

# EUROLINE - DC/DC-Converter

Rxxlxx-Series, 2 Watt, SIP4, Isolated (Single Output)

# RECOM

## Features

- Wide Temperature performance at full 2 Watt load, -40°C to 85°C
- Industry Standard Pinout
- 1kVDC Isolation
- Efficiency to 85%
- UL 94V-0 Package Material
- Internal SMD Construction
- MTTF up to 2.9 Million Hours



## Selection Guide 5V, 12V Input Types

Part Number	Nom. Input Voltage (VDC)	Rated Output Voltage (VDC)	Rated Output Current (mA)	Input Current at Rated Load (mA)	Efficiency (%)	Isolation Capacitance (pF)	Package Style
R05I05	5	5	400	513	78	19	SIP4
R05I09	5	9	222	492	81	27	
R05I12	5	12	167	479	84	32	
R05I15	5	15	133	481	83	27	
R12I05	12	5	400	207	81	28	
R12I09	12	9	222	198	84	42	
R12I12	12	12	167	197	85	46	
R12I15	12	15	133	197	85	54	

## Absolute Maximum Ratings

Input Voltage $V_{IN}$	05V types 12V types	7VDC 15VDC
Internal Power Dissipation		805mW
Lead Temperature		300°C

## Electrical Specifications (measured at $T_A = 25^\circ\text{C}$ , at nominal input voltage and rated output current unless otherwise specified)

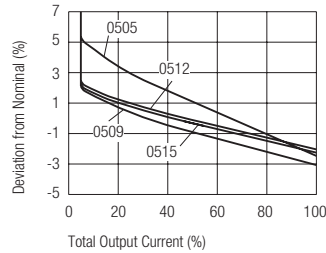
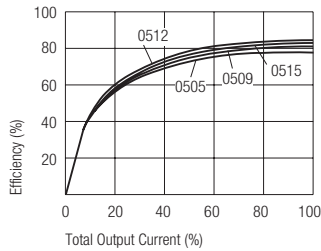
Input Voltage Range $V_{IN}$ (continuous operation)	5V types 12V types	4.5VDC min. / 5.5VDC max. 10.8VDC min. / 13.2VDC max.
Reflected Ripple Current (depending on the type)		23 mA p-p min. to 38 mA p-p max.
Voltage Set Point Accuracy		see Tolerance Envelope
Line Regulation (high $V_{IN}$ to low $V_{IN}$ )		1.0% min. / 1.2% max. of $V_{IN}$
Load regulation (depending on the type)		3.7% min. / 8.5% max.
Ripple and Noise (BW=DC to 20MHz) (depending on the type)		45mVp-p min. / 200mVp-p max.
Isolation Voltage (flash tested for 1 second)		1000VDC min.
Test Voltage (50Hz, 10 seconds)		1000 Vpk min.
Resistance (Viso = 500V)		10 G $\Omega$ min.
Switching Frequency		90kHz typ.
Package Weight	SIP types	2.0 g
Storage Temperature Range		-50°C to +130°C
Operating Temperature Range (all output types)		-40°C min. to +85°C max. (see graph)
Case Temperature Above Ambient (depending on the type)		+36°C min. / +45°C max.
MTTF <sup>1)</sup> (depending on the type)	-40°C +25°C +85°C	417kHrs min. / 3970kHrs max. 328kHrs min. / 2327kHrs max. 222kHrs min. / 934kHrs max.

<sup>1)</sup> Calculated using MIL-HDBK-217F with nominal input voltage at full load.

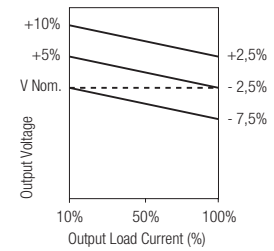
Please contact us, if you need exact parameters for the converter you have selected.

## Typical Characteristics, Tolerance Envelope and Derating Graph

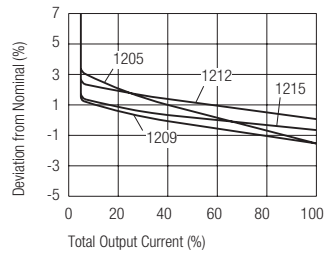
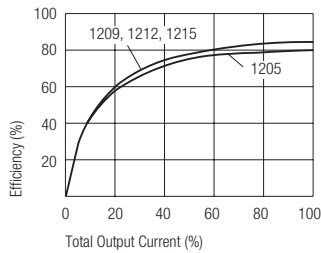
**R05lxx**



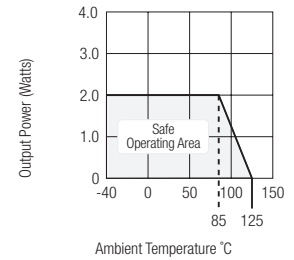
**Tolerance Envelope**



**R12lxx**

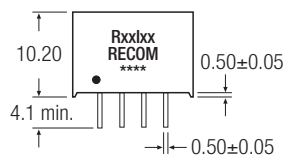
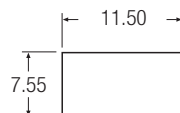
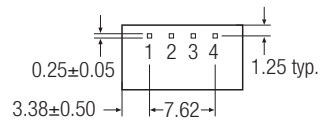
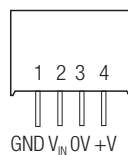


**Temper. Derating Graph**



## Package Style and Pinning (mm)

**4 Pin SIP Package Style**



**Recommended Footprint Details**

