

Isolation Remote Modules

Isolation RS-485 Analog I/O Remote Modules

A-1038+

1

OVERVIEW

- ※ Analog Output Channels : 8
- ※ 12-bit resolution
- ※ Software configurable for 0~10VDC output in individual channels
- ※ Supports Modbus RTU / ASCII
- ※ LED Indicator
- ※ Surge , EFT And ESD Protection
- ※ Dual Watchdog Timer
- ※ Low Power Indicator
- ※ Operation Range: Up To 1200 Meters
- ※ Free PC Software "YottaUtility "
- ※ Isolation RS-485 Interface
- ※ PWM Function
- ※ AB-Phase Function
- ※ 2048 bit Auxiliary Memory
- ※ 2048 word Auxiliary Memory



For more information, please refer to www.yottacontrol.com

Display	
LED Indicators	Power
Power Supply	
Power Requirement	10~30 VDC
Analog Output	
Channels	8
Current Output	0 ~ 10 VDC
Resolution	12-bit
Accuracy	±1 % of FSR
General	
Watchdog Timer	System & Communication
Connector	2 x plug-in terminal block (#14~28 AWG)
Temperature (Operating)	-10~70 °C (14~158 °F)
Humidity	5~95 %RH
Temperature (Storage)	-25~85 °C (-13~185 °F)
Interface	Isolation RS-485
Communication Protocol	Modbus/RTU & Modbus/ASCII
Communication Speed	Serial: From 1,200 to 115.2 k
Comm. Distance	Serial: 1.2 km
Data Flow Control	Yes

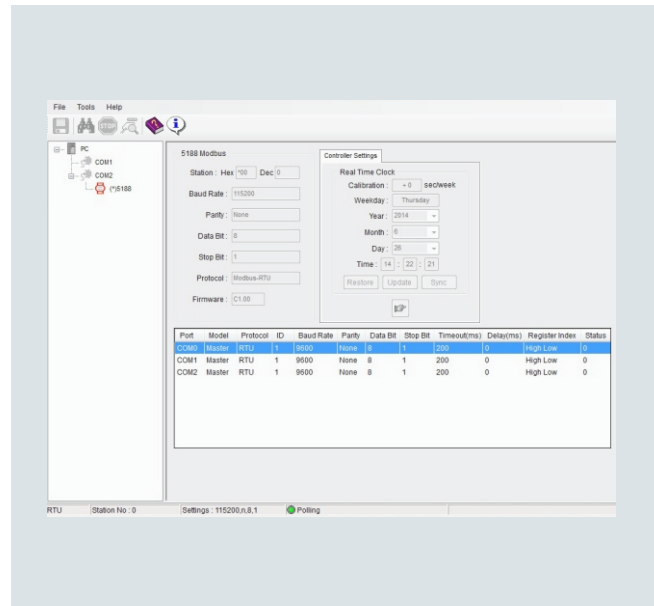
Monitoring and Database Software

DCS Monitoring and Database Software

YottaUtility

OVERVIEW

- ※ Monitor & Database Function
- ※ Use For Yottacontrol Whole Series Controller And TS-48 Time Switch
- ※ Windows98/ME/2000/XP/Vista/7/8/10
- ※ Quick Setup Distributed Device Parameter & Monitoring
- ※ Can Monitor DCS Program & Parameters
- ※ Can Monitor PLC Program & Parameters
- ※ Monitor & Database Can Use For SCADA
- ※ Real-Time Monitoring, Warning Setup
- ※ Monitor Hundreds Controllers & Distributed Devices
- ※ Component Name Comment
- ※ Easy Logical Program Function
- ※ Time Switch Series Edit
- ※ Multi Communicate Parameter Function
- ※ Support MODBUS TCP-IP/UDP-IP/RTU/ASCII
- ※ Quick Setup Controller RTC Parameter



For more information, please refer to
www.yottacontrol.com

APPLICATIONS

ELECTRONIC EQUIPMENT

- SORTING MACHINE
- LOADER & UNLOADER
- PACKAGING MACHINE
- DETECTOR
- CUTTING MACHINE
- LAMINATOR
- COATING MACHINE
- LAPPING MACHINE
- FEEDING SYSTEM
- PRECISION MACHINERY

