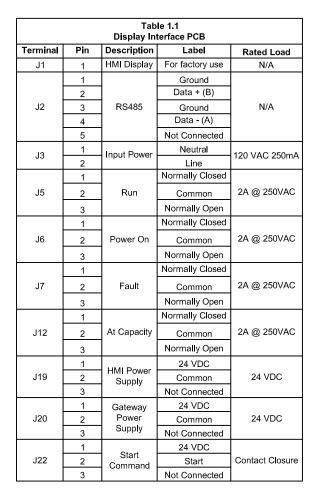
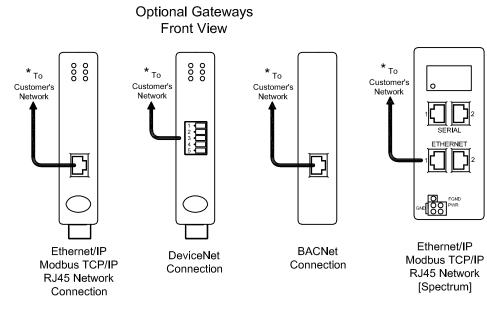
## Compact 4.3" HMI Configuration





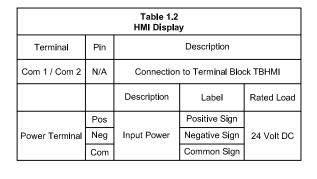
This diagram is for the Compact 4.3" HMI.

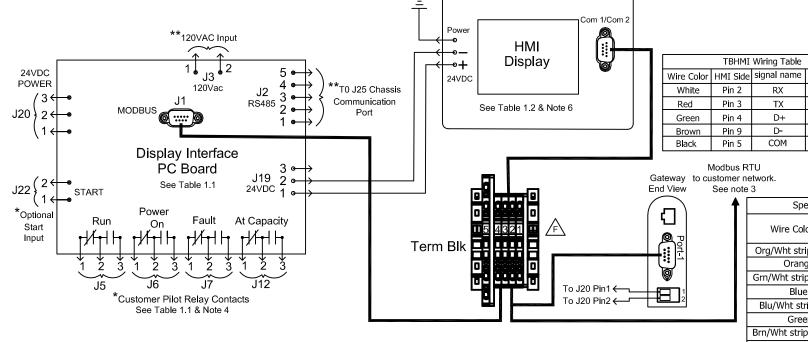
For the 7" HMI Configuration, see Page 3.

For Part Numbers: ALC X X 0, ALC300X X S, ALC350X X S ALC600X X S, ALC700X X S excluding Type 3R versions (See Page 3)

See Page 2 for Part Numbers: ALC030X X S and ALC050X X S (All Versions)

Table 1.3 Terminal Block TBHMI								
Terminal	Pin	Description	Label	Rated Load				
	1	Connection to Display	RX	RS232				
	2	Interface Board	TX	R5232				
твнмі	3	Connection to Customer	D+	RS485				
	4 Network or Gate		D-	110400				
	5	Com./GND	Com. GND	N/A				





e 3								
Spectrum Gateway Wiring Table								
Wire Color	Gateway RJ45 Side	signal name	TB Side					
Org/Wht striped	1		N/C					
Orange	2		N/C					
Grn/Wht striped	3		N/C					
Blue	4	COM	Lower side 5					
Blu/Wht striped	5		N/C					
Green	6	D-	Lower side 4					
Brn/Wht striped	7		N/C					
Brown	8	D+	Lower side 3					

TB Side

Upper Side 2

Upper Side :

Upper Side

Upper Side 5

RX

TX

D+

D-

COM

٦	HMS Gateway Wiring Table									
l	nins Gateway Wiring Table									
I	Wire Color	Gateway Side	signal name	TB Side						
1	White	8	D+	Lower side 3						
1	Red	9	D-	Lower side 4						
1	Black	5	COM	Lower side 5						

- 1.) Typical customer connections noted with (\*).
- 2.) Customer connections if mounting a HMI panel noted with (\*\*).
- 3.) Available when Gateway isn't present.
- 4.) Display interface PCB J5, J6, J7 & J12 wire range and tightening torque is 28-14 Awg at 4.4 in-lb (.5 Nm).
- 5.) TBHMI wire range is 26-14 Awg (spring clamp / push in type).
- 6.) HMI display power terminal wire range and tightening torque is 24-12 Awg at 4.3 in-lb (.49 Nm).
- 7.) 120V Power J3, wire range and tightening torque is 30-12 Awg at 7 in-lb (.8 Nm).

