Type DPL12 Series

Key Features

- 12mm rotary encoder
- Incremental type
- Push on switch option
- Various shaft lengths
- LED color options
- Detent options

Applications

- Power supplies
- Inverters
- Servo systems
- Electrical systems in difficult environments

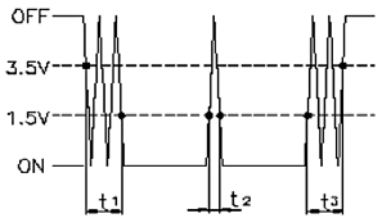


12mm rotary incremental encoder with LED for use in electronic equipment.

Can be supplied with or without switch with customization to standard options.

Characteristics - Electrical

Pulses:	24
Contact Rating:	0.5mA 5V DC
Dielectric Strength:	300VAC / 1mA, 1 minute
Insulation Resistance (min):	100MΩ at 250VAC
Operating Speed (RPM):	60 RPM
Switch Power Rating (where fitted):	5V DC 10mA
Switch Contact Resistance:	100mΩ max
Electrical Travel:	Continuous
Rotational Noise:	t2 = 2.0ms max (see below)
Chattering:	t1 & t3 = 3.0ms max (see below)



	Code Off area V = 3.5V or more. Code on area V=1.5V or less
LED	Switch - Dual color - see below for characteristics No Switch - Single color - see below for characteristics
Color options	No Switch - White, Red, Green, Blue Switch - 1: Blue/Green, 2: Blue/Orange, 3: Green/Red

Characteristics - Mechanical

Total Mechanical Travel:	Continuous
Detents:	0, 24
Switch Operating Force:	400+/- 200gf
Switch Travel:	0.5mm
Shaft Type:	F - Flatted, K - Knurled
Shaft Length (from Mounting Surface):	See chart below

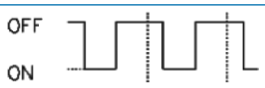
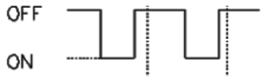
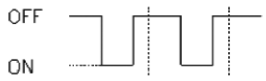
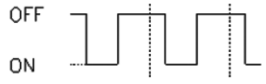
Characteristics - Environmental

Operating Temperature:	-40 to +85°C
Rotational Life:	30,000 cycles

Soldering Condition

Manual Soldering - Bit temperature 300°C or less Application time 3 seconds max.
Dip Soldering - Preheating - Surface temperature of board 100°C or less - preheating time < 1 minute
Soldering - Solder temperature 260 +/-5°C Immersion time 3 +/-1 second

Output Signal Format

Shaft Rotational Direction	Signal	Format
Clockwise	A (Terminal A-C)	
	B (Terminal B-C)	
Anticlockwise	A (Terminal A-C)	
	B (Terminal B-C)	

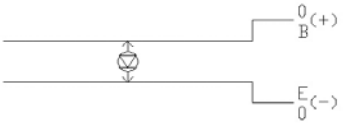
Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

Type DPL12 Series

LED Characteristics - Without Switch

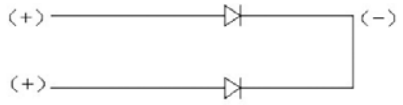
Reverse Current:	[IR] = 10uA
Reverse Voltage:	5V
Operating Temperature:	-40 to +85°C



Emitted Color	Power Dissipation	DC Forward Current	Forward Voltage	
			Typical	Max.
White	100mW	20mA	3.3V	4.0V
Blue	100mW	20mA	3.2V	4.0V
Red	58mW	25mA	1.8V	2.3V
Green	48mW	20mA	2.0V	2.4V

