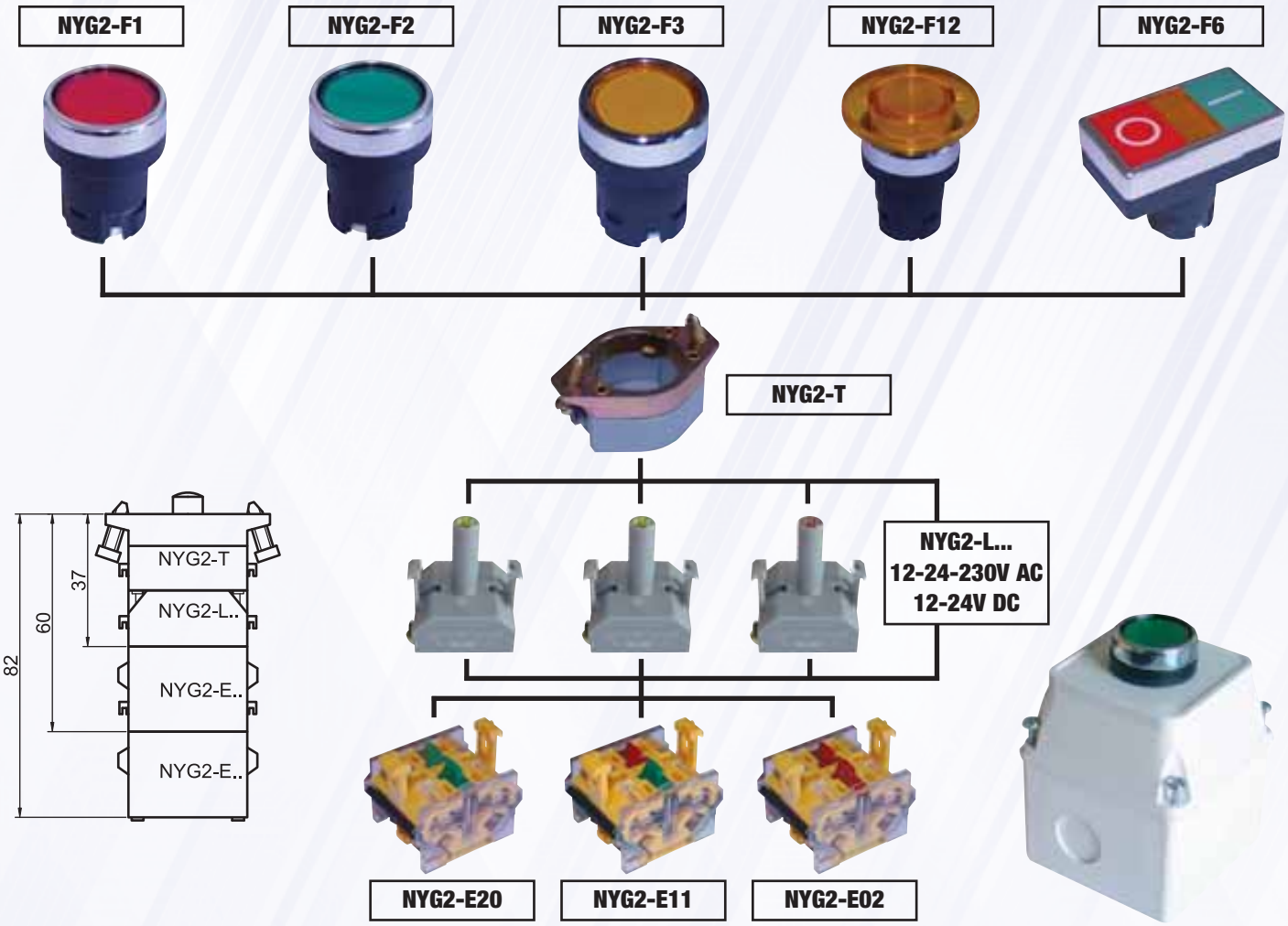
MEEI Type Test Certificate No.:

