

I/O Configuration

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0	Bul.1766	MicroLogix 1400 Series A
1	1762-IQ16	16-Input 10/30 VDC
2		
3		
4		
5		
6		
7		

## Data File List

Name	Number	Type	Scope	Debug	Words	Elements	Last
OUTPUT	0	O	Global	No	18	6	O:5
INPUT	1	I	Global	No	27	9	I:8
STATUS	2	S	Global	No	0	66	S:65
BINARY	3	B	Global	No	16	16	B3:15
TIMER	4	T	Global	No	15	5	T4:4
COUNTER	5	C	Global	No	3	1	C5:0
CONTROL	6	R	Global	No	3	1	R6:0
INTEGER	7	N	Global	No	37	37	N7:36
FLOAT	8	F	Global	No	2	1	F8:0
SMS INTEGR	229	N	Global	No	37	37	N229:36
SMS TIMER	230	T	Global	No	12	4	T230:3
BINARY	231	B	Global	No	8	8	B231:7

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
I:0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1766	MicroLogix 1400 Series A
I:1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1762-IQ16 - 16-Input 10/30 VDC	

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	(Symbol) Description
B3:0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

## Address/Symbol Database

Address	Symbol	Scope	Description	Syn
B3:4/5				
B231:0			Binary status word for starter 1 used for comparing up to speed or not.	
B231:0/0			140M Aux 0=Off or Tripped. 1=On Terminals 13 and 14	
B231:0/1			140M Aux 0=Off or On. 1=Tripped Short Circuit or Overload. Terminals 27 and 28	
B231:0/2			140M Aux 0=Off or On. 1=Trip Short Circuit. Terminals 77 and 78.	
B231:0/3			SMC-3 Up to speed 0=Not up to speed 1=Up to speed	
B231:0/4			SMC-3 Fault. Check the starter for further description.	
B231:0/5			140M Overload Trip	
B231:0/6			Motor 1 is starting	
B231:0/7			Starter has not started even though an output from the micrologix was present.	
B231:0/8			Starter # 1 from isolation contactor aux 13 and 14 to indicate SMC has started.	
B231:0/9				
B231:1			Binary status word for starter 2 used for comparing up to speed or not.	
B231:1/0			140M Aux 0=Off or Tripped. 1=On Terminals 13 and 14	
B231:1/1			140M MCP Aux 0=Off or On 1=Tripped S.C. Terminals 27 or 28	
B231:1/2			E1 Plus Aux 0=Good or Test.1=Tripped Overload. Terminals 97 or 98 close.	
B231:1/3			103T Up to speed or contactor pulled in. 0=Not up to speed 1=Up to speed.	
B231:1/4			Starter has not started even though an output from the micrologix was present.	
B231:1/5			Motor 2 is starting.	
B231:1/6			Starter 2 aux contacts from contactor of starter. 0=Off 1=On	
B231:2			Binary status word for VFD used for comparing if the motor is receiving pwr or not.	
B231:2/0			140M Aux 0=Off or Tripped. 1=On Terminals 13 and 14	
B231:2/1			140M Aux 0=Off or On. 1=Tripped Short Circuit or Overload. Terminals 27 and 28	
B231:2/2			140M Aux 0=Off or On. 1=Trip Short Circuit. Terminals 77 and 78.	
B231:2/3			PF-4M MotorRunning 0=Motor not receiving power 1=Motor receiving power	
B231:2/4			PF-4M Fault. Check the drive for further description. Not Used in this BB, But can be changed.	
B231:2/5			140M Overload Trip	
B231:2/6			Motor 3 is starting	
B231:2/7			Motor 3 is not receiving power even though a start signal is provided.	
B231:2/8			#3 Motor receiving input start input from P.B. 0=Off 1=On	
B231:3			Binary status word for starter 4 used for comparing up to speed or not.	
