



- ※ Ladder Diagram
- ※ Operation Voltage, 24 VDC, 100-240 VAC
- ※ Password Protection
- ※ 147 Integrated Function
- ※ Capacity 16000 Steps
- ※ 8 DI, 4AI, 4DO
- ※ Message Text
- ※ Multi-Lingual Display
- ※ Integrated Data Latch
- ※ Up To 7 Extend IO Modules
- ※ Four 10-bit Analog Inputs
- ※ Free PC Software YottaLadder+YottaUtility

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

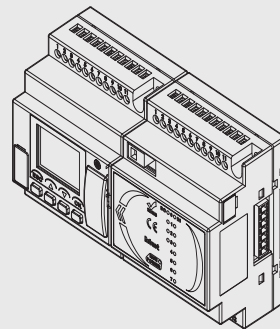
- PACKAGING MACHINE
- SEAL-CAPPING MACHINE
- LABELLING MACHINE
- FORMING MACHINE
- BLENDER EQUIPMENT
- CASING MACHINE
- FILLING MACHINE
- DRYER EQUIPMENT
- WEIGHT SEPARATOR
- CAPPING MACHINE
- INJECTION MACHINE
- TEMPERATURE-CONTROL

EXCELLENT PERFORMANCE

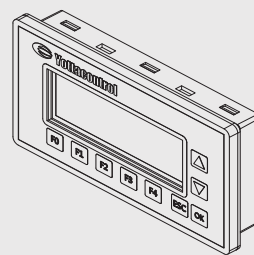


1. 32 bit CPU(ROR 10u Sec )
2. 2-axis Synchronous Motion, 20 KHz PWM
3. Individual Communicate Circuit, Enhance Process Effect
4. Able To Edit The Parameter Among The Controller Operate
5. More Than Ten Units AUTO-PID Synchronous Function
6. Multi-Lingual Display Menu
7. Enhance Password & Safety Function
8. Display Customize Message Among The Controller Operate
9. Built-in Standard High Frequency Counter
10. Built-in Standard Real Time Clock (RTC)
11. PC Program Can Use For All Ladder Series Controller
12. Synchronous Process Mult-Controllers' Communication
13. LDATP Text Panel Can Plug & Play Directly
14. Built-in Standard RS-485 Port, Connect Remote IO Module
15. Memory Card Which Has Copy & Password Protection
16. Connect Encoder & Multi-Sensors Directly
17. Program Auto Back-Up
18. Built-in Standard MODBUS RTU/ASCII Protocol
19. RTC Adjusts Immediately. Battery For More Than 2 Years
20. Built-in USB\*1 & RS-485 Port (Support Master & Slave)
21. Easy To DIN-Rail & Wall Mounting Installation
22. Smart PC Software, Needn' t Memorize Commands
23. Built-in Display Monitor
24. AML Memory Can Upload & Download Program Apace
25. Enhance Operate Effective Via Edit Menu (Display)
26. Error Code Quickly Display To Facilitate Repair
27. Cam Control Command, Speed Control Disc Command, Rapid Application
29. Input Filtering, Adjustable Bandwidth
30. Expansion Module Quick Connect, Convenient Construction