D0388V061

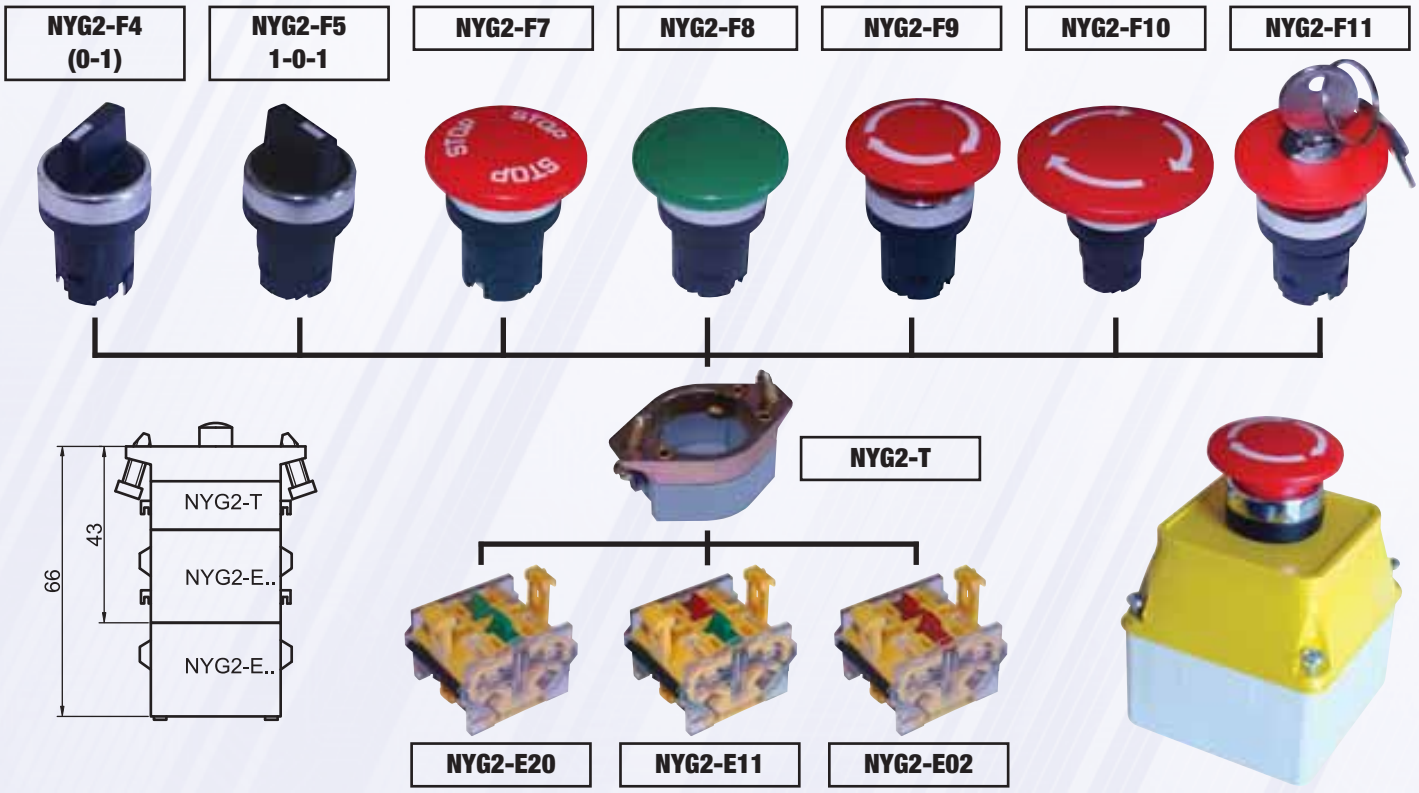


Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

Possible combinations with LED units



Possible combinations without LED units



H

LJL type LED signal lamps

The LJL... signal lamp product family is equipped with a LED bulb. The main advantage of the LED bulb – in comparison with the incandescent lamp – is that the light has equal intensity on the cover plate, is practically not influenced by the change of the operating voltage, and can be very well seen under normal circumstances.
The lamps have a plastic house of 16 mm and 22 mm nominal size, so the signal lamps can be installed into holes of 16,5 mm and 22,5 mm size, using plastic pressing screw nuts. Simple closure ensuring IP 44 protection is available for the 22 mm version.

Technical data

Protection degree:	IP 40 (mounted)
Terminal capacity:	0,5 … 1,5 mm²
Thickness of mounting plate:	1,0 … 5 mm
Way of termination:	
