



**APM**  
**SHUNT METER**  
\* Non-Isolated,  
for Low Side  
DC Applications  
Only \*



Open-type Measuring  
and Testing Equipment  
E469787



**CAUTION: Risk of Danger**  
Read complete instructions prior to installation and operation of the unit



**CAUTION: Risk of electric shock**

**EN:** Before installation, read the Safety Warnings overleaf.

**DE:** Vor der Installation, lesen Sie die Sicherheitswarnungen umseitig.

**FR:** Avant l'installation, lisez les Avertissements de Sécurité au verso.

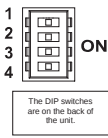
**ES:** Antes de la instalación, lea las advertencias de seguridad al dorso.

**IT:** Prima dell'installazione, leggere le avvertenze di sicurezza sul retro.

| Intended Use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| EN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | IT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Intended Use: The APM has been specifically designed for engineers requiring an effective way to monitor and display data. The APM accepts a range of electrical inputs (depending on the model) and displays the data on its integrated multi-format display. The APM has been designed for installation into electrical cabinets or display panels. Output models include two independent outputs that can be configured by the user to be either digital set-point outputs or 4-20mA monitor outputs. | Verwendungszweck: APM wurde speziell für Ingenieure entwickelt, die nach einer effizienten Art der Datenüberwachung und -anzeige suchen. Das APM akzeptiert eine Reihe elektrischer Eingänge (je nach Modell) und zeigt die Daten auf dem integrierten Multiformal-Display an. APM ist für den Einbau in Schaltschränke oder Anzeigegeräte konzipiert. Ausgangsmodelle umfassen zwei unabhängige Ausgänge, die vom Benutzer so konfiguriert werden können, dass sie entweder digitale Sollwert-Ausgänge oder 4-20mA Monitorausgänge sind. | Utilisation Prévue: L'APM a été spécialement conçu pour les techniciens et ingénieurs devant disposer d'un moyen efficace permettant de contrôler et d'afficher des données. L'APM est compatible avec un large gamme de puissances électriques (selon le modèle) et affiche les données sur l'écran multifonctions intégré. L'APM a été conçu pour une installation dans une armoire électrique ou sur un tableau d'instruments. Les modèles de sortie comprennent deux sorties configurables par l'utilisateur comme sorties de point de consigne ou signaux de monitoring de 4 à 20 mA. | Uso previsto: El APM ha sido diseñado específicamente para aquellos ingenieros que requieran un modo eficaz de controlar y mostrar datos. El APM acepta una amplia gama de entradas eléctricas (dependiendo del modelo) y muestra los datos en su pantalla integrada multiformato. El APM ha sido diseñado para instalarse en armarios eléctricos o paneles de visualización. Los modelos de salida incluyen dos salidas independientes que el usuario puede configurar bien como salidas de consigna digitales o como salidas de monitor 4-20 mA. | Destinazione d'uso: L'APM è stato progettato in modo specifico per gli ingegneri che necessitano di un modo efficace per controllare e visualizzare i dati. L'APM accetta una vasta gamma di ingressi elettrici (a seconda del modello) e visualizza i dati sul suo display multi-formato integrato. L'APM è stato progettato per l'installazione in armadi elettrici o pannelli di visualizzazione. I modelli di uscita includono due uscite indipendenti che possono essere configurate dall'utente per essere set-point digitali o uscite monitor da 4-20 mA. |

**DIP Switches**

| Sw Pos | Bar Graph                                     |
|--------|-----------------------------------------------|
| 1      | 0000 Custom (defined in software application) |
| 2      | 1000 60mV 10A                                 |
| 3      | 0100 50mV 20A                                 |
| 4      | 1100 75mV 30A                                 |
| 5      | 0010 60mV 40A                                 |
| 6      | 1010 50mV 50A                                 |
| 7      | 0110 60mV 60A                                 |
| 8      | 1110 50mV 100A                                |
| 9      | 0001 60mV 100A                                |
| 10     | 1001 50mV 200A                                |
| 11     | 0101 60mV 300A                                |
| 12     | 1101 60mV 400A                                |
| 13     | 0011 50mV 500A                                |
| 14     | 1011 75mV 500A                                |
| 15     | 0111 60mV 600A                                |
| 16     | 1111 75mV 1000A                               |



1  
2  
3  
4

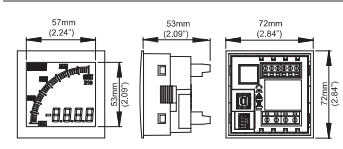
ON

The DIP switches are on the back of the unit.