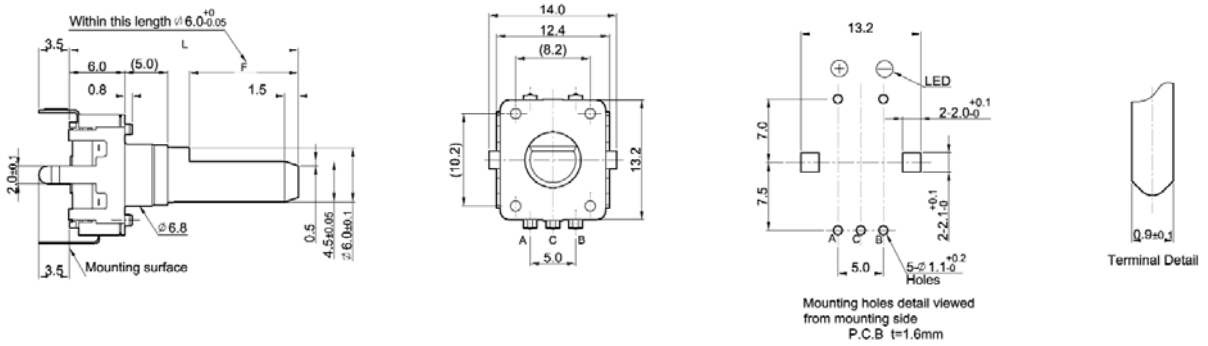
LED Characteristics - With Switch

Reverse Current:	[IR] = 10uA
Reverse Voltage:	5V
Operating Temperature:	-40 to +85°C

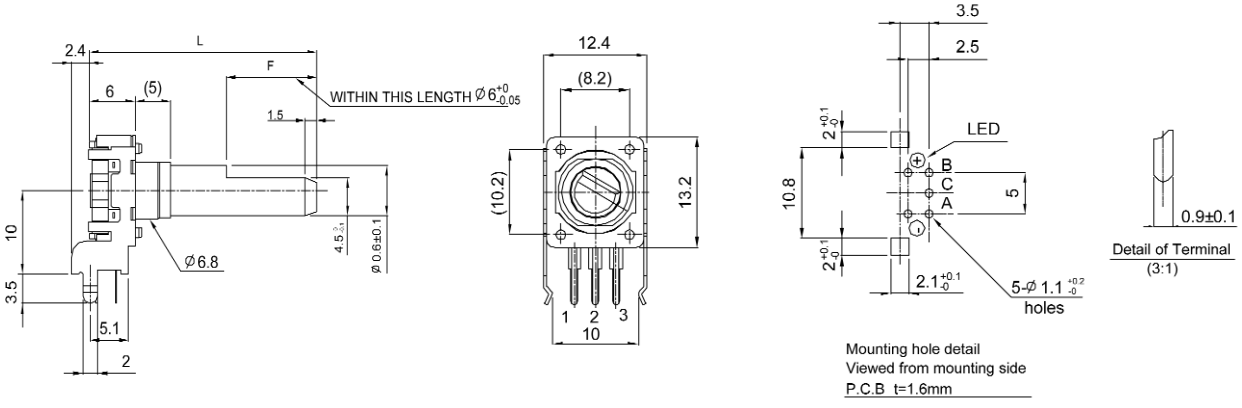


Emitted Color	Power Dissipation	DC Forward Current	Peak Forward Current	Forward Voltage	
				Typical	Max.
Red	170mW	30mA	185mA	1.95V	2.5V
Orange	75mW	30mA	195mA	2.1V	2.5V
Blue	105mW	30mA	150mA	3.3V	4.0V
Green	105mW	25mA	130mA	3.1V	3.8V

