

Model Code / Additional Spec. Code (No entry if additional spec, code is not specified.)

【When "Security function" is not selected】

VM-742B□ - □

Install location		Communication port	
1	C1 (Upper position)	1	Port A : Fieldbus (Modbus/TCP) Port B : Blank
2	C2 (Lower position)	2	Port A : Fieldbus (Modbus/RTU) Port B : Blank
		3	Port A : Analysis software communication (TCP/IP) Port B : Blank
		4	Port A : Fieldbus (Modbus/RTU) Port B : Fieldbus (Modbus/TCP)
		5	Port A : Fieldbus (Modbus/TCP) Port B : Analysis software communication (TCP/IP)
		6	Port A : Fieldbus (Modbus/RTU) Port B : Analysis software communication (TCP/IP)

/NB1 /CS□ /TRP /CTR /WD1

Non-incendive		Custom setup		Tropical spec.	Option	1 sec wave datacollection
1	Class I Division 2 CSA	0	·IP address setup	B	·IP address setup ·Customize work 91ch to 100ch	
		1	·IP address setup ·Customize work 1ch to 10ch	C	·IP address setup ·Customize work 101ch to 110ch	
		2	·IP address setup ·Customize work 11ch to 20ch	D	·IP address setup ·Customize work 111ch to 120ch	
		3	·IP address setup ·Customize work 21ch to 30ch	E	·IP address setup ·Customize work 121ch to 130ch	
		4	·IP address setup ·Customize work 31ch to 40ch	F	·IP address setup ·Customize work 131ch to 140ch	
		5	·IP address setup ·Customize work 41ch to 50ch	G	·IP address setup ·Customize work 141ch to 150ch	
		6	·IP address setup ·Customize work 51ch to 60ch	H	·IP address setup ·Customize work 151ch to 160ch	
		7	·IP address setup ·Customize work 61ch to 70ch	J	·IP address setup ·Customize work 161ch to 170ch	
		8	·IP address setup ·Customize work 71ch to 80ch	K	·IP address setup ·Customize work 171ch to 180ch	
		9	·IP address setup ·Customize work 81ch to 90ch	L	·IP address setup ·Customize work 181ch to 190ch	
				M	·IP address setup ·Customize work 191ch to 200ch	

Model Code / Additional Spec. Code (No entry if additional spec, code is not specified.)

【When "Security function" is selected】

VM-742B□ - □ - 2

Install location	Communication port	Security Function
1 C1 (Upper position)	1 Port A : Fieldbus (Modbus/TCP) Port B : Blank	0 None
2 C2 (Lower position)	2 Port A : Fieldbus (Modbus/RTU) Port B : Blank	2 Available (Achilles Certificate Level2)
	3 Port A : Analysis software communication (TCP/IP) Port B : Blank	
	4 Port A : Fieldbus (Modbus/RTU) Port B : Fieldbus (Modbus/TCP)	
	5 Port A : Fieldbus (Modbus/TCP) Port B : Analysis software communication (TCP/IP)	
	6 Port A : Fieldbus (Modbus/RTU) Port B : Analysis software communication (TCP/IP)	

/NB1 /CS□ /TRP /CTR

Non-incendive	Custom setup	Tropical spec.	Option
1 Class I Division 2 CSA	0 ·IP address setup	B ·IP address setup ·Customize work 91ch to 100ch	
	1 ·IP address setup ·Customize work 1ch to 10ch	C ·IP address setup ·Customize work 101ch to 110ch	
	2 ·IP address setup ·Customize work 11ch to 20ch	D ·IP address setup ·Customize work 111ch to 120ch	
	3 ·IP address setup ·Customize work 21ch to 30ch	E ·IP address setup ·Customize work 121ch to 130ch	
	4 ·IP address setup ·Customize work 31ch to 40ch	F ·IP address setup ·Customize work 131ch to 140ch	
	5 ·IP address setup ·Customize work 41ch to 50ch	G ·IP address setup ·Customize work 141ch to 150ch	
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		M ·IP address setup ·Customize work 191ch to 200ch	

Specification

OUTPUT

Indicator : ACTIVE 1 LED (Green)
 On : Communication function included
 Off : Communication function not included
 COMM 1 LED (Green)
 On : Communication is connected
 Flash : Communication data is being passed
 Off : Communication is disconnected
 ACTIVE 2 LED (Green)
 On : Communication function included
 Off : Communication function not included
 COMM 2 LED (Green)
 On : Communication is connected
 Flash : Communication data is being passed
 Off : Communication is disconnected

ANALYSIS SOFTWARE COMMUNICATION

Network : Ethernet 100Base-TX
 Max. distance Hub to nodes between 90m.
 protocol : TCP/IP
 I/O connector : RJ-45 (on VM-76□B rear panel)
 Communication item : Dynamic data, Static data, Event history
 Refer to the specification sheet of
 VM-773B infiSYS ANALYSIS VIEW

Note : For redundant analysis software communication, a total of two modules are required.

