



X145 e-Display™ Quick Start Instructions

X145 e-Display Installation

The X145 e-Display is shipped ready for installation with the X144 eFlowMeter™.

for technical assistance, call 800.942.6326
or log-on to www.cla-val.com



Required Steps for Start-Up

- 1) Attach display unit to wall using integral mounting tabs (note: maximum distance from valve 30 feet)
- 2) Make electrical connections:
 - X144 e-FlowMeter™
 - Additional outputs (optional)

See page 2 for Wiring Instructions

- 3) Scale X145 e-Display™ according to scaling instructions on page 3.

Figure 1:
Integral Mounting Tabs



How to View Flow Rate and Total Flow

- Once powered, flow rate will automatically be displayed. To toggle between flow rate and total flow, press the **ACK** button.
- To reset totalizer, press the **RESET** button.
- For more information regarding totalizer, see provided e-Display™ Instruction Manual.



Figure 2: e-Display Face



X145 e-Display™ Quick Start Instructions

Wiring Instructions

Input Signal & Backlight Connections

Signal and backlight connections are made to a four-terminal connector mounted in the base of the enclosure. For installations without backlight, only the two signal terminals are connected. The 4-20 mA input with no backlight has a maximum voltage drop of 3 V and is wired as shown in Figure 2. The loop-powered backlight configuration requires a total maximum voltage drop of 6 V. The backlight is recommended for dim lighting conditions and is enabled when wired as shown in Figure 3 or Figure 4.

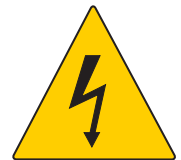
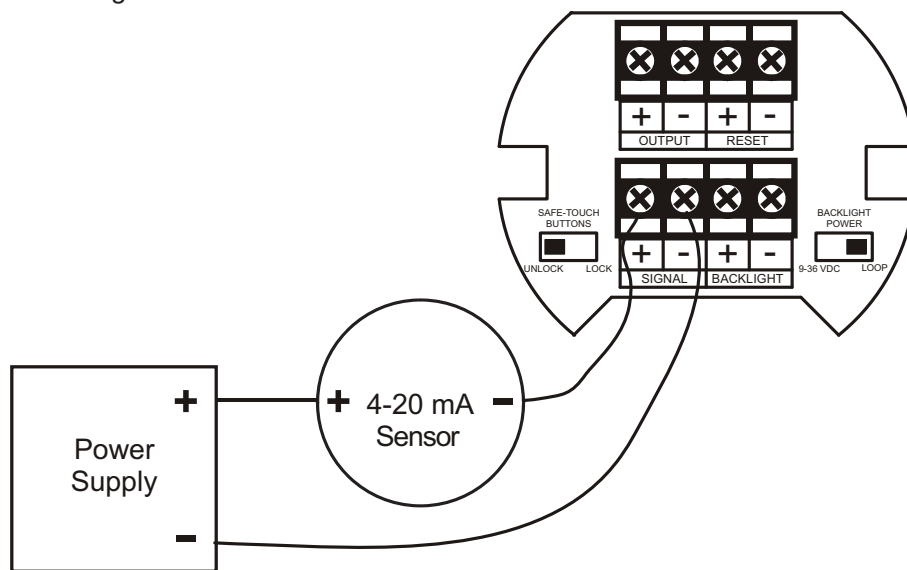


Figure 3. Input Connections without Backlight

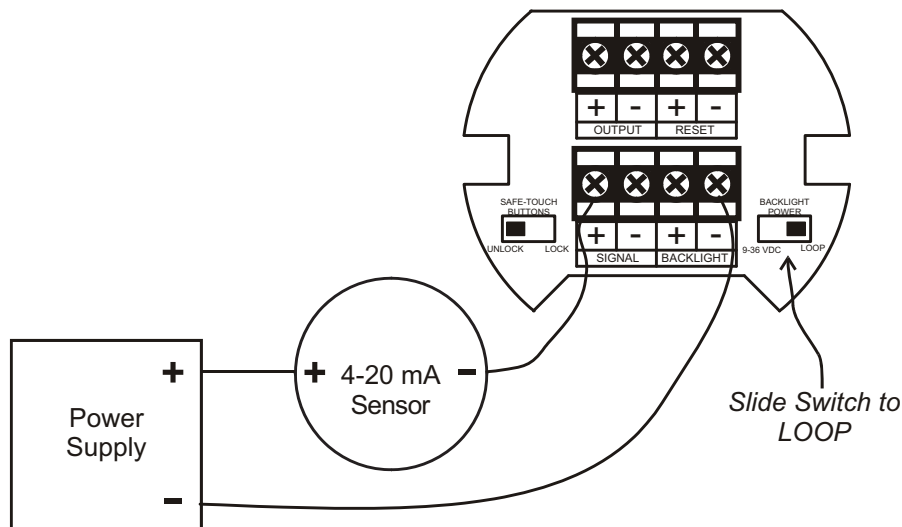


Figure 4. Input Connections with Loop-Powered Backlight

Wiring Instructions

Open Collector Output Connections

Output connections are made to two terminals labeled OUTPUT. Connect to an input device such as alarm indicator or pulse counter as shown in Figure 5, or drive a relay as shown in Figure 6.