LJL16...:	with soldering or with 2,8×0,8 mm size flat terminal
LJL22…:	with screw terminals
The max. tighten moment of gripping female screw:	0,3 Nm

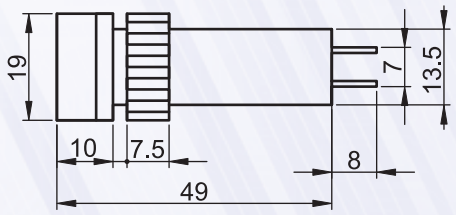
The detailed data on closures are shown on page H/34!

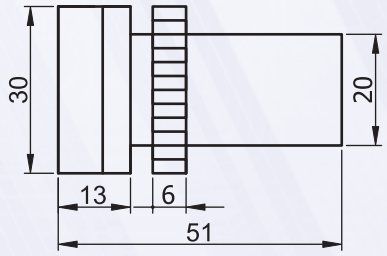
∅ 16 mm versions

Tracon Code	Color	Operating voltage
LJL16-RA	Red	12V AC/DC
LJL16-RC	Red	24 V AC/DC
LJL16-RD	Red	48 V AC/DC
LJL16-RE	Red	230 V AC
LJL16-RF	Red	400 V AC
LJL16-GA	Green	12 V AC/DC
LJL16-GC	Green	24 V AC/DC
LJL16-GD	Green	48 V AC/DC
LJL16-GE	Green	230 V AC
LJL16-GF	Green	400 V AC
LJL16-YA	Yellow	12 V AC/DC
LJL16-YC	Yellow	24 V AC/DC
LJL16-YD	Yellow	48 V AC/DC
LJL16-YE	Yellow	230 V AC
LJL16-YF	Yellow	400 V AC
LJL16-WA	White	12 V AC/DC
LJL16-WC	White	24 V AC/DC
LJL16-WD	White	48 V AC/DC
LJL16-WE	White	230 V AC
LJL16-WF	White	400 V AC
LJL16-BA	Blue	12 V AC/DC
LJL16-BC	Blue	24 V AC/DC
LJL16-BD	Blue	48 V AC/DC
LJL16-BE	Blue	230 V AC
LJL16-BF	Blue	400 V AC

