

A-80x SMART RS-485 Remote I/O Module

Catalogue 2024.02



A-80x SMART RS-485 Remote I/O Module

eAutomation Solution

 Yottacontrol Co.

Remote Modules

RS-485 I/O Remote Modules

A-80x Series

OVERVIEW

- ※ Use for Yottacontrol Whole Series Controller
- ※ RS-485 Interface
- ※ Supports Modbus RTU
- ※ LED Indicator
- ※ Operation Temperature -20~+75°C
- ※ Isolation Voltage: 5000 V DC
- ※ Surge , EFT And ESD Protection
- ※ Dual Watchdog Timer
- ※ Low Power Indicator
- ※ Operation Range: Up To 1200 Meters
- ※ Support Voltage, Current and sensor input
- ※ Support PNP/NPN, relay output
- ※ Free Monitor PC Software "SmartUtility"



Type	A-8057	A-8058	A-8068	A-8069
	DO	DO	DO	DO
Operation Voltage	10-30VDC/24VAC	10-30VDC/24VAC	10-30VDC/24VAC	10-30VDC/24VAC
Outputs	12(Source Transistor)	12(Sink Transistor)	8(Signal Relay)	8(Power Relay)
Continuous Current	10-35VDC(1A)	10-40VDC(200mA)	120VAC(0.5A)/30VDC(1A)	250VAC(5A)/30VDC(1A)
Communication Baud Rate	1200~115200bps			
Isolation	Yes(5000VDC)			
Input Operating Frequency	10HZ			
Output Operating Frequency	Relay:10HZ /Transistor:10HZ			
Operation Temperature	-20 to +75°C			
Degree Of Protection	IP20			
Installation	35mm DIN rail or Flush mounting			
Dimension (W x H x D mm)	76.4*118.2*38.5mm			

Type	A-8051	A-8055	A-8055S	A-8060
	DI	DIO	DIO	DIO
Operation Voltage	10-30VDC/24VAC	10-30VDC/24VAC	10-30VDC/24VAC	10-30VDC/24VAC
Inputs(isolation)	16*isolation DI status low:<1VDC status high:>5~30VDC	8*isolation DI status low:<1VDC status high:>5~30VDC	8*isolation DI status low:<1VDC status high:>5~30VDC	8*isolation DI status low:<1VDC status high:>5~30VDC
Outputs(isolation)	-----	8(Sink Transistor)	8(Source Transistor)	4(Power Relay)
Continuous Current	-----	10-40VDC(200mA)	10-35VDC(1A)	250VAC(5A)/30VDC(5A)
Communication Baud Rate	1200~115200bps			
Isolation	Yes(5000VDC)			
Input Operating Frequency	10HZ			
Output Operating Frequency	Relay:10HZ /Transistor:10HZ			
Operation Temperature	-20 to +75°C			
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Installation	35mm DIN rail or Flush mounting			
Dimension (W x H x D mm)	76.4*118.2*38.5mm			

