

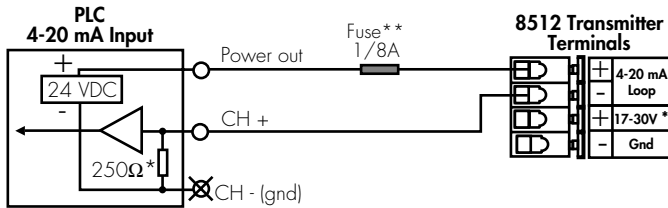
3-8512.090-1  
C-6/98

**CAUTION!**  
Remove power to unit before wiring input and output connections.

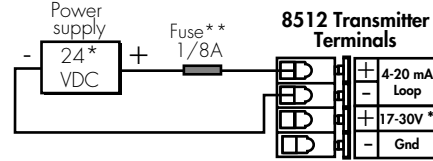
## 1. Loop/System Power Connections

**1.1 2-Wire operation** (for +GF+SIGNET 515, 525, 2517, 3-8510-XX, 2536/3-8512-XX flow sensors).

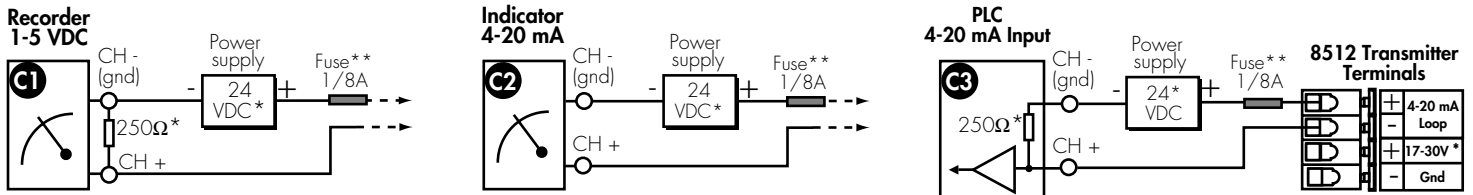
A. Ground referenced PLC **with internal** transmitter power supply



B. Power connection for display use only



C. 1 to 5 VDC recorder (C1), 4 to 20 mA indicator (C2), or ground referenced PLC (C3) connections **without internal** transmitter power supply

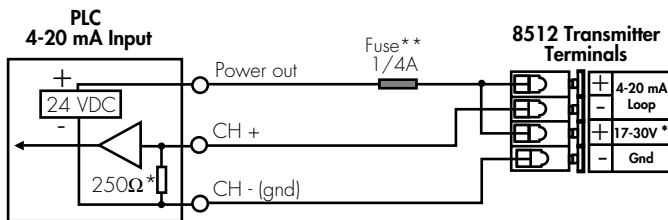


\*Refer to maximum loop impedance specification for minimum operating voltage requirements (section 10).

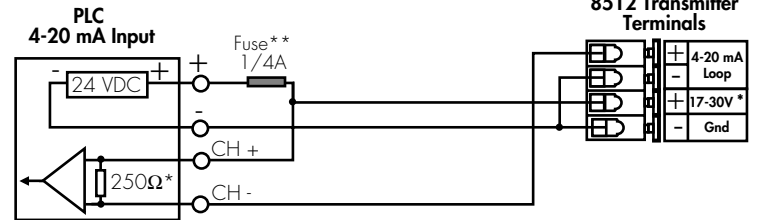
\*\*1/8A fuse recommended (customer supplied)

**1.2 3-Wire operation** (for +GF+ SIGNET 2000, 2507, 2530, 2535, 2540 flow sensors). This wiring is required for powered flow sensors that consume more than 1.5 mA DC current.

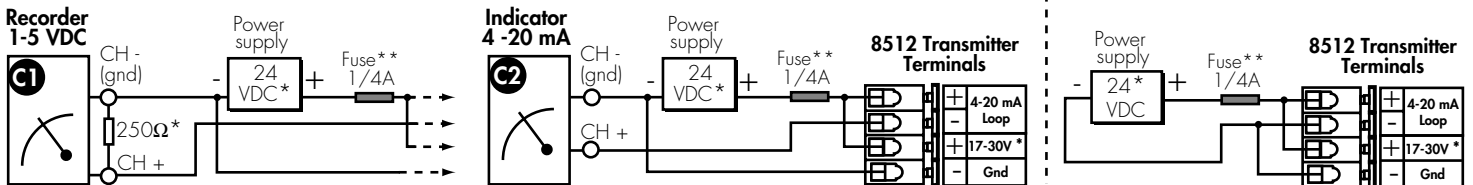
A. Ground referenced PLC **with internal** transmitter power supply



B. Differential input PLC **with internal** transmitter power supply



C. 1 to 5 VDC recorder (C1) and 4 to 20 mA indicator (C2) connections **without internal** transmitter power supply

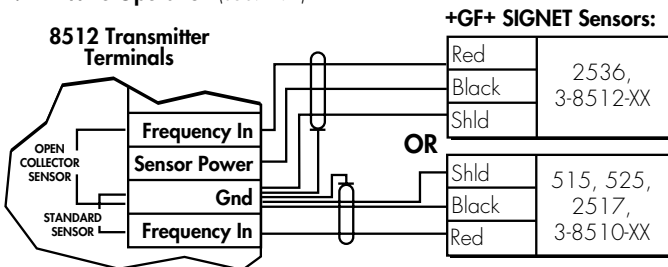


\*Refer to maximum loop impedance specification for minimum operating voltage requirements (section 10).

