



opticamSWITCH



NEUTRIK[®]

Neutrik's opticamSWITCH

Fiber optic camera switch

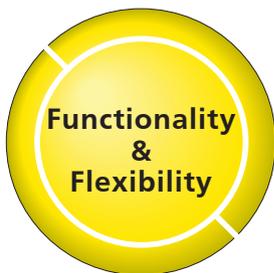
The opticamSWITCH is the ultimate solution for fiber optic camera routing within broadcast studios. The device allows the switching of unlimited camera positions between several studios and control rooms, eliminating the need for high-maintenance, risky matrix patch fields using SMPTE patch cables. The device works on trendsetting, silica-based PLC (planar light-

wave circuits) equipped with TO (thermo optic) switches. The innovative design guarantees rugged and safe non-blocking fiber plus camera power switching without any moving parts. The LAN-based remote control software simplifies work, shows switching and camera status, and enables broadcast production automation.



Neutrik's application engineers plan and optimize each opticamSWITCH setup together with our customers in consideration of existing equipment and work flow behavior of the broadcast or production studio.

The modularity of the system offers highest project flexibility and ease future expansions, moreover it avoids the loss of all camera signals at the same time.



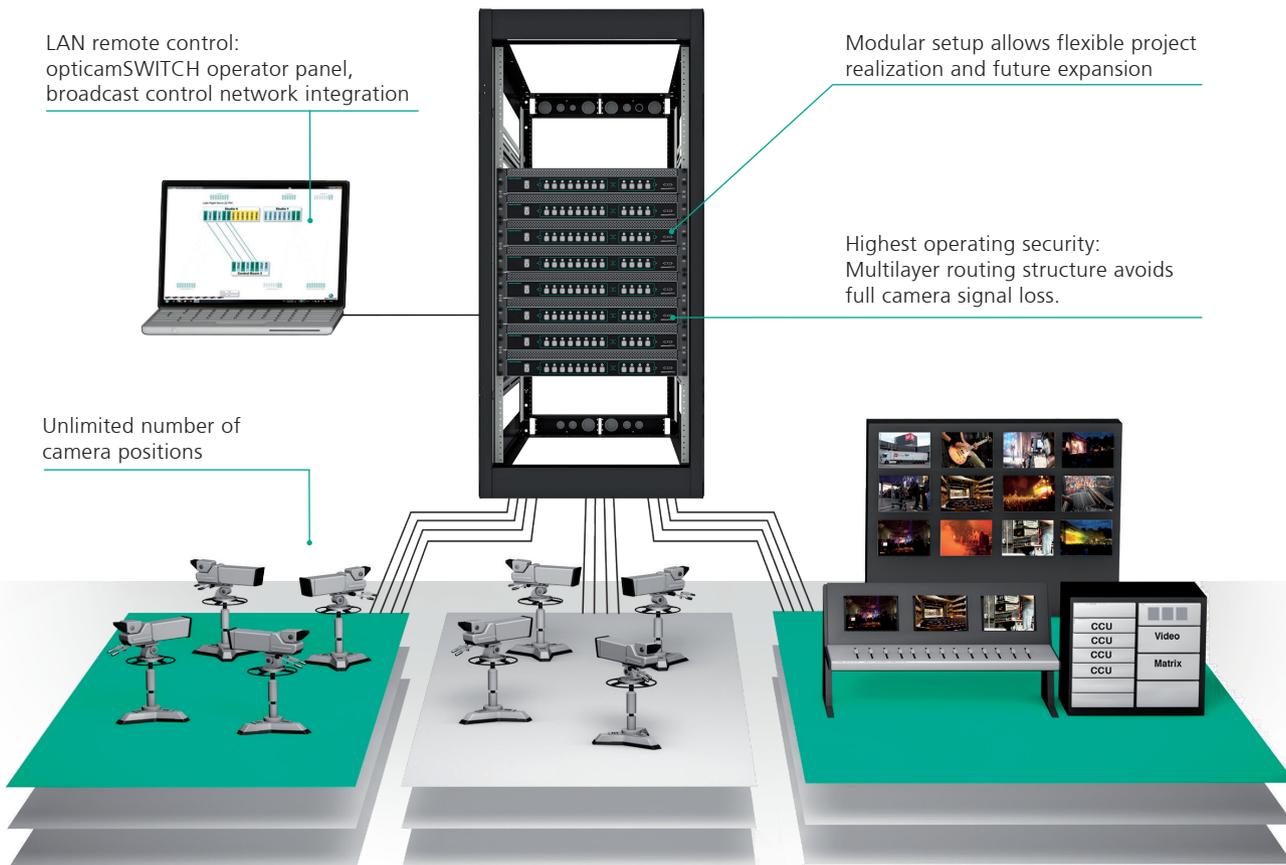
LAN remote control:
opticamSWITCH operator panel,
broadcast control network integration



Modular setup allows flexible project realization and future expansion

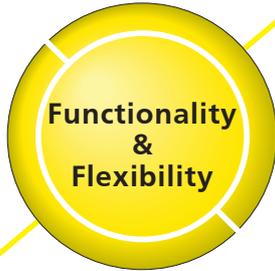
Highest operating security:
Multilayer routing structure avoids full camera signal loss.