B231:3/0			140M Aux 0=Off or Tripped. 1=On terminals 13 and 14	
B231:3/1			140M Aux 0=Off or On. 1=Tripped Short Circuit or Overload. terminals 27 and 28	
B231:3/2			140M Aux 0=Off or On. 1=Trip Short Circuit. Terminals 77 and 78.	
B231:3/3			190E Up to speed 0=Not up to speed 1=Up to speed	
B231:3/4			Starter has not started even though an output from the micrologix was present.	
B231:3/5			140M Overload Trip	
B231:3/6			Motor 4 is starting	
B231:3/7			Starter 4 aux contacts from contactor of starter. 0=Off 1=On	
B231:4			Ensures output is set to zero if HOA is in off or hand position.	
B231:4/0			Start signal for Motor Starter 1 from PVC	
B231:4/1			HOA 0=Off or Hand 1=Auto	
B231:4/2			Output 0 0=Off 1=On	
B231:4/3			Used to display start stop button on PVC. 1=display 0=invisible	
B231:4/4			Stop signal for Motor Starter 1 from PVC	
B231:4/5	B231	Global		
B231:5			Ensures output is set to zero if HOA is in off or hand position.	
B231:5/0			Start signal for Motor Starter 2 from PVC	
B231:5/1			HOA 0=Off or Hand 1=Auto	
B231:5/2			Output 1 0=Off 1=On	
B231:5/3			Used to display start signal on PVC. 1=display 0=invisible	
B231:5/4			Stop signal for Motor Starter 2 from PVC	
B231:6			Ensures output is set to zero if HOA is in off or hand position.	
B231:6/0			Start signal for PF-4M from PVC	
B231:6/1			HOA 0=Off or Hand 1=Auto	
B231:6/2			Output 2 0=Off 1=On	
B231:6/3			Used to display start signal on PVC. 1=display 0=invisible	
B231:6/4			Stop signal for PF- 4M from PVC	
B231:7			Ensures output is set to zero if HOA is in off or hand position.	
B231:7/0			Start signal for Motor Starter 4 from PVC	
B231:7/1			HOA 0=Off or Hand 1=Auto	
B231:7/2			Output 3 0=Off 1=On	
B231:7/3			Enables the display of Start / Stop on PVC when true	
B231:7/4			Stop signal for Motor Starter 4 from PVC	
I:0/0			140M Aux 0=Off or Tripped. 1=On Terminals 13 and 14	
I:0/1			140M Aux 0=Off or On. 1=Tripped Short Circuit or Overload. Terminals 27 and 28	
I:0/2			140M Aux 0=Off or On. 1=Trip Short Circuit. Terminals 77 and 78.	
I:0/3			SMC-3 Up to speed. 0=Not up to speed 1=Up to speed	
I:0/4			SMC-3 Fault. Check the starter for further description.	
I:0/5			140M Aux 0=Off or Tripped. 1=On Terminals 13 and 14	
I:0/6			140M Aux 0=Off or On 1=Tripped Short Circuit. Terminals 27 or 28	
I:0/7			E1 Plus Aux 0=Good or Test.1=Tripped Overload. Terminals 97 or 98 close.	
I:0/8			103T Up to speed or contactor pulled in. 0=Not up to speed 1=Up to speed.	
I:0/9			#1 HOA 0=Off or hand 1=Auto	
I:0/12			Input from HOA 0=Off or Hand 1=Auto (PLC control)	
I:1/0			140M Aux 0=Off or Tripped. 1=On Terminals 13 and 14	
I:1/1			140M Aux 0=Off or On. 1=Tripped Short Circuit or Overload. Terminals 27 and 28	
I:1/2			140M Aux 0=Off or On. 1=Trip Short Circuit. Terminals 77 and 78.	
I:1/3			PF-4M MotorRunning 0=Motor not receiving power 1=Motor is receiving Power	
I:1/4			PF-4M Fault. Check the drive for further description.	
I:1/5			140M Aux 0=Off or Tripped. 1=On Terminals 13 and 14	
I:1/6			140M Aux 0=Off or On. 1=Tripped Short Circuit or Overload. terminals 27 and 28	
I:1/7			140M Aux 0=Off or On. 1=Trip Short Circuit. Terminals 77 and 78.	
I:1/8			190E Up to speed 0=Not up to speed 1=Up to speed	