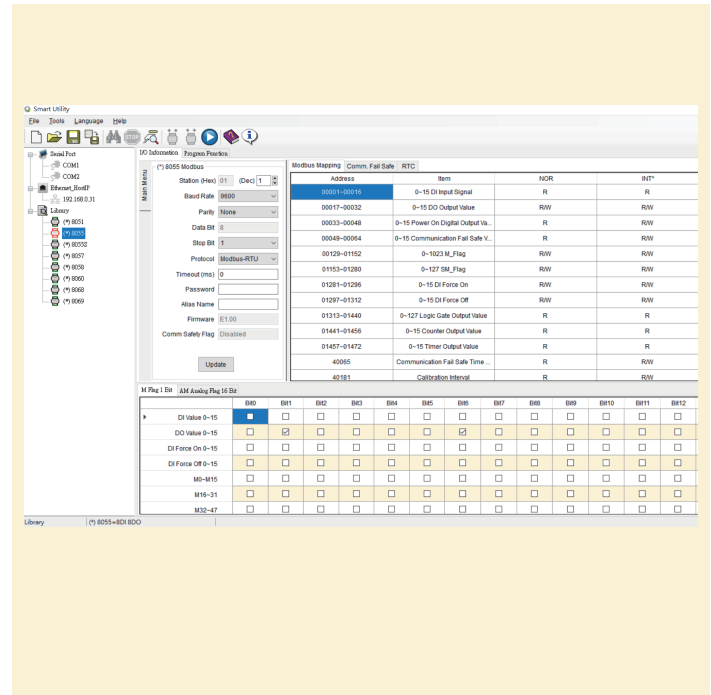
Dedicated Software

Programmable module software for setting and monitor

Smart Utility

OVERVIEW

- ※ Only applicable on Yottacontrol A-80x modules
- ※ Windows98/ME/2000/XP/Vista/7/8/10
- ※ Quick Setup Distributed Device Parameter & Monitoring
- ※ Monitor all registers and program result on A-80x modules
- ※ Monitor more than Hundreds of IO Modules
- ※ Edit available for Component Name and Comment
- ※ Easy Logical Program Function
- ※ Easy Bude rate setting within all devices
- ※ Multi Communicate Parameter Function
- ※ Support MODBUS RTU
- ※ Quick Setup RTC Parameter on A-80x modules



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-CONTROLL

Dedicated Software

Programmable module software for setting and monitor

Smart Utility

IO Information						Program Function										
	FuncCode	OpCode1	OpCode2	OpCode3	Output		Input	Output	Count	Timer	Count_Set	Count_Value	Timer_Set			
B0	C 0	I 0	M 0	X	<input type="checkbox"/>	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	10	1		
B1	M 0	C 0	X	X	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	10			
B2	T 12	M 10	M 1	X	<input type="checkbox"/>	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B3	M 1	T 12	X	X	<input type="checkbox"/>	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B4	T 13	M 10	X	X	<input type="checkbox"/>	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	60			
B5	O 7	M 10	X	X	<input type="checkbox"/>	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B6	ADD	Const 1	AM 0	AM 1	<input checked="" type="checkbox"/>	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B7	SUB	AM 0	Const 1	AM 2	<input checked="" type="checkbox"/>	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B8	MOV	M 0	AM 1	AM 0	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B9	MOV	M 1	AM 2	AM 0	<input type="checkbox"/>	9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B10	CMP	AM 0	Const 0	M 10	<input checked="" type="checkbox"/>	A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B11	CMP	AM 0	Const 1	M 20	<input checked="" type="checkbox"/>	B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0			
B12	CMP	AM 0	Const 15	M 40	<input checked="" type="checkbox"/>	C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	2			
B13	MOV	M 40	Const 15	M 20	<input type="checkbox"/>	D	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	1440			

Program Area

program execution status

M Flag 1 Bit	AM Analog Flag 16 Bit	Bit0	Bit1	Bit2	Bit3	Bit4	Bit5	Bit6	Bit7	Bit8	Bit9	Bit10	Bit11	Bit12	Bit13	Bit14
DO Value 0~15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motor Control		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DI Force On 0~15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Component control area (can be changed directly)