Unlimited number of camera positions



opticamSWITCH

Functionality & Flexibility



Modular system

Customizable project setup

Any project setup can be established by combining multiple devices, our application engineers optimize each project based on customer requirements, existing infrastructure and work flow behavior.

Flexible expansion

The modularity of the system offers highest project flexibility and ease future expansions.



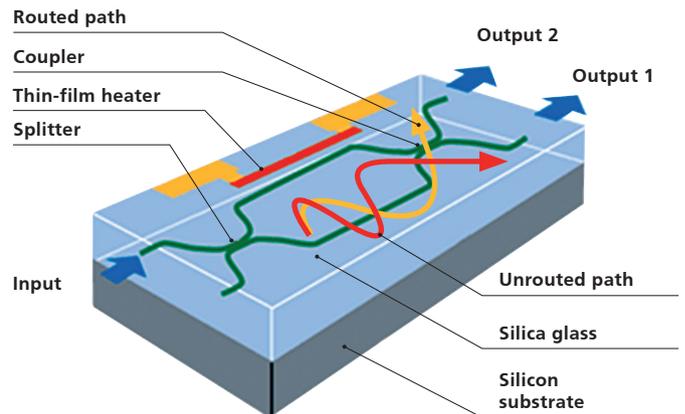
“All-in-one” fiber & copper routing

Camera safety circuit & power supply routing

The opticamSWITCH routes fiber optic camera signals plus camera power. The switching of camera power up to 400Vdc would require costly mechanical relays. The integrated “Power Working Circuit” manages camera routing authority and constantly measures voltage & current from routed CCUs (camera control unit) allowing the use of space and cost effective solid state relays.

Thermo optic PLC based fiber signal routing

Thermo optic PLC (planar lightwave circuit) routing works without moving parts and offers highest security in fiber optic switching. Nanostructures in combination with interlinked splitter / coupler combinations result in a maximum insertion loss of 3dB.



Error-free routing

User-specific operator software

An integrated user management eludes accidental removal of drawn connections.

Hardwired connections; software controlled routing

Software controlled routing avoids patching and connection errors in contrast to traditional patch-field solutions.



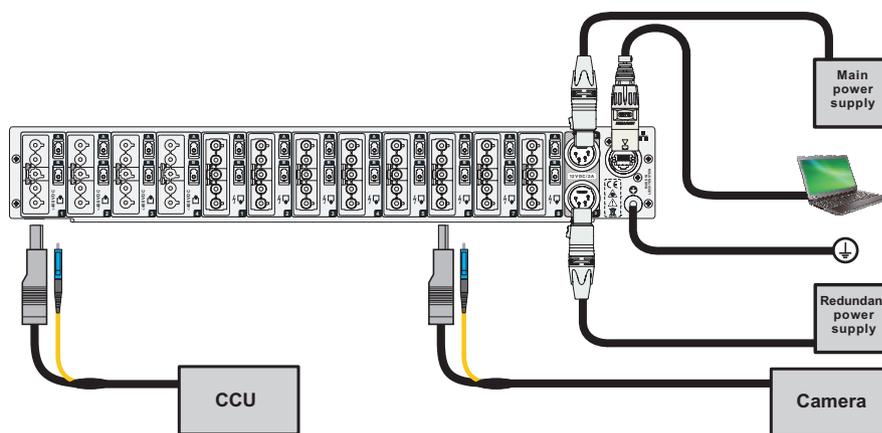
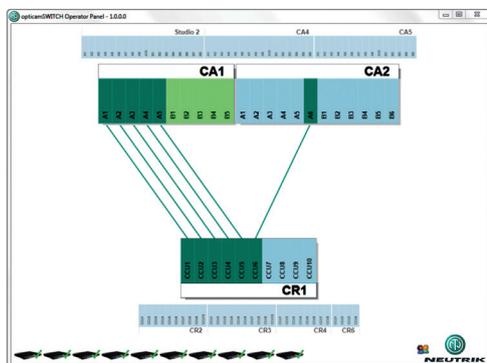
Operation reliability

Multilayer routing eliminates total signal loss

The risk of a total camera signal loss is automatically eliminated by distributing camera signals on independent multiple devices.

Emergency operation

For security reasons the opticamSWITCH can act as a stand-alone unit independent from LAN, offers manual routing and auxiliary power supply.



opticamSWITCH

Time & cost savings

settingstandards

Time &
cost
saving

Quick camera routing

Neutrik operator software

The opticamSWITCH operator panel offers intuitive “drag & drop” operation, presets and status information. Acting as webserver the device allows remote access from in-house or external locations.