ELECTROMECHANICAL EQUIPMENT

- SPRAYING MACHINE
- EVAPORATION
- MACERATOR
- CALENDER MACHINE
- FLUSHING MACHINE
- ELECTROPLATING MACHINE
- WELDING MACHINE
- PRESS MACHINE
- CUTTING MACHINE
- BENDING MACHINE
- BOBBIN MACHINE
- BURN-IN EQUIPMENT
- DIE CASTER
- HEATING PROCESSING

FOOD & BEVERAGE

- PACKAGING MACHINE
- SEAL-CAPPING MACHINE
- LABELLING MACHINE
- FORMING MACHINE
- BLENDER EQUIPMENT
- CASING MACHINE
- FILLING MACHINE
- DRYER EQUIPMENT
- WEIGHT SEPARATOR
- CAPPING MACHINE
- INJECTION MACHINE
- TEMPERATURE-CONTROL

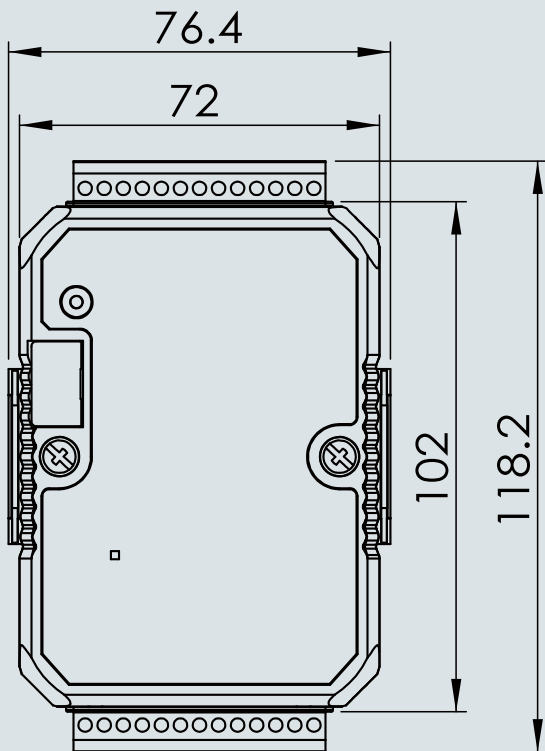
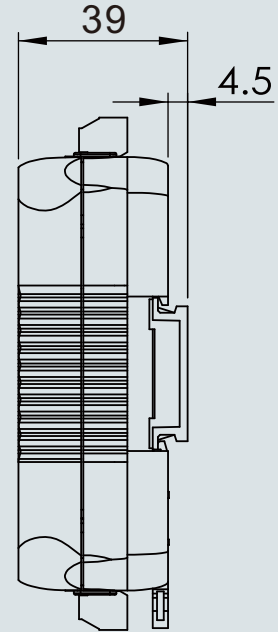
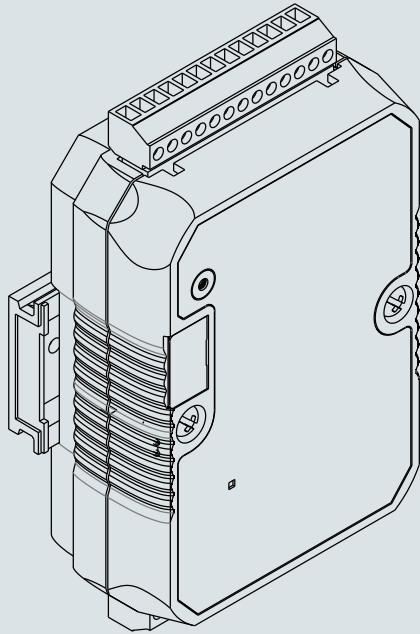
Dimension

