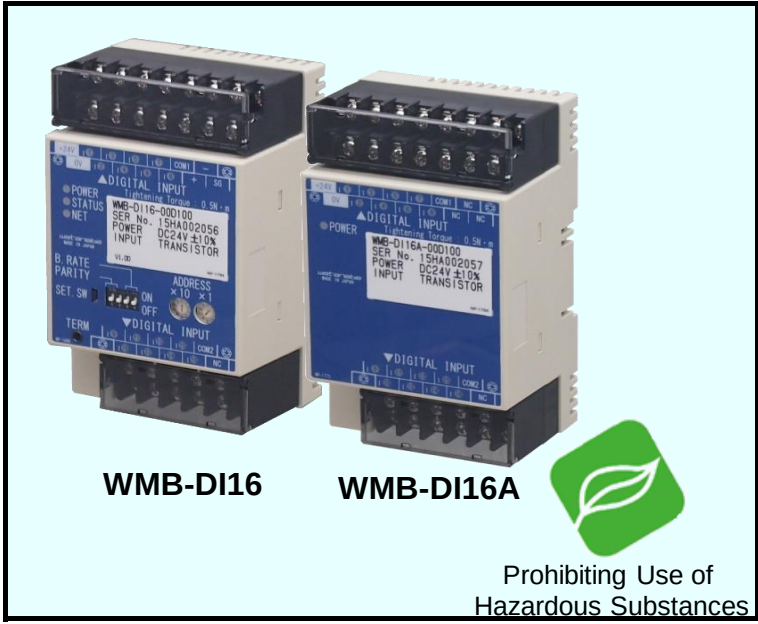




This is module which inputs 16ch of Relay or Open collector ON/OFF.
Also able to integrate input signal from pulse output device.
It is compatible with RS-485 Modbus (RTU) of general purpose protocol.

Features

- ★ 16ch input of Relay / Open collector ON/OFF, pulse signal
- ★ RS-485 Modbus RTU communication
- ★ Able to expand Input to 32ch by Expansion module
- ★ Easy maintenance by removable terminal block from body
- ★ Storage integrated value in nonvolatile memory at power failure

Ordering code

WMB - DI16 - 00D 00

Series	Type	Expansion	Option	Power supply	Test report	Suffix	Description
WMB	DI16	None	00	D	0	00	Series
		A			1		Type
							Expansion
							Option
							Power supply
							Test report
							Suffix

* Expansion module WMB-DI16A cannot use independently, WMB-DI16A can connect only WMB-DI16

Specifications

Standard Specifications

Power supply	24VDC $\pm$ 10%
Power consumption	DI16 : Approx.130mA (DC24V) DI16A : Approx.80mA (DC24V)
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	DI16 : 1500VAC per 1 min. Between Power - Communication - Internal cuircuit - Output DI16A : 1500VAC per 1 min. Between Internal cuircuit - Input - Output
Insulation resistance	500VDC, 100MΩ or more
Dimensions	65(W) x 110(H) x 48mm(D) DIN size
Weight	DI16 : Approx.220g DI16A : Approx.200g
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 (DI-16: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

Input Specifications (Main module WMB-DI16)

Input signal	Pulse/ no-voltage contact or transistor output · Input sense current : Approx. 4.2mA (when ON resistance is 0 Ω) · Input pull-up voltage : 24VDC (Power supply and internal common) · Input pulse ON time : 10ms or more · Input pulse OFF time : 10ms or more
Number of inputs	16
Input common	Negative common : 1 common for 8 input
Input frequency	50Hz or less
Setting	Max. pulse, Pulse reset, Time integration reset