∅ 22 mm versions

Tracon Code		Color	Operating voltage	Closure
Base version	Version with closure			
LJL22-RA	LJL22-RAT	Red	12 V AC/DC	TK/T1+F2
LJL22-RC	LJL22-RCT	Red	24 V AC/DC	
LJL22-RD	LJL22-RDT	Red	48 V AC/DC	
LJL22-RE	LJL22-RET	Red	230 V AC	
LJL22-RF	LJL22-RFT	Red	400 V AC	
LJL22-GA	LJL22-GAT	Green	12 V AC/DC	
LJL22-GC	LJL22-GCT	Green	24 V AC/DC	
LJL22-GD	LJL22-GDT	Green	48 V AC/DC	
LJL22-GE	LJL22-GET	Green	230 V AC	
LJL22-GF	LJL22-GFT	Green	400 V AC	
LJL22-YA	LJL22-YAT	Yellow	12 V AC/DC	
LJL22-YC	LJL22-YCT	Yellow	24 V AC/DC	
LJL22-YD	LJL22-YDT	Yellow	48 V AC/DC	
LJL22-YE	LJL22-YET	Yellow	230 V AC	
LJL22-YF	LJL22-YFT	Yellow	400 V AC	
LJL22-WA	LJL22-WAT	White	12 V AC/DC	
LJL22-WC	LJL22-WCT	White	24 V AC/DC	
LJL22-WD	LJL22-WDT	White	48 V AC/DC	
LJL22-WE	LJL22-WET	White	230 V AC	
LJL22-WF	LJL22-WFT	White	400 V AC	
LJL22-BA	LJL22-BAT	Blue	12 V AC/DC	
LJL22-BC	LJL22-BCT	Blue	24 V AC/DC	
LJL22-BD	LJL22-BDT	Blue	48 V AC/DC	
LJL22-BE	LJL22-BET	Blue	230 V AC	
LJL22-BF	LJL22-BFT	Blue	400 V AC	





RELEVANT STANDARD
EN 60947-5-1

TÜV GS CERTIFICATE NO.
N8001242131001

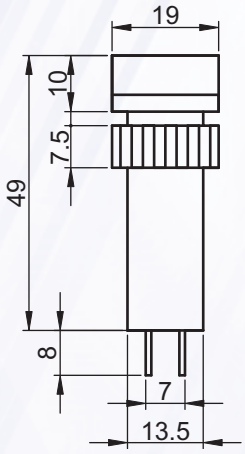
Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

LJL type LED signal lamps

The LJL... signal lamp product family is equipped with a LED bulb. The main advantage of the LED bulb – in comparison with the incandescent lamp – is that the light has equal intensity on the cover plate, is practically not influenced by the change of the operating voltage, and can be very well seen under normal circumstances.
The lamps have a plastic house of 16 mm and 22 mm nominal size, so the signal lamps can be installed into holes of 16,5 mm and 22,5 mm size, using plastic pressing screw nuts. Simple closure ensuring IP 44 protection is available for the 22 mm version.

Technical data

Protection degree:	IP 40 (mounted)
Terminal capacity:	0,5 … 1,5 mm²
Thickness of mounting plate:	1,0 … 5 mm
Way of termination:	
LJL16...:	with soldering or with 2,8×0,8 mm size flat terminal
LJL22…:	with screw terminals
The max. tighten moment of gripping female screw:	0,3 Nm

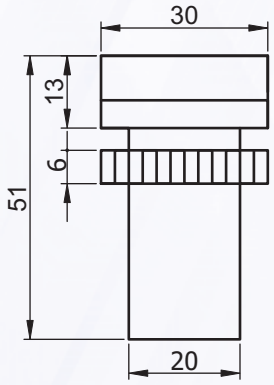


RELEVANT STANDARD
EN 60947-5-1

TÜV GS CERTIFICATE NO.
N8001242131001

16 mm versions

Tracon code	Colour	Operating voltage
LJL16-AC230B	blue	230 V AC
LJL16-DC230B	blue	230 V DC
LJL16-AC230R	red	230 V AC
LJL16-DC230R	red	230 V DC
LJL16-AC230Y	yellow	230 V AC
LJL16-DC230Y	yellow	230 V DC
LJL16-AC230G	green	230 V AC
LJL16-DC230G	green	230 V DC



