DIMENSIONS
All dimensions in mm (inches)

FITTING THE EMV 1125
Drill a 5.5mm / $^{7}/_{32}$" hole in the panel. Fit the module to the panel by passing its screw threaded stud and the wires through the hole, fitting the washer and tightening the nut provided. Take care not to trap any of the connecting wires. Do not to overtighten the nut as this may damage the meter.

DIMENSIONS
Toutes les dimensions sont en mm (pouces)

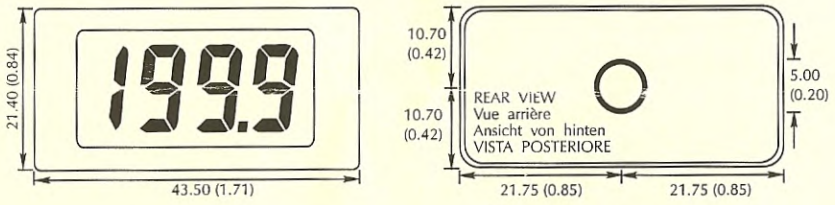
MONTAGE DE L'EMV 1125
Percez un trou de 5,5 mm / ½" dans le panneau. Montez le module sur le panneau en passant son goujon fileté à vis et les fils à travers le trou; installez la rondelle et serrez l'écrou fourni. Vérifiez bien qu'aucun fil de raccordement ne reste coincé. Ne serrez pas trop l'écrou car cela risquerait d'endommager le compteur.

ABMESSUNGEN
Alle Abmessungen in mm (Zoll)

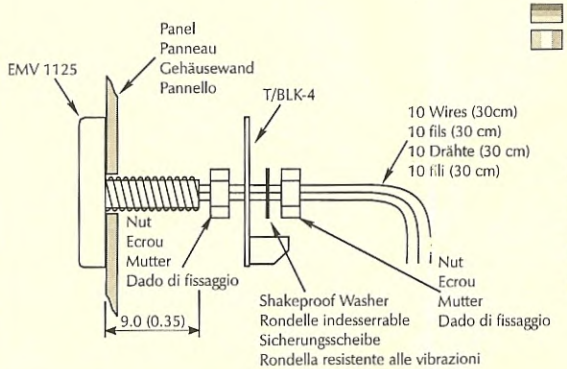
MONTAGE DES EMV 1125
Bohren Sie ein 5,5 mm- Ø-Loch in die Gehäusewand. Montieren Sie das Modul, indem Sie seine Gewindeschraube und die Anschlußdrähte durch das Loch einführen. Bringen Sie dann die mitgelieferte Unterlegscheibe und Mutter an und ziehen beide fest. Achten Sie sorgfältig darauf, die Anschlußdrähte nicht zu verklemmen. Ziehen Sie die Mutter nicht zu fest, sonst kann das Meßgerät Schaden erleiden.

DIMENSIONI
Tutte le dimensioni sono espresse in mm (pollici)

INSTALLAZIONE DELL'APPARECCHIO EMV 1125
Praticare un foro da 5,5 mm / $^{7}/_{32}$" nel pannello. Fissare il modulo al pannello inserendo nel foro il perno filettato a vite e i fili, applicare la rondella e serrare il dado di fissaggio fornito in dotazione. Prestare attenzione a non incastrare i fili di connessione. Non serrare eccessivamente il dado di fissaggio, in quanto ciò potrebbe danneggiare il misuratore.



Module thickness 5.5mm (0.22)
Epaisseur du module 5,5mm (0,22)
Moduldicke: 5,5 mm (0,22)
Spessore modulo 5,5 mm (0,22)



If T/BLK-4 is not fitted, then do not fit the first nut.
Si la T/BLK-4 n'est pas montée, n'installez pas le premier écrou.
Wenn T/BLK-4 nicht montiert wird, dann entfällt der Bedarf für die erste Mutter.
In assenza della scheda T/BLK-4 non utilizzare il primo dado di fissaggio.

