Rittal – **KVM technology**

Perfect Server Administration

PERFECT SERVER ADMINISTRATION WITH KVM TECHNOLOGY FROM RITTAL

Rittal KVM (Keyboard Video Mouse) switches provide the perfect answer for every customer requirement, from **stand-alone solutions** for 8 to 32 servers, to **complex multi-user systems** for data centre applications with up to 2048 computers. The location of these computers is irrelevant. They may be accessed and administered directly, either **locally** or **worldwide via TCP/IP networks.**

Rittal KVM technology can be adapted to suit the most diverse customer requirements.

Simple server administration via OSD
Every system, from the SSC view (SSC = Server Switch Control) to the SSC premium KVM modular concept, features a uniform operating concept with clearly structured OSD (On-Screen Display) or programmable hotkeys, allowing users to find their way intuitively around the full range of SSC products, and eliminating the need for laborious studying of the manual.

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User-friendly design for comfortable working
Thanks to the exceptional transmission quality of analog systems, the display quality is as good as on-site in the data centre, and it is therefore irrelevant whether the servers are accessed directly on the rack or via a remote console using Cat 5 cables. All systems, with the exception of IP access, support real time operation.

All SSC systems have at least one password, effectively preventing unauthorised access to the servers.

The Rittal "Enterprise Solution", the SSC premium KVM modular concept, boasts extensive authentication and authorisation mechanisms, due to a sophisticated system of user and rights administration. Up to 128 users and connected servers may be conveniently divided into user groups with different access rights, making administration far simpler. Because of the high-availability concept with optional redundant power supply and connection of the SSC premium 8/32 to external user administration systems (such as LDAP/Active Directory), the user management system of the SSC premium KVM system may be transferred independently of the operating system and hardware. This will reduce administration costs in the data centre significantly.
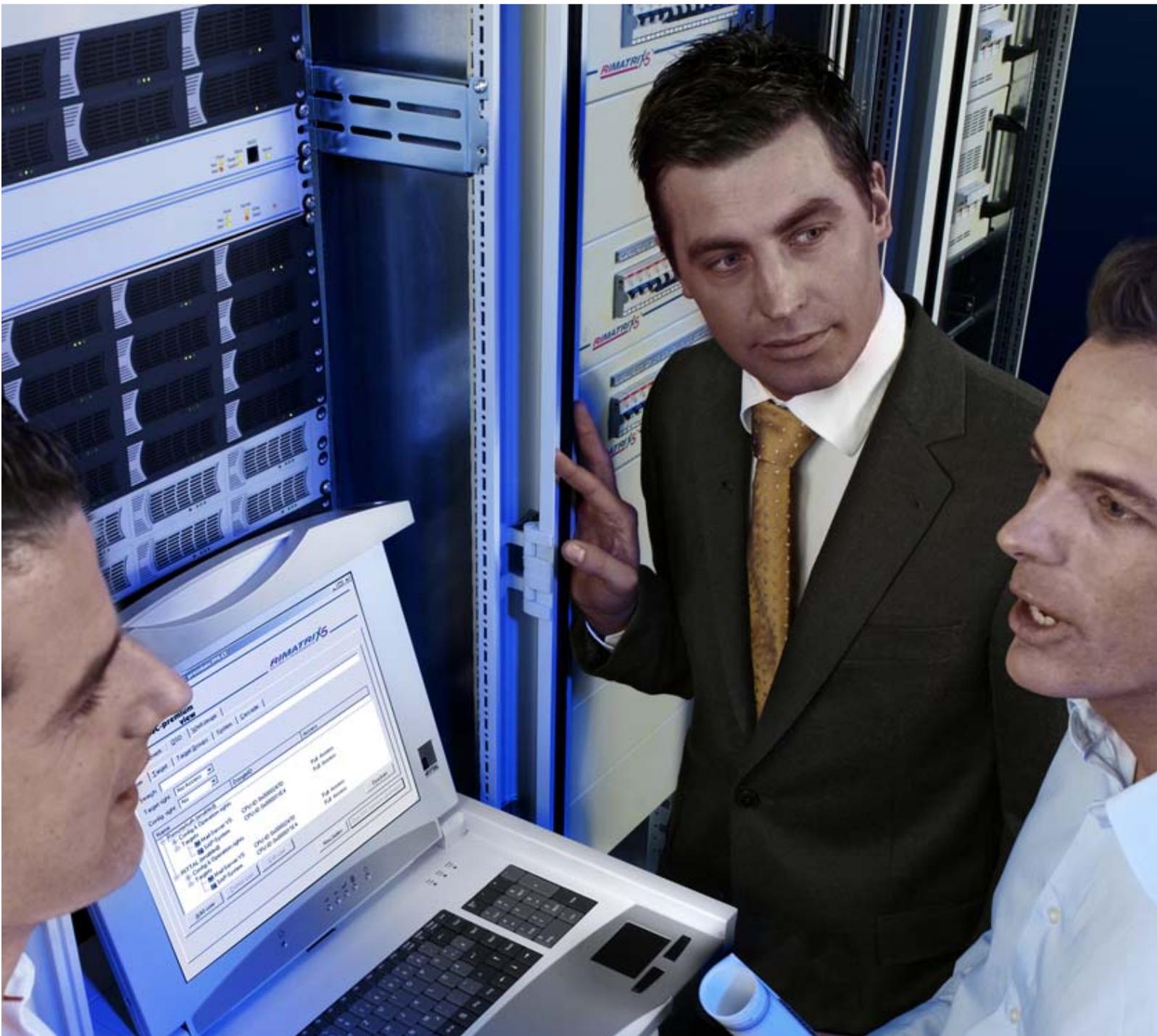
Complete site management – Remote maintenance

As well as supporting the administration of hard-to-reach servers, optional control of the power supply to the servers (up to 3 x IEC 320 devices EN 60 320 C13 per server) and the connection of additional network hardware such as switches and hubs with a serial management port means that large parts of the infrastructure may also be maintained remotely with the SSC premium.

High packaging density for a large number of servers

By using standardised Cat 5 cabling, up to 32 server ports may be implemented in 1 U. With cable lengths of up to 300 m, almost any conceivable structure can be achieved in the server room. By cascading several SSC premiums, up to 2048 servers may be connected to the SSC premium KVM modular system.

Extendible "step by step" – for a high level of investment protection

A modern data centre is not static; it thrives on changes and expansion.

Only a modular KVM system is capable of adapting effortlessly to changing requirements. The open, manufacturer-independent platform of the SSC premium KVM system is able to outlive several generations of servers, and remains extendible – even years later.

Central server management worldwide – with KVM-over-IP solutions

Modern IP technology means that the servers connected to the SSC premium can be accessed from any location. Rittal offers the SSC console IP with integral web interface and Java client. A laptop is all you need for administration purposes. Naturally, high security standards also apply (encryption of SSL web interfaces with 128 bit). On request, the video and/or keyboard mouse channel may be encrypted, to protect the signals from unauthorised reading on the IP network.