22 mm versions

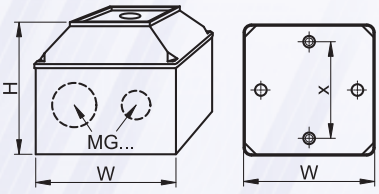
Tracon code		Colour	Operating voltage
Base version	Version with closure		
LJL22-ACDC24W	LJL22-ACDC24WT	white	24 V AC/DC
LJL22-AC230W	LJL22-AC230WT	white	230 V AC
LJL22-DC230W	LJL22-DC230WT	white	230 V DC
LJL22-ACDC24B	LJL22-ACDC24BT	blue	24 V AC/DC
LJL22-AC230B	LJL22-AC230BT	blue	230 V AC
LJL22-DC230B	LJL22-DC230BT	blue	230 V DC
LJL22-ACDC24R	LJL22-ACDC24RT	red	24 V AC/DC
LJL22-AC230R	LJL22-AC230RT	red	230 V AC
LJL22-DC230R	LJL22-DC230RT	red	230 V DC
LJL22-ACDC24Y	LJL22-ACDC24YT	yellow	24 V AC/DC
LJL22-AC230Y	LJL22-AC230YT	yellow	230 V AC
LJL22-DC230Y	LJL22-DC230YT	yellow	230 V DC
LJL22-ACDC24G	LJL22-ACDC24GT	green	24 V AC/DC
LJL22-AC230G	LJL22-AC230GT	green	230 V AC
LJL22-DC230G	LJL22-DC230GT	green	230 V DC

H

Enclosures

For most of the pushbuttons, plastic closures whith ensure IP44 protection are available.

Tracon Code	Name	Color	W (mm)	H (mm)	x (mm)	Cable glands
TK/T1+F2/	Installed low enclosure	Light grey base + light grey cover	68	64	44	2 pcs MG-20



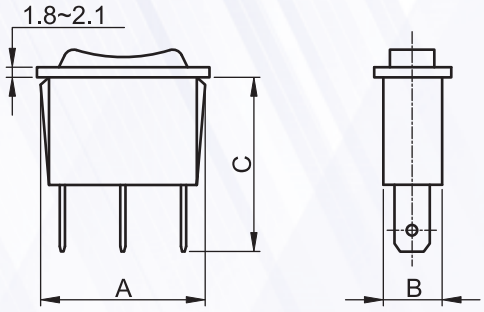
TES device switches

The device switches are suitable to be installed into various control devices, household machines and other electrical equipments. We suggest installing the device switches provided with signal lights in such places where it is important to indicate the on condition of the equipment. The switch can be easily snapped into the mounting hole and wires equipped with 4,6 × 0,8 and 6,3 × 0,8 flat, slip-on, female clips can be connected onto its standard terminals.

Technical data

Rated voltage:	250 V AC
Rated current:	16(6) A
Rated frequency:	50 Hz
Electrical life:	5×10^4 switching
Life of lamp:	15000 hours
Ambient temperature:	-25 ˚C … 80 ˚C
Max. humidity:	95 %, 40 ˚C
Protection degree:	IP 40 (mounted)

RELEVANT STANDARD
EN 61058-1

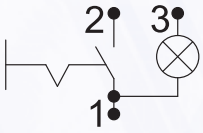


Cutting size: A × B × C (mm)

TES-11

ON-OFF switch

Red color
Lighting button

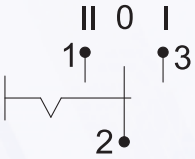


29×13×29 Flat terminal: 6,3×0,8 mm

TES-12

Middle 0 position switch

Black
I-0-II sign

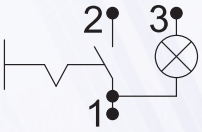


29×12×29 Flat terminal: 6,3×0,8 mm

TES-13

ON-OFF switch

Green (lighting)
0-I sign

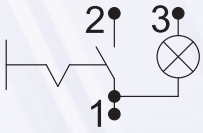


28×11×29 Flat terminal: 6,3×0,8 mm

TES-21

ON-OFF switch

Red (lighting)