**Operating Specification**

| EN                                                                                                                                                                                                                                                                                                                                                                                                                                       | DE                                                                                                                                                                                                                 | FR                                                                                                                                                                                                                    | ES                                                                                                                                                                                                              | IT                                                                                                                                                                                                                               |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
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| Use the DIP switches to set the Shunt Meter bar graph range and annunciators to standard values. Use the software application to configure custom settings.                                                                                                                                                                                                                                                                              | Verwenden Sie die DIP-Schalter, um den Shuntbereich der Balkenanzeige und die Signalgeber auf Standardwerte zu setzen. Verwenden Sie die Software-Anwendung, um benutzerdefinierte Einstellungen zu konfigurieren. | Les commutateurs DIP permettent de programmer les valeurs standards de l'échelle du graphique à barres et des avertisseurs de l'indicateur de Shunt. Utiliser le logiciel pour configurer les réglages personnalisés. | Utilice los interruptores DIP para configurar la barra de rango gráfico Medidor de Proceso y anunciadores a los valores estándar. Utilice la aplicación de software para configurar los ajustes personalizados. | Utilizzare gli interruttori DIP per impostare l'intervallo del grafico a barre del misuratore di processo e gli avvisi a valori standard. Utilizzare l'applicazione del software per configurare le impostazioni personalizzate. |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| The switch positions are shown in the table where:<br>0 = OFF and 1 = ON.                                                                                                                                                                                                                                                                                                                                                                | Die Schalterstellungen werden in der Tabelle angezeigt, wobei:<br>0 = AUS und 1 = EIN.                                                                                                                             | Le tableau ci-dessous indique la position des commutateurs selon les valeurs suivantes:<br>0 = OFF et 1 = ON.                                                                                                         | Las posiciones de los interruptores se muestran en la tabla siguiente:<br>0 = apagado y 1 = encendido.                                                                                                          | Le posizioni dell'interruttore sono riportate nella tabella in cui:<br>0 = OFF e 1 = ON.                                                                                                                                         |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| <table><thead><tr><th></th><th>VALUE UNIT</th></tr></thead><tbody><tr><td>INPUT</td><td>Voltage</td></tr><tr><td>Range</td><td>0 – 1VDC</td></tr><tr><td>Impedance</td><td>1Meg</td></tr><tr><td>Accuracy</td><td>0.1% of signal or 0.5mV whichever is greater</td></tr><tr><td>Max Working Voltage (input to COM)</td><td>1.5V</td></tr><tr><td>Max Continuous Voltage Withstand (input to COM)</td><td>30VDC</td></tr></tbody></table> |                                                                                                                                                                                                                    | VALUE UNIT                                                                                                                                                                                                            | INPUT                                                                                                                                                                                                           | Voltage                                                                                                                                                                                                                          | Range | 0 – 1VDC | Impedance | 1Meg | Accuracy | 0.1% of signal or 0.5mV whichever is greater | Max Working Voltage (input to COM) | 1.5V | Max Continuous Voltage Withstand (input to COM) | 30VDC | <table><thead><tr><th></th><th>ENGANG</th></tr></thead><tbody><tr><td>Bereich</td><td>0 – 1VDC</td></tr><tr><td>Impedanz</td><td>1Megohm</td></tr><tr><td>Genauigkeit</td><td>0.1% of signal or 0.5mV whichever is greater</td></tr><tr><td>Max. Betriebsspannung (Eingang zu COM)</td><td>1.5V</td></tr><tr><td>Max. kontinuierliche Spannungsfestigkeit (Eingang zu COM)</td><td>30VDC</td></tr></tbody></table> |  | ENGANG | Bereich | 0 – 1VDC | Impedanz | 1Megohm | Genauigkeit | 0.1% of signal or 0.5mV whichever is greater | Max. Betriebsspannung (Eingang zu COM) | 1.5V | Max. kontinuierliche Spannungsfestigkeit (Eingang zu COM) | 30VDC | <table><thead><tr><th></th><th>ENTRÉE</th></tr></thead><tbody><tr><td>Bereich</td><td>0 – 1VDC</td></tr><tr><td>Impédance</td><td>1Mégohm</td></tr><tr><td>Précision</td><td>0.1% of signal or 0.5mV whichever is greater</td></tr><tr><td>Tension de service max (entrée via le port COM)</td><td>1.5V</td></tr><tr><td>Tension maximum en tension continue (entrée via la borne COM)</td><td>30VDC</td></tr></tbody></table> |  | ENTRÉE | Bereich | 0 – 1VDC | Impédance | 1Mégohm | Précision | 0.1% of signal or 0.5mV whichever is greater | Tension de service max (entrée via le port COM) | 1.5V | Tension maximum en tension continue (entrée via la borne COM) | 30VDC | <table><thead><tr><th></th><th>ENTRADA</th></tr></thead><tbody><tr><td>Alcance</td><td>0 – 1VDC</td></tr><tr><td>Impedancia</td><td>1Megohm</td></tr><tr><td>Precisión</td><td>0.1% of signal or 0.5mV whichever is greater</td></tr><tr><td>Tensión Máx. de trabajo (entrada a COM)</td><td>1.5V</td></tr><tr><td>Máx. resistencia a tensión continua (entrada a COM)</td><td>30VDC</td></tr></tbody></table> |  | ENTRADA | Alcance | 0 – 1VDC | Impedancia | 1Megohm | Precisión | 0.1% of signal or 0.5mV whichever is greater | Tensión Máx. de trabajo (entrada a COM) | 1.5V | Máx. resistencia a tensión continua (entrada a COM) | 30VDC | <table><thead><tr><th></th><th>INGRESSO</th></tr></thead><tbody><tr><td>Intervallo</td><td>0 – 1VDC</td></tr><tr><td>Impedenza</td><td>1Megohm</td></tr><tr><td>Accuratezza</td><td>0.1% of signal or 0.5mV whichever is greater</td></tr><tr><td>Tensione di funzionamento max. (ingresso a COM)</td><td>1.5V</td></tr><tr><td>Resistenza tensione max. continua (ingresso a COM)</td><td>30VDC</td></tr></tbody></table> |  | INGRESSO | Intervallo | 0 – 1VDC | Impedenza | 1Megohm | Accuratezza | 0.1% of signal or 0.5mV whichever is greater | Tensione di funzionamento max. (ingresso a COM) | 1.5V | Resistenza tensione max. continua (ingresso a COM) | 30VDC |
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| INPUT                                                                                                                                                                                                                                                                                                                                                                                                                                    | Voltage                                                                                                                                                                                                            |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Range                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0 – 1VDC                                                                                                                                                                                                           |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Impedance                                                                                                                                                                                                                                                                                                                                                                                                                                | 1Meg                                                                                                                                                                                                               |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Accuracy                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.1% of signal or 0.5mV whichever is greater                                                                                                                                                                       |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Max Working Voltage (input to COM)                                                                                                                                                                                                                                                                                                                                                                                                       | 1.5V                                                                                                                                                                                                               |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Max Continuous Voltage Withstand (input to COM)                                                                                                                                                                                                                                                                                                                                                                                          | 30VDC                                                                                                                                                                                                              |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                          | ENGANG                                                                                                                                                                                                             |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Bereich                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 – 1VDC                                                                                                                                                                                                           |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Impedanz                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1Megohm                                                                                                                                                                                                            |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Genauigkeit                