Monitor/keyboard unit

SSC view

SSC compact

SSC premium

Compact administration
The compact 1 U monitor/keyboard unit from Rittal ensures reliable, space-saving, on-site server administration. The 1 U console is easily combined with the Rittal KVM switch series SSC view, allowing access to 8 or 32 servers respectively.

- 15″ or 17″ TFT display
- Various keyboard layouts available
- Variants with trackball or touchpad
- VGA connection
- Compatible with all Rittal SSC KVM systems

Full control in 1 U
The SSC view line, with the Rittal monitor/keyboard unit, forms a compact console/switching solution which only occupies 1 U in the rack. The Rittal solution may be combined as required between a choice of two different console types with 15″ and 17″ TFT display, offering country-specific keyboard layouts and two different KVM switches. It is easily upgraded at a later date, or exchanged for a more powerful system.

- Compact stand-alone console/switching solution
- The SSC view utilises the space behind the monitor/keyboard drawer
- Supplied with power via the integral power pack
- With the 8-way KVM switches, the servers are connected using standard VGA/PS/2 cables

The compact class
The SSC compact offers top performance in a small space at an inexpensive price. The integral long-range power pack makes it ideally suited for stand-alone operation or as an upgrade to an existing installation. With the SSC compact 8, standard VGA cables locked to the PS/2 sockets ensure reliable operation. With the SSC compact 32 Cat, connection to the computer is made using Cat 5 cables and an SSC converter.

- Space-saving ultra-compact server administration in stand-alone mode
- Option of cascading or retrofitting (SSC compact 32 Cat)
- For connecting the computers, there are two variants available with VGA/PS/2 and USB connection

Modular and future-proof
The modular SSC premium is the first choice for medium-sized to large installations or in cases where modern features such as multi-user and/or IP access (KVM-over-IP) are required. Almost all system requirements may be met with just a few system components. The modularity ensures that this KVM is future-proof, as the SSC premium system is easily expanded to keep pace with your server installation as it grows.

- Highly integrated KVM matrix based on Cat technology
- New switching technology which adapts flexibly to your future requirements via cascading.
- Multi-user operation is supported, both locally and via IP access (KVM-over-IP).
- Three different converter types support the operation of a wide range of server platforms.

The "SSC premium view" toolware included with the supply of the SSC premium 8/32 provides a user-friendly graphical interface from which the entire configuration may be implemented online via TCP/IP. Configuration includes the network settings, the creation of users and servers, and their classification into various different groups.

A comprehensive range of network functions are also supported:

- Setup of authentication via LDAP, Active Directory
- Syslog configuration
- Firmware updates
- Protect & restore the system configuration
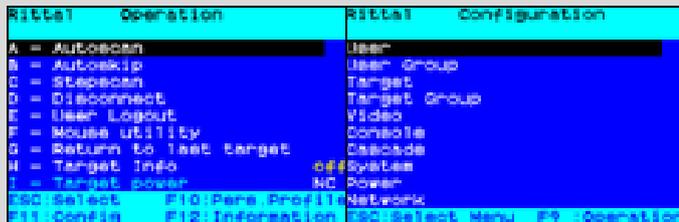
OSD
All Rittal SSC KVM systems have an easy-to-use OSD menu via which server selection and other user-friendly features such as autoscan, autoskip and, in the case of the SSC premium, a comprehensive rights administration system for users and connected servers, may be implemented.

SSC premium view software

SSC console IP web interface

Monitor/keyboard unit, 1 U
with 15″ and 17″ TFT display

This compact 1 U console in a 2-colour design was developed for secure, space-saving server administration. In order to access other servers, this monitor/keyboard unit is easily combined with the Rittal KVM switches SSC view 8 and SSC view 32 Cat. This makes it possible to connect up to 32 servers to one unit in 1 U. The peculiarity of this compact solution is that a 482.6 mm (19″) keyboard including number pad and keypad may be integrated, in spite of its small size. The minimal depth of the unit, at just 510 mm (680 mm with 17″ TFT display, each without SSC extension), makes it suitable for installation in enclosures of depth from 800 mm. The installation kits supplied allow it to be adapted to an existing difference between levels of 680 – 850 mm for the 482.6 mm (19″) levels.

When closed, the drawer can be locked for protection against unauthorised operation.
In order to prevent heat accummulation when folded, the backlight is deactivated automatically.

The unit has a German keyboard layout. Versions in English and French, as well as other country- and customer-specific versions available on request.

Supply includes:
Complete monitor/keyboard unit in colour version RAL 7035 (light grey) or RAL 9005 (black) with design components and handle in RAL 9006 (silver) including assembly parts and all the required connection cables (approx. 1.6 m) for:

- Power supply
- VGA video
- Keyboard connection (PS/2 and USB)
- Mouse connection (touchpad or trackball, PS/2, USB).

Note:
KVM switch, SSC view 8/view 32 Cat, see page 6.

Pictures are similar models.

		15″		17″	
		RAL 7035/ RAL 9006	RAL 9005/ RAL 9006	RAL 7035/ RAL 9006	RAL 9005/ RAL 9006
Touchpad	German	**9055.100**	**9055.200[1]**	**9055.300**	**9055.400[1]**
	English	**9055.102**	**9055.202[1]**	**9055.302**	**9055.402[1]**
	French	**9055.103[1]**	**9055.203[1]**	**9055.303[1]**	**9055.403[1]**
	International	**9055.151[2]**	**9055.251[2]**	**9055.351[2]**	**9055.451[2]**
Trackball	German	**9055.150**	**9055.250[1]**	**9055.350[1]**	**9055.450[1]**
Technical design[3]					
TFT screen with anti-reflection coated security glass		15″ (381 mm)		17″ (432 mm)	
Maximum resolution		1024 x 768		1280 x 1024	
Colours		16.7 million			
Brightness		Approx. 280 cd/m^2			
Contrast ratio		Approx. 400 : 1			
Mains voltage		100 – 240 V AC, 50 – 60 Hz			
Dimensions (W x H x D)		448 mm x 1 U x 510 mm		448 mm x 1 U x 680 mm	
Ambient temperature		+5°C to +45°C (operating)			
Certifications		CE			
Connections at rear					
Mains voltage		IEC 320 connection			
Video input		Analog (D-SUB 15-pole, jack)			
Keyboard		PS/2, jack, USB-A			
Mouse		PS/2, jack, USB-A			
Power out		(12 V DC) for SSC view 8/view 32 Cat			

[1] Extended delivery times.
[2] International version.
  Please state the required language on the order. Extended delivery times.
  Versions: French/Spanish/Portuguese/Italian/Danish/Norwegian/Finnish/Swedish/Belgian/Russian/
  UK English/US English with EURO/Swiss/German. Other country-specific versions available on request.
[3] We reserve the right to make changes in line with technical progress.