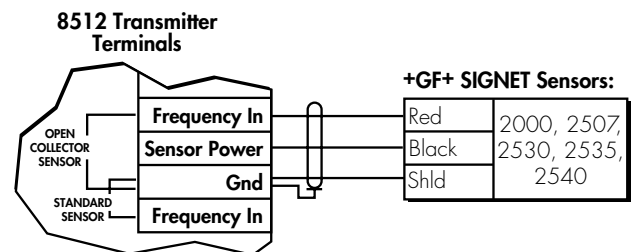
\*\*1/4 A fuse recommended (customer supplied).

## 2. Compatible Sensor Connections

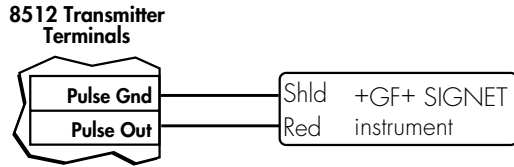
**2.1 2-Wire Operation** (sec. 1.1)



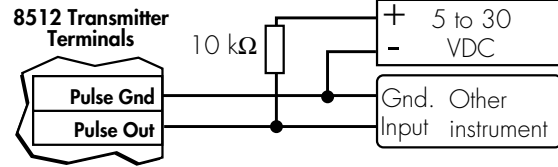
**2.2 3-Wire Operation** (sec. 1.2)



### 3. Pulse Output Wiring



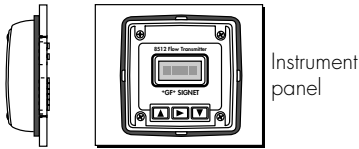
- Use 3-2507.278 input module for +GF+ SIGNET instruments
- +GF+ SIGNET Inteltek-Pro, use 2535/2536 input card setting



### 4. Installation Options

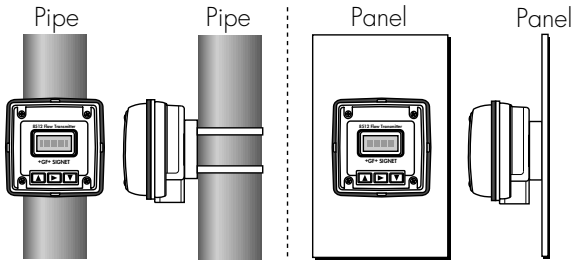
#### 4.1 Standard Panel Mount

- Panel cutout template/instructions (included).



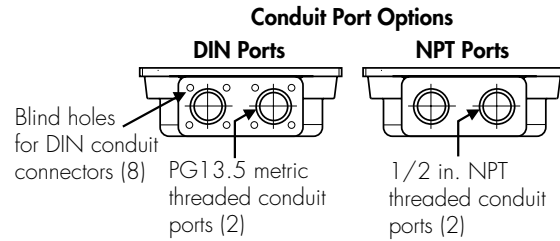
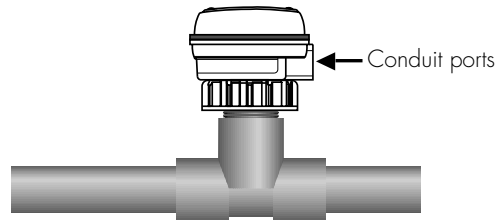
#### 4.2 Optional 3-8010 Universal Mounting Kit

- NPT and DIN conduit port kits available (see section 4.3).
- See section 9 for ordering options.

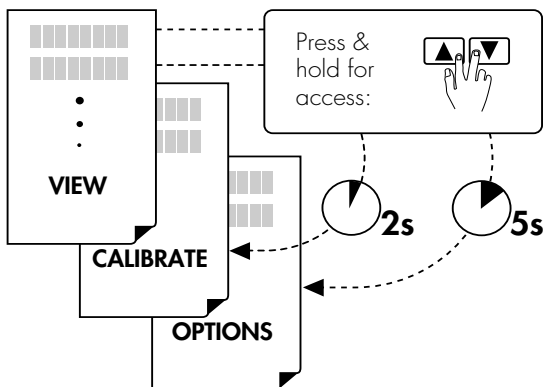


#### 4.3 Optional 3-8011 Integral Mounting Kit

- NPT and DIN conduit port kits available.
- Compatible with 3-8510-XX/3-8512-XX flow sensors (only).
- Flow sensor and fitting purchased separately (see section 9).