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	Added Gateways Table, Page 2	12/10/24	AWS	TOLERANCES (EXCEPT AS NOTED)	
J	Add Pg3 Gen 2 diagram	10/23/24	MJS	DECIMAL	
Ι	Add Spectrum Front View (pg2)	5/21/24	MJS	.XX ± .05	H
G	Replaced ELC terminology w/ HMI	5/17/23	MJS	.XXX± .025	
F	Labeled HMI Term. Block Connections	7/24/20	MJS	FRACTIONAL ± 1/16	
Е	Added pg 2 Compact HMI	7/24/20	MJS	ANGULAR	D
МО	REVISION	DATE	BY	± 1°	S



W132 N10611 Grant Drive

### HMI, Network Communications **Connection Diagram**

DRN. BY MJS	DATE	12/05/13	DWG. NO.	20202 1
SCALE	SIZE	12/03/13		28283-1
N/A	0.22	В		SHT.1 OF 3

# Compact 4.3" Direct Connect **HMI** Configuration

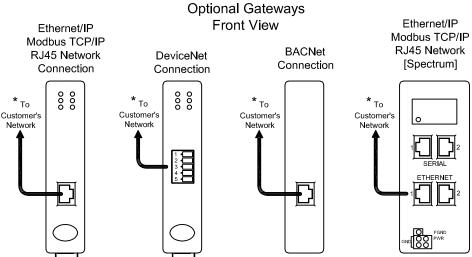
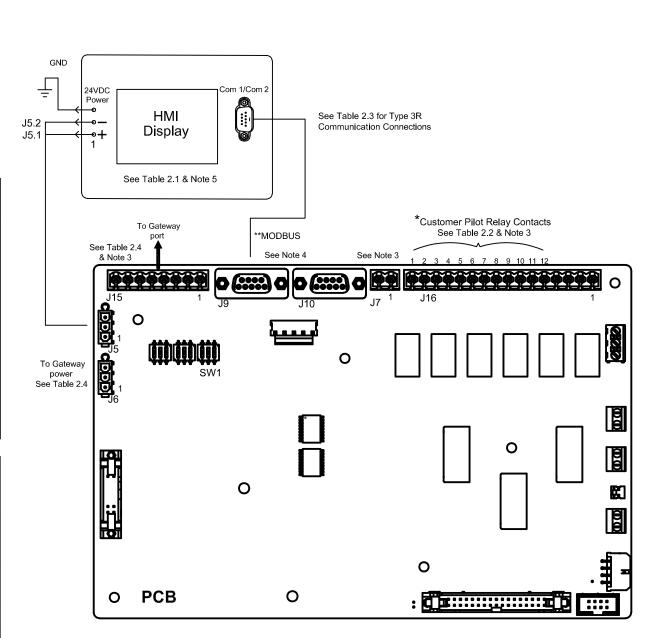


Table 2.1 HMI Display Connections								
Terminal	Pin	Description						
Com 1 / Com 2	N/A	Male-Male DB9 Cable Assembly						
		Description	Label	Rated Load				
	Pos		J5.1					
Power Terminal	Neg	Input Power	24 Volt DC					
	GND		GND					

Table 2.3 Type 3R Connections								
Device	Connection 1	D+	D-	Com	Connection 2	+24V	0V	
ALC (PCB)	79	1	6	5	J5	1	2	
Port		3	2	5		9	6	

Table 2.2 Customer Pilot Relay Contacts									
Terminal	Position	Description	Label	Rated Load					
	1		Normally Closed						
	2	Run	Common						
	3		Normally Open						
	4		Normally Closed						
	5	Power On	Common						
J16	6		Normally Open	General Use Rating					
310	7		Normally Closed	6A @ 250VAC					
	8	Fault	Common						
	9		Normally Open						
	10		Normally Closed						
	11	At Capacity	Common						
	12		Normally Open						

Table 2.4 Gateway Connections									
Option	Device	Connection 1	D+	D-	Com	Connection 2	+24V	0V	GND
ALC	(PCB)	J15	2	4	3	J6	1	2	
EtherNet/IP	WP-G-222-P1	Serial 1	8	6	4	4-Pos	PWR	GND	FGND
EtherNet/IP	AB7007-C	DE-9	8	9	5	2-Pos	1	2	
PROFINET RT	ABC3013	7-Pos	2	3	4	3-Pos	1	2	3
BACnet/IP	BASGLX-M1	5-Pos	+	-	SC	4-Pos	Н	СОМ	GND
DeviceNet	AB7001-C	DE-9	8	9	5	2-Pos	1	2	



For Part Numbers:

ALC030X X S and ALC050X X S (All Versions)

### Notes:

- 1.) Typical customer connections noted with (\*).
- 2.) Customer connections if mounting a HMI panel noted with (\*\*).
- 3.) Interface PCB J7, J15 & J16 wire range and tightening torque is 28-14 Awg at 4.4 in-lb (.5 Nm).
- 4.) J9 and J10, DB9 hardware tightening torque is 28-14 Awg at 4.4 in-lb (.5 Nm).
- 5.) HMI display power terminal wire range and tightening torque is 24-12 Awg at 4.3 in-lb (.49 Nm).

