

# TRUMETER

*Keep you in control*



7400 ✓ 7401 X

## 7400AS

## 7401AS



**8 digit Low Power Bi-directional  
Totalising Counters**

English  
Page 2

**8-Stelliger Bi-Direktionaler Summen-  
zähler mit niedrigem Stromverbrauch**

Deutsch  
Seite 3

**Compteur Totalisateur Bidirectionnel à  
8 Chiffres, Faible Consommation**

Français  
Page 4

**Contador Totalizador Bidireccional,  
de 8 dígitos de bajo consumo**

Español  
Página 5

**Contatore Totalizzatore ad 8 Cifre  
Bidirezionale, a basso consumo**

Italiano  
Pagina 6

**Higher Voltage Power Supply,  
Anschluß an Versorgungsspannung >3.4V,  
Tension d'alimentation DC plus élevée,  
Alimentación con tensiones superiores a los 3.4V CC,  
Alimentazione in corrente continua a più alta tensione  
Dimensions, Abmessungen, Dimensiones, Dimensioni**

Page 7,8  
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# Specification

## Supply

2.6 - 3.4VDC

## Current consumption

$<10\mu\text{A}$ ,  $5\mu\text{A}$  typical.

## Reset Button

The 7400 has a Reset Button.

The 7401 does not.

## Display

8 digit black LCD, 8mm characters

## Count Range

99999999 - rollover to 0

## Operating temperature

$-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$

## Storage temperature

$-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$

## Altitude

Up to 2000m

## Relative Humidity

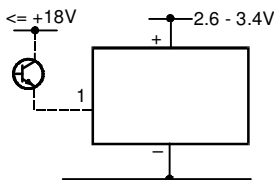
80% max up to  $31^{\circ}\text{C}$ , decreasing to 50% max at  $40^{\circ}\text{C}$

## Note:

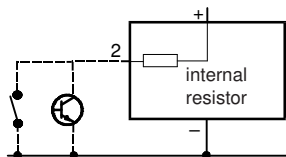
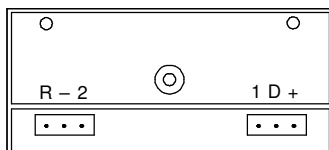
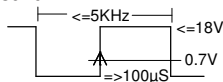
This product is ideally suited to battery powered applications. Should the product be used in a circuit where an external power source is used, then the complete system will require separate approval to meet the CE standards.

## Connections

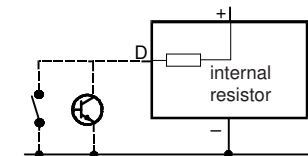
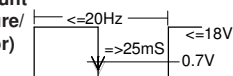
This product can be powered from a higher voltage DC supply using the external voltage control circuit shown on page 7.



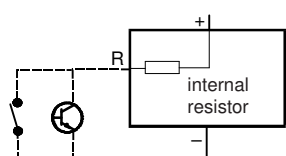
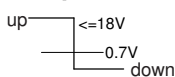
## High Speed Count (TTL/CMOS)



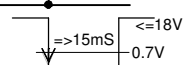
## Low Speed Count (Contact Closure/ Open Collector)



## Direction (TTL/CMOS)



## External Reset (Contact Closure/ Open Collector)



# Spezifikation

## Versorgung

2.6 - 3.4VDC

## Stromaufnahme

<10 $\mu$ A, 5 $\mu$ A typisch.

## Rückstelltaste

Das Modell 7400 hat eine Rückstelltaste

Das Modell 7401 hat keine.