## Address/Symbol Database

Address	Symbol	Scope	Description	Sym
I:1/9			#2 HOA 0=Off or Hand 1=Auto	
I:1/10			#3 HOA 0=Off or Hand 1=Auto	
I:1/11			#4 HOA 0=Off or Hand 1=Auto	
I:1/12			#1 Starter is starting. Isolation contactor pulled in. 0=Off 1=On	
I:1/13			#2 Starter is starting via push button. 0=Off 1=On	
I:1/14			#3 Motor Input from Start P.B. 0=Off 1=On	
I:1/15			#4 Starter is starting via push button. 0=Off 1=On	
N7:10			140M Tripped either SC or Overload	
N7:11			140M Short Circuit Trip	
N7:12			Verify whether or not SC or Overload.	
N7:27			Status Word for Starter 3	
N229:0			140M Tripped either SC or Overload	
N229:1			140M Short Circuit Trip	
N229:2			Addition to verify whether or not SC or Overload.	
N229:6			Status word for SMC-3	
N229:16			Status Word for 103T	
N229:20			140M Tripped either SC or Overload	
N229:21			140M Short Circuit Trip	
N229:22			Addition to verify whether or not SC or Overload.	
N229:26			Status Word for PF-4M	
N229:30			140M Tripped either SC or Overload	
N229:31			140M Short Circuit Trip	
N229:32			Addition to verify whether or not SC or Overload.	
N229:36			Status Word for starter 4	
O:0/0			Output 0 0=no output 1=start signal to starter 1	
O:0/1			Output 1 0=no output 1=start signal to starter 2	
O:0/2			Output 2 0=no output 1=start signal to starter 3	
O:0/3			Output 3 0=no output 1=start signal to starter 4	
S:0			Arithmetic Flags	
S:0/0			Processor Arithmetic Carry Flag	
S:0/1			Processor Arithmetic Underflow/ Overflow Flag	
S:0/2			Processor Arithmetic Zero Flag	
S:0/3			Processor Arithmetic Sign Flag	
S:1			Processor Mode Status/ Control	
S:1/0			Processor Mode Bit 0	
S:1/1			Processor Mode Bit 1	
S:1/2			Processor Mode Bit 2	
S:1/3			Processor Mode Bit 3	
S:1/4			Processor Mode Bit 4	
S:1/5			Forces Enabled	
S:1/6			Forces Present	
S:1/7			Comms Active	
S:1/8			Fault Override at Powerup	
S:1/9			Startup Protection Fault	
S:1/10			Load Memory Module on Memory Error	
S:1/11			Load Memory Module Always	
S:1/12			Load Memory Module and RUN	
S:1/13			Major Error Halted	
S:1/14			Access Denied	
S:1/15			First Pass	
S:2/0			STI Pending	
S:2/1			STI Enabled	
S:2/2			STI Executing	
S:2/3			Index Addressing File Range	
S:2/4			Saved with Debug Single Step	
S:2/5			DH-485 Incoming Command Pending	
S:2/6			DH-485 Message Reply Pending	
S:2/7			DH-485 Outgoing Message Command Pending	
S:2/15			Comms Servicing Selection	
S:3			Current Scan Time/ Watchdog Scan Time	
S:4			Time Base	
S:5/0			Overflow Trap	
S:5/2			Control Register Error	
S:5/3			Major Err Detected Executing UserFault Routine	
S:5/4			M0-M1 Referenced on Disabled Slot	
S:5/8			Memory Module Boot	
S:5/9			Memory Module Password Mismatch	
S:5/10			STI Overflow	
S:5/11			Battery Low	
S:6			Major Error Fault Code	
S:7			Suspend Code	
S:8			Suspend File	
S:9			Active Nodes	
S:10			Active Nodes	
S:11			I/O Slot Enables	
S:12			I/O Slot Enables	
S:13			Math Register	
S:14			Math Register	
S:15			Node Address/ Baud Rate	
S:16			Debug Single Step Rung	
S:17			Debug Single Step File	
S:18			Debug Single Step Breakpoint Rung	
S:19			Debug Single Step Breakpoint File	
S:20			Debug Fault/ Powerdown Rung	