Specifications liable to change without prior warning	EMV 1125	Issue 7	June/2005	M.C. Applies to EMV 1125/2
Spécifications peuvent changer sans préavis	EMV 1125	Edition 7	Juin/2005	M.C. Applique à EMV 1125/2
Die technischen Daten können ohne vorherige Ankündigung geändert werden	EMV 1125	Ausgabe 7	Juni/2005	M.C. Gilt für EMV 1125/2
Specifiche soggette a variazione senza preavviso	EMV 1125	Versione 7	Giugno/2003	M.C. Applicabile a EMV 1125/2

EMV 1125

Shown Actual Size
Montre la taille réelle
Reelle Größendarstellung
Dimensioni effettive di visualizzazione

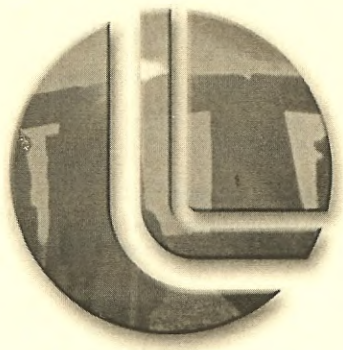
ENGLISH Single Hole Mounting Meter

FRANCAIS Indicateur à fixation en un trou

DEUTSCH 1-Loch-Meßgerät

ITALIANO Misuratore con montaggio a foro unico

LASCAR



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ENGLISH

EMV 1125 is an easy to mount LCD digital panel meter. The user need only drill a single 5.5mm / $^{7}/_{32}$" hole in the panel. The module is fitted to the panel by locating its screw threaded stud through the hole, fitting the washer and tightening the nut provided. The module's 10 connecting wires pass through the hollow stud into the target application, where they can be easily soldered into place. The module features 200mV full scale input, auto-zero and auto-polarity. A separate screw terminal adaptor board (T/BLK-4) simplifies connection and calibration.

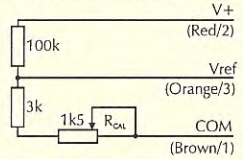
- **12.5mm (0.5") Digit Height**
- **Single Hole Mounting**
- **200mV d.c Full Scale Reading (F.S.R.)**
- **Auto-zero, Auto-polarity**
- **10 Wire Connection**
- **Low Battery Warning**
- **Screw Terminal Board (T/BLK-4)**

SCALING and CALIBRATION

A calibration circuit and two resistors (Ra and Rb) may be added on the EMV 1125 or T/BLK-4 board (cut Link La if fitting Ra) to alter the full scale reading of the meter - see table. Note that the meter will have to be re-calibrated by adjusting the potentiometer.

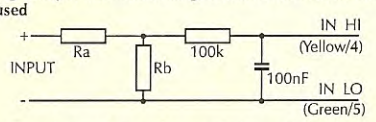
Required F.S.R	Ra	Rb	CAL
200mV	N/A	N/A	Adjust
2V	910k	100k	Adjust
20V	1M	10k	Adjust
200µA	0R	1k	Adjust
2mA	0R	100R	Adjust
20mA	0R	10R	Adjust
200mA	0R	1R	Adjust

Adding a calibration circuit when T/BLK-4 is not used



Note: The calibration circuit must always be fitted, even when scaling resistors are not fitted. This circuit is fitted as standard on T/BLK-4.

Adding an input filter and scaling resistors when T/BLK-4 is not used



Note: To reduce noise on the meter's input, fit the input filter components (1M and 10nF) shown above. The input filter is fitted as standard on T/BLK-4.

SAFETY

To comply with the Low Voltage Directive (LVD 93/68/EEC), input voltages to the module's pins must not exceed 60Vd.c. If voltages to the measuring inputs do exceed 60Vd.c., then fit scaling resistors externally to the module. The user must ensure that the incorporation of the meter into the user's equipment conforms to the relevant sections of BS EN 61010 (Safety Requirements for Electrical Equipment for Measuring, Control and Laboratory Use).

WIRE CONNECTIONS (EMV 1125) and SCREW TERMINAL FUNCTIONS (T/BLK-4)

0. Black (BK) V- Negative power supply connection.
1. Brown (BR) COM Negative power supply connection. The ground for the analogue section of the A/D converter, held actively at 2.8V (nom.) below V+. COM must not be allowed to sink excessive current (>100µA) by connecting it directly to a higher voltage.
2. Red (RD) V+ Positive power supply connection.
3. Orange (OR) Vref Connection for calibration circuit (see diagram).
4. Yellow (YL) IN HI Positive measuring differential input.
5. Green (GN) IN LO Negative measuring differential input.