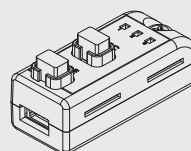
PLC Base & Extend IO Module



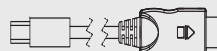
LDATP Text Panel



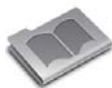
AML Memory Card



CAB-60USB Connect Cable



## Specification

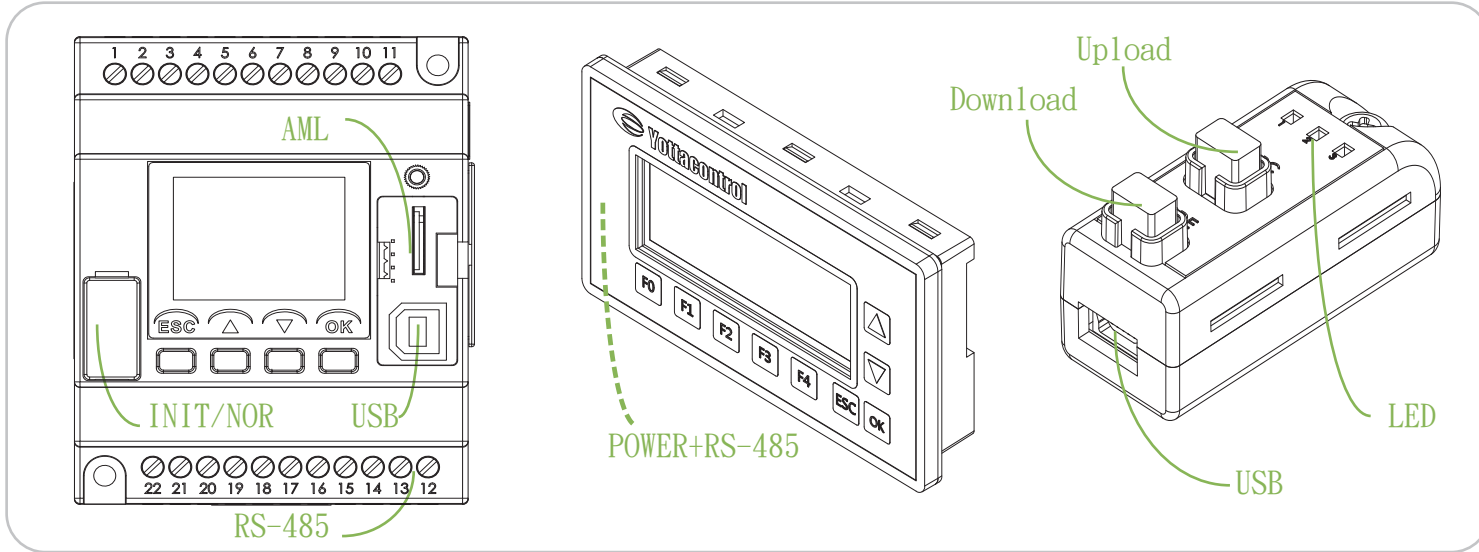


Type	A-7710-D	A-7710-A	A-7711-D	A-7710-DT	A-7711-DT
	A-7710D-D	A-7710D-A	A-7711D-D	A-7710D-DT	A-7711D-DT
Digital Inputs	8	8	4	8	4
Analog Inputs	--	--	4(10-bit)	--	4(10-bit)
Operation Voltage	10~30VDC	100/240VAC	10~30VDC	10~30VDC	10~30VDC
Outputs	4(Relay)			4(MOSFET)	
Continuous Current	Relay: 5A for resistive load, 2A for inductive load; MOSFET: 10~35VDC/1A				
RTC/ Hold During Power Off	Yes/>2 Years				
Operation Temperature	-10 °C to +55 °C				
Storage Temperature	-20 °C to +70 °C				
Program Capacity	16000 Steps (Max)				
Input/Output Operating Frequency	10000HZ/20000HZ				
Communication Ports	USB*1 & RS-485*1				
LCM Display/ LED Indicator	Yes				
Degree Of Protection	IP 20				
Base Controller IOs	12 IOs, Up To 7 Extend IO Modules (128 IOs)				
Program Protection	Multi-Protection				
Protocol	Master:MODBUS ASCII/RTU\Slave:MODBUS ASCII/RTU				
Baud Rate	1200~115200bps				
Input Rating	AC Type: Level 0<40 VAC, Level 1>79 VAC DC Type: Level 0<5 VDC, Level 1>8.5 VDC				
Input Isolation	Yes				
Analog Input voltage Range	--	--	0~10VDC	--	0~10VDC
Dimension	72.65*90*60.3 mm				
Step Relay	S		1024(BIT)		
Input Points	X		256(BIT)		
Output Points	Y		256(BIT)		
Timer	T		512(BIT)		
Internal Relay	M		1536(BIT)		
Counter	C		512(BIT)		
Special Relay	SM		2048(BIT)		
Internal Relay	MH		2048(BIT)		
Communication Link Relay	B		2048(BIT)		
Communication Success Relay	US		2048(BIT)		
Special Communication Relay	SB		2048(BIT)		
Communication Failure Relay	UE		2048(BIT)		
Force ON Input Points	FXON		256(BIT)		
Force OFF Input Points	FXOFF		256(BIT)		
Force ON Output Points	FYON		256(BIT)		
Force OFF Output Points	FYOFF		256(BIT)		
DCS Temporary	AR		400(WORD)		
Timer Temporary	T		512(WORD)		
Counter Temporary	C		200(WORD)		
Counter Temporary	C		56(LONG)		
Special Data Temporary	SD		3072(WORD)		
Operational Data Temporary	D		8192(WORD)		
Loop Index	N		16(WORD)		
Interrupt Index Temporary	I		128(WORD)		
Jump Index Temporary	P		256(WORD)		
Communication Temporary	W		4096(WORD)		
Sub Communication Temporary	UC		2048(WORD)		

