



# DC/DC Converter SC 02 Series



- DC/DC unregulated converter modules
- SIL pinning
- Efficiency up to 86%
- 1s short circuit proof
- 1kVdc isolation voltage
- Low Cost
- UL 94V-0 package material
- Without Tantalum Capacitors inside

- DC/DC Wandler unreguliert
- SIL pinning
- Hoher Wirkungsgrad bis zu 86%
- 1s kurzschlussfest
- 1kVdc galvanische Trennung
- Preiswert
- UL 94V-0 Gehäusematerial und Vergussmasse
- Ohne interene Tantalkondensatoren

- Convertisseur DC/DC non régulé
- Brochage SIL
- Rendement élevé
- Résistant 1s au court-circuit
- Isolation galvanique 1kVdc
- Protection courts-circuits 1s
- Matériaux de boîtier et masse de remplissage conformes UL 94V-0
- Sans intérêt Tantalum Capacitors

## Product Range

## Typenübersicht

## Sommaire des types

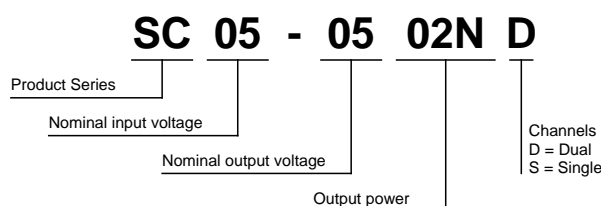
Model	Input		Input current @ Uin nom.		Uout	Output		Efficiency typ.
	nominal	range	full load	no load		lout max.	power	
<b>Single</b>								
SC05-0502NS	5VDC	4.5...5.5VDC	488mA	60mA	5.0VDC	400mA	2.0W	82%
SC05-1202NS	5VDC	4.5...5.5VDC	466mA	60mA	12VDC	167mA	2.0W	86%
SC05-1502NS	5VDC	4.5...5.5VDC	473mA	60mA	15VDC	134mA	2.0W	85%
SC12-0502NS	12VDC	10.8...13.2VDC	203mA	40mA	5.0VDC	400mA	2.0W	82%
SC12-1202NS	12VDC	10.8...13.2VDC	201mA	40mA	12VDC	167mA	2.0W	83%

SC12-1502NS	12VDC	10.8...13.2VDC	1900mA	40mA	15VDC	134mA	2.0W	84%
SC24-0502NS	24VDC	21.6...26.4VDC	105mA	20mA	5VDC	400mA	2.0W	79%
SC24-1202NS	24VDC	21.6...26.4VDC	103mA	20mA	12VDC	167mA	2.0W	81%
SC24-2402NS	24VDC	21.6...26.4VDC	102mA	20mA	15VDC	134mA	2.0W	82%
<b>Dual</b>								
SC05-0502ND	5VDC	4.5...5.5VDC	482mA	60mA	+5.0VDC -5.0VDC	+200mA -200mA	1.0W 1.0W	83%
SC05-1202ND	5VDC	4.5...5.5VDC	463mA	60mA	+12VDC -12VDC	+83mA -83mA	1.0W 1.0W	86%
SC05-1502ND	5VDC	4.5...5.5VDC	467mA	60mA	+15VDC -15VDC	+67mA -67mA	1.0W 1.0W	86%
SC12-0502ND	12VDC	10.8...13.2VDC	203mA	15mA	+5.0VDC -5.0VDC	+200mA -200mA	1.0W 1.0W	82%
SC12-1202ND	12VDC	10.8...13.2VDC	202mA	40mA	+12VDC -12VDC	+83mA -83mA	1.0W 1.0W	82%
SC12-1502ND	12VDC	10.8...13.2VDC	199mA	40mA	+15VDC -15VDC	+67mA -67mA	1.0W 1.0W	84%
SC24-0502ND	24VDC	21.6...26.4VDC	105mA	20mA	+5.0VDC -5.0VDC	+200mA -200mA	1.0W 1.0W	79%
SC24-1202ND	24VDC	21.6...26.4VDC	102mA	20mA	+12VDC -12VDC	+83mA -83mA	1.0W 1.0W	81%
SC24-1502ND	24VDC	21.6...26.4VDC	102mA	20mA	+15VDC -15VDC	+67mA -67mA	1.0W 1.0W	82%

Nomenclature

Nomenklatur

Nomenclature



Specifications

Spezifikationen

Specifications

All values refer to an ambient temperature of 25°C and nominal rated values where nothing else is specified.