IN HI and IN LO must be no closer than 1V to either the positive or negative supply. (On T/BLK-4, IN LO is connected to COM via normally-closed Link L2.)

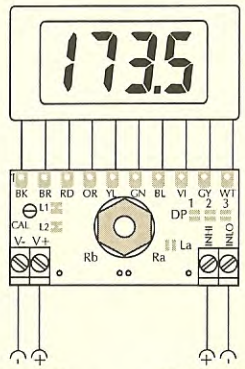
6. Blue (BL) DP COM Common connection for decimal points DP1, DP2 and DP3, see below.
7. Violet (VI) DP1 199.9
8. Grey (GY) DP2 19.99
9. White (WT) DP3 1.999

Connect to DP COM to display required decimal point. (or make appropriate solder link on T/BLK-4)

APPLICATIONS

Do not connect more than one meter to the same power supply if the meters cannot use the same signal ground. Taking any input beyond the power supply rails will damage the meter. Keep leads short to ensure noise-free operation.

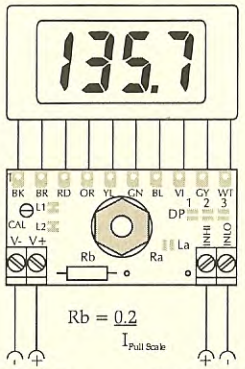
APPLICATIONS



Supply Voltage
Tension d'alimentation
Versorgungsspannung
Tensione di alimentazione

±200mV Input Voltage
Tension d'entrée 200mV
Eingangsspannung
Tensione di ingresso 200 mV

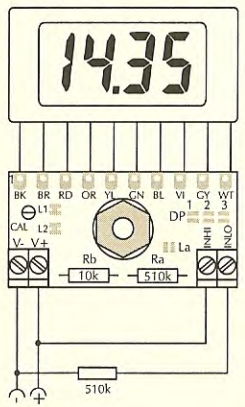
Measuring a floating voltage source of 200mV full scale.
Add Ra and Rb and cut Link La to increase the measurement range.
Mesurer une source de tension flottante de 200mV pleine échelle.
Ajoutez Ra et Rb et couper la Liaison La pour accroître la gamme de mesure.
Messen einer potentialfreien Spannungsquelle mit 200 mV Endausschlag:
Bauen Sie Ra und Rb ein und schneiden die Verbindungsglieder La durch, um den Meßbereich zu erweitern.
Misurazione di una sorgente di tensione fluttuante, fondo scala di 200 mV.
Aggiungere Ra e Rb e disabilitare il collegamento La per ampliare il campo di misurazione.



Supply Voltage
Tension d'alimentation
Versorgungsspannung
Tensione di alimentazione

Current to be measured
Courants à mesurer
Zu messender Strom
Corrente da misurare

Measuring current. Recalibrate the module.
The current to be measured must be isolated from the module's power supply.
Mesurer le courant. Recalibrez le module.
Le courant à mesurer doit être isolé de l'alimentation du module.
Strommessung. Kalibrieren Sie das Modul neu.
Der zu messende Strom muß von der Stromversorgung des Moduls abgetrennt werden.
Misurazione della corrente. Ricalibrare il modulo.
La corrente da misurare deve essere isolata dall'alimentazione del modulo.

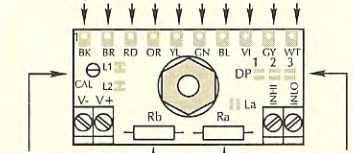


Supply Voltage
Tension d'alimentation
Versorgungsspannung
Tensione di alimentazione

Measuring a supply voltage. (min. 7.5V, max. 15V)
Cut Links La and L2. Recalibrate the module.
Mesurer une tension d'alimentation. (Min 7,5V, max. 15V)
Coupez les Liaisons La et L2. Recalibrez le module.
Messen einer Versorgungsspannung. (min. 7,5V, max. 15 V)
Schneiden Sie die Verbindungsglieder La und L2 durch.
Kalibrieren Sie das Modul neu.
Misurazione di una tensione di alimentazione (min. 7.5 V, max. 15 V)
Disabilitare i collegamenti La e L2. Ricalibrare il modulo.