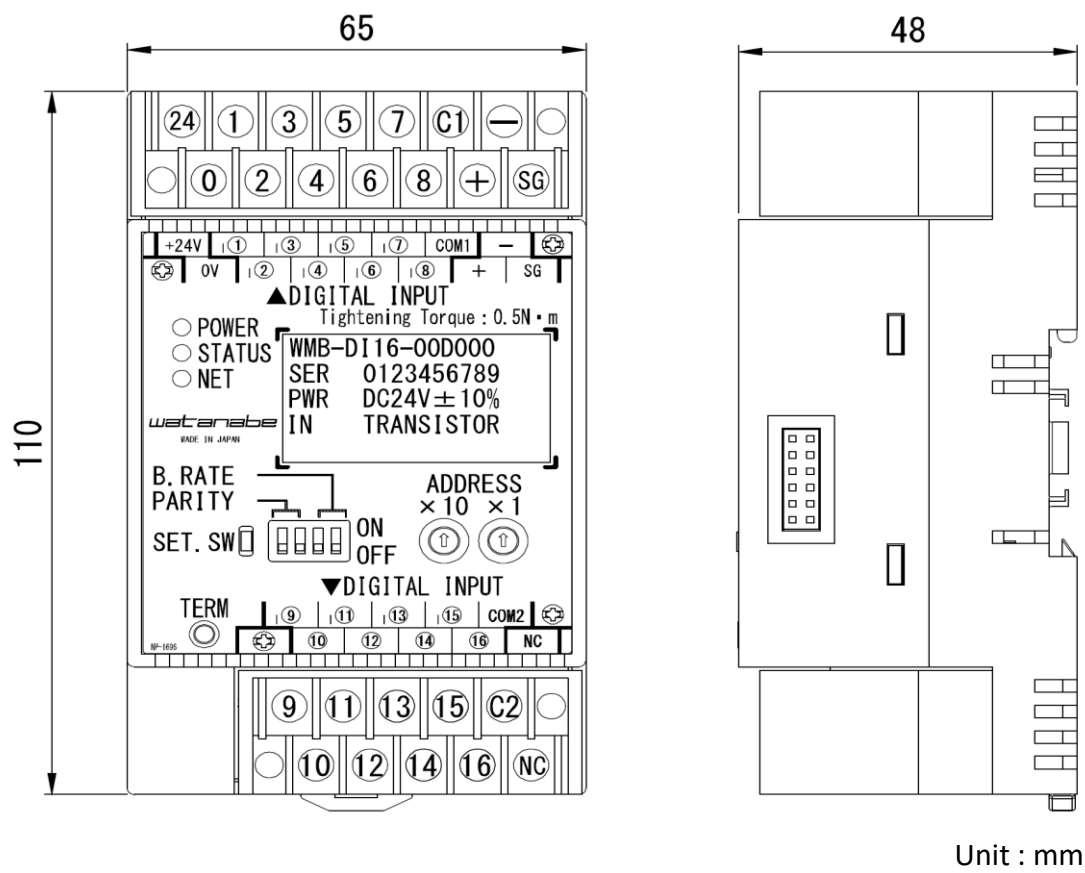
Input Specifications (Expansion module WMB-DI16A)

Input signal	Pulse/ no-voltage contact or transistor output · Input sense current : Approx. 4.2mA (when ON resistance is 0 Ω) · Input pull-up voltage : 24VDC (Power supply and internal common) · Input pulse ON time : 25ms or more · Input pulse OFF time : 25ms or more
Number of inputs	16
Input common	Negative common : 1 common for 8 input
Input frequency	15Hz or less
Setting	Max. pulse, Pulse reset, Time integration reset