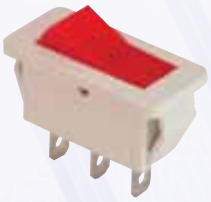


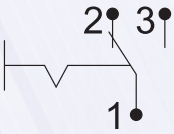
28×11×29 Flat terminal: 6,3×0,8 mm

TES-22

Alternate switch

Red



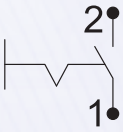


28×13×24 Flat terminal: 6,3×0,8 mm

TES-32

ON-OFF switch

White



19×12×21 Flat terminal: 4,8×0,8 mm

Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu

TES-33

ON-OFF switch

Red

Flat terminal: 4,8×0,8 mm

19×12×21

TES-34

ON-OFF switch

Black
0-I sign

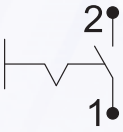
Flat terminal: 4,8×0,8 mm

19×12×21

TES-35

ON-OFF switch

Red



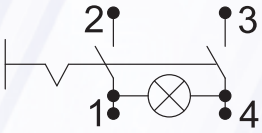
Flat terminal: 4,8×0,8 mm

19×12×21

TES-41

ON-OFF switch

Red (lighting,
with raster)
0-I sign



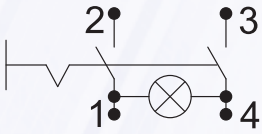
Flat terminal: 6,3×0,8 mm

29×22×26

TES-42

ON-OFF switch

Red (lighting)
0-I sign
Red



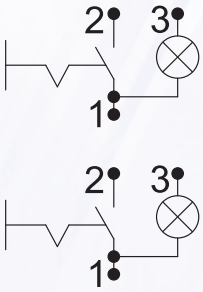
Flat terminal: 6,3×0,8 mm

29×22×26

TES-43

ON-OFF switch

Two circuit
Red (lighting)
0-I, 0-II sign



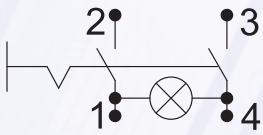
Flat terminal: 6,3×0,8 mm

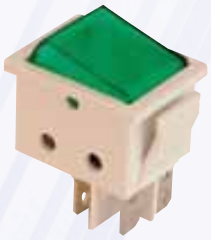
28×22×29

TES-44

ON-OFF switch

Green (lighting)





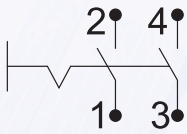
Flat terminal: 6,3×0,8 mm

26×22×29

TES-51

ON-OFF switch

Black
0-I sign



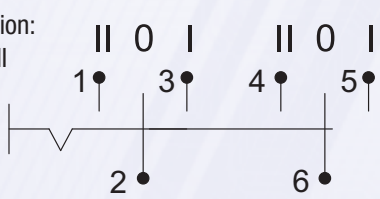
Flat terminal: 4,8×0,8 mm

20×22×22

TES-52

Bipolar ON-OFF switch

Black
Inscription:
I – 0 - II



Flat terminal: 6,3×0,8 mm

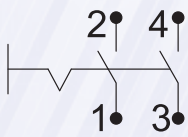
36×20×27

TES-53

ON-OFF switch

IP 55

PVC membrane protection
Black
Inscription: 0 - I



Flat terminal: 6,3×0,8 mm

36×20×29

H

Pushbuttons and push-switches with mini signal lamp (LED)

They are suitable to indicate and switch the functions of household machines, instruments, and control panels. They can be fixed into ∅16.2 mm size holes by the help of plastic pressing rings.