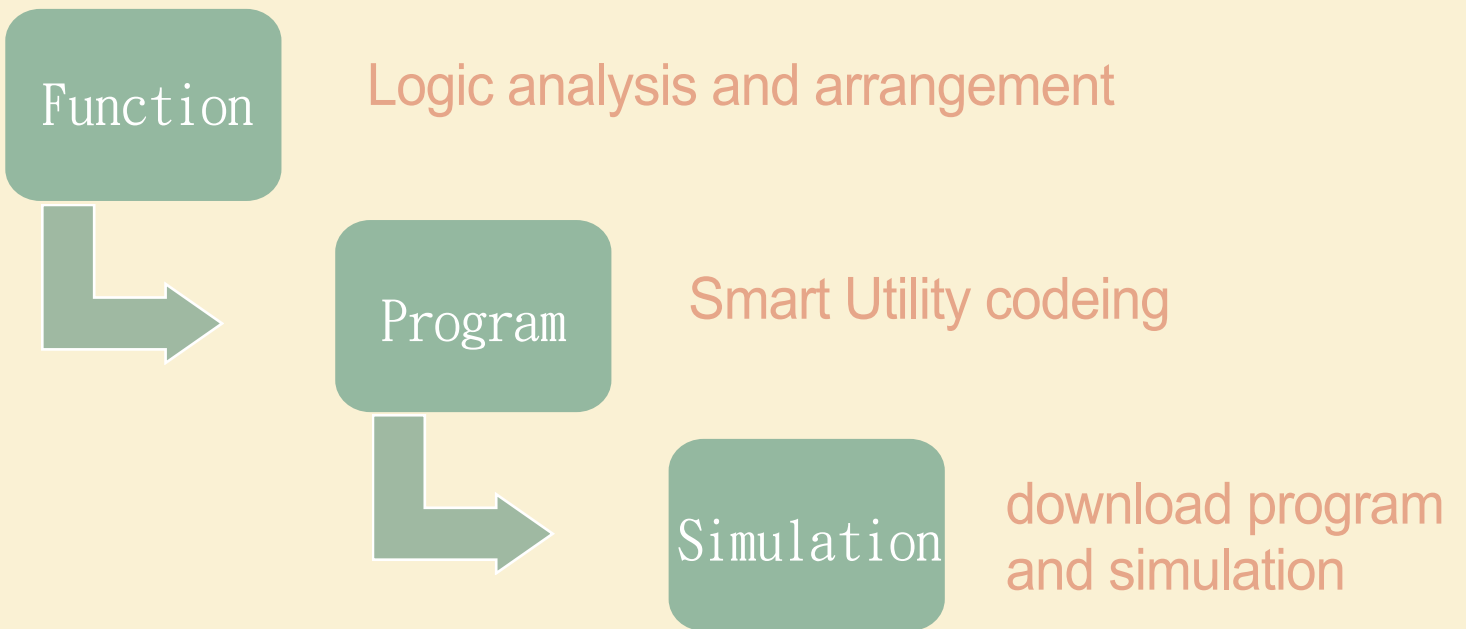
Total 128 lines of program (B0~B127)

Type of program commands:

