

General Specifications

GS 33J15P20-01EN

VP6F3132
Valve Pattern Monitor
Package



[Release 6]

■ GENERAL

This document describes about VP6F3132 Valve Pattern Monitor Package which is a function block for monitoring valve's on/off position in a transport plant.

■ FUNCTION SPECIFICATIONS

The Valve Pattern Monitor is operated by the operation of a unit instrument.

● Valve Pattern Monitor Type

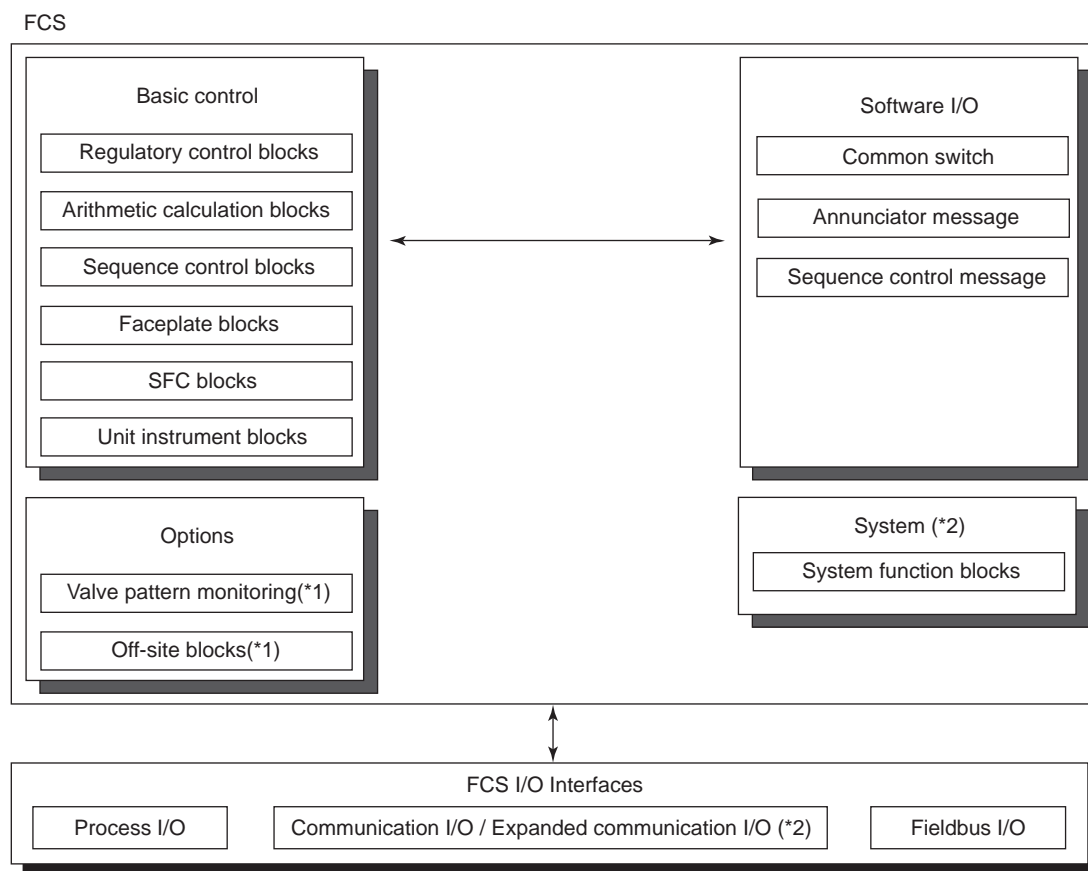
The following types of valve pattern monitors are available. Alarm inspection and the number of monitored valves (data) vary with its type. With the valve pattern monitor with alarm inspection function, operators can check valve alarm status.

Table Valve Pattern Monitor Type

Block Name	Name
VPM64	Valve Pattern Monitor for 64 Data
VPM128	Valve Pattern Monitor for 128 Data
VPM256	Valve Pattern Monitor for 256 Data
VPM512	Valve Pattern Monitor for 512 Data
VPM64A	Valve Pattern Monitor with Alarm Inspection for 64 Data
VPM128A	Valve Pattern Monitor with Alarm Inspection for 128 Data
VPM256A	Valve Pattern Monitor with Alarm Inspection for 256 Data
VPM512A	Valve Pattern Monitor with Alarm Inspection for 512 Data

● Position of Valve Pattern Monitor

This valve pattern monitor is controlled by a user application created by the user. The user application represents an operation scripted with SEBOL statements (i.e. an SFC block initiated from a unit instrument in the unit supervision function).



F01E.ai

*1: This option is applicable to all the control function for FCS except for PFC□-S, PFC□-E, and PFC□-H.

*2: The system function blocks and expanded communication I/Os are available in the control function for FCS for AFV30□, AFV40□, A2FV50□, and A2FV70□.

