

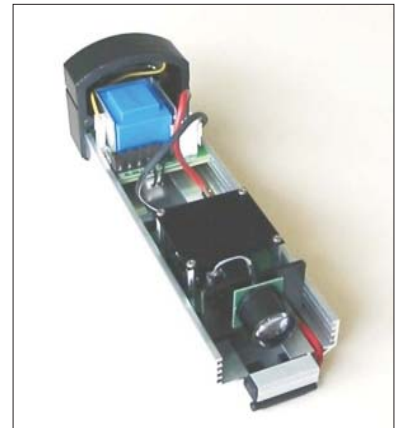
## Infrared Video Transmission



IVIS in case IP 20



IVIS in case IP 66



### APPLICATION

Wireless video transmission by means of directed infrared radiation through the atmosphere for operational range up to 500 m - *the alternative to transmission by wire or radio.*

For use in video monitoring systems, alarm systems; in traffic monitoring and control systems.

# IVIS

### FEATURES

Not affected by electromagnetic interference fields; almost completely proof against eavesdropping (compared with radio links)

Low installation costs, free of wear and with a long operating lifetime; for reliable operation, a direct line of sight must exist between the ends of the planned link.

The infrared radiation is generated by an IR-LED, GZS < laser class 1, safe for the eyes.

Project-specific special solutions in, for example, transport or automation technology can be implemented quickly and at a very good price/performance ratio.

IVIS consisting of an IR video transmitter and an IR video receiver.

The optical and electronic components of each unit are enclosed in a corrosion-protected case.

The use of various optical systems for transmission and reception permits the construction of four different configurations each for transmission and reception, and these can be combined with each other without restrictions (see Table 1).

For outdoor installation, the transmitter or receiver is mounted and adjusted in a weatherproof case with the degree of protection IP 66.

In such cases, the units receive their power from the 230 VAC supply via an integrated power supply unit. The cases are equipped with thermostatically controlled heaters for the windows.

### MAIN TECHNICAL PARAMETERS

Supply voltage:	12 VDC / 50 mA (IVIS.E) 12 VDC / 100 mA (IVIS.S) 230 VAC for versions with weatherproof case IP 66
Ambient temperature:	-25 to +65 °C
Degree of protection:	IP 20 or IP 66
Modulation type:	frequency modulation
Bandwidth:	> 5 MHz, monochrome, colour
Signal-to-noise ratio:	> 45 dB
Input/output:	(F)BAS, 1 V <sub>pp</sub> into 75 Ohm

Transmit angle	Receive angle			
	1,5°	3°	5,7°	9°
1°	500	225	140	100
1,5°	270	120	75	50
3°	170	75	50	35
7°	85	40	25	20

### ORDERING INFORMATION

IVIS.S - W: Infrared transmitter IP 20

IVIS.E - W: Infrared receiver IP 20

IVIS.SG - W: Infrared transmitter in weatherproof case IP 66

IVIS.EG - W: Infrared receiver in weatherproof case IP 66

W: Specification of the transmit or receive angle in degrees

Option: Transmit angle >9° and video transmission range > 500m on request

### IVIC II

IVIC II is an infrared video and control-signal transmission system for the wireless transmission of video signals and of the data from an RS 232 or RS 422 interface in the other direction. The operating range is 500 m.

#### TECHNICAL DATA

Transmission range: 20...500 m  
 Transmit angle: 0,5°  
 Receive angle: 1°  
 Supply voltage: 230 VAC

#### Video link

Bandwidth: > 5 MHz, monochrome, colour  
 Signal-to-noise ratio: > 45 dB  
 Input/output: (F)BAS, 1 V<sub>ss</sub> into 75 Ohm

#### Simplex RS 232 link

Transmission rate: 19,2 kBit/s

#### Simplex RS 422 link

Transmission rate: 50 kBit/s

#### ORDERING INFORMATION

IVIC II: Infrared video transmission system, consisting of module  
 IVIC II - 1 (video transmitter and RS232/RS422 receiver)  
 IVIC II - 2 (video receiver and RS232/RS422 transmitter)

### INET

INET is an infrared transmission component for Ethernet computer networks in accordance with IEEE 802.3 which permits the partial or complete wireless configuration of such networks.