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.1% of signal or 0.5mV whichever is greater                                                                                                                                                                       |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Max. Betriebsspannung (Eingang zu COM)                                                                                                                                                                                                                                                                                                                                                                                                   | 1.5V                                                                                                                                                                                                               |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Max. kontinuierliche Spannungsfestigkeit (Eingang zu COM)                                                                                                                                                                                                                                                                                                                                                                                | 30VDC                                                                                                                                                                                                              |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                          | ENTRÉE                                                                                                                                                                                                             |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Bereich                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 – 1VDC                                                                                                                                                                                                           |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Impédance                                                                                                                                                                                                                                                                                                                                                                                                                                | 1Mégohm                                                                                                                                                                                                            |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Précision                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.1% of signal or 0.5mV whichever is greater                                                                                                                                                                       |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Tension de service max (entrée via le port COM)                                                                                                                                                                                                                                                                                                                                                                                          | 1.5V                                                                                                                                                                                                               |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Tension maximum en tension continue (entrée via la borne COM)                                                                                                                                                                                                                                                                                                                                                                            | 30VDC                                                                                                                                                                                                              |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                          | ENTRADA                                                                                                                                                                                                            |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Alcance                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 – 1VDC                                                                                                                                                                                                           |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Impedancia                                                                                                                                                                                                                                                                                                                                                                                                                               | 1Megohm                                                                                                                                                                                                            |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Precisión                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.1% of signal or 0.5mV whichever is greater                                                                                                                                                                       |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Tensión Máx. de trabajo (entrada a COM)                                                                                                                                                                                                                                                                                                                                                                                                  | 1.5V                                                                                                                                                                                                               |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Máx. resistencia a tensión continua (entrada a COM)                                                                                                                                                                                                                                                                                                                                                                                      | 30VDC                                                                                                                                                                                                              |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                          | INGRESSO                                                                                                                                                                                                           |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Intervallo                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 – 1VDC                                                                                                                                                                                                           |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Impedenza                                                                                                                                                                                                                                                                                                                                                                                                                                | 1Megohm                                                                                                                                                                                                            |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Accuratezza                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.1% of signal or 0.5mV whichever is greater                                                                                                                                                                       |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Tensione di funzionamento max. (ingresso a COM)                                                                                                                                                                                                                                                                                                                                                                                          | 1.5V                                                                                                                                                                                                               |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |
| Resistenza tensione max. continua (ingresso a COM)                                                                                                                                                                                                                                                                                                                                                                                       | 30VDC                                                                                                                                                                                                              |                                                                                                                                                                                                                       |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                  |       |          |           |      |          |                                              |                                    |      |                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |        |         |          |          |         |             |                                              |                                        |      |                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                |  |        |         |          |           |         |           |                                              |                                                 |      |                                                               |       |                                                                                                                                                                                                                                                                                                                                                                                                                |  |         |         |          |            |         |           |                                              |                                         |      |                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                            |  |          |            |          |           |         |             |                                              |                                                 |      |                                                    |       |