KVM switch

SSC view 8/SSC view 32 Cat

**8- or 32-port KVM switch
for monitor/keyboard unit, see page 5.**
These compact SSC views optionally extend the Rittal monitor/keyboard unit to include the function of an 8- or 32-port KVM switch, without requiring an additional U in the server rack for mounting. The switch may be mounted behind the existing monitor unit, and voltage is supplied via the power pack integrated into the drawer. The SSC view has a password-protected OSD menu, but server selection may also be made via hotkeys.

The SSC view 32 Cat may be extended (cascaded) with up to three SSC compact 32 Cat if more than 32 servers need to be administered. In this way, up to 125 servers may be administered by one user in the final configuration. This means that the Rittal SSC switching system is able to grow flexibly in line with requirements. With the SSC view 32 Cat, the computers are connected via Cat cables and SSC Connect (PS/2 or USB). In this way, the signals for video, keyboard and mouse are transmitted via a shared cable. This cuts down on cabling work considerably, particularly in fully populated racks. One SSC Connect is required for each computer. Processor-controlled keyboard and mouse emulation for each channel ensures fault-free booting and reliable switching between the connected computers.

Rittal SSC	① SSC view 8	② SSC view 32 Cat
Model No. DK	**7552.000**	**7552.100**
Equipment		
Number of computers in stand-alone mode	8	32
Password protection	■	■
Cascading with SSC compact 32 Cat (with OSD transfer)	–	■
OSD menu with mouse operation (English)	■	■
OSD superimposed on computer screen (may be deactivated)	■	■
OSD display of channels used	■	■
Hotkeys for computer selection	■	■
Autoscan	■	■
Autoskip (skip over unused channels)	■	■
Cable type to computer (view 8) or to SSC converter (view 32)	VGA/HD15, PS/2	Cat 5, 6
Maximum cable length, SSC to computer (depending on cable quality)	4 m	15 m (30 m)
Port and system support	PS/2[1]	PS/2, USB, SUN-USB
Automatic cable alignment (manually readjustable)	–	■[1]
Maximum video resolution (depending on cable length)	1280 x 1024 @ 85 Hz	1920 x 1440 @ 75 Hz
Bandwidth	200 MHz	250 MHz
Connections		
Computer	SUB-HD15 / PS/2	RJ 45
Strengthener	SUB-HD15 / PS/2	SUB-HD15 / PS/2
Service (for firmware update)	–	Jack 2.5 mm
Power supply 12 V from monitor/keyboard unit	Hollow connector	Hollow connector
External power supply	12 V/approx. 0.8 A	12 V/approx. 1.0 A
Power consumption (approx.)	9 W	12 W
Operating temperature	+5 to +45°C	+5 to +45°C
Protection category	IP 30	IP 30
Enclosure	Sheet steel, powder-coated	Sheet steel, powder-coated
Colour	RAL 9006	RAL 9006
Dimensions (excluding protruding parts) approx. W x H x D mm	325 x 44 x 85	325 x 44 x 85
Dimensions (with rack installation) approx. W x H x D	19″ x 1 U x 140 mm	19″ x 1 U x 140 mm
Conformity	CE	CE
Accessories		
③ SSC converter PS/2	–	7552.201
④ SSC converter USB	–	7552.202
⑤ CPU cable 2 m (with interlocking PS/2 connectors)	7552.120	–
CPU cable 4 m (with interlocking PS/2 connectors)	7552.140	–
Cat 5 cable 0.5 m	–	7320.470
Cat 5 cable 2 m	–	7320.472
Cat 5 cable 5 m	–	7320.475
Cat 5 cable 10 m	–	7320.481
Cat 5 cable 15 m	–	7320.485

[1] With a cable length of max. 15 m, there is no need for any manual readjustments. Above and beyond this, the maximum permissible cable length is approximately 30 m (depending on the cable quality). Here, manual readjustment may be required.

SSC view8 USB

This compact SSC view8 extends the monitor/keyboard units (9055.XXX) to include a KVM switch without the need for an additional U in the rack. Both computers with PS/2 keyboard and mouse connection and modern servers with a USB connection for keyboard and mouse may be connected to each port.

Supply includes:
SSC view8 USB,
monitor/keyboard unit connection cable,
adaptor PS/2 mouse 8 x.

Power is supplied via the power pack integrated into the monitor/keyboard unit. The SSC has a password-protected OSD menu, but server selection may also be made via hotkeys. Suitable combination connection cables (VGA-PS/2 and VGA-USB) are available as accessories in lengths 2 m and 4 m.
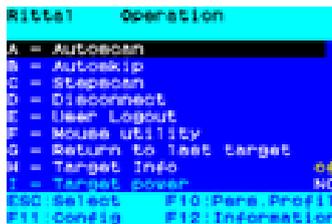
Material:
Sheet steel, powder-coated

Colour:
RAL 9006

Protection category:
IP 40

	SSC view8 USB
Model No. DK	**7552.002**
Equipment	
Number of computers in stand-alone mode	8
Number of users (with password protection)	1
OSD menu with mouse operation (English)	■
OSD superimposed on computer screen (may be deactivated)	■
OSD display of channels used	■
Hotkeys for computer selection	■
Autoscan	■
Autoskip (skip over unused channels)	■
Type of cable to computer (combination cable)	VGA/HD15 and PS/2 VGA/HD15 and USB
Maximum cable length, SSC to computer (depending on cable quality)	4 m
Port and system support (SSC Connect)	PS/2, USB
Automatic cable alignment (manually readjustable)	–
LED display (front)	Power
Maximum video resolution (depending on cable length)	1280 x 1024 @ 85 Hz
Bandwidth	200 MHz
Connections	
Computer	SUB-HD15 / PS/2 or USB
Console	SUB-HD15 / PS/2 or USB
Service for firmware update	Jack 2.5 mm
Power supply 12 V from monitor/keyboard unit	Hollow connector
External power supply	12 V, approx. 0.8 A
Power consumption (approx.)	10 W
Operating temperature	+5°C to +45°C
Dimensions (excluding protruding parts) approx. W x H x D mm	325 x 44 x 95 mm
Dimensions (with rack installation) approx. W x H x D	19″ x 1 U x 180 mm
Certifications	CE
Accessories	
CPU cable VGA/PS/2, 2 m (with lockable PS/2 connectors, at both ends)	7552.120
CPU cable VGA/PS/2, 4 m (with lockable PS/2 connectors, at both ends)	7552.140
CPU cable VGA/USB, 2 m, USB-A (computer) to USB-B (switch)	7552.122
CPU cable VGA/USB, 4 m, USB-A (computer) to USB-B (switch)	7552.142

KVM switch

SSC compact 8/ SSC compact 32 Cat
Economy 8/32-port KVM switch
These ultra-compact KVM switches for 482.6 mm (19″) mounting facilitate space-saving server administration in any IT rack. The SSC has a password-protected OSD menu for server selection, but selection may also be made via hotkeys. The SSC compact 32 Cat may be extended (cascaded) with up to three additional SSC compact 32 Cat if more than 32 servers need to be administered. In this way, up to 125 servers may be administered by one user in the final configuration.

