



**TECHNICAL MANUAL**  
Pilot lights, push buttons,  
and selector switches



## 1 DESCRIPTION

Pilot lights, push buttons and selector switches are intended for management and control of plant and equipment. Pilot lights, push buttons and selector switches are designed for use in 50/60 Hz AC circuits up to 660 V and in DC circuits up to 400 V. They can be installed, e.g., in lead-in distributors, automatic transfer switches, motor control centers etc. Each key switch is supplied with 2 keys. EKF pilot lights, push buttons and selector switches comply with the requirements of IEC 60947-5-1-2014.

## 2 TECHNICAL DATA

Table 1

Characteristics	Value				
Rated voltage at 50 Hz, V	660	380	220	110	48
Rated current, A	2,5	4,5	7,5	10	10
Utilization category AC-12 Utilization category AC-15	1,5	2,5	4,5	6	6
Rated insulation voltage $U_i$ , V	660				
Mechanical life, cycles, $\times 10^4$	Key switches and stay put / turn to release buttons - 10 Other models - 60				
Mounting hole diameter, mm	22				
Operating temperature, °C	- 20 to + 40				

Table 2

Name	Features	Degree of protection	Color	Net weight, kg	Rated voltage, V
Pilot light BV	Metal housing. Cylindrical light lens. Can be taken apart.	IP54	Green, Red, Yellow, Blue	0,105	24; 230
LED Pilot light AD16-22HS	Plastic housing. Flat light lens. One-piece housing	IP54; IP65	White, Green, Red, Yellow	0,027	24; 230
Neon light	Neon light	-	White	0,003	24; 230; 400

Table 2 continued

<b>Name</b>	<b>Features</b>	<b>Degree of protection</b>	<b>Color</b>	<b>Net weight, kg</b>	<b>Rated voltage, V</b>
Auxiliary contact XB-2 NC red EKF	Normally closed	-	red	0,012	230
Auxiliary contact XB-2 NO green EKF	Normally open	-	green	0,012	230
Selector switch head BD	2P, short handle, modular case, NO, non-illuminated 3P, short handle, modular case, 2NO, non-illuminated	IP40; IP65	Black and white	0,108	230
Illuminated selector switch head BD	2P, short handle, modular case, NO. 3P, short handle, modular case, 2NO	IP40; IP65	green, red, yellow, blue	0,12	24; 230
Key selector switch head BG	2P, key switch, spring return/ no return, NO, non-illuminated, can be taken apart. 3P, key switch, spring return/no return, 2NO, non-illuminated, can be taken apart.	IP40	Black and white	0,108	230
Selector switch head BJ	2P/3P, long handle NO/2NO, non-illuminated, can be taken apart	IP40	Black and white	0,108	230
Selector switch head SW2C	2P/3P, NO+NC/2NO, single-piece, non-illuminated	IP 54	Black and white	0,025	230
Mushroom head push button BC42	Turn to release, can be taken apart, NC, non-illuminated	IP40	Red	0,108	230



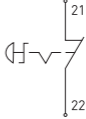
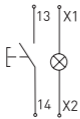
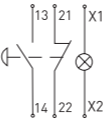

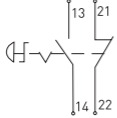
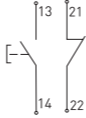

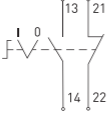
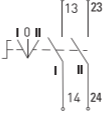

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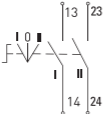
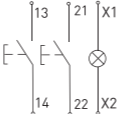
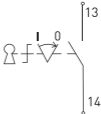
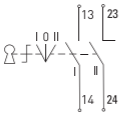
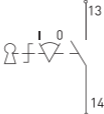
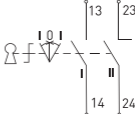
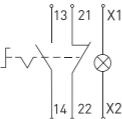
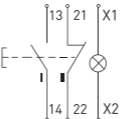
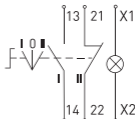



<b>Name</b>	<b>Features</b>	<b>Degree of protection</b>	<b>Color</b>	<b>Net weight, kg</b>	<b>Rated voltage, V</b>
Mushroom head push button BS542	Turn to release, can be taken apart, NC, non-illuminated	IP40; IP65	Red	0,108	230
Illuminated push button SW2C-MD	Turn to release, can be taken apart, NO+NC, non-illuminated	IP54	Red Green	0,025	230
Illuminated push button SW2C-MD	Spring return, one-piece, NO+NC, illuminated (neon light)	IP 54	Red Green	0,025	230
Push button SW2C-11S	Spring return, one-piece, NO+NC, non-illuminated	IP54	Yellow Green Red Blue Black	0,020	230
Push button SW2C-11F	Stay put, one piece, NO+NC, non-illuminated	IP54	Yellow Green Red Blue Black	0,020	230
Push button BA	Spring return, can be taken apart, NO, NC, non-illuminated	IP40; IP65	Yellow Green Red Blue	0,105	230
Illuminated push button BA	Spring return, can be taken apart, NO, NC	IP40; IP65	Yellow Green Red Blue	0,12	24; 230
Illuminated push button LA32HND	Spring return, oval, can be taken apart, NO+NC, illuminated [LED]	IP40	Red and green	0,079	24; 230
Buzzer ED16-22	Plastic housing, one-piece	-	Red, Green	0,03	24; 230