Logic judgement: NOT/AND/OR/NAND/NOR/XOR/NXOR/END

Arithmetic and data processing: ADD/SUB/MUL/DIV/CMP/MOV

Registers and Time: Counter/Timer/M/AM/PLS/PLF/LSHIFT/RSHIFT/Weekly Timer



Ordering Information

A-80x Series

RS-485 Remote Modules

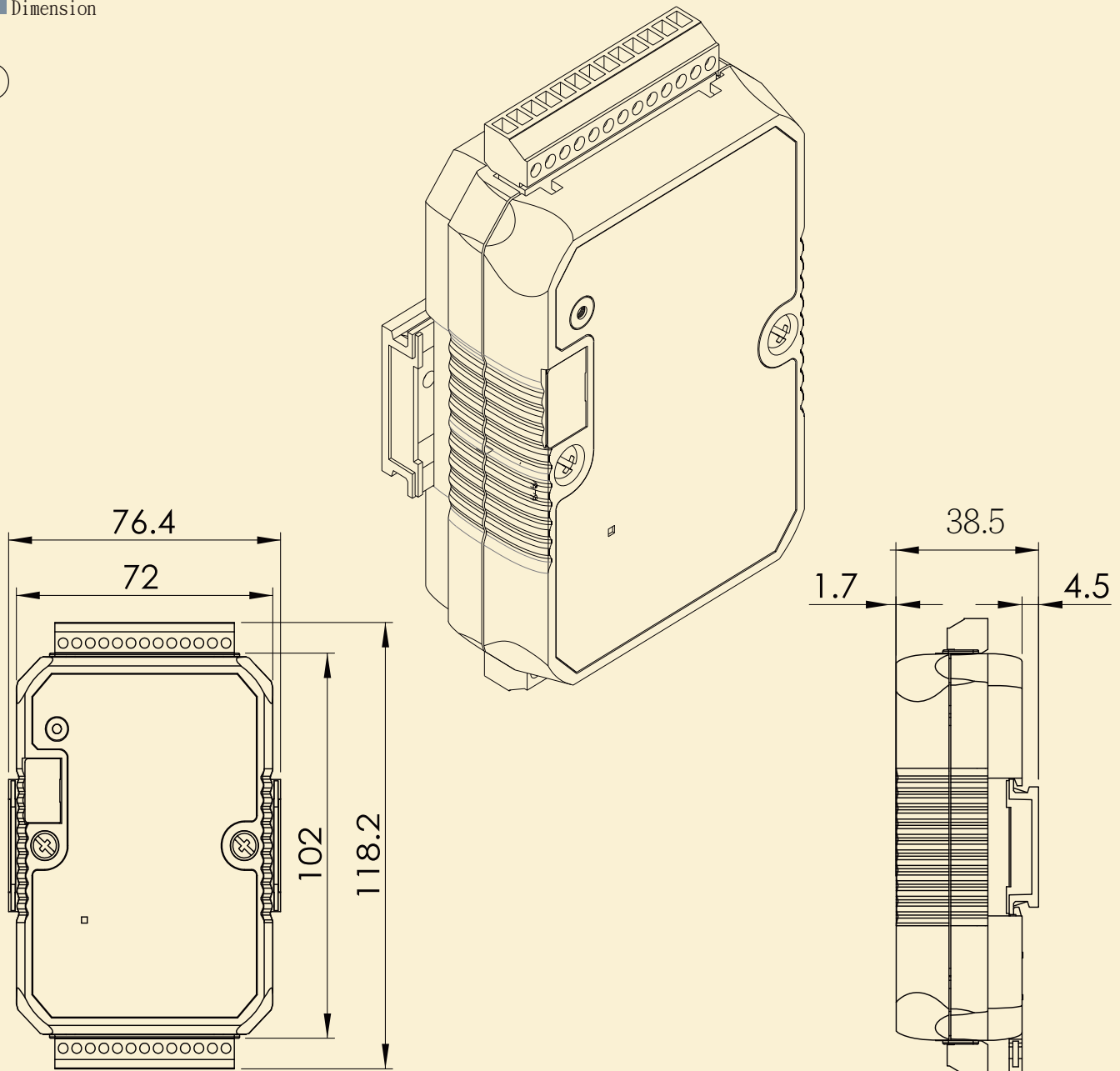
8057	D0 Remote Modules , LED indicator , DC Power Supply , 12D0(Source) , RS-485*1	A-8057
8058	D0 Remote Modules , LED indicator , DC Power Supply , 12D0(Sink) , RS-485*1	A-8058
8068	D0 Remote Modules , LED indicator , DC Power Supply , 8D0(Signal Relay) , RS-485*1	A-8068
8069	D0 Remote Modules , LED indicator , DC Power Supply , 8D0(Power Relay) , RS-485*1	A-8069
8051	DI Remote Modules , LED indicator , DC Power Supply , 16DI , RS-485*1	A-8051
8055	DIO Remote Modules , LED indicator , DC Power Supply , 8DI/8D0(Sink) , RS-485*1	A-8055
8055S	DIO Remote Modules , LED indicator , DC Power Supply , 8DI/8D0(Source) , RS-485*1	A-8055S
8060	DIO Remote Modules , LED indicator , DC Power Supply , 8DI/4D0(Power Relay) , RS-485*1	A-8060