## Anzeige

8 stelliges schwarzes LCD

Zeichenhöhe 8 mm

## Zählbereich

99999999 - Überlauf 0

## Betriebstemperatur

-10°C bis +60°C

## Lagerungstemperatur

-20°C bis +60°C

## Höhe

Bis zu 2.000 m

## Relative Feuchte

Max. 80% bis zu 31°C, Abnahme auf

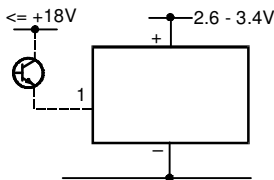
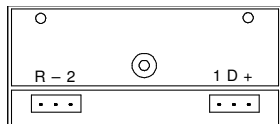
50% bei max. 40°C

## Hinweis:

Dieses Produkt eignet sich optimal für Anwendungen mit Batteriebetrieb. Wenn das Produkt innerhalb einer Schaltung mit externer Spannungsquelle (Netzbetrieb) eingesetzt wird, ist für das vollständige System die Einhaltung der Niederspannungsrichtlinie, sowie der CE-Normen erforderlich.

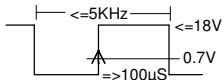
## Anschlüsse

Dieses Produkt kann mit einer höheren externen Gleichspannung betrieben werden, bitte beachten Sie dabei die Hinweise auf Seite 7.



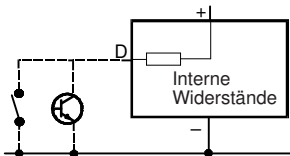
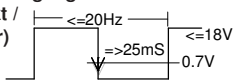
## Elektronischer Zählengang

(TTL/CMOS)

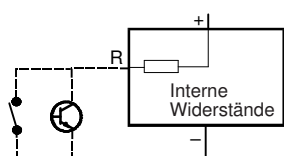
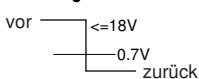


## Langsame Zählengang

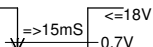
(Schließkontakt / Open Collector)



Zählrichtung  
(TTL/CMOS)



Externe Rücksetzung  
(Schließkontakt / Open Collector)



# Caractéristiques

## Alimentation

2.6 - 3.4VCC

## Consommation de courant

<10 $\mu$ A, 5 $\mu$ A moyenne.

## Poussoir de RAZ

Le 7400 a un poussoir de RAZ

Le 7401 n'en a pas.

## Affichage

à cristaux liquides noirs 8 chiffres,  
caractères 8 mm

## Plage de comptage

de 0 à 999999 - décroissant jusqu'à 0

## Température de fonctionnement

de -10°C à +60°C

## Température de stockage

de -20°C à +60°C

## Altitude

Jusqu'à 2000m

## Humidité relative

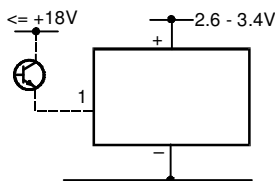
80% max jusqu'à 31°C ; 50% max à  
40°C

## Remarque:

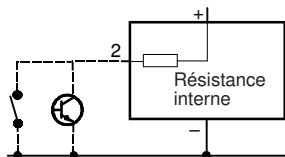
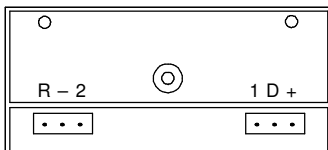
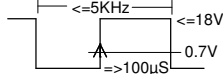
Ce produit est idéal pour les applications alimentées par batteries. Dans le cas où ce produit serait susceptible d'être inclus dans un circuit utilisant une source d'alimentation externe, l'intégralité du système devra alors recevoir l'agrément des normes CE.

## Raccordements

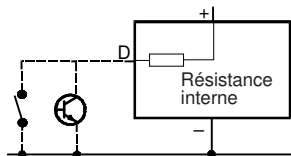
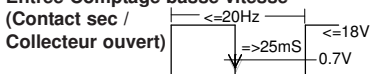
La tension d'alimentation de ce produit peut être augmentée à l'aide du circuit externe décrit à la page 7.