Table 2 continued

<b>Name</b>	<b>Features</b>	<b>Degree of protection</b>	<b>Color</b>	<b>Net weight, kg</b>	<b>Rated voltage, V</b>
Voltage indicator pilot light ED16-22	Plastic housing, one-piece	IP54	Yellow, Green, Red	0,03	70-500
LED Pilot light	LED	-	White	0,003	230; 24
LED Pilot light AD16-16HS	Plastic housing, flat lens, 16 mm	IP54	Yellow, Green, Red, White	0,027	230
Push button LAY5-BW8465	Spring return, illuminated, rectangular, one-piece	IP40	Red and green	0,13	230

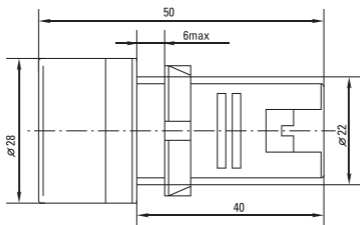
## Wiring diagrams

AD16-22HS, BV, BA9S, AC16-16, ED16-22VD	SW2C-11	BS542
		
SW2C-10D	SW2C-MD	AEA-22
		
SW2C-11MZ	BA	BC42
		
SW2C-11X/2	SW2C-20X/3	BJ21 2P, BD21 2P
		

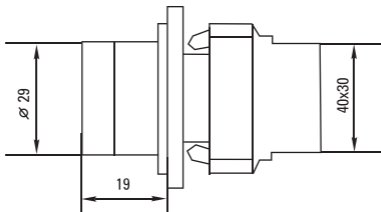
<b>BJ33 3P, BD33 3P</b>	<b>LA32HN, LAY5-BW8465, BA illuminated</b>	<b>BG21 2P</b>
		
<b>BG33 3P</b>	<b>BG61 2P</b>	<b>BG73 3P</b>
		
<b>BJ illuminated 2P, BD illuminated 2P</b>	<b>BA illuminated</b>	<b>BJ illuminated 3P, BD illuminated 3P</b>
		
<b>Aux. contact XB-2 NC red and aux. contact NC burgundy</b>	<b>Aux. contact XB-2 NO green and aux. contact NO black</b>	<b>CD16-22BM</b>
		