FIELD BUS COMMUNICATION

Protocol : Modbus/TCP
 Network : Ethernet 10Base-T / 100Base-TX
 Connector : RJ-45 (on VM-76□B rear panel)
 Connection : 2
 : Modbus/RTU
 Network : RS-485
 Baud rate : 9600,19200 bps
 Data length : 8 bit
 Parity² : ODD (odd number), EVEN (even number),
 NONE (none)
 Stop bit : 1 bit
 Flow control : None
 Protocols¹ : Modbus®
 Based on AEG Modicon PI-MBUS-300
 Reference Manual. Uses Remote
 Terminal Unit (RTU) transmission mode.
 Slave ID : Set range 1 to 247
 Terminal setting² : ON or OFF Specified when ordering.
 Unless specified otherwise
 Slot C1 : ON
 Slot C2 : ON
 I/O Connector : 9pin D-sub (on VM-76□B rear panel)

Note: For redundancy using Modbus, a total of two modules are required.

Communication item

: Data transmitted to host network
 Measurement value, GAP, Danger Alarm status,
 Alert Alarm status, OK Alarm status, Danger Bypass status,
 Setting of DANGER / ALERT, and OK Limit
 High-pass Filter (10pole) ON/OFF status, Power-OK status,
 Analyzed Data³ (0.5X amp./Phase, 1X amp./Phase,
 2X amp./Phase, Not-1X amp._{S(p-p) max.})
 Data received from host network
 Date and Time Data
 Option communication item (/CTR)⁴
 : Items Controllable from host network
 CH Bypass status ON / OFF, Danger Bypass status ON / OFF,
 Low Alarm Bypass status ON/OFF, Alarm Reset,
 Sequence Mode ON / OFF, High-pass Filter (10 pole) ON / OFF,
 Peak Hold Reset, Firstout Reset

Note)

¹ Modbus is a registered trademark of Modicon, Inc.

² Can be changed by internal switch.

³ When the analysis option is added on VM-701B and/or VM-702B monitor module.

⁴ VM-7B can be controlled by the host computer by adding the option.

Note : The daisy chain connections are eight racks or less.

SECURITY FUNCTION*1

Network : Ethernet 100Base-TX
 Protocol : Fieldbus(Modbus/TCP)
 Analysis software communication (TCP/IP)
 Connector : RJ-45(Back side of rack)
 Filter function : None(non-compliant Security Function)
 (Modbus/TCP) Off(Filter OFF : Maintenance only)
 On(Client1 only)
 (Only one client PC Filter ON: In Operation)
 On(Client1 & Client2)
 (Filter ON for all client PCs)
 Filter function : None(non-compliant Security Function)
 (TCP/IP) Off(Filter OFF : Maintenance only)
 On(Filter OFF : In Operation)
 Client(1 or 2) MAC Address : MAC Address of PC for Modbus/TCP or infiSYS
 Analysis View
 Client(1 or 2) IP Address : IP Address of PC for Modbus/TCP or infiSYS
 Analysis View

*1 About the Security Function

- When selecting the presence of "security function", other networks (VM-741B:MCL View) to unify security policies are also " Please select the presence of security function "
- "Security Function" is the network of "Fieldbus (Modbus/TCP) " and "Analysis software communication(TCP/IP) ".
- Custom setup of "Security function" can't be order.
- Select "Security Function", you can meet a global certification program (Achilles Certification Level 2) that proves to have a certain network robustness.
- Achilles is a registered trademark of GE Digital.

ENVIRONMENTAL CONDITION

Operating temperature : 0 to +65°C
 Storage temperature : -30 to +85°C
 Relative humidity : 20 to 95%RH (non-condensing)

POWER CONSUMPTION

Module alone : Less than 15W

MATERIAL AND FINISH

Face plate : ABS (Black)
 Sheet : Polyester tough top (Gray)
 Base plate : Aluminium alloy (Silver)

MASS

Body : Max. 0.5kg (1.1lb)

⚠ WARNING

Some functions may not be available with old version.
 For details, please refer to "infiSYS Family Improvement
 Information " (6H16-011).

