

# Series 14

22.5mm 30.5mm IP67 5A 250VAC



Choose one component from each of the coloured sections to assemble a complete switch. For other options or further information please contact your local sales office.

## Product Profile

The Series 14 is a high quality switch range that includes pushbuttons, indicators, mushroom headed switches, selector switches and 2 position key switches.

Options include self cleaning, snap-action or low level switching elements.

Technical data see page 41

- IP67 Protection
- Switch Rating:  
Maximum Voltage, 250VAC  
Maximum Thermal Current, I<sub>th</sub> = 5A  
24VDC/2A, 250VAC/2A
- Raised Mounting into 22.5 mm cut out
- Flush Mounting into 30.5 mm cut out
- Illumination using T5.5 Lamps or LED's
- All standard lenses are transparent with translucent diffuser
- Solder, plug-in or PCB connections

## Indicator



Indicator body round for raised full face, black plastic, 22.5 mm mounting

Part No.  
14-030.005



Indicator body for raised and flush mount, black plastic

Part No.  
14-040.005

For flush mount order bezel 704.955.1

For complete switch also order **A**

For complete switch also order **A**

## Illuminated pushbutton



Illuminated pushbutton actuator for raised and flush mount, black plastic, solder terminal, snap-action

Part No.	Function	Contact type
14-131.0252	Momentary	1NO/1NC
14-132.0252	Momentary	2NO/2NC
14-271.0252	Maintained	1NO/1NC
14-272.0252	Maintained	2NO/2NC

For flush mount order bezel 704.955.1

For complete switch also order **A**



Illuminated pushbutton actuator for raised and flush mount, black plastic, solder or plug-in terminal, snap-action

Part No.	Function	Contact type
14-131.022	Momentary	1NO/1NC
14-271.022	Maintained	1NO/1NC

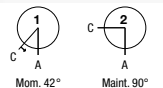
For flush mount order bezel 704.955.1

For complete switch also order **A**

## Keylock switch



Keylock switch, 2 position, raised

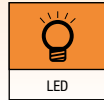


Graphic	Part No.	Function	Key out.
1	14-141.025K2	Momentary	A
2	14-235.025K2	Maintained	A

For flush mount order bezel 704.955.1

For complete switch also order **A**

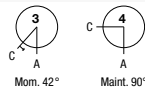
Choose one component from each of the coloured sections to assemble a complete switch.  
For other options or further information please contact your local sales office.



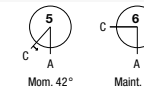
**Selector switch** **Buzzer**



Selector switch short lever 2 position, raised, snap-action



Selector switch long lever 2 position, raised, snap-action



Buzzer, raised, 22.5 mm mounting, IP65, 24VDC, 95dB ±8 at a distance of 0.1m

Graphic	Part No.	Function	Contact type	Graphic	Part No.	Function	Contact type	Part No.	Front finish
3	14-501.0252	Momentary	1NC/1NO	4	14-551.0252	Momentary	1NO/1NC	14-810.002	Black plastic
4	14-506.0252	Maintained	1NC/1NO	5	14-556.0252	Maintained	1NO/1NC	14-810.902	Nickel-plated brass
For flush mount order bezel 704.955.1									

For complete switch also order **A**

For complete switch also order **A**

**Buzzer** **LED**



Buzzer, flush mount, 30.5 mm mounting, IP40, 24VDC, 95dB ±8 at a distance of 0.1m