T/BLK-4

Solder wires from EMV 1125
Fils à souder de l'EMV 1125
Drähte des EMV 1125 verlöten
Collegamenti a saldare provenienti da EMV 1125



Calibration potentiometer
Potentiomètre de calibrage
Kalibration (Potentiometer)
Potenziometro di calibrazione

Decimal point links
Liaisons des virgules décimales
Dezimalpunkt-Verbindungsglieder
Collegamenti punti decimali

Scaling resistors (values for 2V and 20V FSD Supplied with T/BLK-4)
Résistances d'échelle (les valeurs pour 2V et 20V FST sont fournies avec la T/BLK-4)
Skalierungswiderstandswerte für 2V und 20V Endausschlag (mit T/BLK-4 mitgeliefert)
Resistenze per modifica portate (valori per 2V e 20V fondo scala forniti con T/BLK-4)

ENGLISH

Specification	Min.	Typ.	Max.	Unit
Accuracy (overall error) *		0.05	0.1	%(±1 count)
Linearity			±1	count
Displayed reading	-1999		1999	
Resolution		0.1		mV d.c.
Sample rate		3		samples/sec
Operating temperature range	0		50	°C
Temperature stability		100		ppm/°C
Supply voltage	7.5	9	15	V d.c.
Supply current		150		µA

* To ensure maximum accuracy, re-calibrate periodically.

Unless otherwise noted, specifications apply at TA=25°C, V_{supply}=9Vd.c. (f_{clock}=48kHz) and are tested with the module configured for fully floating input mode.

FRANCAIS

Caractéristiques	Min.	Typ.	Max.	Unité
Précision (erreur globale) *		0,05	0,1	%(±1 compte)
Linéarité			±1	compte
Lecture affichée	-1999		1999	
Résolution		0,1		mVcc
Taux d'échantillonnage		3		éch./sec
Températures limites d'utilisation	0		50	°C
Stabilité thermique		100		ppm/°C
Voltage d'alimentation	7,5	9	15	Vcc
Courant d'alimentation		150		µA

* Pour obtenir une précision maximum, recalibrez périodiquement.

Sauf indication contraire, les spécifications s'appliquent à TA=25°C, alimentation électrique=9Vcc (fréquence d'horloge=48kHz) et sont testées avec le module configuré pour le mode entrée flottante.

DEUTSCH

Parameter	Min.	Typisch	Max.	Einheit
Genauigkeit (Gesamtfehler) *		0,05	0,1	%(±1 Zählwert)
Linearität			±1	Zählwert
Dargestellter Meßwert	-1999		1999	
Auflösung		0,1		mV DC
Abtastrate		3		Proben/sek.
Betriebs-temperatur-bereich	0		50	°C
Temperatur-stabilität		100		ppm/°C
Versorgungs-spannung	7,5	9	15	V DC
Versorgungsstrom		150		µA

* Um maximale Genauigkeit zu gewährleisten, periodisch kalibrieren.

Wenn nichts Anderweitiges angegeben wird, treffen die Spezifikationen TA= 25° C, $V_{VERSORGUNG}$= 9 V DC f_{TAKT}=48 kHz) zu, die bei der Modulkonfiguration für einen potentialfreien Eingang geprüft sind.

ITALIANO

Specifica	Min.	Tip.	Max.	Unitá
Precisione (errore complessivo) *		0,05	0,1	%(± 1 conteggio)
Linearità			±1	conteggio
Lettura visualizzata	-1999		1999	
Risoluzione		0,1		mV c.c.
Frequenza di campionamento		3		campioni /sec.
Gamma temperatura di esercizio	0		50	°C
Stabilità temperatura		100		ppm/°C
Tensione di alimentazione	7,5	9	15	V c.c.
Corrente di alimentazione		150		µA

* Per garantire la massima precisione, rieffettuare periodicamente la taratura.

Salvo diversamente indicato, le specifiche sono relative a TA = 25°C, tensione di alimentazione = 9 V c.c. (frequenza dell'impulso di temporizzazione = 48 kHz) e vengono testate con il modulo configurato per la modalità di ingresso completamente fluttuante.