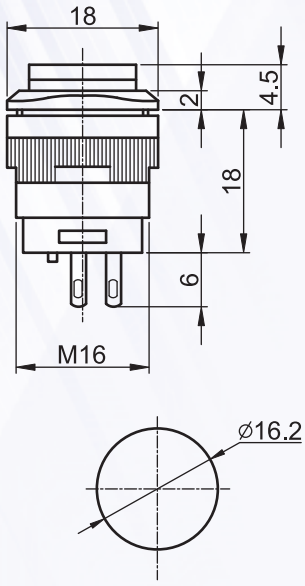
Technical data

Switching element

Rated voltage:	250 V AC
Operating current:	3 A (125 V, AC1); 1,5 A (250 V, AC1)
Insulation resistance:	1000 MΩ
Mechanical life:	10^5 switching cycle
Ambient temperature:	-55 °C…85 °C
Max. humidity:	98 %, +40 °C

Signal lamp

Operating voltage:	2, 6, 12, 24 V AC/DC, 110, 230 V AC
Max. current consumption:	20 mA



RELEVANT STANDARD
EN 60947-1

RELEVANT STANDARD
EN 60947-5-1

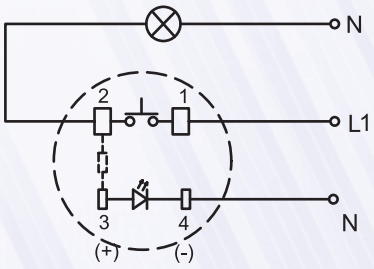
Pushbuttons

Tracon Code	Signal lamp	
	Operating voltage	Color
MNG-002R	2V AC/DC	Red
MNG-002G	2V AC/DC	Green
MNG-002Y	2V AC/DC	Yellow
MNG-006R	6V AC/DC	Red
MNG-006G	6V AC/DC	Green
MNG-006Y	6V AC/DC	Yellow
MNG-012R	12V AC/DC	Red
MNG-012G	12V AC/DC	Green
MNG-012Y	12V AC/DC	Yellow
MNG-024R	24V AC/DC	Red
MNG-024G	24V AC/DC	Green
MNG-024Y	24V AC/DC	Yellow
MNG-110R	110V AC	Red
MNG-110G	110V AC	Green
MNG-110Y	110V AC	Yellow
MNG-230R	230V AC	Red
MNG-230G	230V AC	Green
MNG-230Y	230V AC	Yellow

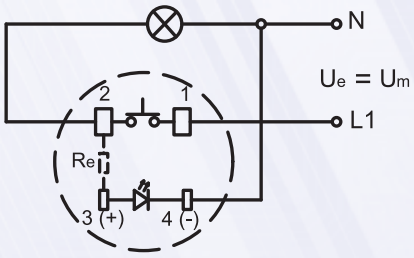
Pushing switches

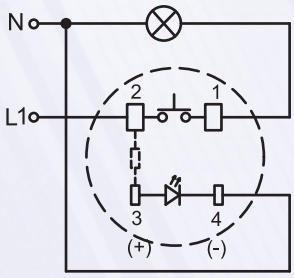
Tracon Code	Signal lamp	
	Operating voltage	Color
MNK-002R	2V AC/DC	Red
MNK-002G	2V AC/DC	Green
MNK-002Y	2V AC/DC	Yellow
MNK-006R	6V AC/DC	Red
MNK-006G	6V AC/DC	Green
MNK-006Y	6V AC/DC	Yellow
MNK-012R	12V AC/DC	Red
MNK-012G	12V AC/DC	Green
MNK-012Y	12V AC/DC	Yellow
MNK-024R	24V AC/DC	Red
MNK-024G	24V AC/DC	Green
MNK-024Y	24V AC/DC	Yellow
MNK-110R	110V AC	Red
MNK-110G	110V AC	Green
MNK-110Y	110V AC	Yellow
MNK-230R	230V AC	Red
MNK-230G	230V AC	Green
MNK-230Y	230V AC	Yellow

Wiring examples



The LED lights only on „BE" (ON) position of switch





The LED lights both „BE" (ON) and „KI" (OFF) position of switch

Tracon Budapest Ltd. • Pallag Street 23, Dunakeszi, H-2120, Hungary
Tel.: +36-27-540-000, Fax: +36-27-540-005 • Website: www.traconelectric.com • E-mail: tracon@tracon.hu