Dimension

A-80x Series

Dimension

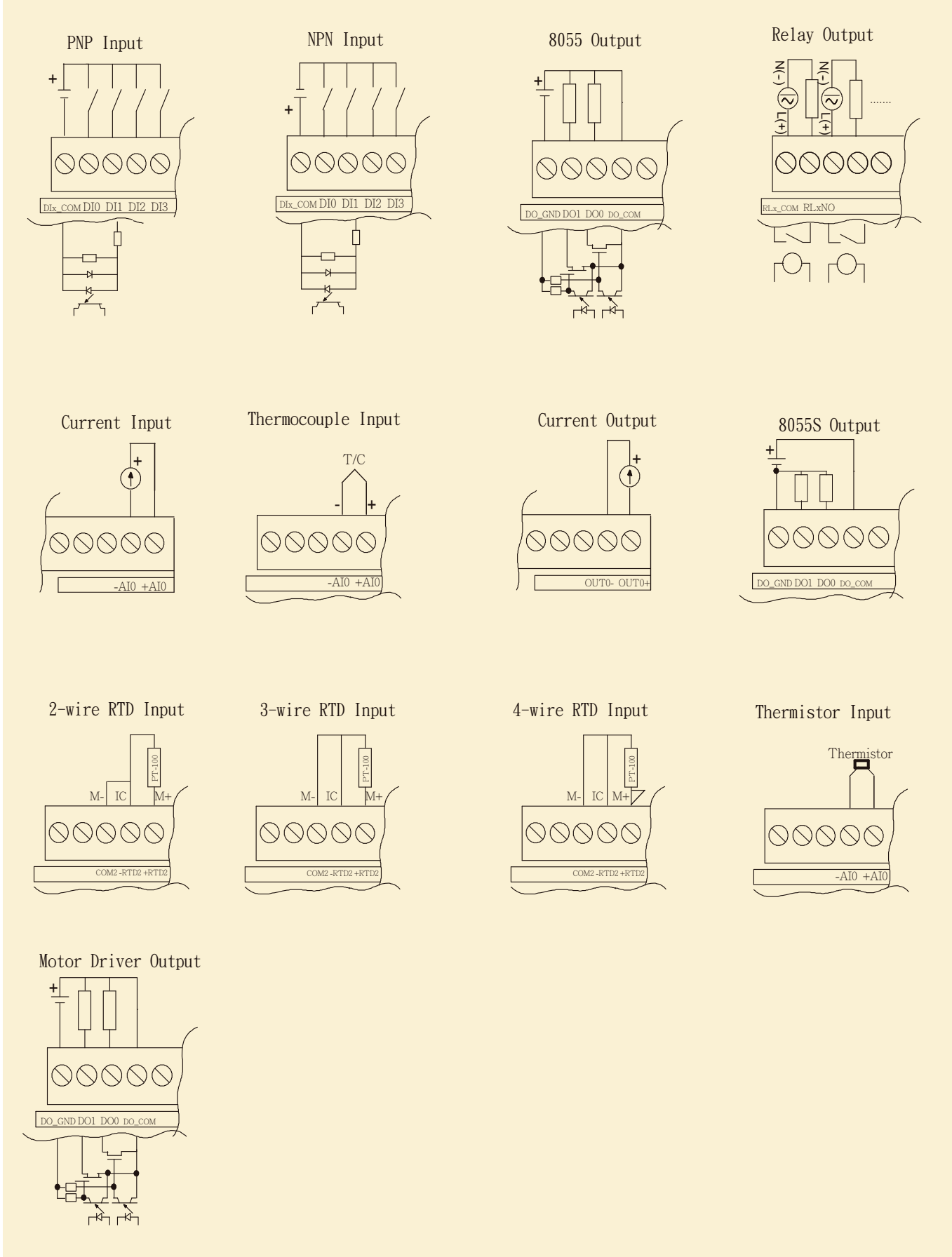
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Wiring Diagrams & Pin Out