Specification



Extend IO Module Type	A-7060-D	A-7060-A
Digital Inputs	8	8
Operation Voltage	10~30VDC	100/240VAC
Outputs	4(Relay)	
Continuous Current	Relay: 5A for resistive load, 2A for inductive load	
Operation Temperature	-10 °C to +55 °C	
Storage Temperature	-20 °C to +70 °C	
Input/Output Operating Frequency	50HZ/50HZ	
LED Indicator	Yes	
Degree Of Protection	IP 20	
IO Points	8 DI, 4 DOs	
Input Rating	AC Type: Level 0<40 VAC, Level 1>79 VAC DC Type: Level 0<5 VDC, Level 1>8.5 VDC	
Input Isolation	Yes	
Dimension(mm)	81.21*90*57.1	
A-7710D-D	Supply Voltage:10~30VDC, 8DI, 4DO(Relay), 108*64 LCM	
A-7710-D	Supply Voltage:10~30VDC, 8DI, 4DO(Relay), I/O LED indicator	
A-7710D-A	Supply Voltage:100/240VAC, 8DI, 4DO(Relay), 108*64 LCM	
A-7710-A	Supply Voltage:100/240VAC, 8DI, 4DO(Relay), I/O LED indicator	
A-7711D-D	Supply Voltage:10~30VDC, 8DI, 4DO(Relay), 4AI(0~10VDC), 108*64 LCM	
A-7711-D	Supply Voltage:10~30VDC, 8DI, 4DO(Relay), 4AI(0~10VDC), I/O LED indicator	
A-7710D-DT	Supply Voltage:10~30VDC, 8DI, 4DO(MOSFET), 108*64 LCM	
A-7710-DT	Supply Voltage:10~30VDC, 8DI, 4DO(MOSFET), I/O LED indicator	
A-7711D-DT	Supply Voltage:10~30VDC, 8DI, 4DO(MOSFET), 4AI(0~10VDC), 108*64 LCM	
A-7711-DT	Supply Voltage:10~30VDC, 8DI, 4DO(MOSFET), 4AI(0~10VDC), I/O LED indicator	
A-7060-D	Supply Voltage:10~30VDC, 8DI, 4DO(Relay), I/O LED indicator	
A-7060-A	Supply Voltage:100/240VAC, 8DI, 4DO(Relay), I/O LED indicator	
CAB-60USB	Connect Cable	
AML	Memory Card	
LDATP	Text Panel	



