Optical converter

KO-2es-01

Conversion of STANAG 4210 trunks into an optical trunk

Control from a local panel

Rugged compact case

Optical converters are designed to create digital trunks having bitrates of 128 kbps to 2048 kbps on the basis of optical fibers from stationary cables. Digital trunks created by converters are designed to work in Encrypted Digital Connection Subsystem (EDCS), a field telecommunications system created by switching (SE) and transmission equipment shelters (TE) and to cooperate with a public system.

A pair of optical fiber converters called KO-2es-01 connected with a fiber optical cable, may form a digital trunk having the bitrates of 128, 256, 512, 1024 or 2048 kbps. A change of operation speed and operation mode is performed manually by means of buttons on the front panel of the converter. The range of the converter depends on signal power attenuation in the fiber optical line and it does not depend on bitrates. Maximum attenuation of an optical fiber line should not exceed 16 dB.

The converter cooperates on the station side with switches and multiplexers of the STORCZYK system via a group encrypting device, group connector of the STANAG 4210 type (TRUNK connection). Direct cooperation with the switch is also possible by excluding the encrypting device (i.e. unencrypted operation).

On the line side, converters cooperate with one another using two-fiber, multimodal optical fiber cables 62.5/125 μm or 50/125 μm.

KO-2es-01 is a device adjusted to work whilst in motion and designed to be used use in three positions.

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TECHNICAL PARAMETERS

BASIC FUNCTIONALITIES

Optical converter of STANAG trunks
Execution of optical trunk connections
Connection speed from 128 kbps to 2048 kbps
Connections realized by optic two-fibre, multi-modal optic fibre 62.5/125 µm or 50/125 µm
Configuration from a local panel

INTERFACES

Station-based electric trunk	**STANAG 4210**
	8D0C13W08SN Souriau connector
Optical trunk	**OPTO**
	MFM-002RZN (MFM-49-07-011-5-0.5-LC) Amphenol connector
Wavelength	1330 nm
Transmitter power	-12 dBm±2 dBm
Receiver sensibility	-28 dBm
Speed rate	128, 256, 512, 1024, 2048 kbps

POWER SUPPLY

Power supply	+27 V (from 19 V to 35 V)
Power consumption	<11 W

OTHER TECHNICAL PARAMETERS

Dimensions (HxWxD)	175x140x65 mm
Weight	<5 kg
Mechanical-climatic classification	Groups N.7, N.9 and N.11-O-II(A and B), acc. to NO-06-A101÷108 (MIL-STD-810G compliant) (multi-use and continuous use equipment)
Electromagnetic compatibility	NO-06-A200 (MIL-STD-461F compliant) (KRE-02, KCE-02, KCS-01, KCS-06, KCS-07, KCS-08, KRS-02)
Operating temperature	From -30°C to +60°C
Storage temperature	From -40°C to +65°C
Humidity	95-98% at +40°C

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