LED, T5.5, single chip, 6 Volt and 12 Volt



LED, T5.5, single chip, 24 Volt and 28 Volt

Part No.	Front finish	Colour	Part No.	Voltage	Colour	Part No.	Voltage
14-810.910	Black aluminium	Red	10-2106.3142	6VDC/15mA	Red	10-2112.1062	24VAC/DC, 7/14mA
14-810.918	Natur aluminium	Yellow	10-2106.3144	6VDC/15mA	Yellow	10-2112.1064	24VAC/DC, 7/14mA
		Green	10-2106.3145	6VDC/15mA	Green	10-2112.1065	24VAC/DC, 7/14mA
		Blue	10-2106.3146	6VDC/15mA	Blue	10-2112.1066	24VAC/DC, 7/14mA
		White	10-2106.3149	6VDC/15mA	White	10-2112.1069	24VAC/DC, 7/14mA
		Red	10-2109.1062	12VAC/DC, 7/14mA	Red	10-2113.1062	28VAC/DC, 7/14mA
		Yellow	10-2109.1064	12VAC/DC, 7/14mA	Yellow	10-2113.1064	28VAC/DC, 7/14mA
		Green	10-2109.1065	12VAC/DC, 7/14mA	Green	10-2113.1065	28VAC/DC, 7/14mA
		Blue	10-2109.1066	12VAC/DC, 7/14mA	Blue	10-2113.1066	28VAC/DC, 7/14mA
		White	10-2109.1069	12VAC/DC, 7/14mA	White	10-2113.1069	28VAC/DC, 7/14mA



Choose one component from each of the coloured sections to assemble a complete switch.  
For other options or further information please contact your local sales office.

## LED



LED, T5.5, single chip, 48 Volt

Colour	Part No.	Voltage
● Red	10-2119.1042	48VAC/DC, 4/8mA
● Yellow	10-2119.1044	48VAC/DC, 4/8mA
● Green	10-2119.1045	48VAC/DC, 4/8mA
● Blue	10-2119.1046	48VAC/DC, 4/8mA
○ White	10-2119.1049	48VAC/DC, 4/8mA
For complete lens also order diffuser 704.608.9 (see page 39)		

## A Accessories



Lens, plastic for raised, round indicator body, full face

Colour	Part No.
● Red	704.603.2
● Yellow	704.603.4
● Green	704.603.5
● Blue	704.603.6
○ Clear	704.603.7
For complete lens also order diffuser 704.608.9 (see page 39)	



Lens cap, round, transparent, plastic for raised and flush indicators with bezel and pushbutton actuators

Colour	Part No.
● Red	704.602.2
● Yellow	704.602.4
● Green	704.602.5
● Blue	704.602.6
○ Clear	704.602.7
● Black	704.602.0
For complete lens also order diffuser 704.609.9 (see page 39)	

## A Accessories



Lens cap raised, transparent, plastic for raised and flush mount pushbutton actuators

Colour	Part No.
● Red	704.611.2
● Yellow	704.611.4
● Green	704.611.5
● Blue	704.611.6
○ Clear	704.611.7
For complete lens also order diffuser 704.610.9 (see page 39)	



Lens cap, aluminium anodised for raised and flush mount pushbutton actuators

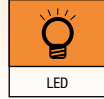
Colour	Part No.	Comment
● Red	704.601.2	
● Yellow	704.601.5	
● Blue	704.601.6	
○ Silver	704.601.8	
○ Silver	704.601.81	Illuminated central dot
● Black	704.601.0	
● Black	704.601.01	Illuminated central dot
	704.601.9	Stainless steel
For complete lens also order diffuser 704.610.9 (see page 39)		



Bezel, raised and flush mount

Image	Part No.	Product description
1	704.600.1	Aluminium natural, raised
2	704.600.0	Plastic black, raised
2	704.600.6	Plastic grey raised
3	704.955.0	Aluminium black flush
3	704.955.1	Aluminium natural flush
3	704.955.9	Stainless steel, flush

Choose one component from each of the coloured sections to assemble a complete switch.  
For other options or further information please contact your local sales office.



**A Accessories**



Protective cover, raised pushbutton



1  
2


Protective front ring with silicon membrane for raised or flush mount pushbutton



Blanking plate


Part No.	Image	Part No.	Size	Part No.	Size
704.925.0	1	704.600.3	29 mm Ø for raised pushbutton	704.960.7	22.5 mm Ø
	2	704.955.3	35 mm Ø for flush mount pushbutton	704.964.8	30.5 mm Ø

**A Accessories**




1  
2

LED and lens remover



1  
2  
3

Diffuser for raised indicator, diffuser for flat lens indicator and pushbutton, diffuser for raised pushbutton



1  
2

Marking plate selfadhesive, aluminium black, for raised and flush mount push buttons

Image	Part No.	Product description	Image	Part No.	Product description	Image	Part No.	Size	Colour
1	61-9740.0	LED remover	1	704.608.9	Diffuser for raised indicator	1	704.968.2	22.5 mm Ø	Black
2	700.006.0	Lens remover	2	704.609.9	Diffuser for flat lens	2	704.968.3	30.5 mm Ø	Black
			3	704.610.9	Diffuser for raised illum. pushbutton				

# Series 14

22.5mm 30.5mm IP67 5A 250VAC



Choose one component from each of the coloured sections to assemble a complete switch.  
For other options or further information please contact your local sales office.

