

INTERROGATION MONITORS FBG

DIAGNOSTICS AND MONITORING

FBG interrogation unit FIU – 44 - 1.55 – 40 – x – A4 up to 4 kHz provides registration of optical signals from unified sensor heads based on Fiber Bragg Gratings (FBGs) with a sampling frequency up to 4 kHz per second for one channel.

Data processing and visualization can be performed by the built-in computer with specialized software.



The distinctive features of the interrogation unit for process control are:

- ❖ the ability to transmit data via the Modbus protocol through various interfaces (Ethernet, RS485, RS232) to the user system;
- ❖ simultaneous measurement of a number of physical quantities (temperature, strain, pressure, load, etc.);

INTERROGATIONS SPECIFICATION	FIU-44-1.55-40-S-A4-IP40	FIU-44-1.55-40-Er-A4-IP40
Spectral width of an optical channel, nm	1510 ÷ 1595	1525 ÷ 1595
Polarization state of the light source	partially polarized	depolarized
The number of optical channels		1 – 8*
The number of sensors per channel		16
Range of intensities of the registered optical signals, dBm		-80 ÷ -20
Dynamic range, dB		25
Total optical power light source, dBm		0**
Sampling frequency for one channel, kHz		< 4
Processing time and outputting data of one channel, sec		< 0.05
Software	full-featured software URM_Control	
Output interfaces	USB 2.0, USB 3.0, Ethernet RJ45, SVGA, DVI-I, HDMI	
Power consumption, W		< 250
Protection class IEC 60529		IP40
Working temperature range, °C		+10 ÷ +40
Humidity, % (no condensation)		< 80
Power supply, V/Hz		220/50

* - each channel of the module can be divided into 2/4/8/16 optical lines upon request

** - on request