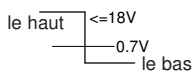
## Entrée Comptage haute vitesse (TTL/CMOS)



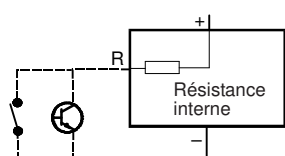
## Entrée Comptage basse vitesse (Contact sec / Collecteur ouvert)



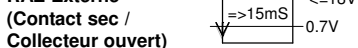
## Sens Comptage (TTL/CMOS)



4



## RAZ Externe (Contact sec / Collecteur ouvert)



# Especificaciones

## Alimentación

2.6 - 3.4VCC

## Consumo de corriente

< 10 $\mu$ A, típico 5 $\mu$ A

## Pulsador de Reset

El 7400 tiene un pulsador de Reset

El 7401 no lo tiene.

## Pantalla

LCD de 8 dígitos negros, caracteres de 8mm de altura

## Rango de conteo

0 - 99999999 (vuelve a 0)

## Temperatura de operación

-10°C a +60°C

## Temperatura de almacenaje

-20°C a +60°C

## Altitud

Hasta 2000m

## Humedad Relativa

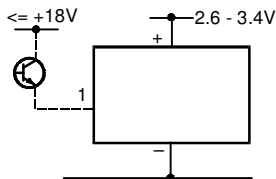
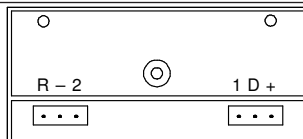
80% máx. hasta 31°C, disminuyendo al 50% máx. a 40°C

## Nota:

Este producto es ideal para aplicaciones con alimentación de batería. En el caso que el producto sea utilizado en un circuito alimentado por una fuente de alimentación externa, entonces el sistema completo requerirá una aprobación separada para cumplir con las normas CE.

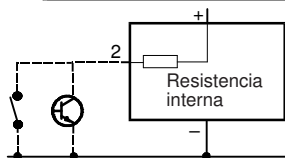
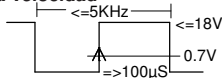
## Conexiones

Este producto puede alimentarse con tensiones superiores a los 3.4V CC a través del circuito externo mostrado en la página 7.



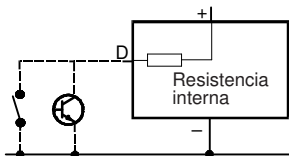
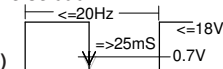
## Conteo de alta velocidad

(TTL/CMOS)

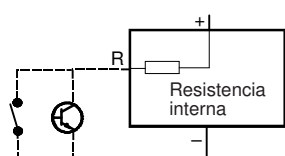
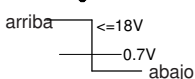


## Conteo de baja velocidad

(Cierre por contacto / colector abierto)

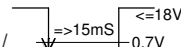


Dirección (TTL/CMOS)



## Reset externo

(Cierre por contacto / colector abierto)



# Specifiche

## Alimentazione

2.6 - 3.4VCC

## Corrente assorbita

<10 $\mu$ A, di norma 5 $\mu$ A

## Pulsador de Reset

Il 7400 ha un pulsador de reset.

Il 7401 no.

## Display

a cristalli liquidi nero a 8 cifre, caratteri da 8mm

## Gamme di conteggio

99999999 – ritorno a 0

## Temperatura di funzionamento

da -10°C a +60°C

## Temperatura di immagazzinamento

da -20°C a +60°C

## Altitudine

Fino a 2000m

## Umidità Relativa

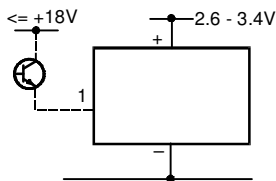
Max 80% fino a 31°C, a scendere fino al 50% max. a 40°C

### Nota:

Questo prodotto è ideale per applicazioni alimentate a batteria. Se il prodotto dovesse essere utilizzato in un circuito collegato ad una fonte di alimentazione esterna, il sistema completo richiederà una omologazione separata a norma CE.

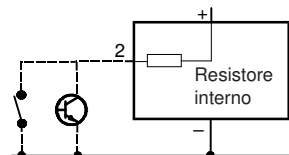
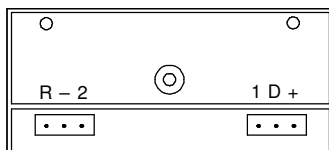
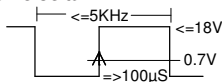
## Collegamenti

Questo prodotto può essere alimentato con una corrente continua a più alta tensione attraverso il circuito di controllo tensione esterno illustrato a pag. 7.