## A Accessories



Engraving Label for Marking plate, selfadhesive, natural anodised or black aluminium

Image	Part No.	Size	Colour
1	704.968.0	23.5x14.5mm	Aluminium
2	704.968.1	23.5x14.5mm	Black

## Actuator with snap-action switching element

### Switching system

Self-cleaning, double-break, snap action switching system (with contact gap 2x0.5mm).

1 normally closed or 1 normally open contact per element.

Snap-action switching elements with soldering terminals at the sides: up to 4 switching element can be on a pushbutton (max. 4 normally closed and 4 normally open contacts).

Snap-action switching element with axial plug-in terminals 2.8mm stackable, only 1 switching element can be on a pushbutton.

### Material

#### Material of contact

Gold plated silver

#### Switch housing

Plug-in-/soldering terminal

Diallylphthalate DAP, Polyamide 66, Polysulfone, heat-resistant and self-extinguishing

Soldering terminal: PA 6.6 Ultramide

#### Actuator housing

Polyamide

### Mechanical characteristics

#### Terminals

Snap-action switching element with tinned soldering terminals at the sides:

Max. wire diameter 2 wires à 1.2mm

max. wire cross-section of stranded cable 1 x 1 mm<sup>2</sup>

Snap-action switching element with axial plug-in terminals, which can also be used as soldering terminals: Plug-in terminal 2.8x0.5mm

Soldering terminal:

Max. wire diameter 2 wires of 1mm

Max. wire cross-section of stranded cable 2x0.75mm<sup>2</sup> or 1x1.0mm<sup>2</sup>

#### Actuating torque

Measured at the key or lever of the keylock- or selector switch 2.5Ncm ... 5.5Ncm, depending on the number of switching elements

#### Actuating force

Maintain 5 ... 7.8N, depending on the number of switching elements

Momentary 3.2 ... 6N, depending on the number of switching elements

#### Actuating travel

Illuminated pushbutton: 3mm

Switch actuator 2 positions:

Momentary action 1 x ca. 42° deflection momentary action

Maintained action 1 x ca. 90° deflection maintained action

#### Rebound time

≤5ms

#### Mechanical lifetime

Momentary action 2 million Cycles of operation

Maintained action 1 million Cycles of operation

### Electrical characteristics

#### Standards

The devices comply with: EN IEC 61058-1

#### Rated voltage

250VAC/DC as per EN IEC 61058-15

#### Contact resistance

New state ≤50mΩ as per DIN IEC 60512-2-4

#### Electrostatic discharge

Keylock switch 15kV

#### Rated current

5A

#### Conventional free air thermal current I<sub>th</sub>

5A

The maximum current in continuous operation and at ambient temperature not exceeding the quoted maximum values.

#### Switch rating

250VAC, 5A (cosφ 1)

250VAC, 3A (cosφ 0.3)

Switch rating AC (cosφ 0.7)

Voltage	125VAC	250VAC
---------	--------	--------

Current	3A	2A
---------	----	----

Switch rating DC (inductive) L:R = 30ms

Voltage	24VDC	60VDC	110VDC	220VDC
---------	-------	-------	--------	--------

Current	2A	0.7A	0.2A	0.1A
---------	----	------	------	------

#### Electric strength

3000VAC, 50Hz, 1min. between all terminals and earth, as per EN IEC 61058-1-15

#### Isolation resistance

>7MΩ between the open contacts at 500VDC, as per EN IEC 61058-1-15 (reinforced insulation)

#### Protection class

Class II

### Environmental conditions

#### Storage temperature

-40°C ... +85°C

#### Service temperature

-25°C ... +55°C

For indicators and illuminated pushbuttons mounted as a block, make sure the heat can escape freely.