### 5. FUNCTIONS



### 6. VIEW (example)

	1 Choose:	2 Change:	3 Save:
A.	▲ E ↑ <b>32.57 gpm</b> Flow rate		
B.	2s GALx1000 ↳ 00030599 Resettable total	OPTIONS = <b>Reset? &gt;</b> 1.  Press and hold 2s	OPTIONS = <b>Rst:----</b> 1. Press keys in sequence ▲▲▲▼▼
C.	2s-00 Total ↳ 50990114 Permanent total	2. 00000000 To exit without changes: ▲▼ quick press	2. <b>Reset? &gt;</b> Press and hold 2s
D.	▲ ▼ <b>16.40 mA</b> Loop output		
E.	▲ ▼ <b>01-12-95</b> Last cal.		



## 10. Specifications

### General Data

Compatible Sensors: All current +GF+ SIGNET flow sensors  
 Display Accuracy: Flow,  $\pm 0.1\%$  of reading  
 Totalizers,  $\pm 0.03\%$  of reading

### Enclosure:

- Rating: NEMA 4X/IP65
- Material: Glass-filled polypropylene
- Gasket: Silicone rubber (captive)
- Screws: 8-32, self-tapping (captive)

### Display:

- Type: 8-digit alphanumeric dot matrix
- Update rate: Flow=1s, Totalizers=100 mS
- Contrast: Variable
- Ranges: Flow, 0.01 to 9999.  
 Resettable/permanent totalizers, 0 to 99999999  
 Loop current, 3.90 to 21.00 mA

### Environmental

Operating temperature: -15 to 70 °C (5 to 158 °F)  
 Storage temperature: -15 to 80 °C (5 to 176 °F)  
 Relative humidity: 0 to 95%, non-condensing

### Quality Standards

- CE
- Manufactured under ISO 9001

### Electrical Data

Frequency range: 0.5 Hz to 500 Hz  
 Loop/system power: (2-wire mode) 17 to 30 VDC @ 20 mA max.  
 (3-wire mode) 17 to 30 VDC @ 68 mA max.  
 Sensor power: (2-wire mode) 5 VDC @ 1.5 mA max.  
 (3-wire mode) 5 VDC @ 20 mA max.

### Electrical Data

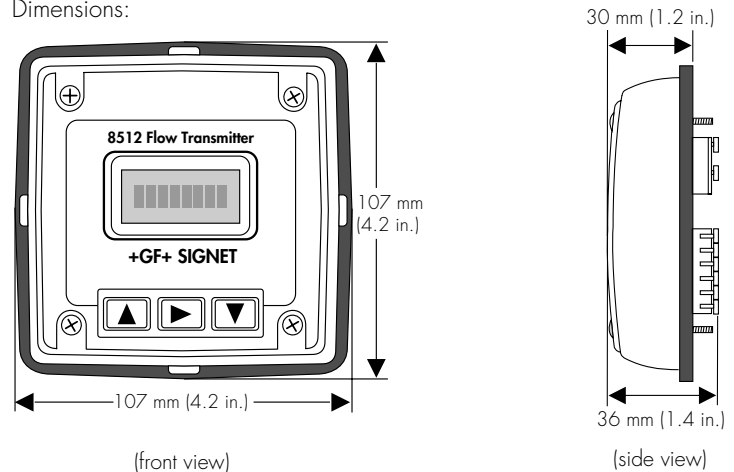
#### Loop:

- Impedance: 1  $\Omega$  max. @ 17 VDC,  
 300  $\Omega$  max. @ 24 VDC,  
 600  $\Omega$  max. @ 30 VDC
- Accuracy:  $\pm 0.050$  mA
- Resolution: 5  $\mu$ A
- Update rate: 100 ms

#### Outputs:

- Current: 4 to 20 mA (adjustable & reversible)
- Pulse output: Sensor frequency, optically isolated open-collector transistor, max. current sink 10 mA @ 30 VDC

#### Dimensions:



## 11. Troubleshooting

Display Message	Cause	Solution
OVER ^gpm	1) Input frequency too high 2) Display overrange 3) Display timebase too large	1) Reduce input frequency. 2) Move display decimal to right in OPTIONS menu. 3) Change display timebase (H,M,S,D) to smaller value (e.g. LPH to LPM).
K=0error	K-Factor cannot be zero	Change K-Factor to a non-zero value.
2s - Check ↳ Setup - 2s	Memory corrupted	Press  to restore normal operation. Settings will revert to factory default. Recalibration is required.

## +GF+ SIGNET

### Sales Offices:

**USA** George Fischer, Inc., 2882 Dow Avenue, Tustin, CA 92780/USA, Tel. (714) 731-8800, Fax (714) 731-6201  
**Switzerland** Georg Fischer Rohrleitungssysteme AG, P.O. Box 671, CH-8201 Schaffhausen/Switzerland, Tel. 052/631 1111, Fax 052/631 2830  
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**Australia** George Fischer Pty. Ltd., Suite 3, 41 Stamford Road, Oakleigh, Victoria 3166, Australia, Tel. 61/3 9568 0966, Fax 61/3 9568 0988

Signet Scientific Company, 3401 Aerojet Avenue, El Monte, CA 91731-2882 U.S.A., Tel. (626) 571-2770, Fax (626) 573-2057

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