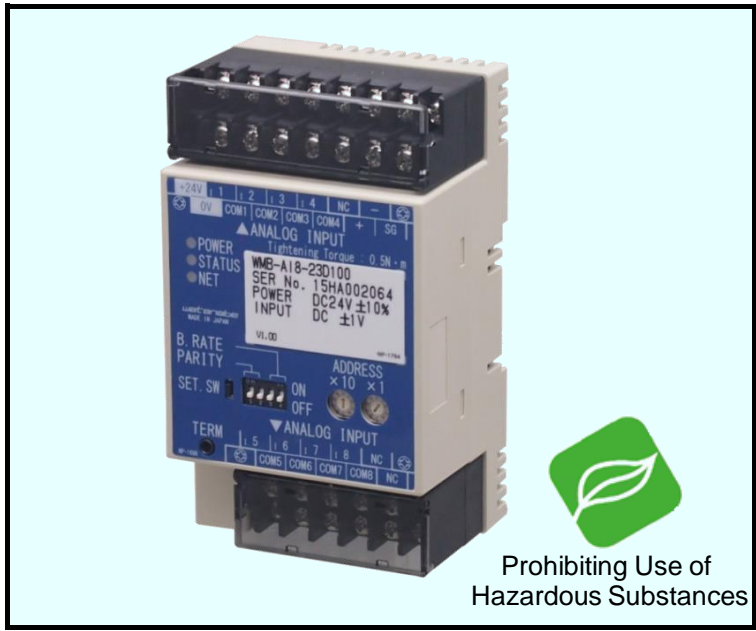# Analog Output Modbus Input Module

WMB-AO4

This is module which Outputs 4ch of DC signal.
It is compatible with Modbus (RTU) of general purpose protocol.

Prohibiting Use of Hazardous Substances

Features

★ 4ch output of DC voltage / current
★ RS-485 Modbus (RTU) compatible
★ Zero span adjustment and low cut setting by RS-485
★ Baud rate and Node address setting by front switch
★ Easy maintenance by removable terminal block from body

Ordering code

WMB - AO4 - ☐☐ D ☐ 00

Series	Type	Output	Power supply	Test report	Suffix		Description
WMB						Series	Modbus I/O module
	AO4					Type	Analog output 4ch
		A				Output	4~20mADC (Allowable load 550Ω or less)
		H					1~5VDC (Allowable load 2.5kΩ or more)
		N					0~1VDC (Allowable load 500Ω or more)
		L					0~5VDC (Allowable load 2.5kΩ or more)
		P					0~10VDC (Allowable load 5kΩ or more)
		R					±5VDC (Allowable load 5kΩ or more)
			D			Power supply	24VDC ±10%
				0		Test report	Without test report
				1			With test report
					00	Suffix	Standard

Specifications

◆Output Specifications

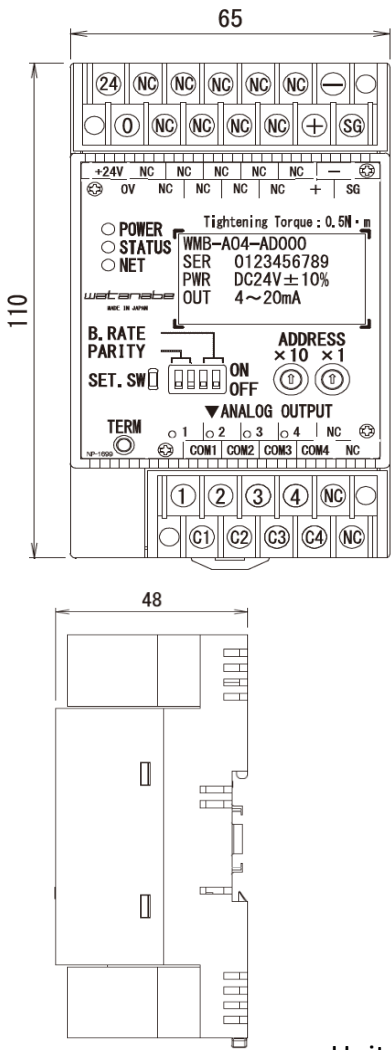|	
Output signal	DC voltage / current
Number of inputs	4
D/A resolution	16bit (In case ±10V output)
Response time	20ms/1ch
Tolerance	±0.1% Full scale
Influence of ambient temperature	±0.01% Full scale per °C
Output common	1 common for each output
Setting	Span/zero adjustment, Simulated output