Figure Position of Valve Pattern Monitor

● Function of Valve Pattern Monitor

Simultaneous Monitoring of Multiple Valves

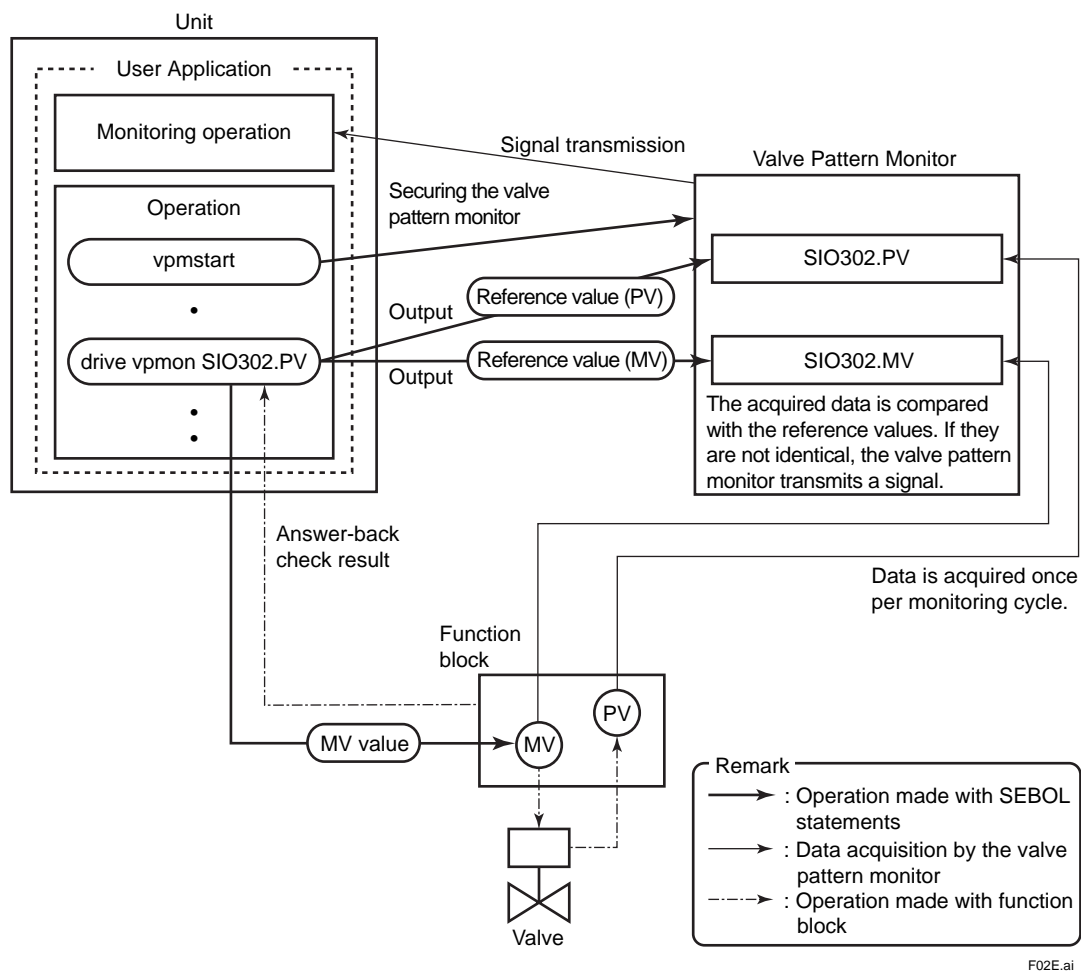
One valve pattern monitor can simultaneously monitor a maximum of 512 valves in a transfer-system plant.

The valves to be monitored are registered in the valve pattern monitor under operation of the unit instrument in the unit supervision function. SEBOL statements specific to the valve pattern monitor are used to register the valves to be monitored.

Abnormal Detection Signal

The valve pattern monitor returns an alarm signal to the unit upon detection of a valve abnormality. If such a signal is received, the unit performs alarm processing. Prior to using the valve pattern monitor, create the alarm process program for abnormal detection, and incorporate it in the operation of the unit.

The following figure shows the configuration of a valve monitoring system which uses the valve pattern monitor.



F02E.ai

Figure Example Configuration of Valve Monitoring System

Run View Display (Tuning View)

The following figure shows the Tuning view of the valve pattern monitor. This view displays valve pattern monitor run statuses such as the block mode, alarm status, and block status.