Remote Modules

A-80x Series

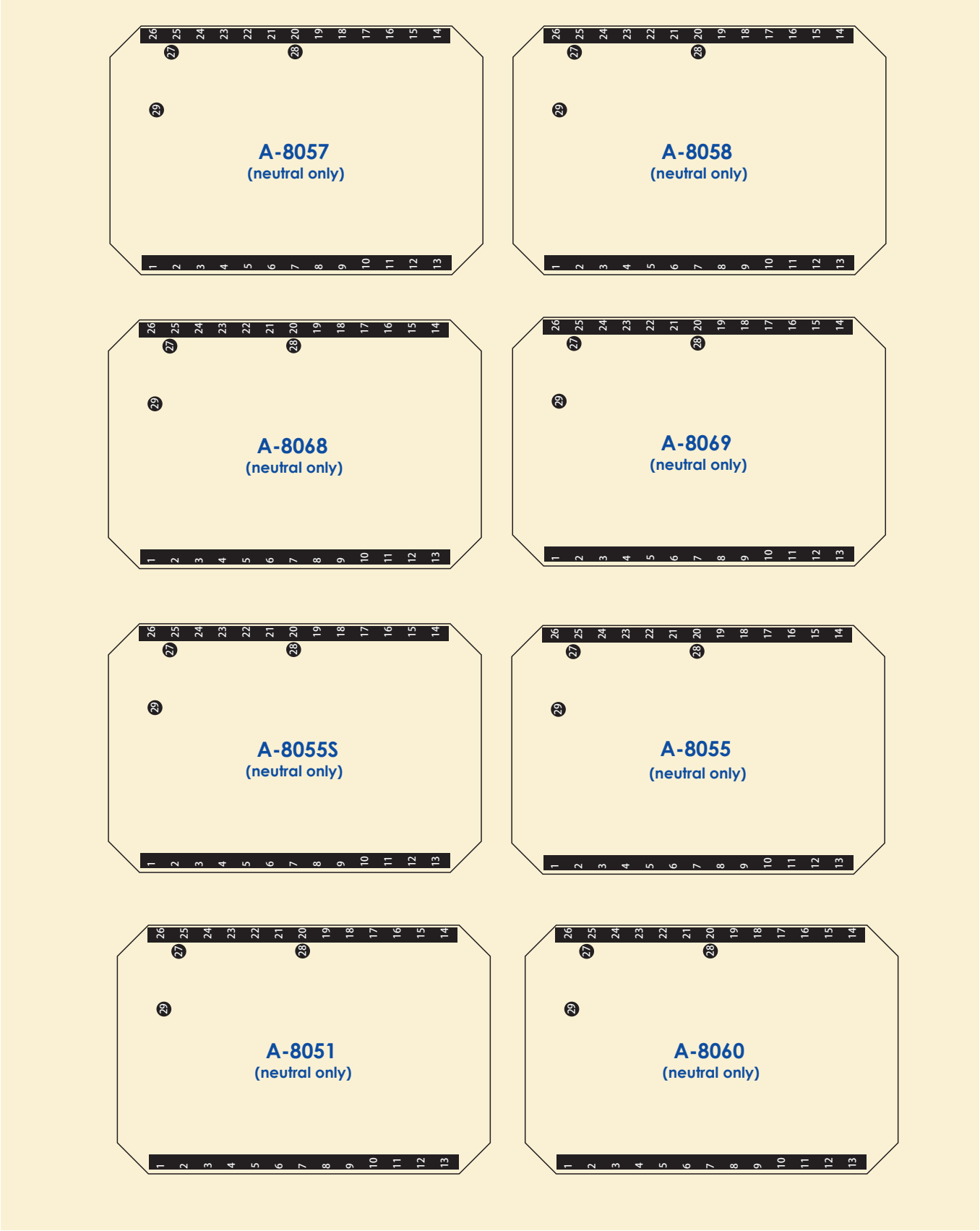


PIN Assignments

Remote Modules

A-80x Series

Pin Table



Address Mapping

Remote Modules

A-80x Series

Mapping Table

A-8057/A-8058/A-8068/ Supported Modbus Code:	A-8069/ A-8051/A-8055/A-8055S/A-8060 01/02/05/15			
Address 0X	Item	NOR	INIT*	NOTE
00001-00016	0-15 DI Input Signal	R	R	
00017-00032	0-15 DO Output Value	R/W	R/W	
00033-00048	0-15 Power On Digital Output Value	R	R/W	
00049-00064	0-15 Communication Fail Safe Value	R	R/W	
00129-01152	0-1023 M_Flag	R/W	R/W	
01153-01280	0-127 SM_Flag	R/W	R/W	
01281-01296	0-15 DI Force On	R/W	R/W	
01297-01312	0-15 DI Force Off	R/W	R/W	
01313-01440	0-127 Logic Gate Output Value	R	R	
01441-01456	0-15 Counter Output Value	R	R	
01457-01472	0-15 Timer Output Value	R	R	
Supported Modbus Code:	03/04/06/16			
Address 4X	Item	NOR	INIT*	NOTE
40065	Communication Fail Safe Time Setting Value	R	R/W	0-65535: 0.0-6553.5 sec
40181	Calibration Interval	R	R/W	Calibration Interval(DAY)
40182	Calibration Seconds	R	R/W	Calibration (Seconds)
40183	RTC_Week	R/W	R/W	0-6(Sunday~Saturday)
40184	RTC_Year	R/W	R/W	2000 ~ 2099
40185	RTC_Month	R/W	R/W	1-12
40186	RTC_Date	R/W	R/W	1-31
40187	RTC_Hour	R/W	R/W	0-23
40188	RTC_Min	R/W	R/W	0-59
40189	RTC_Sec	R/W	R/W	0-59
40190	Software Watch Dog	R/W	R/W	0xA55A = Enable this Watch Dog, Reset Module