Remote Modules

Remote Modules

3

Dimension



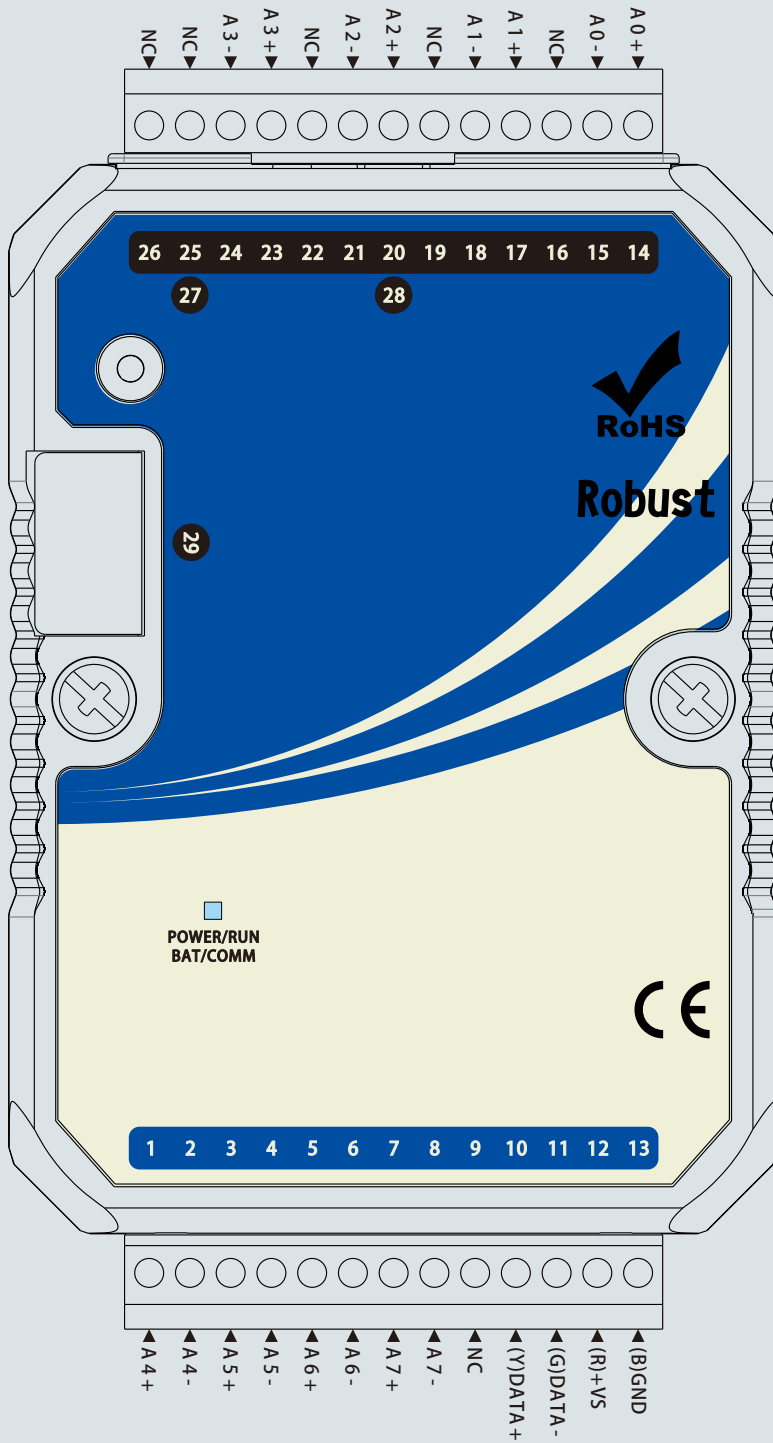
For more information, please refer to www.yottacontrol.com

Pin Assignments

Remote Modules

Remote Modules

Pin Table



Function	
1	A 4 +
2	A 4 -
3	A 5 +
4	A 5 -
5	A 6 +
6	A 6 -
7	A 7 +
8	A 7 -
9	NC
10	(Y)DATA +
11	(G)DATA -
12	(R)+VS
13	(B)GND
14	A 0 +
15	A 0 -
16	NC
17	A 1 +
18	A 1 -
19	NC
20	A 2 +
21	A 2 -
22	NC
23	A 3 +
24	A 3 -
25	NC
26	NC
27	NC
28	NC
29	NC