### Conteggio alta velocità

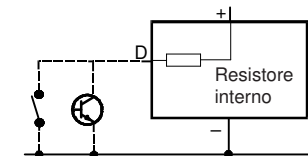
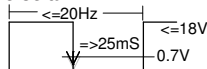
(TTL/CMOS)



### Conteggio bassa velocità

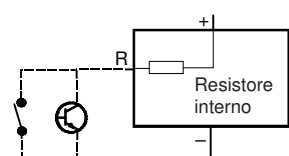
(Collettore chiuso /

Apertura contatto)



Direzione  
(TTL/CMOS)

l'alto  $\leq 18\text{V}$   
il basso  $0.7\text{V}$

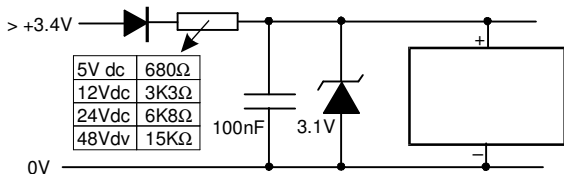


Reset esterno

(Collettore chiuso /  
Apertura contatto)

$\geq 15\text{ms}$   
 $\leq 18\text{V}$   
 $0.7\text{V}$

**Higher Voltage Power Supply,  
Anschluß an Versorgungsspannung >3.4V,  
Tension d'alimentation DC plus élevée,  
Circuito auxiliar para tensiones de alimentación mayores a 3.4V CC,  
Alimentazione in corrente continua a più alta tensione**



### Please note:

Any signal cables connected to this device must not exceed 30 metres in length. If signal cables are installed that are routed outside the building, it will be necessary to install additional surge protection devices.

### Bitte beachten Sie folgendes:

Die Signalleitungen, die an dieses Gerät angeschlossen werden, dürfen eine Gesamtlänge von 30m nicht überschreiten. Werden Signalleitungen außerhalb von Gebäuden verlegt, müssen zusätzliche Schutzmaßnahmen gegen Surge Störimpulse vorgesehen werden.

### Veillez noter :

La longueur de tout câble mesure (signal) raccordé à cet appareil ne doit pas excéder 30 mètres. Si les câbles « mesure » passent à l'extérieur du bâtiment, il est nécessaire d'installer des dispositifs additionnels de protections de surtensions.

### Preghiamo Notare:

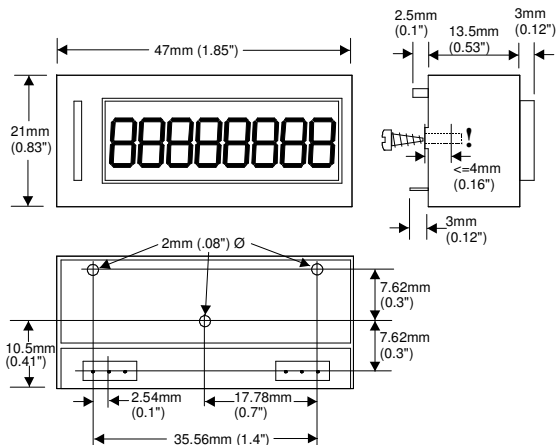
Ogni cavo di segnale collegato a questo dispositivo non può essere più lungo di 30 metri. Se i cavi di segnale sono installati su un percorso esterno all'edificio, è necessario installare dispositivi di protezione di rete aggiuntivi.

### Nota:

Cualquier cable de señal conectado a esta unidad no debe de exceder de 30 metros.

Si se instalan cables de señal que sean llevados fuera del edificio, será necesario instalar unidades adicionales de protección de onda.

## Dimensions, Abmessungen, Dimensiones, Dimensi



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