Data can be transmitted over distances of up to 500 m. INET operates bidirectionally, i.e. the collision protection and the interfaces comply with IEEE 802.3.

The equipment system comprises the modules INET-M1 and INET-M2, both of which are normally required at each end of the intended link.

The module M1 is an optical 10-Base-FL transceiver for direct coupling to the network and for conversion of the signals for transmission by fibre optics, while the module M-2 contains the transmit and receive amplifiers for the wireless transmission through the atmosphere.

If the network already contains fibre optic components, these can be connected directly to the INET module M2; the module M1 is not needed in such cases.

#### TECHNICAL DATA

Transmission range: 20...500 m  
 Transmit angle: 0,5°  
 Receive angle: 1°  
 Transmission standard: IEEE 802.3 10-BASE-FL  
 Fibre-optic interface: Fibre optic 50/124 µm, plug ST  
 Supply voltage: 230 VAC

#### ORDERING INFORMATION

INET - M1: Optical 10-Base-FL transceiver, including two fibre-optic cables with plugs, standard length 3 m, other lengths to order  
 INET - M2: infrared transceiver module

Two modules of each type are required for one infrared transmission link.

The case for IVIC II, INET, IRS<sub>0</sub> and RS-V provides the degree of protection IP 66. A thermostatically controlled window heater permits operation even in bad weather. An aiming telescope is included with the set to simplify adjustment.

### RS - V

RS - V is a universally usable infrared transmission system for bi-directional serial interfaces which can be used for the wireless connection of data signals. RS - V is available for the interface types RS 232, RS 422 and 20 mA (TTY). The transmission range is up to 2,000 m, the transmission speed up to 256 kbit/S (RS 422).

An RS - V equipment set comprises two identical transceivers. Each RS - V module contains an IR transmitter and an IR receiver.

#### TECHNICAL DATA

Transmission range: 20...2000 m  
 Transmit angle: 0,5°  
 Receive angle: 1°  
 Supply voltage: 230 VAC  
 Transmission rates:  
 - RS 422 256 kBit/s  
 - RS 232 19,2 kBit/s  
 - TTY 1 kBit/s

#### ORDERING INFORMATION

RS-V: Infrared transmission system (bi-directional Interface), range 2000 m  
 V: RS422; RS232; TTY;

### IRS<sub>0</sub>

IRS<sub>0</sub> is a universally usable infrared transmission system for bi-directional ISDN base connections which can be used for the wireless connection of digital transmission channels within ISDN PABX systems or between two such systems. IRS<sub>0</sub> thus permits either complete or partial configuration of ISDN PABX systems with remote components.

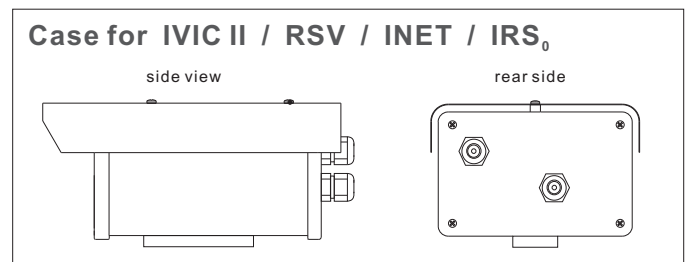
For connection of a passive terminal device, each module has a card position into which a card can be inserted on the subscriber side in order to supply the S<sub>0</sub> bus with 40V.

#### TECHNICAL DATA

Transmission range: 20...1000 m  
 Transmit angle: 0,5°  
 Receive angle: 1°  
 Supply voltage: 230 VAC  
 Transmission channels: 2 B-channels with 64 kBit/s  
 1 D-channel with 16 kBit/s transparent  
 Protocol:

#### ORDERING INFORMATION

IRS<sub>0</sub>: ISDN - infrared transmission system consisting of two identical modules  
 IRS<sub>40</sub>: Plug-in card for supplying the S<sub>0</sub> bus V on the subscriber side with 40 V



Ambient temperature: -20 bis +50°C  
 Degree of protection: IP66  
 Window heater: thermostatically controlled  
 Weight: ca. 4 kg  
 Dimensions (LxWxH): 200 mm x 170 mm x 110 mm  
 Case: light alloy, painted grey