



## 12 mm Rotary type Encoders



**ED1211S** - **24** - **24** **LC** - **20** **F**  
 ↓ Clicks    ↓ Pulses    ↓ Rotary Feeling    ↓ Shaft Length    ↓ Shaft Type

**Dimensions**

Available Clicks	0 clicks		12 clicks	24 clicks
Available Pulses	12 pulses	24 pulses	12 pulses	24 pulses

Rotary	LC	HC	LLC
Feeling	Standard feeling	Heavy feeling	Light feeling

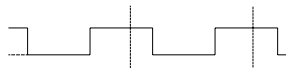



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### 1. Push-On Switch Specifications

Switch Circuit	Single Pole and Single Throw(push on)
Switch Travel (mm)	0.5 <sup>+0.4</sup> <sub>-0.3</sub> mm
Switch Operating Force	300 <sup>+200</sup> <sub>-100</sub> gf.
Switch Rating Power	DC 5V 10mA (minimum ratings :DC 5V 1mA)
Switch Contact Resistance	First ) : 100mΩ, 200 mΩ after the end of useful life is reached
Switch Push Life	20,000 Cycles (500 cycles/H ,shaft push load 1kgf. Max)

### 2. Electrical Characteristics 電氣特性

Power Rating	DC 5V 0.5mA
Insulation Resistance	More than 10 MΩ at DC 50V 1 Minute
Withstand Voltage	1 Minute at AC 50V
Sliding Noise	≤3mS(Test conditions:360°/S) Using the C/R filter circuit is Recommended
Resolution	<input type="checkbox"/> 12 <input type="checkbox"/> 18 <input type="checkbox"/> 24 Pulses/360°foreachphas
Phase Difference	ΔT=0.25±0.17T
Output Signal and Rotational Direction	<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p><b>A Signal</b></p> <p>OFF ON</p>  </div> <div> <p><b>C.W direction</b></p> <p><b>B Signal</b></p> <p>OFF ON</p>  </div> </div>
Working Temperature	- 1 0 °C ~ 7 0 °C
Storage Temperature	-40 °C ~ 85°C

### 3. Mechanical Characteristics

Total Rotational Angle	360 °
Rotational Torque	120 ± 30 gf.cm Shaft Rota table at-1 0 °C ~ 5 °C
Shaft Push-Pull Strength	<input type="checkbox"/> With switch 5.1 Kgf. <input type="checkbox"/> on without switch 10 Kgf.
Number and Position Detent	<input type="checkbox"/> 12 detents (Step angle:30°±3°) <input type="checkbox"/> 24 detents (Step angle:15°±3°)
Rotational Life	30,000 Cycles Min. at a speed of 600cycles/H
Resistance To soldering Heat	Manual Soldering: Less than 300°C and quicker than 3 seconds.

NOTE: When the products without switch, the above one items must be cancelled