LAARS
Heating Systems Company

INSTALLATION AND OPERATION INSTRUCTIONS
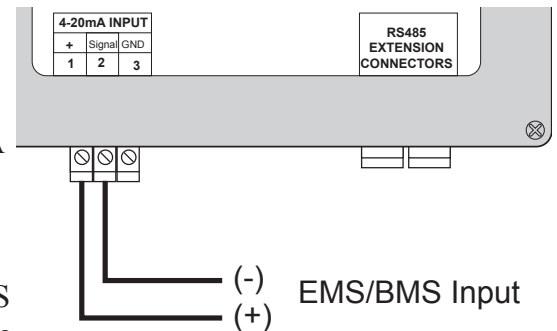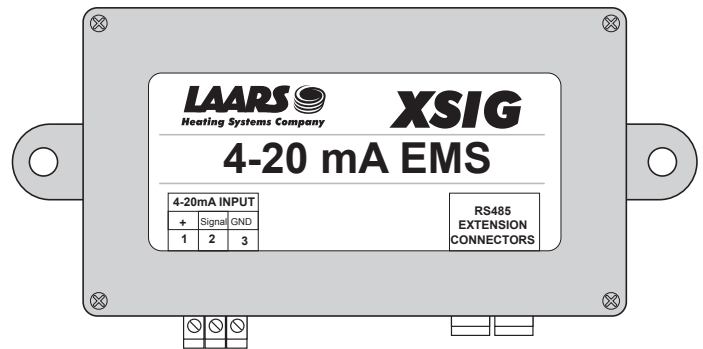
XSIG

Adds 4-20mA Set point capability to M4 and S8 Controls

The XSIG Interface provides the M4 and S8 series controls with the capability of receiving an external Set Point as a 4-20mA signal through an Energy Management or Building Management Systems (EMS/BMS). In addition, the M4 and the S8 controls can be shutdown by the EMS/BMS system.
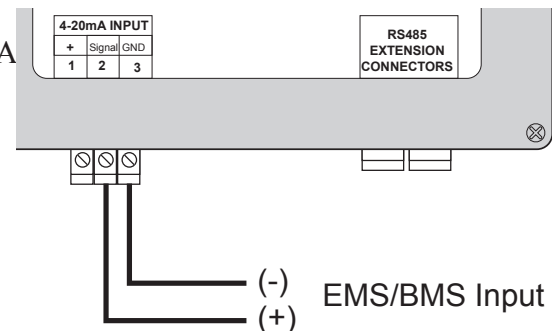
LAARS *Heating Systems Company* **XSIG**
4-20 mA EMS

4-20mA INPUT			RS485 EXTENSION CONNECTORS
+	Signal	GND	
1	2	3	

WIRING

Wiring the EMS Signal

- The signal must be a two-wire 4-20mA.
- A system sensor must be installed to the M4 or S8 control.
- The External Set Point must be set up correctly (See M4 and S8 documentation). These settings will allow the M4 and S8 to read and monitor the system temperature and also monitor the 4-20mA input to remotely adjust the set point to the desired value.
- The XSIG Interface can source the current for the 4-20mA input signal. It provides an excitation DC current. If using the XSIG Interface to source the power, attach the (+) side of the EMS/BMS signal to the XSIG Interface terminal marked +. Attach the (-) side of the EMS/BMS signal to the XSIG Interface terminal marked SIGNAL.
- If the EMS/BMS or other equipment signal sources the current (provides the excitation voltage), attach the (+) side of the 4-20mA input to the XSIG Interface terminal marked SIGNAL. Attach the (-) side of the 4-20mA input to the XSIG Interface terminal marked GND.