For more information, please refer to www.yottacontrol.com

Address Mapping

Remote Modules

Remote Modules

5

Mapping Table

A-1038+ Address Mapping								
Modbus	Num	Unit	Item	NML	INIT*	Range	Default Value	NOTE
00017	8	1-bit	0-7 DO Output Value	R	R	0/1	x	0/1
00081	8	1-bit	0-7 PWM Enable	R	R/W	0/1	0	0/1
00097	4	1-bit	0-3 AB-Phase Enable	R	R/W	0/1	0	0/1
00113	4	1-bit	0-3 AB-Phase Direction	R/W	R/W	0/1	0	0/1
00129	4	4-bit	0-3 Power On Direction of AB-Phase	R	R/W	0/1	0	0/1
00145	4	4-bit	0-3 Communication Fail Safe Direction of AB-Phase	R	R/W	0/1	0	0/1
04097	2048	1-bit	0-2047 Auxiliary Memory (M flag)	R/W	R/W	0/1	0	0/1
Modbus	Num	Unit	Item	NML	INIT*	Range	Default	NOTE
40017	8	16-bit	0-7 Analog Output Value	R/W	R/W	0 ~ 4000	x	0-4000: 0-10V
40033	8	16-bit	0-7 Power On Analog Output Value	R	R/W	0 ~ 4000	0	0-4000: 0-10V
40049	8	16-bit	0-7 Communication Fail Safe Analog Output Value	R	R/W	0 ~ 4000	0	0-4000: 0-10V
40097	8	16-bit	0-7 Analog Output Value (V)	R	R	0 ~ 10	x	0-10 : 0V-10V
40113	8	16-bit	0-7 Analog Output Value (0.1V)	R	R	0 ~ 100	x	0-100 : 0.0V-10.0V
40129	8	16-bit	0-7 Analog Output Value (0.01V)	R	R	0 ~ 1000	x	0-1000 : 0.00V-10.00V
40145	8	16-bit	0-7 Analog Output Value (FSR)	R	R	0 ~ 10000	x	0-10000 : 0.00%-100.00% of FSR
40177	1	16-bit	Communication Fail Safe Time Setting Value	R	R/W	0 ~32768	0	0-32767 (sec) , 0:Disable
40179	1	16-bit	All DO Value	R	R	0 ~ 0xFFFF	x	
40211	1	16-bit	Module Name 1	R	R	0 ~ 0xFFFF	0x1038	0x38 0x10
40212	1	16-bit	Module Name 2	R	R	0 ~ 0xFFFF	0x0000	0x00 0x00
40213	1	16-bit	Version 1	R	R	0 ~ 0xFFFF	0xA100	0x00 0xA1
40214	1	16-bit	Version 2	R	R	0 ~ 0xFFFF	0x0000	0x00 0x00
40215	6	16-bit	1-6 Mac Serial Number	R	R	0 ~ 0xFFFF	x	
40300	1	16-bit	Module" s ID In Normal Mode	R	R/W	1 ~ 255	1	
40301	1	16-bit	Protocol In Normal Mode	R	R/W	0 ~ 1	0	0:RTU , 1:ASCII
40302	1	16-bit	Baud Rate In Normal Mode	R	R/W	0 ~ 9	3	0(1200 bps) ~ 9(115200 bps)
40303	1	16-bit	Parity Option In Normal Mode	R	R/W	0 ~ 2	0	0:none, 1:odd, 2:even
40304	1	16-bit	Stop Bits In Normal Mode	R	R/W	0 ~ 1	0	0:1 bit , 1:2 bit
40305	1	16-bit	Time Out Setting In Normal Mode	R	R/W	0 ~ 32767	3000	0-32767 (ms)
40609	16	16-bit	0-7 Current Output Value(32-bit)	R	R	0.0f ~ 4000.0f	x	32-bit Floating Value (IEEE754)(Float CD AB)
40641	16	16-bit	0-7 Current Output Value(32-bit) (V)	R	R	0.0f ~ 10.0f	x	32-bit Current Floating Value (IEEE754)(Float CD AB)
40705	16	16-bit	0-7 Current Output Value(32-bit)	R	R	0.0f ~ 4000.0f	x	32-bit Floating Value (IEEE754)(Float AB CD)