The Rittal SSC switching system grows flexibly with your requirements. With the SSC compact 32 Cat, the computers are connected via Cat cables and SSC Connect. The signals for video, keyboard and mouse are transmitted via a shared cable. This cuts down considerably on cabling work, particularly in fully populated racks. Processor-controlled keyboard and mouse emulation for each channel ensures fault-free booting and reliable switching between the connected computers.

Rittal SSC	[1] SSC compact 8	[2] SSC compact 32 Cat
Model No. DK	**7552.010**	**7552.110**
Equipment		
Number of computers in stand-alone mode	8	32
Password protection	■	■
Cascading[3]) to SSC view/compact 32 Cat (with OSD transfer)	–	■
OSD menu with mouse operation (English)	■	■
OSD superimposed on computer screen (may be deactivated)	■	■
OSD display of channels used	■	■
Hotkeys for computer selection	■	■
Autoscan	■	■
Autoskip (skip over unused channels)	■	■
Cable type to computer (view 8) or to SSC converter (view 32)	VGA/HD15 and PS/2	Cat 5, 6
Maximum cable length, SSC to computer (depending on cable quality)	4 m	15 m (30 m)[1])
Port and system support	PS/2[2])	PS/2, USB, SUN-USB
Automatic cable alignment (manually readjustable)	–	■[1])
LED displays (front)	Power	Power
Maximum video resolution (depending on cable length)	1280 x 1024 @ 85 Hz	1920 x 1440 @ 75 Hz
Bandwidth	200 MHz	250 MHz
Connections		
Computer	SUB-HD15 / PS/2	RJ 45
Strengthener	SUB-HD15 / PS/2	SUB-HD15 / PS/2
Cascading port (connection for SSC view/compact 32 Cat)	–	RJ 45
Service (for firmware update)	–	Jack 2.5 mm
Mains connection (IEC 320 connection)	EN 60 320	EN 60 320
Power supply 100 – 240 V, 50/60 Hz (internal power pack)	■	■
Power consumption (approx.)	6 W	11 W
Operating temperature	+5 to +45°C	+5 to +45°C
Protection category	IP 30	IP 30
Enclosure	Sheet steel, powder-coated	Sheet steel, powder-coated
Colour	RAL 7035	RAL 7035
Dimensions (excluding protruding parts) approx. W x H x D mm	448 x 44 x 150	448 x 44 x 150
Conformity	CE	CE

[1]) With a cable length of max. 15 metres, there is no need for any manual video readjustments. Above and beyond this, the maximum permissible cable length is approximately 30 metres (depending on the cable quality). Here, manual readjustment may be required.
[2]) Adaptor for SUN/MAC server available on request.
[3]) Up to 3 SSC compact 32 Cat may be cascaded to one master (max. 125 servers on 1 user).

Accessories		
Mains connection cable (earthing-pin)	7200.210	7200.210
CPU cable 2 m (with interlocking PS/2 connectors)	7552.120	–
CPU cable 4 m (with interlocking PS/2 connectors)	7552.140	–
SSC converter PS/2	–	7552.201
SSC converter USB	–	7552.202
Cat 5 cable 0.5 m	–	7320.470
Cat 5 cable 2 m	–	7320.472
Cat 5 cable 5 m	–	7320.475
Cat 5 cable 10 m	–	7320.481
Cat 5 cable 15 m	–	7329.485

SSC premium 2/16, 4/32, 8/32

Highly integrated KVM matrix based on Cat technology

With the SSC premium, Rittal offers a KVM switching technology which can adapt to your future requirements. By using Cat technology (i.e. transmission of signals for keyboard, video and mouse via a Cat cable), the required cabling work inside the rack may be reduced considerably; what is more, highly compact 1 U systems with up to 32 server ports are supported. The SSC premium are full-matrix switches which support simultaneous, unrestricted access to the chosen computer system for each of the connected users. Various console types are available for administration purposes, via which all computer systems may be conveniently activated via OSD or hotkeys. By separating the hardware switch and operating console, the systems may be adapted to any required computer environment. On the computer side, conversion to standard PC interfaces is achieved via separate converters which optimise all signals (keyboard, video, mouse) for transmission via the Cat cable. Needless to say, all SSC premium have comprehensive configuration and management functions, and additional functions may be added in the future via flash upgradability. The full matrix may be flexibly extended via cascading with type-identical SSC premiums in up to 3 levels. The structure of the cascaded system right down to the individual computer level may be graphically depicted in a tree structure, thus facilitating an overview of the entire system. The new SSC Power Control (DK 7552.420) also facilitates control of the Rittal 8-way PSM modules (DK 7856.201) or 8-way Rittal PCU (DK 7200.001) with the SSC premium. In this way, any of the connected servers may be hard-rebooted if necessary – worldwide!
To this end, up to 3 IEC 320 sockets in the SSC premium are allocated to each individual server.

Connection example see page 16.

Material:
Sheet steel

Colour:
Spray-finished in RAL 7035

Protection category:
IP 30

Note:
Software updates can be found at
www.rimatrix5.com.

❗ Also required:

SSC converter (depending on the number of computers) and at least one operator console, see page 12/14.
Mains connection cable (DK 7200.210), see page 15.

By cascading type-identical SSC premiums, the maximum number of administrable computers may be flexibly extended.

SSC premium	2/16	4/32	8/32
Level	Number of computers		
1	16	32	32
2	128	256	128
3	1024	2048	512

Various SSC premiums may also be cascaded among one another.

