FIBRE-OPTIC ASYNCHRONOUS MODEM TELEM-FO11 v. 4

The modem is used for point-to-point communication, for secure transmission over long distances between different units. Since the fiber-optic cable is fully immune to external interference, it is ideal for exposed environments. Fiber-optic cable is also ideal when a high level of security is required, since it is difficult to tap. The modems can handle transmission speed of up to 38400 bit/s.

Technical data

Transmission:	Asynchronous, full duplex or simplex
Interface 1:	EIA RS-232-C/CCITT V.24/V.18, 9-pin D-sub, female and RJ12
Interface 2:	Simplex (single-fiber cable), duplex (two-fiber cable) 2 ST connectors, 820 nm fiber-optic cable 50/125, 62,5/125, 100/140,200PCS or plastic optical fiber Versatile Link
Transmission speed:	Speeds up to 38400 bit/s
Power supply:	8...30 V DC
Power consumption:	5VA (current draw max 100 mA)
Temp/humidity:	Temp: -25… 50 ℃, ambient temperature/Humidity: 0 - 95% RH, without condensation
Dimensions, mm:	55 x 75 x 110
LEDs:	Power, TX, RX
Weight, kg:	0,2

Fiber:	50/125	62,5/125	200 PCS
Power budget:	3,7 db	7,5 db	18 db

Communication distance

To calculate the distance, which a fiber-optic cable can manage, the power budget for the system must be checked. All losses in the connection, i.e. due to joints and attenuation are deducted from the power budget.

Losses in fiber-optical cable		Losses in	Losses in splices	
Fiber	Attenuation	connectors		
50/125	3,0 db/km	0,2 - 0,4 db	Fusion	0,1 db
62,5/125	3,5 db/km		Mechanical	0,2 db
200 PCS	6,0 db/km			

Plastic Versatile Link attenuation 0,15-0,18 dB/m communication distance 30m (40 kbd)

Data connector pin layout

DB9 F pin	RJ 12	Signal	Signal name
2	4	RX	Received data
3	3	TX	Transmitted data
5	2	GND	Ground