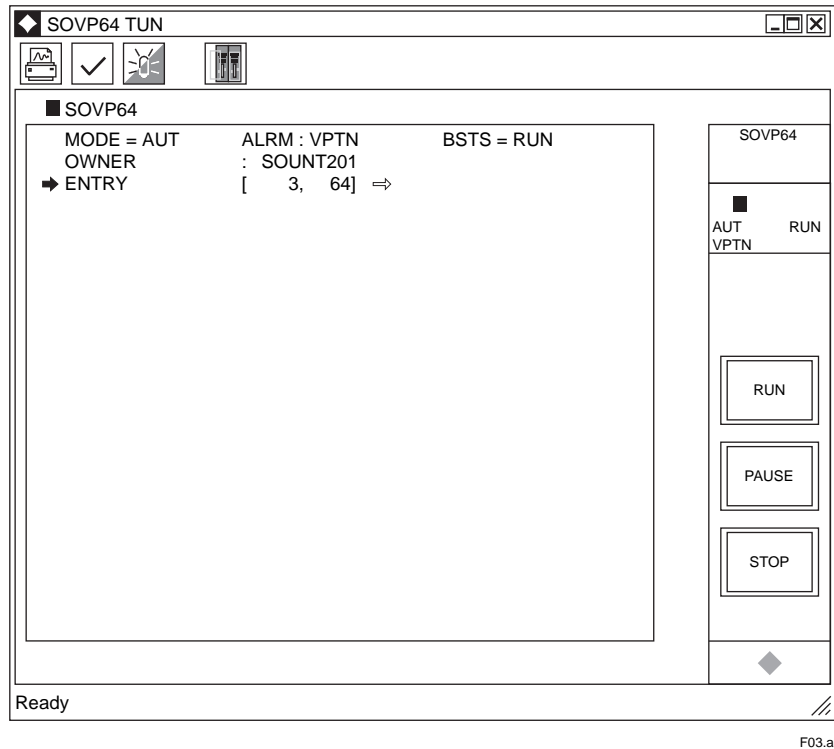


Figure Tuning View of Valve Pattern Monitor

● SEBOL Statements Specific to Valve Pattern Monitor

There are six SEBOL statements specific to the valve pattern monitor. These statements are used for creating user applications.

vpstart

This statement secures the specified valve pattern monitor and makes it available.

drive vpmon

This statement checks the valve to be monitored for output operation, then registers the object valve in the valve pattern monitor.

If “drive vpmon” is executed, it modifies the output status of the function block (motor control block or switch instrument block) to be operated by this statement, and it checks the valve for proper operation using the answer-back check of the function block. Then, the valve to be monitored and the data will be registered in the valve pattern monitor.

drive vpmoff

This statement deletes registration of the object valve and data, and then it checks the output operation of the valve.

If “drive vpmoff” is executed, it deletes registration of the object valve and data, and then it sets the data for modifying the output status in the function block which operates the valve deleted from the valve pattern monitor.

vpmon

This statement registers the object valve and data in the valve pattern monitor. It does not perform output operation of the valve, which is different from “drive vpmon”.

vpmoff

This statement deletes registration of the object valve and data from the valve pattern monitor. It does not perform output operation of the valve, which is different from “drive vpmoff”.

vpmreset

This statement deletes all of the object valves and data registered in the valve pattern monitor.

■ APPLICATION CAPACITY

The valve pattern monitor can be used as part of regulatory unit instrument of each database on FCS.

When using the valve pattern monitor function, consult Yokogawa as it may require changes in FCS database type. The table below shows the block names of the valve pattern monitor type and its size.

Table Valve Pattern Monitor Type and Size

Block Name	Size
VPM64	10752 byte
VPM128	20672 byte
VPM256	40512 byte
VPM512	80192 byte
VPM64A	15296 byte
VPM128A	29760 byte
VPM256A	58688 byte
VPM512A	116544 byte

■ OPERATING ENVIRONMENT

● Hardware Requirements

AFV30S, AFV30D, AFV40S, AFV40D, A2FV50S, A2FV50D, A2FV70S, A2FV70D, and A2FVX1 (*1)

*1: This is the model for FCU kit that Processor Module (CP471), Power Module (PW481/PW482/PW484), and Baseplate (A2BE1D) can be ordered collectively as a unit.

● Software Requirements

VP6F1700 Control Function for Field Control Station (for AFV30□/AFV40□), VP6F1800 Control Function for Field Control Station (for A2FV50□), VP6F1900 Control Function for Field Control Station (for A2FV70□), VP6F8100 Compressor Control for FCS, or VP6F8105 Compressor Control for FCS Simulator.

● Engineering Requirements

VP6E5100 Standard Engineering Function

■ MODEL AND SUFFIX CODES

Valve Pattern Monitor Package

		Description
Model	VP6F3132	Valve Pattern Monitor Package
Suffix Codes	-V	Software license
	1	Always 1
	1	English version

■ ORDERING INFORMATION

Specify model and suffix codes.

■ TRADEMARK ACKNOWLEDGMENT

The names of corporations, organizations, products and logos herein are either registered trademarks or trademarks of Yokogawa Electric Corporation and their respective holders.