◆Standard Specifications

Power supply	24VDC ±10%
Power consumption	Less than 130mA max.
Operating temperature/humidity	-5 to 55°C, 90% (non-condensing)
Storage temperature/humidity	-20 to 60°C, 90% (non-condensing)
Warm-up time	30 min
Dielectric strength	1500VAC per 1 min. : Between Power -
Insulation resistance	500Vdc, 100MΩ or more
Dimensions	65(W) x 110(H) x 48mm(D) DIN size
Weight	Approx. 220g
Connection	M3 screw terminai block (removable), 14P, 10P (Tightening torque 0.5N·m)
Mounting	DIN rail or wall surface

◆RS-485 Specifications

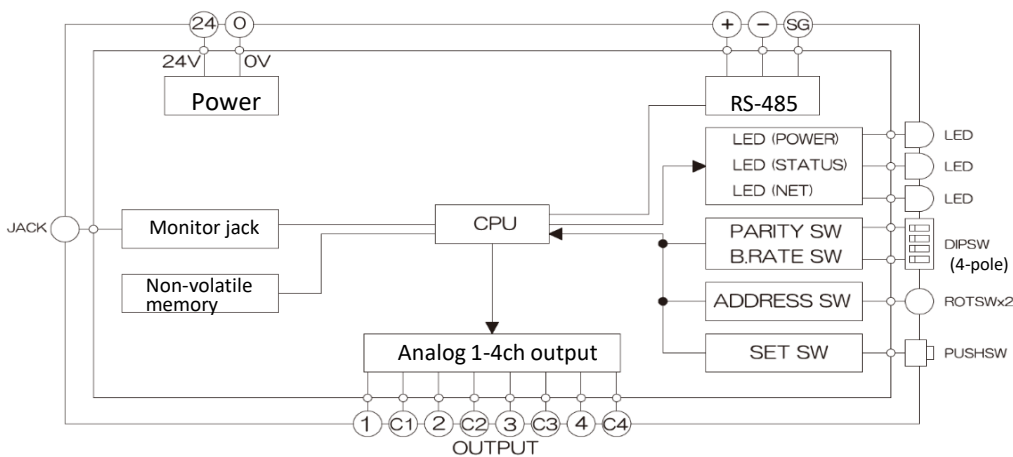|	
Standard	Conform to RS-485
Baud rate	4800 / 9600 / 19200 / 38400 bps (Selectable by DIP switch)
Terminal resistance	Approx. 120Ω (Standard accessory)
Max. No. of connection	31
Node address	1 to 99 (Setting by Rotary switch)
Transmission distance	Approx. 500m or less (Depends on connection device and
Communication form	1:N communication
Protocol	Modbus (RTU) protocol

Demensions

No	Symbol		Description	
24	Power supply	+24V	Power supply	
0		0V		
	NC			
	NC			
	NC			
	NC		No connection	
	NC			
	NC			
	NC			
	NC			
+	RS485	+	RS-485 + terminal	
-		-	RS-485 - terminal	
SG		SG	RS-485 SG terminal	
1	Analog output	O1	Analog output 1	
C1		COM1	Common 1	
2		O2	Analog output 2	
C2		COM2	Common 2	
3		O3	Analog output 3	
C3		COM3	Common 3	
4		O4	Analog output 4	
C4		COM4	Common 4	
	NC		No connection	
	NC		No connection	

Unit : mm

Block Diagram

∗ Specification is subject to change without notice

Watanabe Electric Industry Co., Ltd.

http://www.watanabe-electric.co.jp/en/

1/1