KVM switch

| Rittal SSC premium	SSC premium 2/16	SSC premium 4/32	SSC premium 8/32
Model No. DK	**7552.020**	**7552.030**	**7552.040**
Equipment			
Number of computers in stand-alone mode	16	32	32
Number of computers with cascading as full matrix (max. 3 levels, type-identical SSC premium)	1024	2048	512
Number of users (local, remote, IP), mixed and simultaneous	2	4	8
Number of users that may be administered (with allocation of rights)	128	128	128
Integral user/computer administration	■	■	■
Support of central directory services and authentication systems	–	–	■
OSD menu with mouse operation (English)	■	■	■
Display of system structure in the OSD per computer (path)	■	■	■
OSD superimposed on computer screen (may be deactivated)	■	■	■
OSD display of channels used	■	■	■
Hotkeys for computer selection	■	■	■
Type of cable to SSC converter and SSC console	Cat 5, 6	Cat 5, 6	Cat 5, 6
Maximum cable length, console to computer (depending on cable quality)	300 m	300 m	300 m
Port and system support (SSC converter)	PS/2, USB, SUN-USB/VT100	PS/2, USB, SUN-USB/VT100	PS/2, USB, SUN-USB/VT100
Automatic video alignment (manually readjustable)	■	■	■
Automatic cable alignment (manually readjustable)	■	■	■
LED displays (front):			
Power/Power Redundant	■	■	■
System Ready (illuminates as soon as the system booting process has been completed without error)	■	■	■
Status Switch (illuminates when the SSC is operational)	■	■	■
LED displays (rear):			
Computer port busy/connected	yellow/green	yellow/green	yellow/green
Console port busy/connected	yellow/green	yellow/green	yellow/green
Network port full duplex/half duplex	–	–	yellow/flashing
Network port connection status/activity	–	–	green/flashing
Maximum video resolution (depending on cable length)	1920 x 1440 @ 75 Hz	1920 x 1440 @ 75 Hz	1920 x 1440 @ 75 Hz
Bandwidth	250 MHz	250 MHz	250 MHz
Activation of switchable socket strip (on/off)	■	■	■
Connections			
Computers/consoles	RJ 45	RJ 45	RJ 45
Service (front) for firmware update	Jack 2.5 mm	Jack 2.5 mm	Jack 2.5 mm
RS232 (front)	RJ 11	RJ 11	RJ 11
Network	–	–	2 x RJ 45
Power supply via IEC 320 connection (IEC 60 320 C13)	■	■	■
Redundant power supply (with SSC power pack)	4-pole mini-DIN	4-pole mini-DIN	4-pole mini-DIN
Power supply (internal power pack)	90 – 264 V/ 47 – 63 Hz	90 – 264 V/ 47 – 63 Hz	90 – 264 V/ 47 – 63 Hz
External power supply, redundant	12 V/approx. 1 A	12 V/approx. 1 A	12 V/approx. 1 A
Power consumption (approx.)	12 W	13 W	16 W
Dimensions (excluding protruding parts) approx. W x H x D mm	435 x 44.4 x 286	435 x 44.4 x 286	435 x 44.4 x 286
Conformity	CE	CE	CE

SSC Duo 16

With the SSC Duo 16, Rittal offers an ultra-compact KVM switch with both a local access and an IP access.

These two users are able to access the connected servers in parallel/simultaneously.

Up to 16 servers may be connected using Cat cables and SSC Connect adaptors (available in a PS/2 and USB variant). Because signals from the video, keyboard and mouse are transmitted via a shared Cat cable, the amount of cabling is reduced considerably. Processor-controlled keyboard and mouse emulation for each channel ensures fault-free booting and reliable switching between the connected computers. The integral IP console supports location-independent access to the servers through to BIOS level.

Access may be made both via the integral Web interface (via Java client) and via client software for Windows and selected Linux distributions, available free of charge. The switch includes rights administration for up to 16 user profiles.
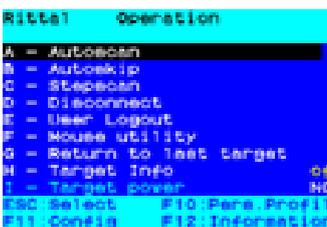
Material:
Sheet steel, powder-coated

Colour:
RAL 7035

Protection category:
IP 40

Dimensions:
W x H x D approx. 440 x 44 (1 U) x 286 mm

⚠ Also required:

One SSC Connect adaptor DK 7552.421 (PS/2) or DK 7552.422 (USB) is required for each connected computer.

	SSC Duo 16
Model No. DK	**7552.510**
Equipment	
No. of computers that may be connected	16
Number of users (local, remote, IP), mixed and simultaneous	2
Number of users that may be administered (with allocation of rights)	16
Integral user/rights administration	■
OSD menu with mouse operation (English)	■
OSD superimposed on computer screen (may be deactivated)	■
OSD display of channels used	■
Hotkeys for computer selection	■
Type of cable to SSC Converter and SSC Console	Cat 5, Cat 6
Maximum cable length, SSC Duo 16 to computer (depending on cable quality)	30 m
Port and system support (SSC Connect)	PS/2, USB
Automatic video and cable alignment (manually readjustable)	■
LED displays	
Power	■
System Ready (status network subsystem)	■
Status Switch (status of SSC Duo 16)	■
Network port (activity, connection status)	■
Max. video resolution (local console connection)	1920 x 1440 @ 60 Hz
Max. video resolution, IP access	1280 x 1024 @ 75 Hz
Bandwidth	250 MHz
Connections	
Computers/consoles (via SSC Connect)	RJ 45
Service for firmware update	mini USB type B
Network/KVM access via Ethernet	RJ 45
Power supply via IEC 320 connection (EN 60 320 C14)	■
Power supply (internal power pack)	90 – 264 V/47 – 63 Hz
Power consumption (approx.)	20 W
Dimensions (excluding protruding parts) approx. W x H x D mm	440 mm x 1 U x 380 mm
Certifications	CE
Accessories	
SSC Connect PS/2	7552.421
SSC Connect USB	7552.422
Cat 5 cable 2 m	7320.472
Cat 5 cable 5 m	7320.475
Cat 5 cable 10 m	7320.481
Cat 5 cable 15 m	7320.485
Mains connection cable (earthing-pin)	7200.210

KVM switch

Console local

for SSC premium
For installation in
- 482.6 mm (19″)
- at the rear of 15″/17″ monitor unit
  (9050.XXX/9055.XXX)

This local console forms the link between the keyboard, monitor, mouse (or the Rittal monitor/keyboard unit) and the SSC premium. Via the console, the computer systems connected to the switch may be conveniently selected and administered using the OSD. The signals are converted to Cat cables with a length of up to 10 m and forwarded to the KVM matrix. Power supply is optionally via the Rittal monitor/keyboard unit or, in the case of stand-alone 482.6 mm (19″) installation, via the SSC Power Pack (DK 7552.220). Supplied complete with assembly parts.

Technical specifications:
Video resolution: Max. 1920 x 1440 @ 75 Hz
(depending on the cable length)
Video bandwidth: 250 MHz
Voltage supply: 12 V DC (from monitor/keyboard unit) or via SSC Power Pack DK 7552.220
Dimensions:
W x H x D 325 x 44 x 85 mm
(stand-alone)
W x H x D 465 x 44 x 140 mm
(built into 482.6 mm (19″))

Type	Packs of	Model No. DK
Console local	1	**7552.200**

Connections (jack):
PS/2 (keyboard and mouse)
USB-A (keyboard/mouse)
HD15 (VGA video RGB & Sync.)
RJ 45 (KVM matrix connection)
Mini-DIN 4 (12 V power supply)

! Also required:

Only for 482.6 mm (19″) installation without monitor/keyboard unit:
SSC Power Pack DK 7552.220, see page 14,
Cat 5 patch cable, see page 14.