Integration in broadcast control systems

Route your camera with the push of a button. The opticamSWITCH can be integrated in broadcast control systems as from BFE, DNF Controls, etc.



Maintenance-free

No fiber cleaning required

Hardwired fiber connections eliminate the risk of contamination and frequent maintenance of patch cables and chassis.

Connections hardwired

Wieland/LC – breakout cables enhance the implementation of the opticamSWITCH.



Project example – Swiss Television

An investment in expensive HD and 3D equipment can be optimized by dint of a well-conceived, flexible system architecture, paired with a fiber optic camera switch solution. Swiss Television carefully considered how best to deploy its existing HD and 3D equipment within an expansion of its studio infrastructure. tpc ag (technology and production center, Switzerland ag) – an independent subsidiary of SRG SSR – analyzed various new ideas and opted for a future-proof concept. Neutrik's opticamSWITCH flexibly connects tpc ag's existing cameras and control rooms to one other. Furthermore, as they come online, two planned new control rooms and studios will be easily integrated into the system. Since opticamSWITCH is a fiber optic camera switching system, mechanical wear, costly maintenance, and possible mechanical failure are eliminated, resulting in a robust, reliable solution. Integration into existing control systems, with control via software, enables

automation and allows for real-time control over complex wiring structures. This increase in efficiency – with significant reduction of potential errors – led tpc to employ the opticamSWITCH concept in its "BigSwitch" project. After some trial and smaller productions, the system was put into use on a grand scale at the live production "Decision 11 – Swiss National Council Elections." The media's reporting was realized by tpc using Neutrik's latest fiber optic technology, opticamSWITCH.



tpc BROADCAST AND BEYOND

Technical information

General specifications

Maximum number of inputs	8	Main power supply	12 Vdc / 2 A
Maximum number of outputs	4	Max. power consumption	24 W
Power connectivity	Wieland GST 1815F B2 R V SW	Dimensions (w x h x d)	432 x 66 x 389 mm
Optical connectivity	LC connector	Weight	6.3 kg

Electrical Data

Fiber

Operating wavelength	1310 nm	Maximum optical return loss (ORL)	< -45 dB
Maximum insertion loss (IL)	< 3.0 dB	Fiber compatibility	9 / 125 Single-mode PC (physical contact)
Maximum insertion loss uniformity	1 dB		

Electrical

Rated voltage power lines*	400 Vpk	Maximum current (power / sense)	3 A / 0.2 A
Rated voltage sense lines	42.4 Vpk / 60 Vdc	Software status refreshy	1 / s

Environmental

Operating Temperature	0 °C to +40 °C	Electromagnetic compatibility	EN55022; EN55024
Storage Temperature	-25 °C to +75 °C	patent pending	

* ... ask for compatibility list of fiber optic camera systems.

Liechtenstein (Headquarters)

NEUTRIK AG, Im alten Riet 143, 9494 Schaan
T +423 237 24 24, F +423 232 53 93, neutrik@neutrik.com

Germany / Netherlands / Denmark / Austria

Neutrik Vertriebs GmbH, Felix-Wankel-Strasse 1, 85221 Dachau, Germany
T +49 8131 28 08 90, info@neutrik.de

Great Britain

Neutrik (UK) Ltd., Westridge Business Park, Cothey Way
Ryde, Isle of Wight PO33 1 QT
T +44 1983 811 441, sales@neutrik.co.uk

France

Neutrik France SARL, Rue du Parchamp 13, 92100 Boulogne-Billancourt
T +33 1 41 31 67 50, info@neutrik.fr

USA

Neutrik USA Inc., 4115 Taggart Creek Road, Charlotte, North Carolina, 28208
T +1 704 972 30 50, info@neutrikusa.com

Japan

Neutrik Limited, Yusen-Higashinonbashi-Ekimae Bldg., 3-7-19
Higashinonbashi, Chuo-ku, Tokyo 103
T +81 3 3663 47 33, mail@neutrik.co.jp

Hong Kong

Neutrik Hong Kong LTD., Suite 18, 7th Floor Shatin Galleria
Fotan, Shatin
T +852 2687 6055, neutrik@neutrik.com.hk

China

Ningbo Neutrik Trading Co., Ltd., Shiqi Street, Yinxian Road West
Fengjia Villiage, Yinzhou Area, Ningbo, Zhejiang; 315153
T +86 574 88250488 800, neutrik@neutrik.com.cn

India

Neutrik India Pvt. Ltd., Level 3, Neo Vikram, New Link Road,
Above Audi Show Room, Andheri West, Mumbai, 400058
T +91 982 05 43 424, anlesaria@neutrik.com

Associated companies

Contrik AG

Steinackerstrasse 35, 8902 Urdorf, Switzerland
T +41 44 736 50 10, contrik@contrik.ch

H. Adam GmbH

Felix-Wankel-Straße 1, 85221 Dachau, Germany
T +49 08131 28 08-0, info@adam-gmbh.de



www.neutrik.com

opticamsSWITCH

settingstandards