Emerson EPRO Series Service Manual

A6220

1. Description

Emerson CSI A6620 Process Input

3. Product Information

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Emerson CSI A6620 Process Input
Monitor for CSI 6500
Machinery Health Monitor
The Process Input Monitor is designed for high reliability for the plant’s most critical rotating machinery monitoring process inputs such as temperature, pressure, load, etc. This 1-slot monitor is used together with other CSI 6500 monitors to build a complete API 670 machinery protection monitor. Applications include steam, gas, compressors and hydro turbo machinery.
The main functionality of the Process Input Monitor is to accurately monitor process parameters and reliably protect machinery by comparing parameters against alarm setpoints, driving alarms and relays.
Process inputs can be ±1 V; ±10 V or 0/4-20 mA. The CSI 6500 Machinery Health Monitor is an integral part of PlantWeb® and AMS Suite.
PlantWeb provides operations integrated machinery health combined with the Ovation® and DeltaV™ process control system. AMS Suite provides maintenance personnel advanced predictive and performance diagnostic tools to confidently and accurately determine machine malfunctions early.
Transducer Inputs
Number of Inputs Four, independent
Type of Inputs Voltage or current
 ±1 V or ±10 V
 0/4-20 mA
Analog Outputs 4 current outputs, 0/4-20 mA
 Galvanically separated, 500 Ω
Accuracy Temperature error: < 0.25% per 10k
 Linearity error at 20°C < 1%
Alarm Outputs Channel OK, alert and danger for each input
Front Panel Outputs
Green LED’s Four LED’s, indicates channel OK separately for each channel
Red LED’s Eight LED’s, indicates alert and danger separately for each channel
Mini DIN Configuration Socket Module interface connection for configuration and parameter and status monitoring
 RS-232
Handle Easily remove card and provide plate for module and sensor identification
Configurable Parameters Measuring range
 Engineering units
 Alert and Danger
 Available via ModBus TCP/IP output
Alarm Setpoints Alarm Time Delays
Alert Selectable normally open, normally closed
 0 - 5 second delay per channel
 0 - 36 second delay with A6740 relay card
 Selectable to be blocked on channel not OK
 Adjustable range 5 - 100% of full scale value
 Resolution 1% of full scale value
 Alarm hysteresis on decreasing signal value, 0 - 20% of full scale value
Danger Selectable normally open, normally closed
 0 - 5 second delay per channel

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 0 - 36 second delay with
A6740 relay card
 Selectable to be blocked
on channel not OK
 Adjustable range 5 - 100%
of full scale value
 Resolution 1% of full scale value
 Alarm hysteresis on decreasing
signal value, 0 - 20% of full scale value
OK Self checking (normally closed):
 Power supply, sensor, cable,
module checking, overload, internal
temperature, system watchdog
Green LED:
 Off when not OK
 During delay time, LED flashes
 Reason for not OK can be
read from communication bus
Limit Multiply Remote, relay input, 1.00-4.99 factor
Trip Bypass Remote, relay input
Environmental, General
Front Plate IP 00, DIN 40050
Climate IP 21, DIN 40050
Operating Temperature DIN 40040 class KTF
Storage Temperature 0° - 65°C (32° - 149°F)
Relative Humidity -30° - 85°C (-22° - 185°F)
Vibration IEC 68-2, part 6
 0.15 mm, 10 - 55 Hz
 19.6 mm/s2, 55 - 150 Hz
Shock IEC 68-2, part 29
 98 m/s2 peak, 16 ms
EMC Resistance EN50081-1 / EN50082-2
Power Consumption Max. 6 W, 250 mA at 24 VDC
Configuration Password protected
A6620 Dimensions:
PCB/EURO card format according to
DIN 41494, 100 x 160mm (3.937 x 6.300in)
Width: 30.0mm (1.181in) (6 TE)
Height: 128.4mm (5.055in) (3 HE)
Length: 160.0mm (6.300in)
Net Weight: app 320g (0.705lbs)
Gross Weight: app 450g (0.992lbs)
includes standard packing
Packing Volume: app 2.5dm3
(0.08ft3
)
Space
Requirements: 1 slot
14 modules fit into each 19” rack
Ordering Information
Model Number Product Description
A6620 Four-channel Process Input Monitor
(for use in the IMR 6000/20 chassis)
 Four-channel, 3U size, 1-slot plugin module decreases cabinet space
requirements in half from traditional
four-channel 6U size cards
 API 670 compliant,
hot swappable module
 Remote selectable limit

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multiply and trip bypass

 Front and rear buffered

and proportional outputs,

0/4-20 mA output, 0 - 10 V output

 Self-checking facilities

include monitoring hardware,

power input, hardware temperature,

sensor and cable

 For use in the IMR600020 chassis

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