40737	16	16-bit	0-7 Current Output Value(32-bit) (V)	R	R	0.0f ~ 10.0f	x	32-bit Current Floating Value (IEEE754)(Float AB CD)
40801	16	16-bit	0-7 Current Output Value(32-bit)	R	R	0.0f ~ 4000.0f	x	32-bit Floating Value (IEEE754)(Float BA DC)
40833	16	16-bit	0-7 Current Output Value(32-bit) (V)	R	R	0.0f ~ 10.0f	x	32-bit Current Floating Value (IEEE754)(Float BA DC)
40897	16	16-bit	0-7 Current Output Value(32-bit)	R	R	0.0f ~ 4000.0f	x	32-bit Floating Value (IEEE754)(Float DC BA)
40929	16	16-bit	0-7 Current Output Value(32-bit) (V)	R	R	0.0f ~ 10.0f	x	32-bit Current Floating Value (IEEE754)(Float DC BA)
41251	8	16-bit	0-7 DO Status High Level	R	R/W	0 ~ 1000	350	0-1000 : 0.00V-10.00V
41259	8	16-bit	0-7 DO Status Low Level	R	R/W	0 ~ 1000	80	0-1000 : 0.00V-10.00V
41275	8	16-bit	0-7 AQ Offset (10V)	R	R/W	-1000 ~ +1000	0	
41393	8	16-bit	0-7 Analog Output Value of PWM/AB-Phase	R	R	0 ~ 4000	x	0-4000: 0-10V
41409	8	16-bit	0-7 Amplitude of PWM	R/W	R/W	0 ~ 4000	4000	0-1000 : 0.00V-10.00V
41425	8	16-bit	0-7 Frequency of PWM	R/W	R/W	10 ~ 10000	100	0.05ms/pulse
41441	8	16-bit	0-7 Duty Ratio of PWM	R/W	R/W	0-100	50	%
41457	4	16-bit	0-3 Amplitude of AB-Phase	R/W	R/W	0 ~ 4000	4000	0-1000 : 0.00V-10.00V
41473	4	16-bit	0-3 Frequency of AB-Phase	R/W	R/W	10 ~ 10000	100	0.05ms/pulse
41481	4	16-bit	0-3 Duty Ratio of AB-Phase	R	R	50	50	%
41489	8	16-bit	0-7 Power On Amplitude of PWM	R	R/W	0 ~ 4000	4000	
41505	8	16-bit	0-7 Power On Frequency of PWM	R	R/W	10 ~ 10000	100	0.05ms/pulse
41521	8	16-bit	0-7 Power On Duty Ratio of PWM	R	R/W	0 ~ 100	50	%
41537	4	16-bit	0-3 Power On Amplitude of AB-Phase	R	R/W	0 ~ 4000	4000	
41553	4	16-bit	0-3 Power On Frequency of AB-Phase	R	R/W	10 ~ 10000	100	0.05ms/pulse
41561	4	16-bit	0-3 Power On Duty of AB-Phase	R	R	50	50	%
41569	8	16-bit	0-7 Communication Fail Safe Amplitude of PWM	R	R/W	0 ~ 4000	4000	
41585	8	16-bit	0-7 Communication Fail Safe Frequency of PWM	R	R/W	10 ~ 10000	100	0.05ms/pulse
41601	8	16-bit	0-7 Communication Fail Safe Duty Ratio of PWM	R	R/W	0 ~ 100	50	%
41617	4	16-bit	0-3 Communication Fail Safe Amplitude of AB-Phase	R	R/W	0 ~ 4000	4000	
41633	4	16-bit	0-3 Communication Fail Safe Frequency of AB-Phase	R	R/W	10 ~ 10000	100	0.05ms/pulse
41641	4	16-bit	0-3 Communication Fail Safe Duty of AB-Phase	R	R	50	50	%
44001	2048	16-bit	0-2047 Analog Auxiliary Memory (AM Flag)	R/W	R/W	0 ~ 0xFFFF	0	

For more information, please refer to
www.yottacontrol.com