Console Cat 5

for SSC premium, SSC view 32 Cat, SSC compact 32 Cat
This remote console forms the link between the keyboard, monitor, mouse and the SSC premium. Via the console, the computer systems connected to the switch may be conveniently selected and administered using the OSD.
The signals are forwarded via Cat cable, depending on the cable quality up to 300 m, via the KVM matrix to the connected computers. Additionally, if required, 2 local PCs and the corresponding converters may be connected to the console via Cat cables. Switchover to these two computers is achieved via keys on the front. The console is designed as a compact desktop enclosure with integral wide-range power pack (482.6 mm (19″) versions on request).

Technical specifications:
Video resolution: Max. 1920 x 1440 @ 75 Hz
(depending on the cable length)
Video bandwidth: 250 MHz
Power supply (internal power pack):
100 – 280 V, 50 – 60 Hz/0.2 A
Dimensions: W x H x D 270 x 44 x 220 mm

Type	Packs of	Model No. DK
Console Cat 5	1	**7552.212**

Connections (jack):
PS/2 (keyboard and mouse)
USB-A (keyboard/mouse)
SUB-HD15 (VGA video RGB & Sync.)
2 x Cat (RJ 45) to connect 2 local PCs via SSC converters (VGA, PS/2 or USB)
RJ 45 (KVM matrix connection)
IEC 60 320 C14 (power supply)
Mini-DIN 4 (redundant power supply)

! Also required:

Cat 5 patch cable, see page 14,
SSC converter for local PCs, see page 13.
Mains connection cable (e.g. DK 7200.210).

Console IP

for SSC premium (KVM-over-IP)

With the IP remote console, computers connected to the KVM matrix may be accessed via any given TCP/IP network. The console IP is a hardware solution requiring no software installation on the target computer. This ensures independence from the type and status of the operating system used, and facilitates remote monitoring of the computers at BIOS level even during the boot phase. Precise operation of the remote computer can only be achieved via the original mouse pointer. A browser-based web interface is available for configuration of the SSC console IP. With the system operational, the target computers may be accessed at any time via web browsers and Java applets (irrespective of the operating system), or if Java is not supported, via optimised client software for common operating systems. This client has extended functions (e.g. a setup mode) and can be used throughout the company without restriction. Installation of the client software is not necessary, as it may also be launched e.g. from a USB stick. In addition to remote access via IP, the SSC console IP also has an integral local console port (competing with IP access) for connecting the keyboard, mouse and monitor. With the Rittal KVM-over-IP solution, security is a top priority. For this reason, access to the console is additionally password-protected. KVM access to the web interface may be encrypted via HTTPS (SSL 128-bit). This may optionally encrypt the control channel only, or additionally the video channel and/or the keyboard/mouse channel. In order to further increase failsafeness, the SSC console IP may also be extended with a redundant power pack via the SSC Power Pack (DK 7552.220).

Type	Packs of	Model No. DK
Console IP	1	**7552.214**

Note:
The supply includes the client software for current Windows operating systems (MS Windows 2000, XP Professional, 2003 Server) as well as Linux Distribution (RedHat, Suse) in German and English.
Software updates can be found at
www.rimatrix5.com.

Technical specifications:
Video resolution: max. 1280 x 1024 @ 75 Hz
Network: 10/100 MBit/s
Power pack: 100 – 240 V AC, 50/60 Hz
Dimensions:
W x H x D approx. 440 x 44 x 380 mm

Connections (jack):
PS/2 (keyboard and mouse)
SUB-HD15 (VGA video, RGB and Sync.)
RJ 45 (KVM matrix connection)
RJ 45 (Ethernet)
Sub-D (RS232)
IEC 60 320 C14 (power supply)
Mini-DIN 4 (redundant power supply)

[!] Also required:

SSC converter

for SSC premium

The SSC converters convert the signals for keyboard, video and mouse from the connected computer to the Cat cable.
There is a choice of three different variants for connecting PCs with PS/2 or USB ports, and a separate version for use with SUN computers with a USB port. One converter is required for each computer. Every SSC converter has a unique identification number (Unique-ID). When the converter is connected to a server, it can be located at any time in the overall system (even in the event of rewiring), without needing to know the physical connection. This is the main difference from simple converter solutions.

SSC converter	Packs of	Model No. DK
PS/2	1	**7552.201**
USB	1	**7552.202**
SUN-USB (German)	1	**7552.203**
SUN-USB (US English)	1	**7552.204**

KVM switch

SSC converter VT100 (RS232)

for SSC premium
With this SSC adaptor, active network compo-
nents (such as an Ethernet switch) with a serial
management port which support the VT100 termi-
nal mode may be integrated into the SSC pre-
mium KVM system and administered remotely.
The serial output signals (ASCII character set) are
converted into a video signal which is transmitted
via the KVM matrix. Conversely, incoming key-
board inputs are reconverted to serial.

Connections:
Sub-D 9-pole (RS232),
RJ 45 (KVM matrix connection),
Mini-DIN 4 (power supply).

	Packs of	Model No. DK
SSC converter VT100	1	**7552.205**

Supply includes:
Power pack (100 – 240 V, 50/60 Hz),
secondary, 12 V/0.7 A.
Mains connection cable (DK 7200.210),
see page 15.

! Also required:

Cat 5 patch cable,
see page 14.

Cat 5 patch cable

Flexible, pre-configured Cat 5 STP patch cable
with shielded RJ 45 connectors for connecting
the SSC converter and SSC console to the
SSC premium switch. The cables are wired 1 : 1
to AT&T 258A/T568B and comply with ISO/
IEC 11801, UL E151955.

Colour:
Grey

Length (m)	Packs of	Model No. DK
0.5	4	**7320.470**
2	4	**7320.472**
5	4	**7320.475**
10	1	**7320.481**
15	1	**7320.485**

SSC Power Control

for SSC premium
With this adaptor, the Power Control Unit socket
strips (DK 7200.001) and the active PSM module
(DK 7856.201) may be switched individually or in
pairs (for servers with redundant power supply).
Control is via the OSD integrated into the SSC
premium.
Up to 8 PSM and/or PCU modules may be
switched (max. 64 EN 60 320 C13 slots).
Up to 3 sockets may be allocated per server.
This facilitates a hard reboot of each individual
server via the connected user consoles, also via
IP networks in conjunction with the SSC console
IP.

Note:
The connection cable between the SSC premium
and the SSC Power Control with a length of 2.5 m
is included with the supply.