#### Protection degree

as per EN IEC 60529

front side IP67

#### Shock resistance

(semi-sinusoidal)

max. 150m/s<sup>2</sup>, pulse width 11ms, 3-axis, as per EN IEC 60068-2-27

#### Vibration resistance

(sinusoidal)

max. 100m/s<sup>2</sup> at 10Hz ... 500Hz, as per EN IEC 60068-2-6

#### Climate resistance

Damp heat state as per EN IEC 60068-2-30

Damp heat cyclic as per EN IEC 60068-2-78

## Approvals

### Approbations

CB (IEC 61058)  
CSA  
ENEC (EN 61058)  
Germanischer Lloyd  
UL

### Declaration of conformity

CE

## Buzzer

---

### Buzzer system

#### System

Piezo disc

### Material

#### Alarm buzzer case

Polyamide

#### Front cap

Plastic Polyamide

Metal Nickel-plated brass (sea-water proof)

### Mechanical characteristics

#### Terminals

Plug-in terminal 2.8x0.5mm

## Electrical characteristics

### Frequency (tone)

approx. 2.8kHz continuous tone only

### Sound pressure

95 db (A)  $\pm 8$  dB at a distance of 0.1 m

### Operation Voltage/Current

Operation Voltage	24VDC $\pm 10\%$
Operation Current	$\leq 25$ mA

## Environmental conditions

### Storage temperature

$-35^{\circ}\text{C} \dots +85^{\circ}\text{C}$

### Operating temperature

$-25^{\circ}\text{C} \dots +55^{\circ}\text{C}$

### Protection degree

as per EN IEC 60529, frontside

IP40, devices flush mounting

IP65, devices raised mounting

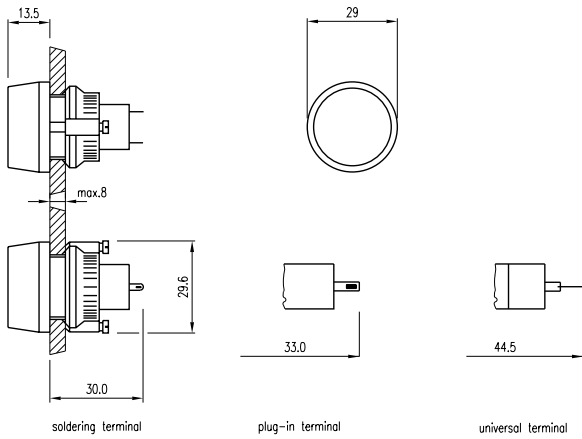
## Approvals

### Declaration of conformity

CE

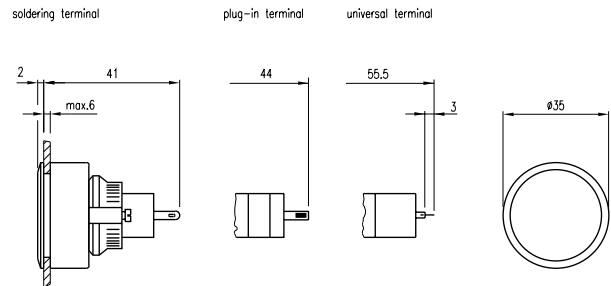
## 14 Indicator

Raised



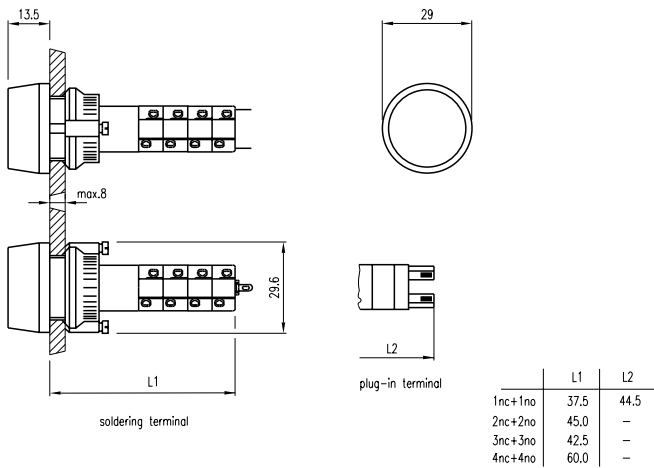
## 14 Indicator

Flush



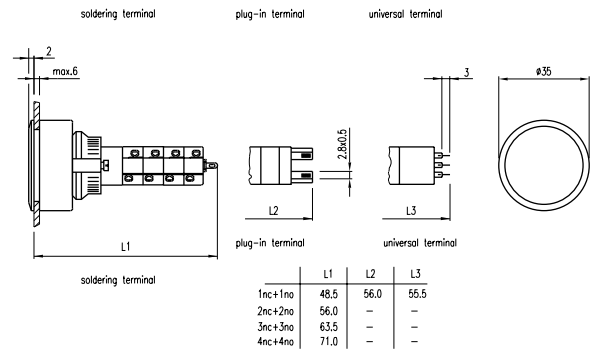
## 14 Illuminated pushbutton

Raised



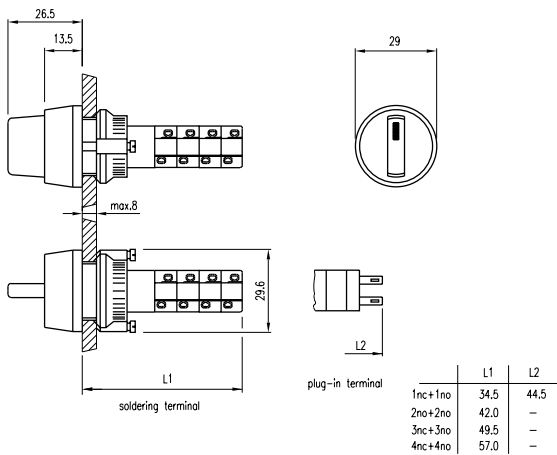
## 14 Illuminated pushbutton

Flush Solder