## Address/Symbol Database

Address	Symbol	Scope	Description	Sym
S:21			Debug Fault/ Powerdown File	
S:22			Maximum Observed Scan Time	
S:23			Average Scan Time	
S:24			Index Register	
S:25			I/O Interrupt Pending	
S:26			I/O Interrupt Pending	
S:27			I/O Interrupt Enabled	
S:28			I/O Interrupt Enabled	
S:29			User Fault Routine File Number	
S:30			STI Setpoint	
S:31			STI File Number	
S:32			I/O Interrupt Executing	
S:33			Extended Proc Status Control Word	
S:33/0			Incoming Command Pending	
S:33/1			Message Reply Pending	
S:33/2			Outgoing Message Command Pending	
S:33/3			Selection Status User/DF1	
S:33/4			Communicat Active	
S:33/5			Communicat Servicing Selection	
S:33/6			Message Servicing Selection Channel 0	
S:33/7			Message Servicing Selection Channel 1	
S:33/8			Interrupt Latency Control Flag	
S:33/9			Scan Toggle Flag	
S:33/10			Discrete Input Interrupt Reconfigur Flag	
S:33/11			Online Edit Status	
S:33/12			Online Edit Status	
S:33/13			Scan Time Timebase Selection	
S:33/14			DTR Control Bit	
S:33/15			DTR Force Bit	
S:34			Pass-thru Disabled	
S:34/0			Pass-Thru Disabled Flag	
S:34/1			DH+ Active Node Table Enable Flag	
S:34/2			Floating Point Math Flag Disable,Fl	
S:35			Last 1 ms Scan Time	
S:36			Extended Minor Error Bits	
S:36/8			DII Lost	
S:36/9			STI Lost	
S:36/10			Memory Module Data File Overwrite Protection	
S:37			Clock Calendar Year	
S:38			Clock Calendar Month	
S:39			Clock Calendar Day	
S:40			Clock Calendar Hours	
S:41			Clock Calendar Minutes	
S:42			Clock Calendar Seconds	
S:43			STI Interrupt Time	
S:44			I/O Event Interrupt Time	
S:45			DII Interrupt Time	
S:46			Discrete Input Interrupt- File Number	
S:47			Discrete Input Interrupt- Slot Number	
S:48			Discrete Input Interrupt- Bit Mask	
S:49			Discrete Input Interrupt- Compare Value	
S:50			Processor Catalog Number	
S:51			Discrete Input Interrupt- Return Number	
S:52			Discrete Input Interrupt- Accumulat	
S:53			Reserved/ Clock Calendar Day of the Week	
S:55			Last DII Scan Time	
S:56			Maximum Observed DII Scan Time	
S:57			Operating System Catalog Number	
S:58			Operating System Series	
S:59			Operating System FRN	
S:61			Processor Series	
S:62			Processor Revision	
S:63			User Program Type	
S:64			User Program Functional Index	
S:65			User RAM Size	
S:66			Flash EEPROM Size	
S:67			Channel 0 Active Nodes	
S:68			Channel 0 Active Nodes	
S:69			Channel 0 Active Nodes	
S:70			Channel 0 Active Nodes	
S:71			Channel 0 Active Nodes	
S:72			Channel 0 Active Nodes	
S:73			Channel 0 Active Nodes	
S:74			Channel 0 Active Nodes	
S:75			Channel 0 Active Nodes	
S:76			Channel 0 Active Nodes	
S:77			Channel 0 Active Nodes	
S:78			Channel 0 Active Nodes	
S:79			Channel 0 Active Nodes	
S:80			Channel 0 Active Nodes	
S:81			Channel 0 Active Nodes	
S:82			Channel 0 Active Nodes	
S:83			DH+ Active Nodes	
S:84			DH+ Active Nodes	

## Address/Symbol Database

Address	Symbol	Scope	Description	Sym
S:85			DH+ Active Nodes	
S:86			DH+ Active Nodes	
T4:2			Time on delay to make sure the starter has started.	
T4:2/DN				
T230:0			Can adjust time to suit the customers need for checking starter.	
T230:0/DN			Timer done to see if the starter has indeed started.	
T230:1			Can adjust time to suit the customers need for checking starter.	
T230:1/DN				
T230:2			Can adjust time to suit the customers need for checking starter.	
T230:3			Can adjust time to suit the customers need for checking starter.	
U:10			Jump to SMC-3	
U:11			Jump to 103T	
U:12			Jump to VFD using an expander card	
U:13			Jump to 190E using an expander card	
U:100			Jump to User Prgrm	
U:231			Jump to SMC-3	
U:232			Jump to 103T	
U:233			Jump to VFD	
U:234			Jump to 190E	