To avoid damaging the X145's amplifying components, use care not to wire incorrectly or exceed output ratings. A diode, such as 1N4000 series, will provide protection from relay transients.

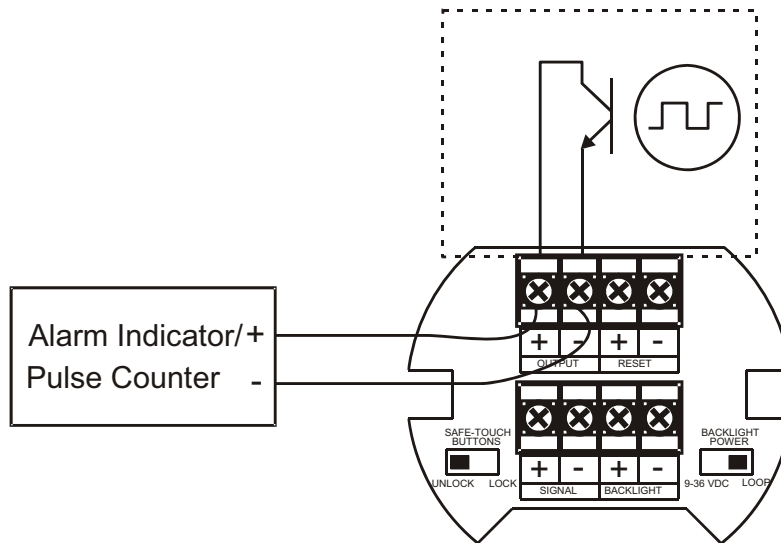


Figure 5. Connection to Device with Internal Pull-Up

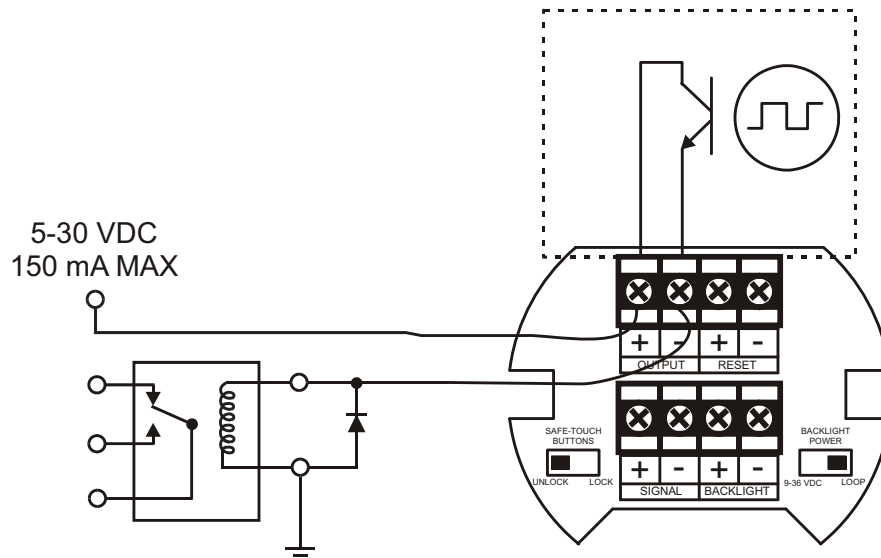


Figure 6. Output Connections



X145 e-Display™ Quick Start Instructions

Table 1: X144 e-FlowMeter™ 4-20mA Scaling: Factory Settings

Port Style	Line Size inches (mm)	*2" (50) (100-49 Body)	2-1/2" (65)	3" (80)	4" (100)	6" (150)	8" (200)	10" (250)	12" (300)	14" (350)	16" (400)	18" (450)	20" (500)	24" (600)	30" (750)
Full Port Valves 4mA = 0 (GPM - l/s)	20mA Range (GPM)	260	375	575	1000	2250	3900	6000	8750	10500	14000	17500	22000	31000	52000
	20mA Range (l/s)	16.4	23.7	36.3	63.1	140	245	380	550	660	880	1100	1390	1950	3280
Reduced Port Valves 4mA = 0 (GPM- l/s)	20mA Range (GPM)	not available			675	1600	2900	4500	5650	7750	9350	Consult Factory			
	20mA Range (l/s)	not available			42.5	100	180	285	355	490	590				

*2" X144 e-FlowMeter may be installed on new valves only

X145 e-Display™ Scaling Instructions

Scaling the e-Display:

A signal source is not needed to scale the e-Display; simply program the inputs and corresponding display values.

