

BA300 - BA700

M12 PANEL CONNECTORS

INSTALLATION MANUAL



DESCRIPTION

The BAxxx M12 Panel Connectors are accessories for the CBX series connection boxes and SC4000 Controllers. They provide direct connection between the box and the network using standard cables.

All the connectors come with IP65 protection caps so that in case of temporary use, (i.e. Service connector for reader configuration), this cap can be replaced to maintain IP65 protection when not connected.

NOTE *IP65 protection is provided when the BAxxx is correctly mounted to the box and either the IP65 protection cap is in place or the cables are properly mated.*

Connector	Description
BA300 Service	Connects to the Aux Port inside the CBX or SC4000 to allow for software configuration through an external PC without opening the box therefore reducing maintenance time.
BA400 Ext. Power	Connects to the Vdc and GND terminals as Power Input to the box.
BA500 Trigger	Connects to the Input 1 signals to allow connection to the trigger (presence sensor).
BA600 ID-NET Out	Provides ID-NET and power signals towards the next device in the network (power Out).
BA700 ID-NET In	Provides ID-NET and power signals from the previous device in the network (power In).

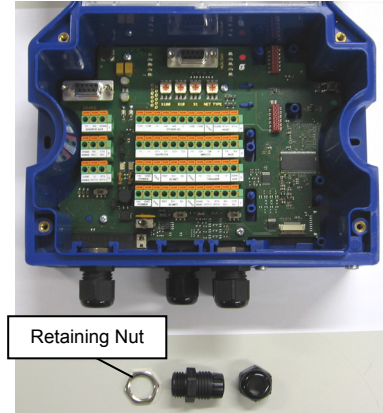
INSTALLATION

Power must be off during this operation.

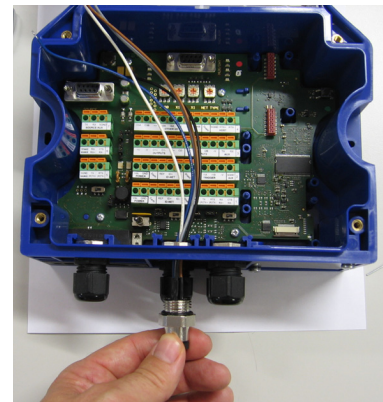
CAUTION

The BAxxx Panel Connectors can easily be installed into the CBX series or SC4000 by substituting any one of the compression connectors and mounting the M12 Connector in its place.

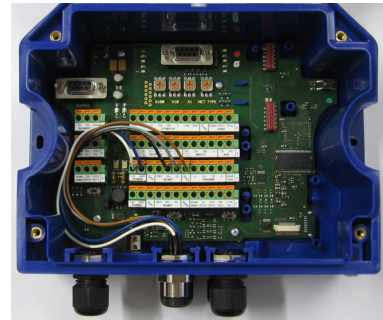
- Remove the compression connector with its retaining nut.
- Insert the retaining nut of the M12 connector.



- Install the M12 connector passing its wires through the retaining nut. Tighten the connector to between 2 and 2.5 Nm so that the o-ring seals against the CBX or SC4000 body.



- Insert the wires into the relative spring clamp connectors according to the pinout tables.
 - Using a device such as a screwdriver, push down on the lever directly above the clamp.
 - Insert the wire into the clamp and release the lever.



BA300 (Service)			
Pin	Color	Function	
1	Brown	RXA	
2	White	GND	
3	Blue	TXA	

BA400 (Ext. Power)			
Pin	Color	Function	
1	Brown	Earth	
2	White	Vdc	
3	Blue	GND	

BA500 (Trigger)			
Pin	Color	Function	
1	Brown	+V	
2	White	I1A/B	
3	Blue	-V	
4	Black	I1A/B	

BA600 (ID-NET Out)			
Pin	Color	Function	
1	Brown	Shield	
2	White	Vdc	
3	Blue	GND	
4	Black	ID+	
5	Grey	ID-	

BA700 (ID-NET In)			
Pin	Color	Function	
1	Brown	Shield	
2	White	Vdc	
3	Blue	GND	
4	Black	ID+	
5	Grey	ID-	

ACCESSORIES

Connection	Description	Part Number
Cables		
BA300 Service	CAB-AUX03 M12 3P TO DB9 SERIAL CABLE 3M	93A051385
BA400 Ext. Power	CAB-PW-EXT M12 POWER EXTENSION CABLE	93A051381
BA600 / BA700 ID-NET Out / In	CBL-1480-01 M12/5P MALE/FEMALE 1M IDNET	93A050049
	CBL-1480-02 M12/5P MALE/FEMALE 2M IDNET	93A050050
Connectors		
BA300	FMC300 M12 3P M. CONN. SERVICE	93ACC1883
BA400	FMC400 M12 3P F. CONN. POWER	93ACC1884

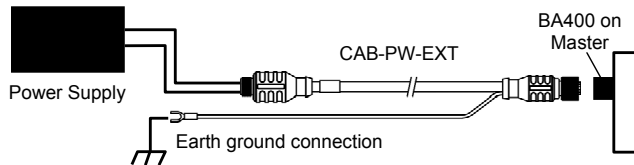
The FMC accessory connectors can be used to make custom External Power and Service cables in case the standard cables don't satisfy the application requirements.

GROUNDING

There are two general rules to follow regarding network grounding:

- 1) **The network Shield must only be connected to Earth ground at one point (the Master).**

When using isolated power supplies, Earth grounding can be accomplished through the CAB-PW-EXT accessory cable and the BA400 connector.