* Specification is subject to change without notice

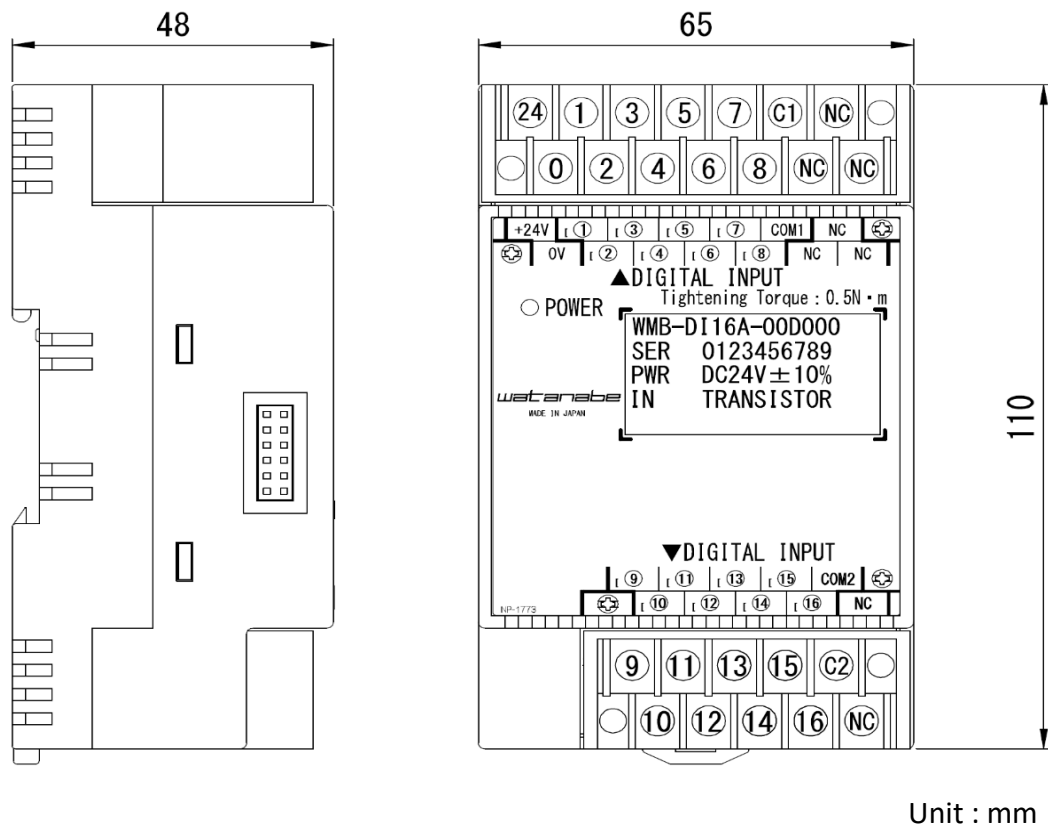
Demensions / Terminal connections

WMB-DI16



No	Symbol	Description
24	Power supply	+24V Power supply + terminal (24VDC ±10%)
0		0V Power supply - terminal
1	Digital input	I1 Digital input 1
2		I2 Digital input 2
3		I3 Digital input 3
4		I4 Digital input 4
5		I5 Digital input 5
6		I6 Digital input 6
7		I7 Digital input 7
8		I8 Digital input 8
C1		COM1 Common 1 (For Digital input 1 to 8)
+	RS485 (Modbus)	+ RS-485 + terminal
-		- RS-485 - terminal
SG		SG RS-485 SG terminal
1	Digital output	O1 Digital output 1
2		O2 Digital output 2
3		O3 Digital output 3
4		O4 Digital output 4
C2		COM2 Common 2 (For Digital output 1 to 4)
5		O5 Digital output 5
6		O6 Digital output 6
7		O7 Digital output 7
8		O8 Digital output 8
C3		COM3 Common 3 (For Digital output 5 to 8)