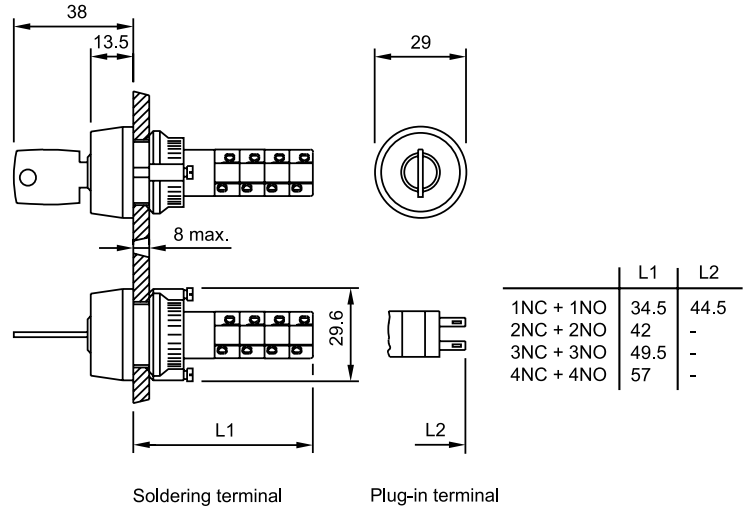
## 14 Selector switch

2-Position, Short Lever



## 14 Keylock switch

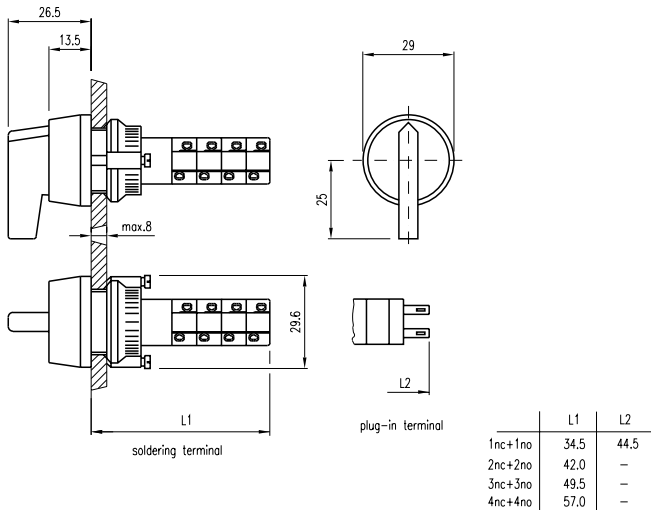
2-Position





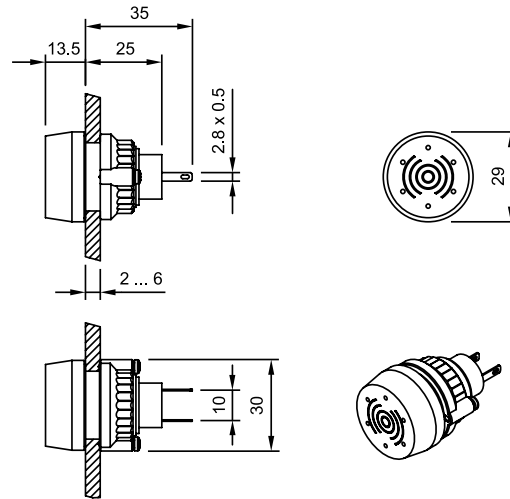
## 14 Selector switch

2-Position, Long Lever



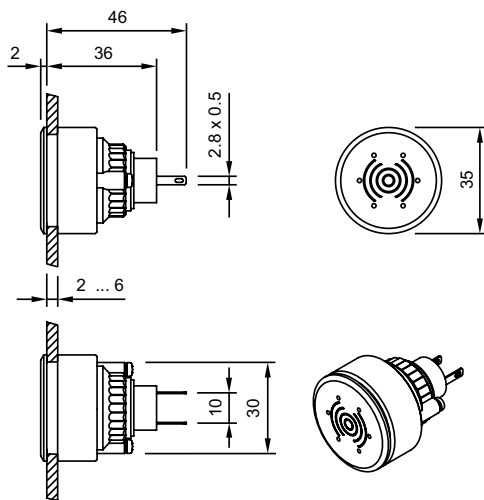
## 14 Buzzer

Raised



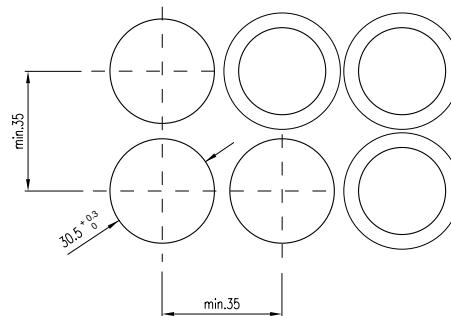
## 14 Buzzer

Flush



## 14 Cut-outs

Flush, Buzzer, Pushbutton, Indicator



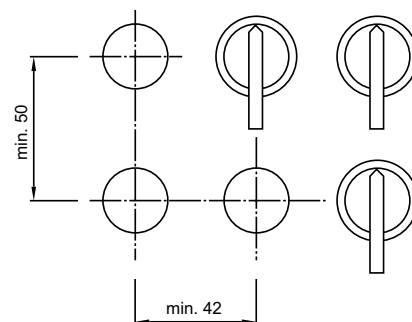
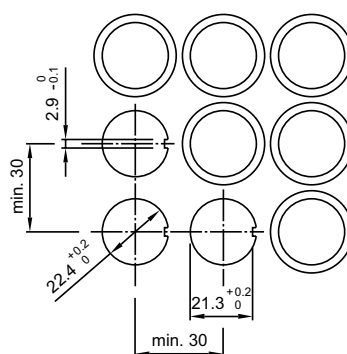
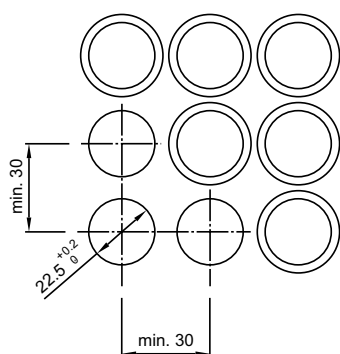
## 14 Cut-outs

Raised, Pushbuttons, Indicators, Keylocks, Selector

for devices  
without anti-twist device

for devices  
with anti-twist device (rotary)  
(recommended for keylock switch)

for devices  
Selector switch long lever





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.