## AOS-9730051

## مناقصه شماره ۴۶۴-۹۹

ROW	MESC	UNIT	QTY	DESCRIPTION
	•			P/F "BRUEL & KJAER" SAFETY
				MODEL VIBROCONTROL 6000
				P/F "BRUEL & KJAER" SAFETY
				MODEL VIBROCONTROL 6000
				REF BRUEL & KJAER
				LOCATION MOB & BPC & AOGC
1	5908699043	NO	2	SIGNAL MODULE
				P/N SM-610-A07
2	5908698993	NO	2	SAFETY MONITOR
				P/N SM-610-139
3	5908698873	NO	2	COMMUNICATION
				P/N CI-620



# **Product Specifications**

VC-6000 Monitoring System Monitoring Module - SM-610-139 4x Rod Drop, 4x Speed Channels, 8x DC Outputs, 8x Relays

The VC-6000 Monitoring System hardware is used for both stand-alone safety monitoring and condition monitoring using the Compass 6000 monitoring software modules and database. The VC-6000 offers various standard monitoring modules, power supply modules and communication modules. This Product Specification describes the SM-610-139.

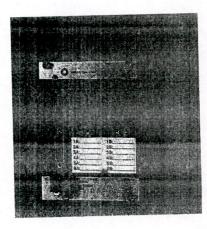
### Applications

The SM-610 series of VC-6000 Monitoring Modules are designed to provide protective monitoring of various types of industrial machines. The SM-610-139 is specifically designed for monitoring rider ring wear of up to four cylinders of a reciprocating compressor.

### **General Description**

The features and functions common to all SM-610 Monitoring Modules are briefly listed below. Please refer to the VC-6000 Product Specifications (BPS 0044) for more information.

- Interfacing with the CI-6xx Communication
- Modules High speed digital signal processor
- Relay outputs (logic controlled)
- OK-relay status indication
- Extensive local LED indication
- Flash memory for storing settings and local logbook
- High speed reaction time 10ms
- Alarm limits with programmable hysteresis and response delay time
- Global trip multiply and override
- Extensive self-monitoring functions
- System bus interface to other modules
- Buffered vibration outputs



### Inputs

- 4x rod drop sensor signals
- 4x speed/phase reference signals

### Outputs

- 8x analogue DC outputs
- 8x relays (4x Alert, 4x Danger) -1-out-of-4 voting logic

### Measurements

- DC 4x cyclic, 4x static shaft position
- 4x RPM



## **Product Specifications**

### VC-6000 Monitoring System Monitoring Module - SM-610-A07

User-Defined: up to 12x Vibration Inputs, up to 12 x process inputs (galvanic isolated), up to 12x Axial position, up to 2x Phase Reference/Speed with 8x Relays

The VC-6000 Monitoring System hardware is used for both stand-alone safety monitoring and condition monitoring using the Compass 6000 monitoring software modules and database. The VC-6000 offers various standard monitoring modules, power supply modules and communication modules. This Product Specification describes the SM-610-A07.

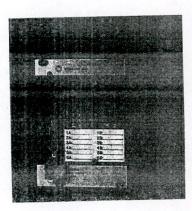
### **Applications**

The SM-610 series of VC-6000 Monitoring Modules are designed to provide protective monitoring of various types of industrial machines. The SM-610-A07 is specifically designed as a "user-defined" monitoring module, where there are a number of selectable differential inputs and outputs. This is useful for monitoring machines with applications, e.g. in the oil & gas industry.

### **General Description**

The features and functions common to all SM-610 Monitoring Modules are briefly listed below. Please refer to the VC-6000 Product Specification (BPS 0044) for more information.

- Interfacing with the CI-620 Communication
- High speed digital signal processor
- Relay outputs (logic controlled)
- Module OK-relay status indication
- Extensive local LED indication
- Flash memory for storing settings and local logbook
- High speed reaction time
- Alarm limits with programmable hysteresis and response delay time
- Global trip multiply and override
- Extensive self-monitoring functions
- System bus interface to other modules
- Buffered input signal outputs



- Up to 12x vibration input channels- freely configurable with measurements
- 6x binary input channels
- Up to 12x axial position
- Up to 12x process inputs (Voltage signals over galvanic isolated converters only!)
- Up to 2x speed inputs, with one dedicated for 1x Master <sup>1</sup> (central) trigger input signal 1x Slave input channel
  - als to other SM-610-xxx modules

## on communication Module

### Application

- OPC communication with all SM-610 modules
- Single or dual Modbus RTU communication interface
- Synchronisation with an external time reference
- Exporting scalar data for visualization, postprocessing and storage
- Exporting alarm and event information
- Exporting digitised time signals for signal analysis, diagnostic monitoring and storage
- Global Reset of the monitoring system: Alarm acknowledgement and relay reset
- Global Trip Override: Monitoring function ON/OFF
- Global Trip Multiply: Trip Multiply function ON/OFF
- Interface for Setup & Service

### Features exclusive to Ci-520

- Two D-Sub serial interfaces (RS-232 & RS-485)
- 100 Mbit TCP/IP Ethernet interface (RJ-45; 100BaseT)
- Binary input for global Trip Override ON/OFF
- Binary input for global Trip Multiply ON/OFF
- Binary input for global Reset (acknowledge alarms & reset relays)
- Switch (Normal operation / Service functions)
- Reset button (acknowledge alarms & reset relays)
- Global OK relay (OR connection of local OK relays of all SM-610 modules)
- "Run" LED for display of operating status