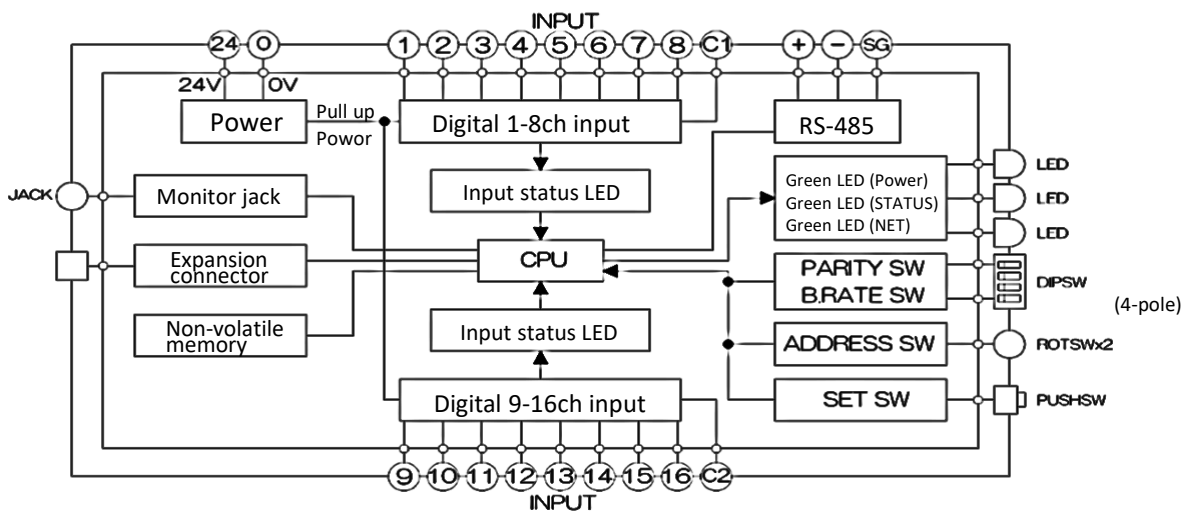
WMB-DI16A



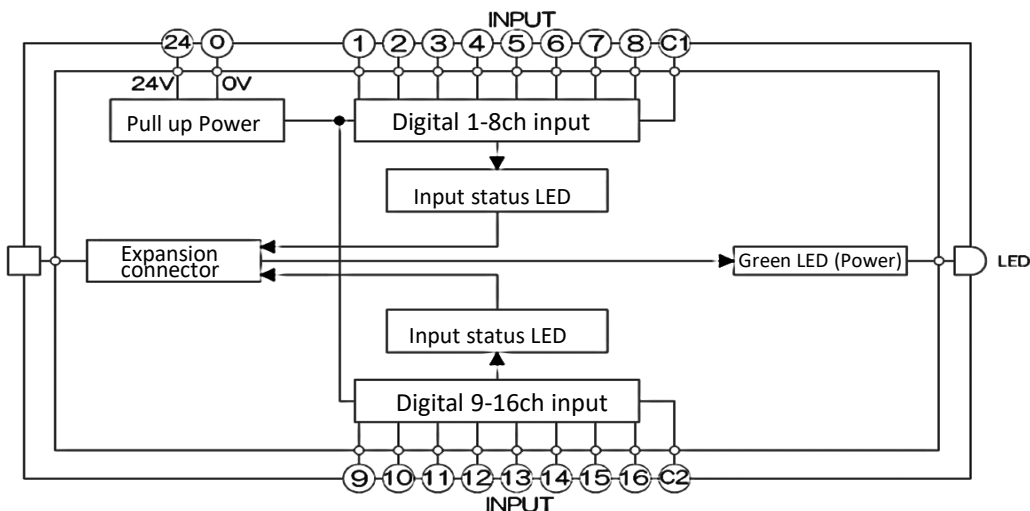
No	Symbol		Description
24	Power supply	+24V	Power supply + terminal (24VDC ±10%)
0		0V	Power supply - terminal
1	Digital input	I1	Digital input 1
2		I2	Digital input 2
3		I3	Digital input 3
4		I4	Digital input 4
5		I5	Digital input 5
6		I6	Digital input 6
7		I7	Digital input 7
8		I8	Digital input 8
C1		COM1	Common 1 (For Digital input 1 to 8)
NC			No connection
NC			
NC			
1	Digital output	O1	Digital output 1
2		O2	Digital output 2
3		O3	Digital output 3
4		O4	Digital output 4
C2		COM2	Common 2 (For Digital output 1 to 4)
5		O5	Digital output 5
6		O6	Digital output 6
7		O7	Digital output 7
8		O8	Digital output 8
C3		COM3	Common 3 (For Digital output 5 to 8)

Block Diagram

WMB-DI16



WMB-DI16A



* Specification is subject to change without notice