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# Standard HMI Configurations (7")

**RJ45 Network** 

Connection

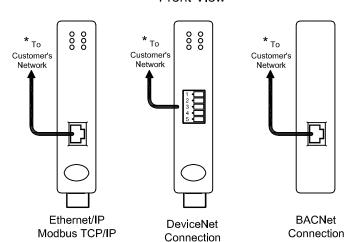
J22 (2 ← 1 ←

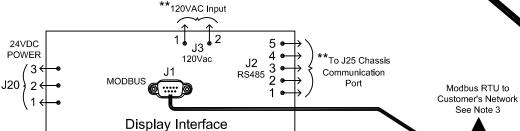
<sup>\*</sup>Optiona

### Table 3.1 Display Interface PCB Terminal Pln Description Label Rated Load HMI Display For factory use 2 Data + (B) J2 RS485 N/A 3 Ground Data - (A) 4 5 Not Connected 1 Neutral nput Powe 20 VAC 250mA Line Normally Closed J5 2A @ 250VAC Normally Open Normally Closed 1 2A @ 250VAC 2 Common Normally Open Normally Closed 2 2A @ 250VAC Common Normally Open Normally Closed J12 2 At Capacity 2A @ 250VAC Common Normally Open 24 VDC 1 HMI Powe 2 Common Supply ot Connected 24 VDC Gateway Common Supply Not Connected 24 VDC Start Contact Closure

Table 3.2 HMI Display								
Terminal	Pin		Description					
Com 1	N/A	Communication Input from Display Interface PCB (DB-9)						
Com 2	N/A	Output to Customer's Network (DB-9)						
		Description	Label	Rated Load				
	Pos		Positive Sign					
Power Terminal	Neg	<u> </u>						
	Com							

## **Optional Gateways** Front View





24VDC

At Capacity Fault \*Customer Pilot Relay Contacts This diagram is for the 7" HMI.

PC Board

See Table 3.1

For the Compact 4.3" HMI, Configuration see Page 1.

# Type 3R & ETO Configuration

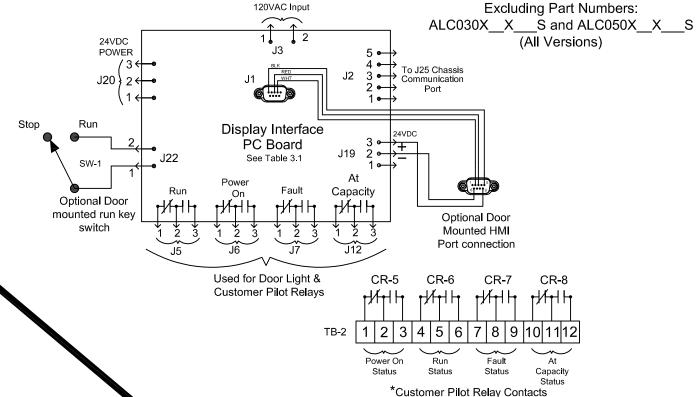


Table 3.3 Customer Pilot Relay Contacts							
Terminal	Position	Description	Label	Rated Load			
TB-2	1		Normally Closed	General Use Rating 6A @ 250VAC			
	2	Run	Common				
	3		Normally Open				
	4		Normally Closed				
	5	Power On	Common				
	6		Normally Open				
	7		Normally Closed				
	8	Fault	Common				
	9		Normally Open				
	10		Normally Closed				
	11	At Capacity	Common				
	12		Normally Open				

### Notes:

- 1.) Typical customer connections noted with (\*).
- 2.) Customer connections if mounting a HMI panel noted with (\*\*).
- 3.) Available when Gateway isn't present.
- 4.) Display interface PCB J5, J6, J7 & J12 wire range and tightening torque is 28-14 Awg at 4.4 in-lb (.5 Nm).
- 5.) TB-2 wire range and tightening torque is 28-14 Awg at 4.4 in-lb (.5 Nm).
- 6.) HMI display power terminal wire range and tightening torque is 30-12 Awg at 4.3 in-lb (.49 Nm).
- 7.) 120V Power J3, wire range and tightening torque is 30-12 Awg at 7 in-lb (.8 Nm).

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End View

See Note 3

HMI

Display

See Table 3.2

To J20 Pin1 ←

To J20 Pin2 ←



W132 N10611 Grant Drive

HMI, Network Communications Connection Diagram

	J J J J J J J J J J J J J J J J	<u> </u>		
DRN. BY MJS	DATE 12/05/13	DWG. NO. 28283-1		
N/A	SIZE B	SHT. 3 OF 3		