OTHERS

Note) One or two modules can be installed in one rack, in either Slot
 C1 or C2 or both.

Default Value

FIELDBUS COMMUNICATION (MODBUS/TCP)

Slave ID : 1
IP Address : 192.168.8.1
Subnet mask : 255.255.255.0
Port number : 502
Time out : Enable (10sec)

FIELDBUS COMMUNICATION (MODBUS/RTU)

Slave ID : 2
Baud rate : 9600bps
Data length : 8bit
Parity : NONE
Stop bit : 1bit

ANALYSIS SOFTWARE COMMUNICATION

IP Address : 192.168.8.100
Subnet mask : 255.255.255.0
Port number : 8882
Time out : Enable (10sec)

SECURITY FUNCTION Modbus/TCP (Case of None)

Filter : None
Client1 MAC Address : FF-FF-FF-FF-FF-FF
Client1 IP Address : 192.168.8.100
Client2 MAC Address : FF-FF-FF-FF-FF-FF
Client2 IP Address : 192.168.8.100

SECURITY FUNCTION Analysis (Case of None)

Filter : None
Client MAC Address : FF-FF-FF-FF-FF-FF
Client IP Address : 192.168.8.100

SECURITY FUNCTION Modbus/TCP (Case of Available)

Filter : Off
Client1 MAC Address : FF-FF-FF-FF-FF-FF
Client1 IP Address : 192.168.8.100
Client2 MAC Address : FF-FF-FF-FF-FF-FF
Client2 IP Address : 192.168.8.100

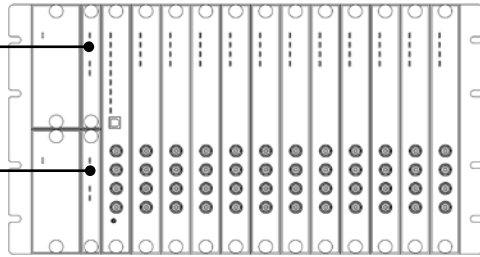
SECURITY FUNCTION Analysis (Case of Available)

Filter : None
Client MAC Address : FF-FF-FF-FF-FF-FF
Client IP Address : 192.168.8.100

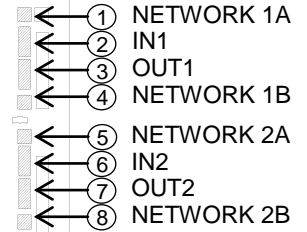
Module Location

Slot C1
(Upper position)

Slot C2
(Lower position)



VM-761B, VM-762B Instrument Rack (Back)



Location	Model Code	Network Interface Connector		
		Communication port	Communication type	Number
Slot C1	VM-742B1-1	Port A	Fieldbus (Modbus/TCP)	①
		Port B	Blank	—
	VM-742B1-2	Port A	Fieldbus (Modbus/RTU)	②, ③
		Port B	Blank	—
	VM-742B1-3	Port A	Analysis software communication (TCP/IP)	①
		Port B	Blank	—
	VM-742B1-4	Port A	Fieldbus (Modbus/RTU)	②, ③
		Port B	Fieldbus (Modbus/TCP)	④
	VM-742B1-5	Port A	Fieldbus (Modbus/TCP)	①
		Port B	Analysis software communication (TCP/IP)	④
	VM-742B1-6	Port A	Fieldbus (Modbus/RTU)	②, ③
		Port B	Analysis software communication (TCP/IP)	④
Slot C2	VM-742B2-1	Port A	Fieldbus (Modbus/TCP)	⑤
		Port B	Blank	—
	VM-742B2-2	Port A	Fieldbus (Modbus/RTU)	⑥, ⑦
		Port B	Blank	—
	VM-742B2-3	Port A	Analysis software communication (TCP/IP)	⑤
		Port B	Blank	—
	VM-742B2-4	Port A	Fieldbus (Modbus/RTU)	⑥, ⑦
		Port B	Fieldbus (Modbus/TCP)	⑧
	VM-742B2-5	Port A	Fieldbus (Modbus/TCP)	⑤
		Port B	Analysis software communication (TCP/IP)	⑧
	VM-742B2-6	Port A	Fieldbus (Modbus/RTU)	⑥, ⑦
		Port B	Analysis software communication (TCP/IP)	⑧