## Instructions Table



Basic Instructions	LD	Load
Basic Instructions	LDI	Load Inverse
Basic Instructions	LDP	Load Pulse
Basic Instructions	LDF	Load Falling pulse
Basic Instructions	AND	AND
Basic Instructions	ANI	AND Inverse
Basic Instructions	ANDP	AND Pulse
Basic Instructions	ANDF	AND Falling pulse
Basic Instructions	OR	OR
Basic Instructions	ORI	OR Inverse
Basic Instructions	ORP	OR Pulse
Basic Instructions	ORF	OR Falling pulse
Basic Instructions	ANB	AND Block
Basic Instructions	ORB	OR Block
Basic Instructions	OUT	Output
Basic Instructions	SET	Set Bit Device
Basic Instructions	RST	Reset Bit Device
Basic Instructions	PLS	Pulse
Basic Instructions	PLF	Pluse Falling
Basic Instructions	MC	Master Control
Basic Instructions	MCR	Master Control Reset
Basic Instructions	MPS	Point Store
Basic Instructions	MRD	Point Read
Basic Instructions	MPP	Point Pop
Basic Instructions	INV	Inverse
Basic Instructions	NOP	No Operation
Basic Instructions	END	END
Application Instructions	CJ	Conditional Jump
Application Instructions	CALL	Call Subroutine
Application Instructions	SERT	Subroutine Return
Application Instructions	IRET	Interruption Return
Application Instructions	EI	Interruption Enable
Application Instructions	DI	Interruption Disable
Application Instructions	FEND	First End
Application Instructions	WDT	Watch dog timer refresh
Application Instructions	FOR	Start of a For-Next Loop
Application Instructions	NEXT	End of a For-Next Loop
Application Instructions	CMP	Compare
Application Instructions	ZCP	Zone Compare
Application Instructions	MOV	Move
Application Instructions	SMOV	Shift Move
Application Instructions	CML	Compliment
Application Instructions	BMOV	Block Move
Application Instructions	FMOV	Fill Move
Application Instructions	XCH	Exchange
Application Instructions	BCD	Binary Coded Decimal
Application Instructions	BIN	BBinary
Application Instructions	SWAP	Byte Swap

## INSTRUCTIONS

## Basic Instructions

- LD
- LDI
- LDP
- LDF
- AND
- ANI
- ANDP
- ANDF
- OR
- ORI
- ORP
- ORF
- ANB
- ORB
- OUT
- SET
- RST
- PLS
- PLF
- MC
- MCR
- MPS
- MRD
- MPP
- INV
- NOP
- END

## Application Instructions

- CJ
- CALL
- SERT
- IRET
- EI
- DI
- FEND
- WDT
- FOR
- NEXT
- CMP
- ZCP
- MOV
- SMOV
- CML
- BMOV
- FMOV
- XCH
- BCD
- BIN
- SWAP

## Instructions Table



Application Instructions	ADD	Addition
Application Instructions	SUB	Subtract
Application Instructions	MUL	Multiplication
Application Instructions	DIV	Division
Application Instructions	INC	Increment
Application Instructions	DEC	Decrement
Application Instructions	WAND	Logical word AND
Application Instructions	WOR	Logical word OR
Application Instructions	WXOR	Logical exclusive OR
Application Instructions	NEG	Negation
Application Instructions	ROR	Rotation Right
Application Instructions	ROL	Rotation Left
Application Instructions	RCR	Rotation Right With Carry
Application Instructions	RCL	Rotation Left With Carry
Application Instructions	SFTR	Bit shift right
Application Instructions	SFTL	Bit shift left
Application Instructions	WSFR	Word shift right
Application Instructions	WSFL	Word shift left
Application Instructions	SFWR	Shift Register Write
Application Instructions	SFRD	Shift Register Read
Application Instructions	ZRST	Zone Reset
Application Instructions	DECO	Decode
Application Instructions	ENCO	Encode
Application Instructions	SUM	Sum of active bits
Application Instructions	BON	Check specified bit status
Application Instructions	MEAN	Mean
Application Instructions	ANS	Timed annunciator set
Application Instructions	ANR	Annunciator reset
Application Instructions	SQR	Square Root
Application Instructions	FLT	Floating point
Application Instructions	REF	Reflash
Application Instructions	REFF	Refresh and Filter Adjust
Application Instructions	MTR	Input matrix
Application Instructions	HSCS	High Speed counter set
Application Instructions	HSCR	High speed counter reset
Application Instructions	HSZ	High Speed zone compare
Application Instructions	SPD	Speed Detect
Application Instructions	PLSY	Pluse Y Output
Application Instructions	PWM	Pluse Width Modulation
Application Instructions	PLSR	Pluse Ramp
Application Instructions	TKY	Ten Key Input
Application Instructions	HKY	Hexadecimal key Input
Application Instructions	DSW	Digital switch
Application Instructions	ARWS	Arrow Switch
Application Instructions	ASC	ASCII Code Conversion