4-20mA INPUT			RS485 EXTENSION CONNECTORS
+	Signal	GND	
1	2	3	

(-)
(+) EMS/BMS Input

XSIG Interface Sources DC Excitation Voltage

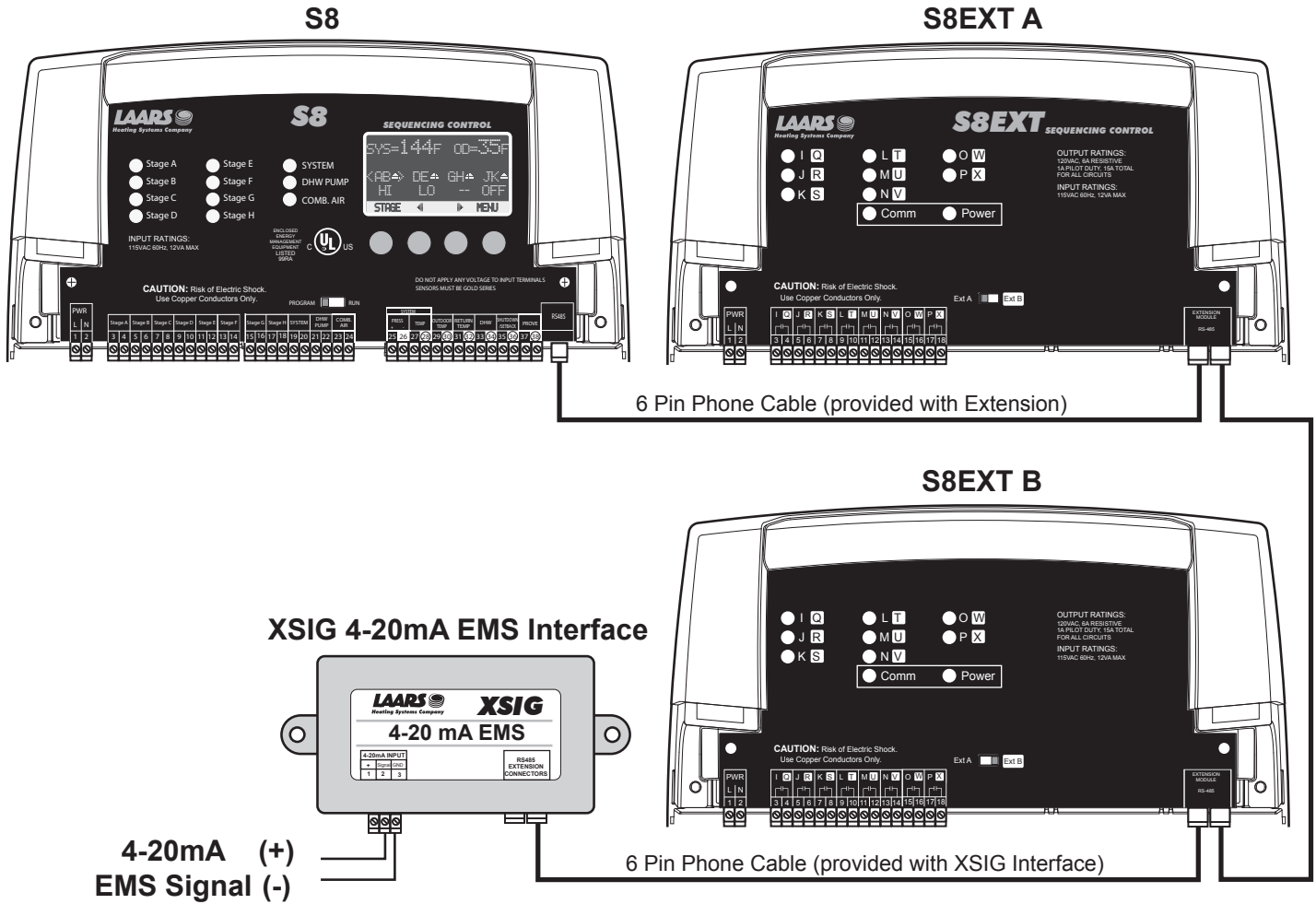| 4-20mA INPUT			RS485 EXTENSION CONNECTORS
+	Signal	GND	
1	2	3	

(-)
(+) EMS/BMS Input

EMS/BMS Sources Excitation Voltage

> **⚠ WARNING**
>
> The XSIG interface can either source DC current or accept DC current from and EMS/BMS System. Each configuration has a different wiring schematic. Wiring the current to the "+" and "Signal" terminals will damage the XSIG interface.

Connecting S8 to Two Extension Panels
and XSIG Interface using RS485

6 Pin Phone Cable (provided with Extension)

6 Pin Phone Cable (provided with XSIG Interface)

XSIG 4-20mA EMS Interface

4-20mA   (+)
EMS Signal (-)

Connecting the XSIG interface to the M4 or S8

•   The XSIG Interface connects to the M4 or S8 using an RS485 (phone plug).
•   When having to use the RS485 to connect to Extensions, use the extra RS485 (phone plug).
•   The control, XSIG Interface and two Extensions can be connected in series using the RS485.

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