	Packs of	Model No. DK
SSC Power Control	1	**7552.420**

! Also required:

Mounting module (DK 7320.450),
power pack (DK 7201.210),
mains cable (DK 7200.210),
at least 1 active PSM/PCU module,
see page 15 or Cat. 32, page 818.
Cat 5 patch cable,
see page 14.

SSC Power Pack

In order to increase reliability, we recommend
configuring a redundant power supply to the SSC
premium and the connected user consoles.
This compact wide-range power pack (AC:
100 – 240 V, 50/60 Hz, DC: 12 V/5 A) with IEC 320
socket (EN 60 320) and Mini-DIN 4 connector is
ideal for this purpose. Should the first power sup-
ply of the internal power pack fail, the functional-
ity of the KVM switch is maintained.

Supply includes:
Assembly parts.

SSC	Packs of	Model No. DK
SSC Power Pack	1	**7552.220**

! Also required:

Connection cable for power pack,
see page 15.

Rittal Power Control Unit (PCU)/Connection accessories

Rittal Power Control Unit (PCU) 1 U, 8-way, individually switchable

The 1 U PCU socket strip has 8 current outlets with IEC 60 320 C13 slots. Each of the 8 slots is individually switchable (via the CMC-TC system). Furthermore, a current indicator is integrated into the module. The socket strip may be installed on the enclosure frame or in the 482.6 mm (19″) section (1 U) of a rack. Suitable for use with 230 V AC/50 Hz mains voltage.

Operate the socket strip without CMC-TC:
For operation of the socket strip, power pack DK 7201.210 and a connection cable (see page 15) are needed. Up to 4 socket strips may be operated with one power pack.

Available functions: Current display on the module, automatic selective activation.

Design	Model No. DK
8-way	**7200.001**

Description of functions:
- 2-digit local LED 7-segment current display on the PCU. Legibility rotates according to the installation position.
- Alarm messages are indicated via a flashing 7-segment display.
- PCUs may be combined via the bus system, thereby enabling selective activation.
- In conjunction with the CMC-TC, the 8 individual current outlets of the PCUs may be activated and deactivated individually via HTTP and SNMP.
- Remote administration of the power supply.
- 8 IEC 60 320 C13 slots per PCU.

Material:
Aluminium section with plastic cover

Supply includes:
1 socket strip PCU 1 U
(max. 10 A per socket strip),
1 bus cable,
1 infeed cable 24 V DC,
1 adaptor for power pack 24 V DC,
1 connector for power supply.

! Also required:

A separate power pack (100 – 240 V AC/24 V DC) is required for stand-alone operation without CMC-TC (DK 7201.210) and the relevant connection cables, see page 15.
Switching function with SSC premium:
For each SSC switch one SSC Power Control (DK 7552.420), see page 14, is required!

Connection cable/extension

The cable is used to connect to:
- CMC-TC Master II
- 24 V power pack for PU II
- Active fan unit for TE
- Climate unit (connected fan)
- Voltage monitor
- Voltage expansion unit

Technical specifications:
PVC cable, 3-pole, with IEC connector (non-heating appliances) with contact protection CEE22.

Supply includes:
1 connection cable, length at least 1.80 m.

Country version	Voltage Volt	Model No. DK
D/F/B	230	**7200.210**
GB	230	**7200.211**[1]
CH	230	**7200.213**[1]
USA/CDN	230/115	**7200.214**[1]
IEC 320 extension	230/115	**7200.215**

[1] Extended delivery times.

CPU cable

Combination connection cable between SSC view 8 and the individual servers, each with 2 HD 15 connectors for video, plus lockable PS/2 connectors at both ends for the keyboard and mouse, colour-coded.
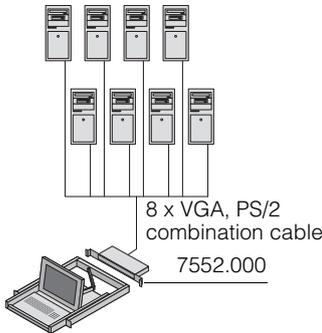
Cable length	Model No. DK
2 m	**7552.120**
4 m	**7552.140**

Monitoring

Connection example, KVM switch
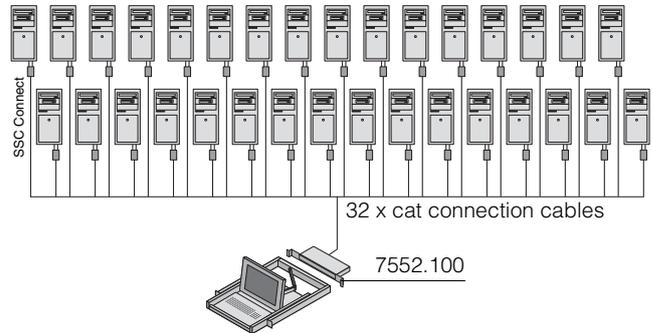
Connection example SSC view 8

(behind monitor/keyboard unit, 1 U)
Compact switching for up to 8 servers.

8 x VGA, PS/2
combination cable

7552.000

Connection example SSC view 32 cat

(behind monitor/keyboard unit, 1 U) administer 32 servers in 1 U.
The most powerful 1 U console/switch solution.

SSC Connect

32 x cat connection cables

7552.100

Connection example SSC compact 8

Economy KVM technology. Ideal for retrofitting into existing
installations.

7552.010
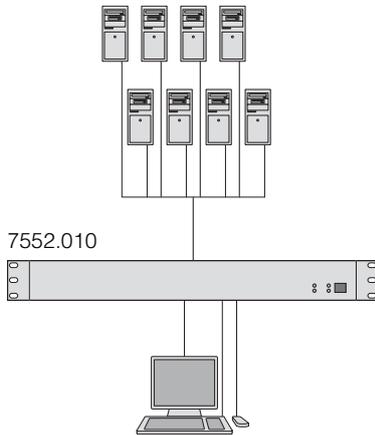
Connection example SSC compact 32 cat

1 user KVM solution for 32 servers.
Extendible up to a maximum of 125 connected servers.

SSC Connect

32 x cat connection cables

7552.110

Monitor/keyboard
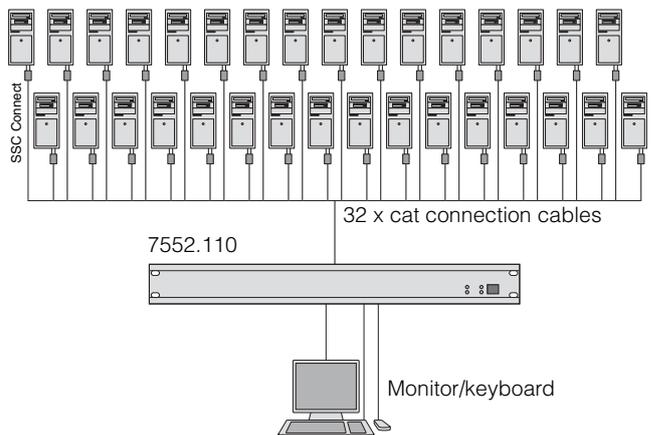
Connection example SSC premium 8/32

Modular KVM for data centres. Up to 8 users
may access the connected servers in paral-
lel and independently from one another.
Remote access via "KVM-over-IP" is also
supported. Furthermore, the Rittal sockets
may also be switched via the OSD of the
SSC premium. This facilitates a "hard-reboot"
of the servers from anywhere in the world.

