

# SINA<sup>®</sup> L3 Box S R

## Ruggedized VPN Gateway



### Benefits:

- » Rugged
- » Enhanced temperature range
- » Horizontal and vertical DIN rail possible
- » Highly reliable
- » IPv6 and QoS
- » Easy to manage
- » German National (VS-NfD)  
NATO RESTRICTED  
RESTREINT UE

As a VPN gateway, the SINA L3 Box is a key component of the central IT infrastructure in networks requiring high security. The data exchanged between the SINA components is securely transmitted via encrypted VPN tunnels. SINA L3 Boxes are connecting public authority or corporate networks via the Internet. The design is optimized for usage in harsh environments like industrial networks, machinery control systems and vehicles.

With an encryption performance level of up to 50 Mbit/s, the SINA L3 Box S R 50M-2 enhances the previous SINA L3 Box S product range with models that can be operated in harsh usage environments. The VPN gateway is based on a design that is both compact and ruggedized.

#### Ruggedness

The SINA L3 Box S R 50M-2 is manufactured in accordance with protection types IP40 and IP67 as standard. This means that devices with the protection type IP40 are protected against 1 mm-sized foreign bodies. Furthermore they are shock and vibration resistant. Devices with the protection type IP67, which are available in olive and sand-coloured, are providing full dust and damp resistance as well as temporary immersion resistance.

Thanks to the extended temperature ranges of  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  (operating) the SINA L3 Box S R can be used in harsh environment.

#### IT security concept

The SINA L3 Box S R is based on a holistic IT security concept. It comprises the following:

- an annealed, tested SINA OS system platform
- smartcard technology
- IPsec-based Virtual Private Network and
- software configured according to approval.

#### Secure system start and operation

The SINA L3 Box S R software is initialized by a flash memory during system start. All the initial configuration data and security associations are stored in a protected area of the SINA Smart Card. Once the SINA L3 Box is started, a security associations with the SINA Management and the primary communications-related SINA L3 Boxes are set up as IPsec VPN tunnels. All additional security associations or configuration data will be provided by SINA Management.

The remote SINA Management functionality greatly simplifies configuration, installation and hardware replacement and allows instant out of area usage. The SINA L3 Boxes S R can be operated using several thousand security associations.

**High availability**

It is possible to increase the availability and reliability of SINA L3 Boxes by means of redundant configurations. This means for example that, in hot standby mode, an automatic switchover trigger activates the redundant SINA L3 Box to ensure full networking capability in case of hardware failure.

Furthermore SINA L3 Boxes also support georedundant and load distribution configurations. With georedundant scenarios, alternative communication paths can be prioritised and run via SINA L3 Boxes that are positioned in different locations. With specific load distribution configurations, the SINA L3 Boxes interact with conventional load balancers.

**IPv6**

The SINA L3 Box S R supports IPv6 and is fully compatible with IPv4, allowing flexible operations in a future-proof in scope. This model is therefore future-proof in scope from a technical network perspective.

**Quality of Service**

With software version 3.7 traffic classes (such as the Internet, VoIP telephony, video conferencing and data traffic) can be used or forwarded within SINA. It is especially worth noting that different traffic classes can be transmitted within **a single VPN tunnel**.


**Satellite communication**

Use of SINA L3 Boxes requires IP-enabled transport networks, including satellite communication lines. The available bandwidth of the satellite lines is used effectively in combination with satellite optimisers.

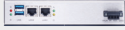

**Systems monitoring**

The SINA L3 Boxes log all data related to monitoring during operation. This can be imported into network management systems where it can be processed and/or displayed as required. In addition, the SINA L3 Box S R supports the SNMP v2c management protocol.

**Approval-related construction classes**

 <b>SINA L3 Box S R 50M-2</b>	
Approval	German National (VS-NfD), RESTRICTED, NATO RESTRICTED, RESTREINT UE
Software version	3.7.4
Authentication token	SINA Smart Card

**Additional details and performance data**

	<b>SINA L3 Box S R 50M-2 IP40</b> 	<b>SINA L3 Box S R 50M-2 IP67</b> 
<b>General technical data</b>		
Dimensions (W x H x D)	169 x 33.5 x 127 mm	276 x 58 x 210 mm
Weight	900 g (without assembly plate)	4000 g
Power consumption	approx. 7 W	approx. 7 W
Voltage supply	DC 24V (9 ... 30VDC non-isolated) / 292 mA	DC 24V (9 ... 30VDC non-isolated) / 292 mA
LAN connections	2 x 10/100/1000 Mbit/s (RJ45)	2 x 10/100/1000 Mbit/s (M12)
Mobile network	LTE version (on request)	
Encryption performance	50 Mbit/s	50 Mbit/s
<b>Miscellaneous</b>		
Protection class	IP40	IP67
Shock resistance	EN-60068-2-27	EN-60068-2-27/61373
Vibration	EN-60068-2-6	EN-60068-2-64/61373
EMV	EN-55022/55024/61000-6-2/61000-6-4	EN-50121-3-2/55011/61000-6-2/61000-6-4/301489-1 V1.9.
MTBF	approx. 200,000 hrs (22.8 years)*	approx. 200,000 hrs (22.8 years)*
<b>Temperature</b>		
Operation	-40 °C to +70 °C	-40 °C to +70 °C
Transport	-40 °C to +85 °C	-40 °C to +85 °C
Item number	SB50.110	SB50.118 (olive, RAL 6031) SB50.119 (sand-coloured, RAL 1002)

\*valid for temperatures up to 25 °C, battery excluded

**Management**

SINA Management is used centrally for system administration, remote configuration and SINA software updates for all SINA L3 Boxes in the network. The configuration updates include network configurations and security associations. Integrated Public Key Infrastructure (PKI) with the associated user management supports critical administrative processes involving SINA L3 Box Smart Cards. This specifically includes customising them, generating and updating keys and cryptographic parameters, and the administration of the associated PINs and PUKs.

More information:  
[www.secunet.com/en/sina](http://www.secunet.com/en/sina)



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