## INSTRUCTIONS

## Application Instructions

- ADD
- SUB
- MUL
- DIV
- INC
- DEC
- WAND
- WOR
- WXOR
- NEG
- ROR
- ROL
- RCR
- RCL
- SFTR
- SFTL
- WSFR
- WSFL
- SFWR
- SFRD
- ZRST
- DECO
- ENCO
- SUM
- BON
- MEAN
- ANS
- ANR
- SQR
- FLT
- REF
- REFF
- MTR
- HSCS
- HSCR
- HSZ
- SPD
- PLSY
- PWM
- PLSR
- TKY
- HKY
- DSW
- ARWS
- ASC

## Instructions Table



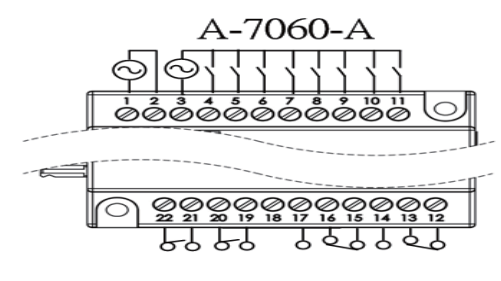
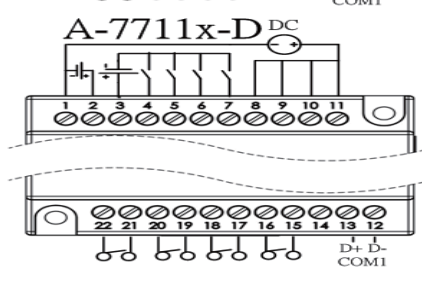
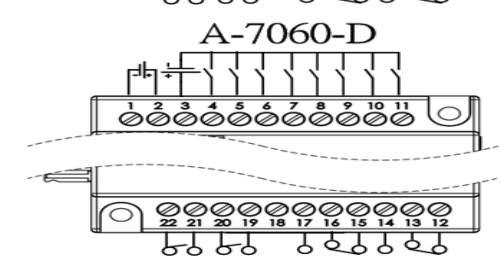
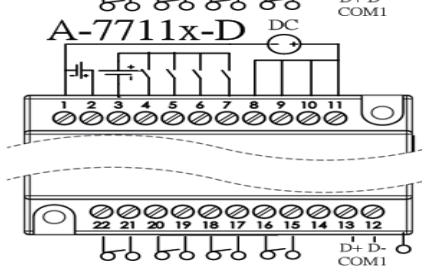
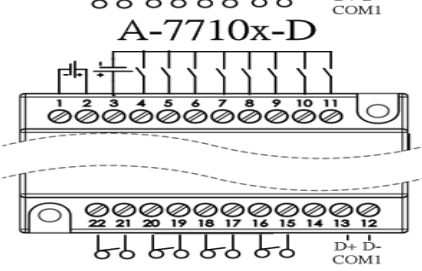
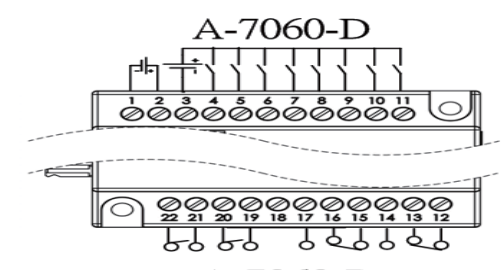
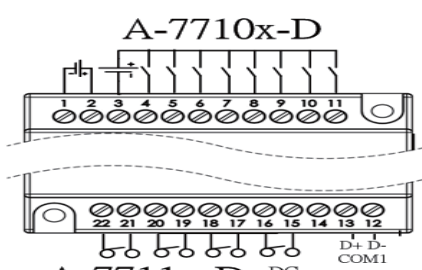
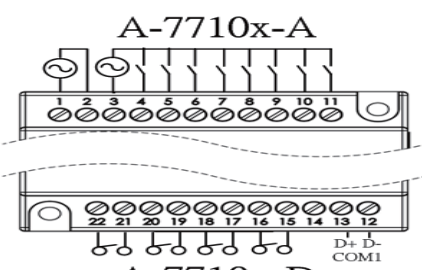
Application Instructions	IST	Initial State
Application Instructions	SER	Search a Data Stack
Application Instructions	ABSD	Absolute drum sequencer
Application Instructions	INCD	Incremental drum sequencer
Application Instructions	TTMR	Teaching timer
Application Instructions	STMR	Special timer
Application Instructions	ALT	Alternate state
Application Instructions	RAMP	Ramp Variable value
Application Instructions	ROTC	Rotary table control
Application Instructions	SORT	Sort Tabulated data
Application Instructions	ASCI	Converts HEX to ASCII
Application Instructions	HEX	Converts ASCII to HEX
Application Instructions	CCD	Check Code
Application Instructions	PID	PID control loop
Application Instructions	ECMP	Floating Point Compare
Application Instructions	EZCP	Floating Point Zone Compare
Application Instructions	EBCD	Float to Scientific Conversion
Application Instructions	EBIN	Scientific to float Conversion
Application Instructions	EADD	Floating Point Addition
Application Instructions	ESUB	Floating Point Sub-raction
Application Instructions	EMUL	Floating Point Multiplication