SSC converter

32 x connection cables

SSC premium 8/32
(matrix switch, 1 U/19″)

Cat cable

5 free users

Cat cable

SSC local
console

SSC console IP

SSC console
Cat 5

SSC converter

TCP/IP

SSC local
console with
monitor/
keyboard unit
in rack

Remote control with two local
workstation computers

Remote IP console,
computer in network
with client software

RIMATRIX5
DRIVING IT-PERFORMANCE

Outstanding benefits of a complete IT infrastucture

Efficiency considerations – from acquisition, to operation, through to maintenance – indicate that Rittal offers decisive benefits and cost advantages for entire IT infrastructures with the RimatriX5:

- Reduced planning costs, due to modular, scalable components.
- Lower investment costs coupled with investment security.
- Lower operating costs, thanks to energy-efficient systems for cooling and power supply plus cost-effective adaptation to your requirements as they grow.
- Reduced downtime and hence lower costs, as a result of a high level of availability plus remote maintenance and administration.
- Minimal installation and expansion costs, plug & play technology, with the ability to make technical modifications while the system is still operational.
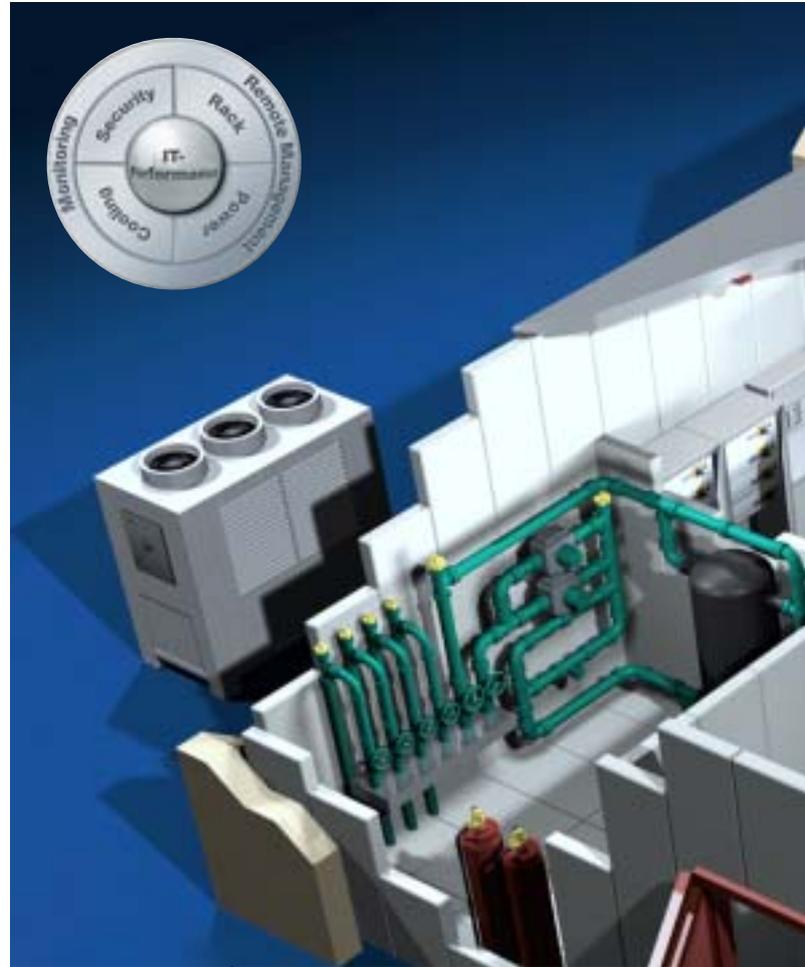
Rack

- Perfectly designed cable management
- Load capacity up to 1000 kg within the 482.6 mm (19″) installation
- Individual installation with a comprehensive range of system accessories
- Maximum useful interior volume
- Approvals and certifications
- Nanoceramic coating for maximum surface protection

IT Catalogue, from page 12

Power

- Low-voltage switchgear (individual configuration)
- Single and 3-phase UPS systems with 1 – 800 kW
- Pre-configured low-voltage distributor (PDR)
- Intelligent socket strips

IT Catalogue, from page 92

Cooling

- Passive cooling with perforation of the doors or base/plinth
- Active room cooling with air circulation cooling units
- High performance cooling (LCP) up to 30 kW/rack

IT Catalogue, from page 112

Security

Modular security management CMC
- Logging of all safety-relevant parameters in and on IT racks, such as temperature or humidity
- Video monitoring
- Uncomplicated, fast and flexible with wireless sensor network

IT Catalogue, from page 152

Monitoring & remote management

- Access control system
- SSC (Server Switch Control) for up to 2048 servers, depending on the design
- Software RiWatchIT
- Modular KVM switches (SSC)

IT Catalogue, from page 186

Service

Individual Rittal service packages for optimum availability, sub-divided into:
- Reachability
- Response time
- Spare parts availability
- Maintenance
- Warranty extension

IT Catalogue, from page 202

Rittal – Complete IT competence

Rittal
IT infrastructure
Worldwide perfect system solutions for data centres. In RimatriX5, Rittal offers rack, power, cooling, security and monitoring from a single source.

Lampertz
Physical IT security
One-stop suppliers for data centre structures. Modular IT security solutions, comprising IT rooms, functional reliability, maintenance and repair.

Litcos
Business continuity management
One of the leading companies in Europe for the analytical consultancy and holistic planning of data centre structures.

All in all – solutions from Rittal

Industrial Enclosures

Power Distribution

Electronic Packaging

System Climate Control

IT Solutions

Network enclosures · Server racks · KVM technology
Telco racks · Office solutions · Distributor racks
Wall-mounted enclosures · RimatriX5 · Power management
concepts · IT cooling · Monitoring · Security · Services · Kiosks

Communication Systems

Rittal has one of the largest ranges of enclosures available for immediate delivery. However, Rittal also supplies integrated solutions – up to Level 4. This comprises mechanical installation, power supply, electronic components, climate control and central monitoring. For all of your requirements.

Fully assembled and functional. Wherever in the world you develop and implement solutions for yourself and your customers, we are close at hand. The global alliance between production, distribution and service guarantees closeness to the customer. Worldwide!

05/09 · E597

Switch to perfection **RITTAL**®