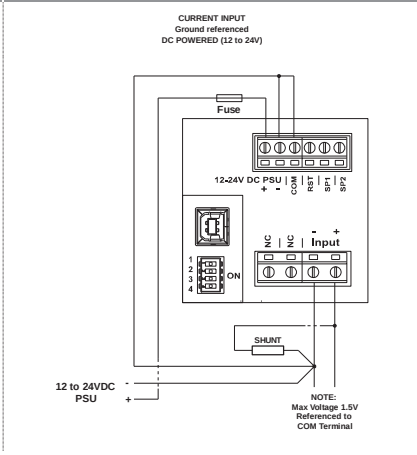
**Size / Größe / Taille / El Tamaño / La dimensione**



68 x 68mm (2.68in) ±0.7 -0mm  
EN: Size of the cutout in the panel.  
DE: Größe der Ausnehmung in der Platte.  
FR: Taille de la découpe dans le panneau.  
ES: Tamaño de la abertura en el panel.  
IT: Dimensioni del taglio nel pannello.

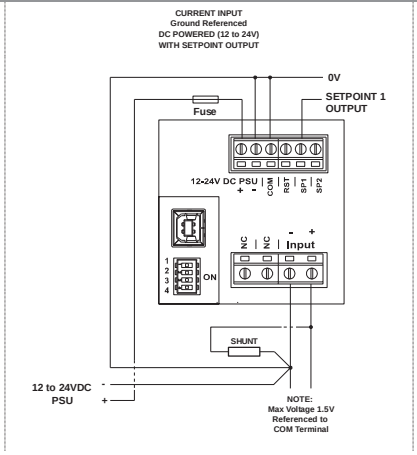
**!! Note: This meter is designed for low side DC applications only, and must only be connected to current shunts that have been installed between the load and ground !!**

**Wiring Diagrams**



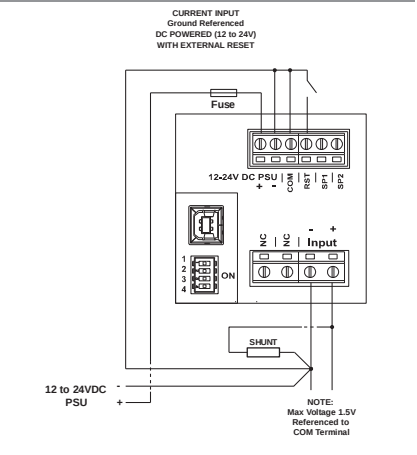
12-24V DC PSU  
FUSE  
SHUNT  
NOTE: Max Voltage 1.5V Referenced to COM Terminal

**Wiring Diagram 2: Current Input Ground Referenced DC POWERED (12 to 24V) WITH SETPOINT OUTPUT**



12-24V DC PSU  
FUSE  
SHUNT  
NOTE: Max Voltage 1.5V Referenced to COM Terminal

**Wiring Diagram 3: Current Input Ground Referenced DC POWERED (12 to 24V) WITH EXTERNAL RESET**



12-24V DC PSU  
FUSE  
SHUNT  
NOTE: Max Voltage 1.5V Referenced to COM Terminal