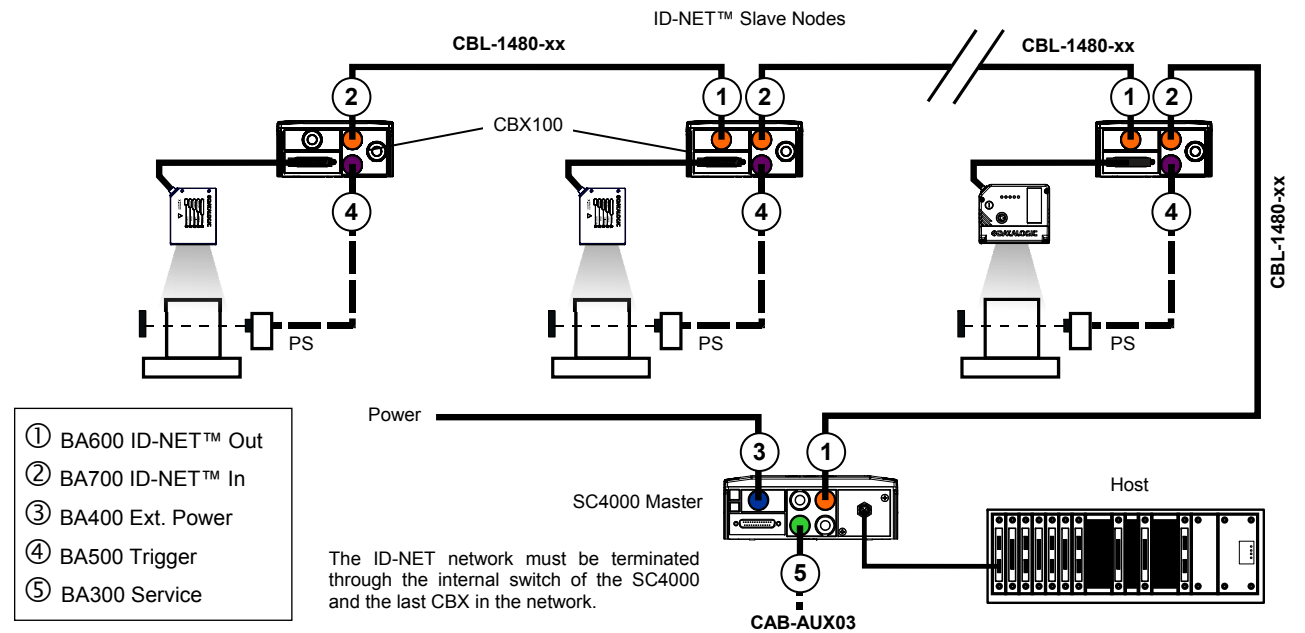
- 2) **All reader Chassis must be connected to Earth ground.**

All the readers in the network must have their **Chassis connected to Earth ground** either by: mounting to conductive metal brackets or frames; or through the CBX or SC4000; or through the QL bushing.

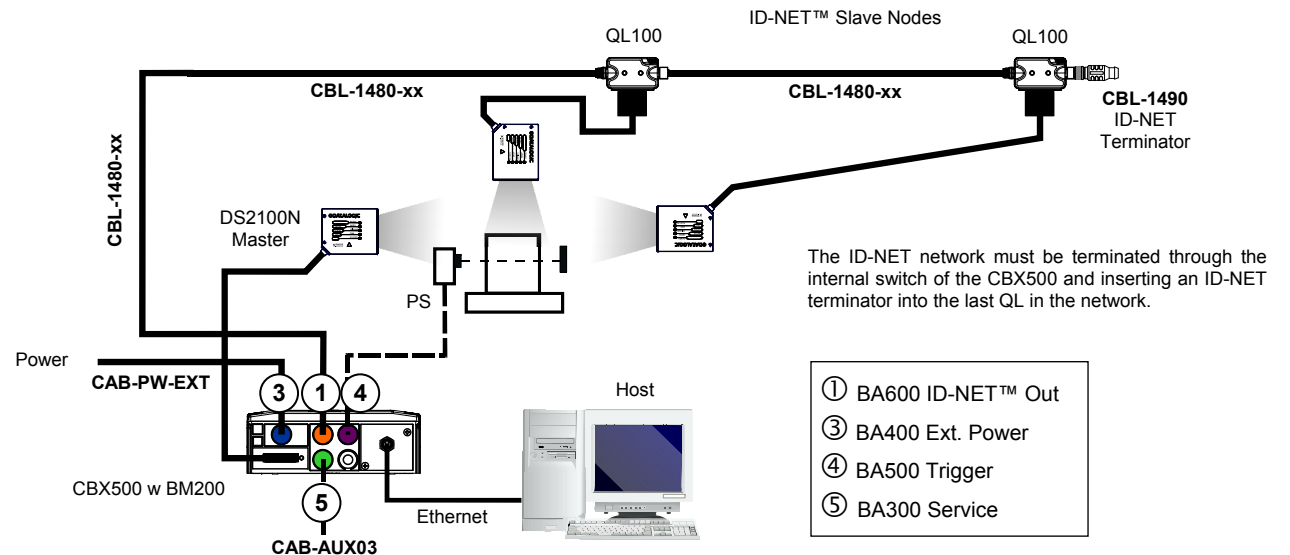
In the case of grounding through the CBX or SC4000, connect the Earth signal to a good earth ground and set the internal Chassis jumper to **Earth**.

In the case of grounding through the QL bushing, connect a flying lead from the mounting bushing to an Earth ground. The mounting bushing is internally connected to the reader Chassis.

TYPICAL LAYOUTS



ID-NET™ Multidata Network - SC4000 Master + Scanner Slaves with CBX100



ID-NET™ Synchronized Network - Scanner Master with CBX500 / BM2x0 + Scanner Slaves with QL100