40193	Logic Program Stop Control	R/W	R/W	0 = non-Stop , 1 = Stop
40211	Module Name1	R	R	
40212	Module Name2	R	R	
40213	Soft Version1	R	R	
40214	Soft Version2	R	R	
40215	Communication Safety Enabled	R	R	
40216	Communication Safety Flag	R	R	
40245 ~ 40248	Password for Normal Mode Setup	R/W	R/W	8 byte password to check (Default: Yotta)
40257 ~ 40288	Module Remark	R	R/W	(64 byte) Remarks on the function of the module
40300	Module's ID in normal mode	R	R/W	1~255
40301	Protocol in normal mode	R	R/W	0 : RTU 1 : ASCII
40302	Baud rate in normal mode	R	R/W	0 : 1200 bps 1 : 2400 bps 2 : 4800 bps 3 : 9600 bps 4 : 14400 bps 5 : 19200 bps 6 : 28800 bps 7 : 38400 bps 8 : 57600 bps 9 : 115200 bps
40303	Parity option in normal mode	R	R/W	0 : None 1 : Odd 2 : Even
40304	Stop bits in normal mode	R	R/W	0 : 1 bit 1 : 2 bit
40305	Time Out Setting in normal mode	R	R/W	0-65535 msec
40529 ~ 40544	0 ~ 15 Counter Setting Value	R	R/W	0 ~ 15 Counter Setting value (value: 0-65535)
40545 ~ 40560	0 ~ 15 Timer Setting Value	R	R/W	0 ~ 15 Timer Setting value (value: 0-65535)
40561 ~ 40576	0 ~ 15 Counter Current Value	R/W	R/W	0 ~ 15 Counter now value (value: 0-65535)
40577 ~ 40592	0 ~ 15 Timer Current Value	R/W	R/W	0 ~ 15 Timer now value (value: 0-65535)
41281 ~ 41296	0 ~ 15 AM Value	R/W	R/W	0 ~ 15 Auxiliary Memory