Application Instructions	EDIV	Floating Point Division
Application Instructions	ESQR	Floating Point Square Root
Application Instructions	INT	Float to Integer
Application Instructions	SIN	Sine
Application Instructions	COS	Cosine
Application Instructions	TAN	Tangent
Application Instructions	GRY	Integer to Gray Code
Application Instructions	GBIN	Gray Code to Integer
Application Instructions	LD=	Load Compare Where S1 = S2
Application Instructions	LD>	Load Compare Where S1 > S2
Application Instructions	LD<	Load Compare Where S1 < S2
Application Instructions	LD<>	Load Compare Where S1 <> S2
Application Instructions	LD<=	Load Compare Where S1 <= S2
Application Instructions	LD>=	Load Compare Where S1 >= S2
Application Instructions	AND=	AND Compare Where S1 = S2
Application Instructions	AND>	AND Compare Where S1 > S2
Application Instructions	AND<	AND Compare Where S1 < S2
Application Instructions	AND<>	AND Compare Where S1 <> S2
Application Instructions	AND<=	AND Compare Where S1 <= S2
Application Instructions	AND>=	AND Compare Where S1 >= S2
Application Instructions	OR=	OR Compare Where S1 = S2
Application Instructions	OR>	OR Compare Where S1 > S2
Application Instructions	OR<	OR Compare Where S1 < S2
Application Instructions	OR<>	OR Compare Where S1 <> S2
Application Instructions	OR<=	OR Compare Where S1 <= S2
Application Instructions	OR>=	OR Compare Where S1 >= S2

## INSTRUCTIONS

## Application Instructions

- IST
- SER
- ABSD
- INCD
- TTMR
- STMR
- ALT
- RAMP
- ROTC
- SORT
- ASCI
- HEX
- CCD
- PID
- ECMP
- EZCP
- EBCD
- EBIN
- EADD
- ESUB
- EMUL
- EDIV
- ESRQ
- INT
- SIN
- COS
- TAN
- GRY
- GBIN
- LD=
- LD>
- LD<
- LD<>
- LD<=
- LD>=
- AND=
- AND>
- AND<
- AND<>
- AND<=
- AND>=
- OR=
- OR>
- OR<
- OR<>
- OR<=
- OR>=

Wiring Diagrams



Dimension