Determine display values using Table 1 above, for example:
6" Full Port Valve (4mA = 0, 20mA = 2250)

Follow menu trees (Figures 5) to navigate to desired settings.

- Press the **Menu** button to enter or exit the Programming Mode at any time.
- Press the **Right** arrow button to move to the next digit or decimal position during programming.
- Press the **Up** arrow to scroll through the menus, decimal point, or to increment the value of a digit
- Press the **Enter/Ack** button to access a menu or to accept a setting.
- Press and hold the **Menu** button for five seconds to access the *Advanced* features of the e-Display.

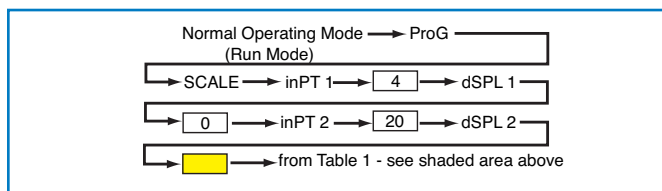
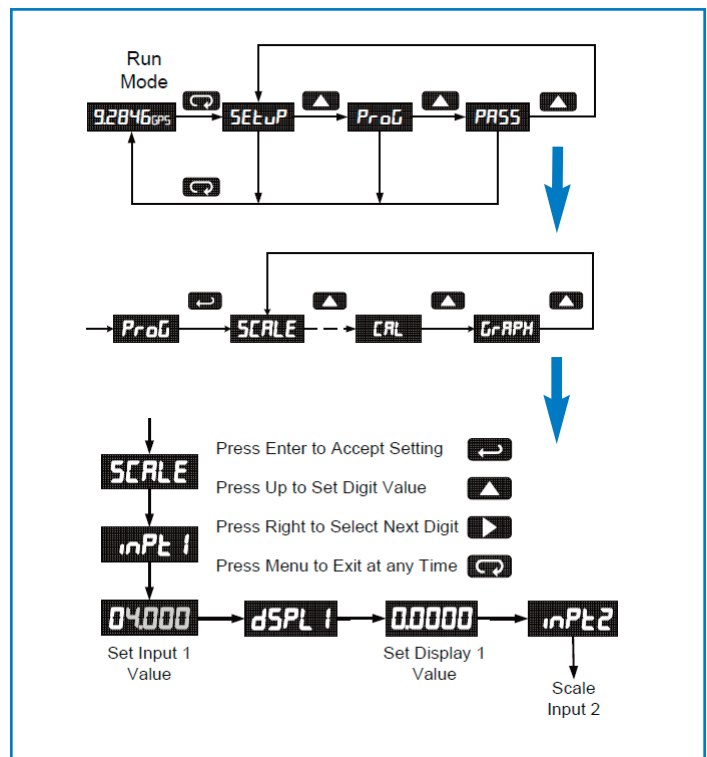


Figure 5: Menu Trees



CLA-VAL

1701 Placentia Avenue • Costa Mesa, CA 92627

800-942-6326 • Fax: 949-548-5441 • Web Site: cla-val.com • E-mail: info@cla-val.com

CLA-VAL CANADA
4687 Christie Drive
Beamsville, Ontario
Canada L0R 1B4
Phone: 905-563-4963
Fax: 905-563-4040
E-mail sales@cla-val.ca

CLA-VAL EUROPE
Chemin des Mésanges 1
CH-1032 Romanel/
Lausanne, Switzerland
Phone: 41-21-643-15-55
Fax: 41-21-643-15-50
E-mail: cla-val@cla-val.ch

CLA-VAL UK
Dainton House, Goods Station Road
Tunbridge Wells
Kent TN11 2 DH England
Phone: 44-1892-514-400
Fax: 44-1892-543-423
E-mail: info@cla-val.co.uk

CLA-VAL FRANCE
Porte du Grand Lyon 1
ZAC du Champ du Pérrier
France - 01700 Neyron
Phone: 33-4-72-25-92-93
Fax: 33-4-72-25-04-17
E-mail: cla-val@cla-val.fr

CLA-VAL PACIFIC
45 Kennaway Road
Woolston, Christchurch, 8023
New Zealand
Phone: 64-39644860
www.cla-valpacific.com
E-mail: info@cla-valpacific.com