

Industrial Unmanaged Switches and Media Converters

SandCat 3000 series

- **Plug-and-play**
 - Gbit or Fast Ethernet auto-negotiation
 - Transparent to industrial Ethernet protocols
 - Purpose built DIN rail casing with integral clip
- **Diagnostics and legacy connectivity**
 - Port mirroring function
 - Diagnostic LEDs
 - DIP switches to lock port parameters for old equipment
- **Designed for industrial applications**
 - Dual power input
 - Unique tri-galvanic isolation
 - Excellent set of industry approvals



EN 50121-4
Railway Trainside

EN 61000-6-1
Residential Immunity

EN 61000-6-2
Industrial Immunity

EN 61000-6-4
Industrial Emission

NEMA TS 2
Traffic Controller Assemblies
with NTCIP Requirements

The SandCat-3000 series consists of industrial unmanaged gigabit switches and a media converter, developed to meet the needs of both current and future industrial data network applications. These devices are designed for robust performance in demanding environments, such as industrial, maritime and rail trackside applications. They ensure reliable connectivity with support for 802.1Q long packets and standard industrial Ethernet protocols.

The series is designed for use in industrial applications with dual 9.6 to 57.6 VDC power input. The unique "tri-galvanic" isolation provides isolation between all ports, power supply and between each chassis screens and avoids ground loop currents. The IP21 rating ensures that the products can be installed in locations where condensed water may occur.

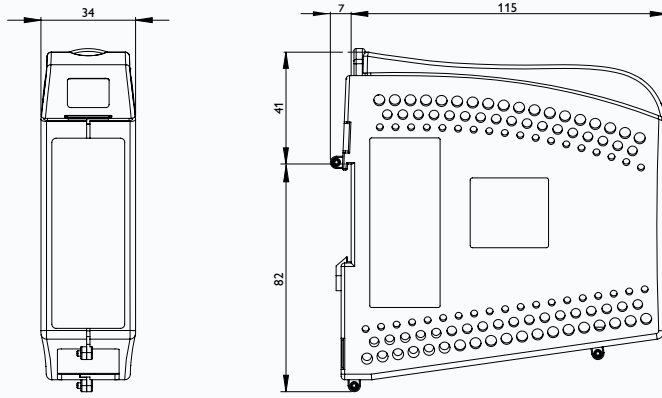
Only industrial grade components are used which gives the SandCat-3000 series great MTBF hours and ensures a long service life. A wide operating temperature range of -40 to +70°C (-40 to +158°F) can be achieved with no moving parts. The series has been tested both by Westermo and external test houses to meet EMC, isolation, vibration and shock standards, all to the highest levels suitable for heavy industrial, trackside and maritime environments.

The link fault forward function helps to transfer indication of media failure onto connected ports to ensure that the SandCat-MC-3502-F1G-T1G-LV can be used in resilient network structures.

Network diagnostics are simplified with the inclusion of port mirroring on one port, allowing data flow through the switch to be monitored using a network analyzer. All five ports can have data rate and flow control locked by DIP switch which can eliminate problems with old legacy Ethernet equipment that is unable to support auto negotiation.

Specifications - SandCat 3000 Series

Dimensional drawing



Housing

Dimensions (W x H x D)	34 x 123 x 115 mm (1.34 x 4.84 x 4.53 inches) without DIN-clip
Housing	Plastic
Weight	0.2 kg

Power parameter

Operating voltage	9.6 to 57.6 VDC
Rated current	SandCat-3505-T5G-LV: 320 to 80 mA at 12 to 48 VDC SandCat-3505-F1G-T4G-LV: 320 to 80 mA at 12 to 48 VDC SandCat-MC-3502-F1G-T1G-LV: 180 to 50 mA at 12 to 48 VDC

Environmental

Operating temperature	-40 to +70 °C (-40 to +158 °F)
Storage and transport temperatures	-40 to +85 °C (-40 to +185 °F)
Ingress protection	IP21
Humidity (operating)	0-95% relative humidity
MTBF (Telcordia)	SandCat-3505-T5G-LV: 1,956,000 SandCat-3505-F1G-T4G-LV: 2,012,000 SandCat-MC-3502-F1G-T1G-LV: 2,427,000

Interfaces	SandCat-3505-T5G-LV	SandCat-3505-F1G-T4G-LV	SandCat-MC-3502-F1G-T1G-LV
Ethernet TX, RJ-45, 10/100/1000 Mbit/s	5	4	1
SFP port, 100/1000 Mbit/s	-	1	1

Approvals

EMC	EN 50121-4/IEC 62236-4, Railway signalling and telecommunications apparatus EN/IEC 61000-6-1, Immunity residential environments EN/IEC 61000-6-2, Immunity industrial environments EN/IEC 61000-6-4, Emission industrial environments
Safety	EN/IEC/UL 62368-1, Audio/video, information and communication technology equipment
Marine	DNV GL rules for classification - Ships and offshore units

Warranty

Validity	5 years
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Art.no.	Product
3630-2010	SandCat-3505-T5G-LV
3630-2020	SandCat-3505-F1G-T4G-LV
3630-3001	SandCat-MC-3502-F1G-T1G-LV

WESTERMO

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