#### Input Specifications

Characteristic		Conditions	min	typ	max	unit
$U_{IN}$	Input voltage		-10%	5 / 12 / 24	+10%	V
$U_{UVLO}$	Under voltage lockout					V
	Max. input current at full load		See	product	range	A
	No load input current		See	product	range	mA

#### Output Specifications

Characteristic		Conditions	min	typ	max	unit
$U_{ACC}$	Output voltage accuracy			±3		%
	Output voltage adjust					%
	Line regulation				±1.2	%
	Load regulation	25% / 100% step load change			±10	%
	Load transient recovery time					us
	Load transient error band					%

	Temperature coefficient			±0.05		%/K
	Ramp up time					ms
	Start up time					ms
	Ripple and noise	BW = 20MHz	150			mVpp
	Current limit					%
	Over voltage protection					%
	Short circuit protection					%
	Short circuit characteristic		Momentary 1sec.			

#### General Specifications

Characteristic		Conditions	min	typ	max	unit
U <sub>ISO</sub>	Isolation voltage	in/out, in/case, out/case	1000			V
R <sub>ISO</sub>	Isolation resistance		10G			Ohm
R <sub>ISO</sub>	Switching frequency		80			kHz
	Approvals					
	MTBF					h
	Case material		non-conductive black plastic			
	Compound material					
	PCB material					
	Weight		2.7			gr
	Dimensions		19.6x7.2x10.2			mm
	Soldering infos		275°C for 10			s

#### EMC Specifications

Characteristic		Conditions	min	typ	max	unit
	EMC conducted	See EMC information				

#### Environmental Specifications

Characteristic		Conditions	min	typ	max	unit
T <sub>CASE</sub>	Operation temperature		-40...+85			°C
T <sub>AMB</sub>	Storage temperature		-55...+125			°C
T <sub>SD</sub>	Thermal shutdown range					°C

Own notes

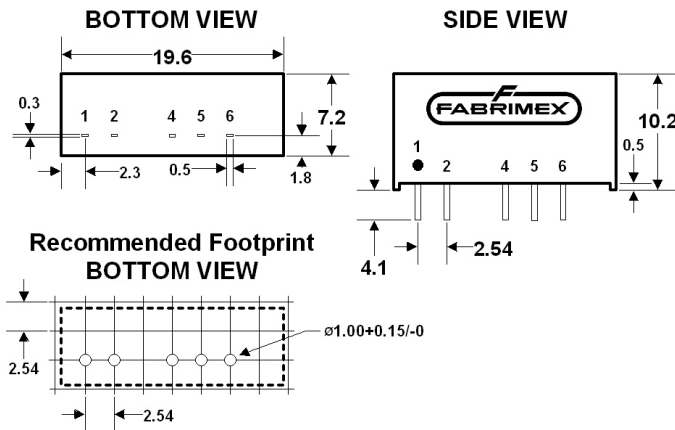
Eigene Notizen

Vos notices

No EMC graph available yet, please contact factory

No EMC filter available yet, please contact factory

Normal tolerance 1/10  $\pm 0.5$  mm, 1/100  $\pm 0.25$  mm; Pin tolerance  $\pm 0.5$  mm diameter, NP = No pin, NC = Not connected



Pin	Single	Dual	Pin
1	+Vi	+Vi	1
2	-Vi	-Vi	2
4	-Vo	-Vo	4
5	NP	Com	5
6	+Vo	+Vo	6

## Cleaning

## Waschen

## Lavage

The modules are cleanable with the today's known and in the electronics industry usually used products. Due to the different cleaning processes and new available products, we highly recommend to do a compatibility test when using the converters the first time.

Die Module sind waschbar mit den heute bekannten und in der Elektronikindustrie üblichen Reinigungsmitteln. Bedingt durch die verschiedenen Reinigungsprozesse und neu auf den Markt kommende Mittel, raten wir dringend beim Ersteinsatz der Konverter eine Verträglichkeitsprüfung vorzunehmen.

Les modules sont lavables avec les solvants couramment utilisés dans l'industrie électronique. Dû aux différents processus de lavage et aux nouveaux détergents disponibles sur le marché, il est strictement recommandé de faire un test de compatibilité avant la première utilisation.

## Own notes

## Eigene Notizen

## Vos notices

Notice: All statements, technical information, and recommendations related to FABRIMEX's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use.

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