### 3 OVERALL DIMENSIONS

AD16-22HS, ED16-22

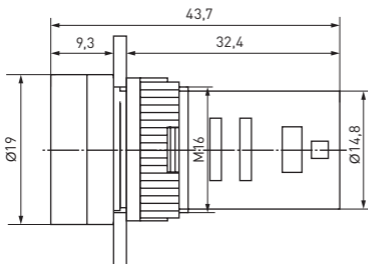


Pilot light BV

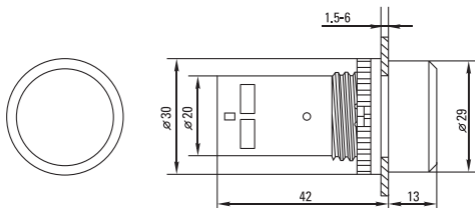




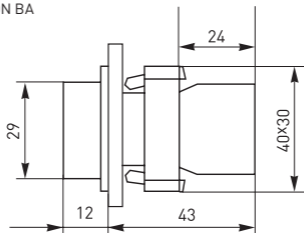
## LED PILOT LIGHT AD16-16HS



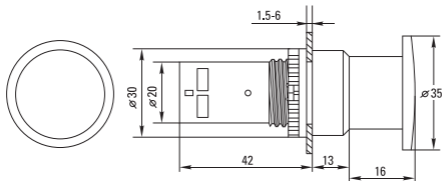
## PUSH BUTTONS SW2C-11, SW2C-10D



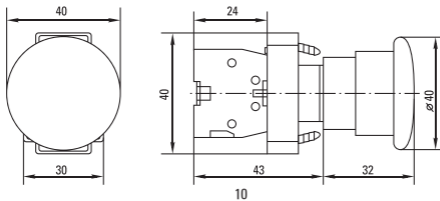
PUSH BUTTON BA



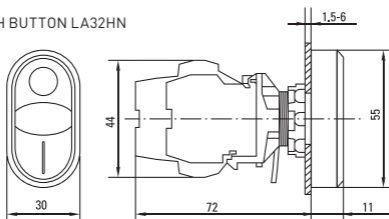
PUSH BUTTONS SW2C-MD, SW2C-11MZ



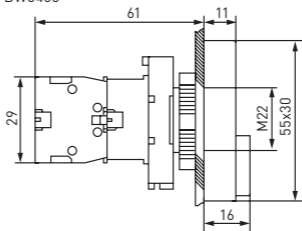
PUSH BUTTONS BS542, BC42



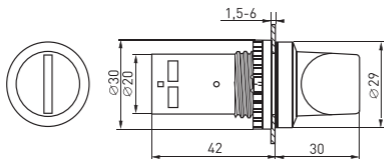
PUSH BUTTON LA32HN



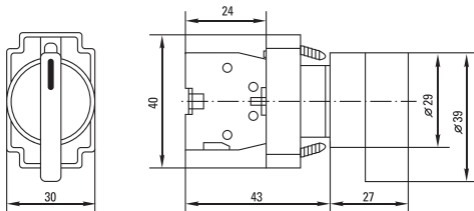
PUSH BUTTON BW8465



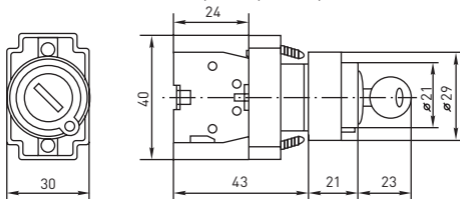
SELECTOR SWITCHES SW2C-11X/2, SW2C-20X/3



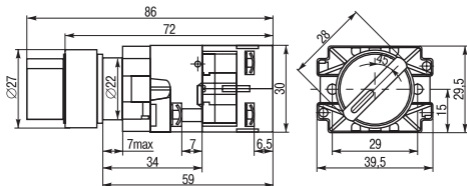
SELECTOR SWITCHES BJ21 2P, BJ33 3P, BD21 2P, BD33 3P



SELECTOR SWITCHES BG21 2P, BG3 3P, BG61 2P, BG73 3P



SELECTOR SWITCHES BD ILLUMINATED



## SELECTOR SWITCHES BA ILLUMINATED

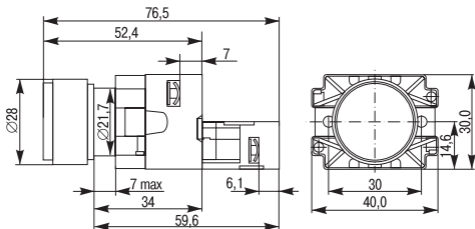


Table 3

Characteristics	Dimensions, mm		
	A	B	H
XB-2 NC Red	40	15	24
XB-2 NO Green	40	15	24

### 4 DELIVERY SCOPE

Pilot lights, push buttons and selector switches are supplied in a group package. For all available documentation, scan the QR-code on the insert or on the inside of the package.

### 5 STORAGE AND TRANSPORTATION

Pilot lights, push buttons and selector switches can be transported by any means of enclosed transport that protects the packaged goods from mechanical impact and weather exposure.

Pilot lights, push buttons and selector switches shall be stored indoors in their original packaging at the ambient temperatures from -40°C to +50°C and relative humidity of max. 70%.

## **6 DISPOSAL**

Life-expired and failed pilot lights, push buttons and selector switches shall be disposed of in compliance with the effective national and local laws and regulations.

To dispose of the product, send it to an authorized company for recycling in compliance with the effective national and local laws and regulations.

## **7 MANUFACTURER'S WARRANTY**

Warranty period: 7 years from the date of sale specified in the sales receipt.

Shelf life: 7 years from the date of manufacture specified on the product package or housing.

Service life: 10 years.

### **Importer and EKF trademark service representative:**

EKF ELECTRICAL SOLUTION – FZCO, Dubai Silicon Oasis, DDP, Building A2, Dubai, United Arab Emirates.

### **Importer and EKF trademark service representative on the territory of the Russian Federation:**

000 «Electroresheniya», Otradnaya st., 2b bld. 9, 5th floor, 127273, Moscow, Russia. Tel.: +7 (495) 788-88-15.

### **Importer and EKF trademark service representative on the territory of the Republic of Kazakhstan:**

T00 «Energoresheniya Kazakhstan», Kazakhstan, Almaty, Bostandyk district, Turgut Ozal st., 247, apt 4.

## 8 CERTIFICATE OF ACCEPTANCE

Pilot lights, push buttons and selector switches specified herein comply with the requirements of IEC 60947-5-1-2014 and have been approved for operation.

Date of manufacture:

For information, refer to the product package.

Technical control stamp



EAC



v3

[ekfgroup.com](http://ekfgroup.com)

EKF