Dimensions - DPL12V



Dimensions - DPL12H

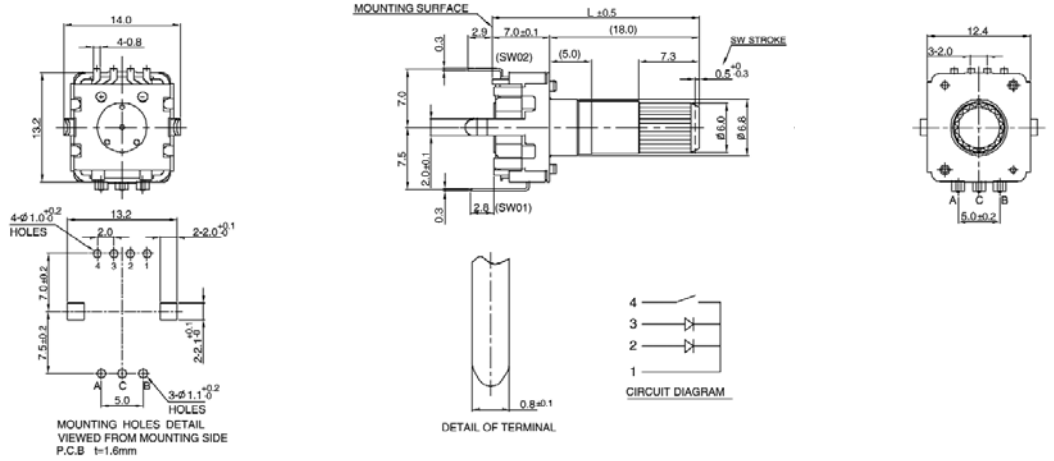


Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

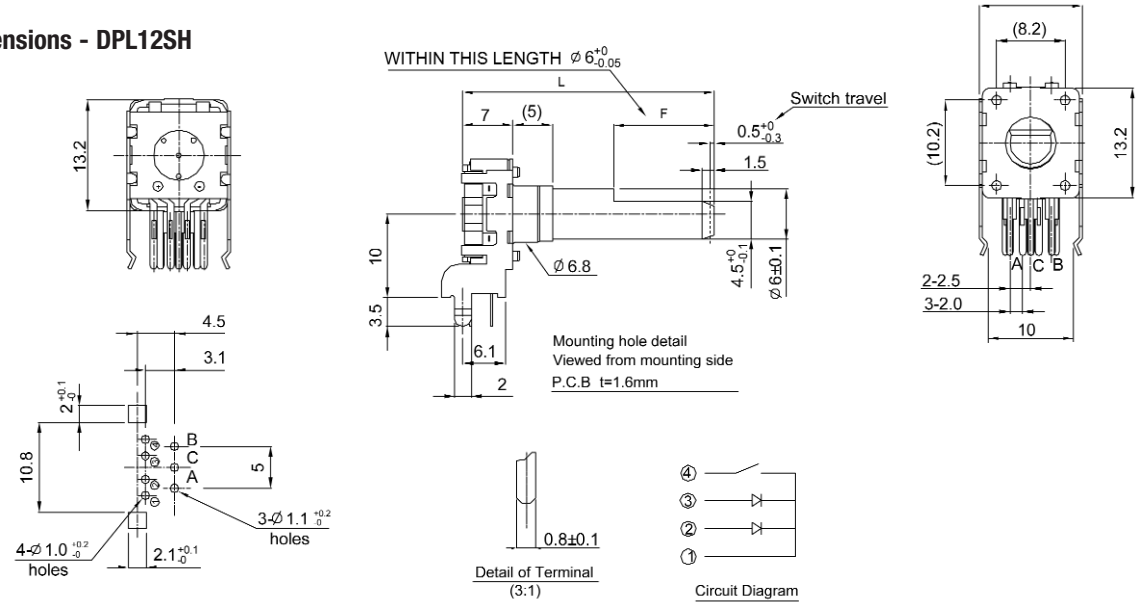
Dimensions are shown for reference purposes only. Specifications subject to change.

Type DPL12 Series

Dimensions - DPL12SV



Dimensions - DPL12SH



Shaft Length - Without Switch

Type	Dim	Options (mm)		
K	L (from mounting surface)	24 only		
F	L (from mounting surface)	17.5	20	25
	F	5	7	12

Shaft Length - With Switch

Type	Dim	Options (mm)		
K	L (from mounting surface)	25 only		
F	L (from mounting surface)	18.5	21	26
	F	5	7	12

LED Color Codes

Switch Option	Code	Description
Switch (Dual Color)	1	Blue / Green
	2	Blue / Orange
	3	Green / Red
No Switch (Single Color)	W	White
	R	Red
	G	Green
	B	Blue

How to Order

DPL12	V	N	24	A	20	F	R
Common Part	Orientation	Detent	Pulses	Bush Details	Shaft Length	Shaft Style	LED Color
DPL12 - no switch DPL12S - with switch	V - Vertical H - Horizontal	N - None 24 - 24 clicks	24 - 24 pulses	A - 5mm	See relevant table	F - Flatted K - Knurled	See relevant table

TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks.
Other logos, product and Company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this datasheet, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this datasheet are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

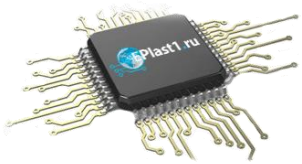
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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