

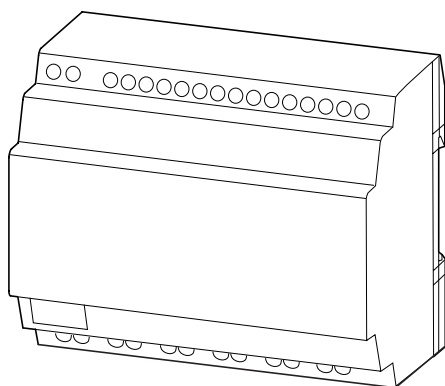
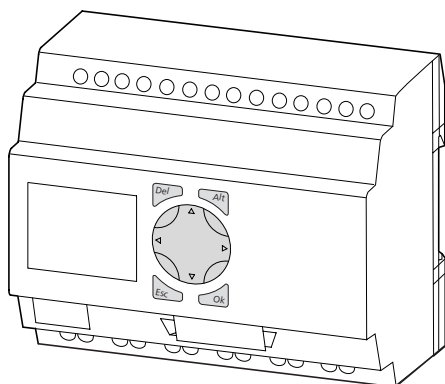


Installation Instructions

Pico Controller

(Catalog Numbers 1760-L18AWA-EX, -L18BWB-EX,
-IA12XOW6I, -IB12XOB8)

1760-L18AWA-...
1760-L18BWB-...
1760-IA12XOW6I
1760-IB12XOB8



ATTENTION! Electrical Shock Hazard

Only qualified personnel may perform this installation.

Observe all electrical safety requirements, including any applicable laws, regulations, codes and standards when installing this equipment.

Lebensgefahr durch elektrischen Strom!

Nur Elektrofachkräfte und elektrotechnisch unterwiesene Personen dürfen die im Folgenden beschriebenen Arbeiten ausführen. Die Stromversorgungsgeräte sind Einbaugeräte. Beachten Sie für die Installation der Geräte die länderspezifischen Vorschriften.

Tension électrique dangereuse !

Seules les personnes qualifiées et averties doivent exécuter les travaux ci-après. Les blocs d'alimentation sont des appareils faisant partie intégrante d'une installation. Veuillez respecter les normes de mise en œuvre spécifiques aux différents pays.

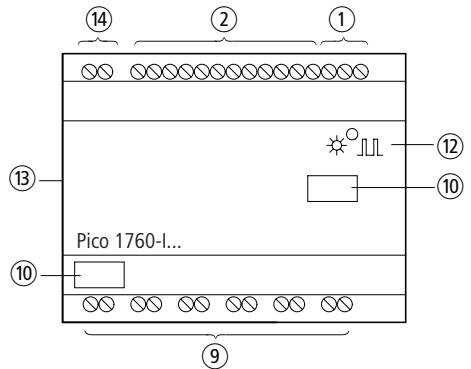
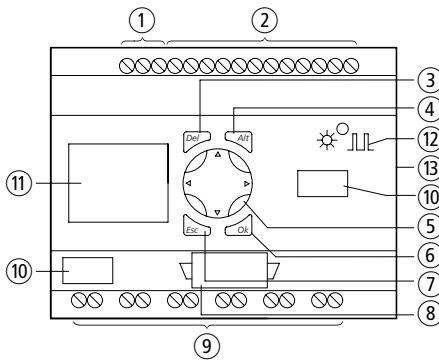
Tensione elettrica: Pericolo di morte!

Solo persone abilitate e qualificate possono eseguire le operazioni di seguito riportate. Gli alimentatori sono unità per montaggio interno. Per l'installazione degli apparecchi è necessario rispettare le normative specifiche di ciascun paese.

¡Corriente eléctrica! ¡Peligro de muerte!

El trabajo a continuación descrito debe ser realizado por personas cualificadas y advertidas. Las fuentes de alimentación son aparatos de montaje. Para la instalación de los aparatos han de tenerse en cuenta las normativas/especificaciones a nivel local.

Front view – Frontansicht – Face avant – Vista frontale – Vista de frente



EN

- ① Voltage supply
1760-L18BWB-..., -IB... 20.4 to 28.8 V dc
1760-L18AWA-..., -IA... 85 to 264 V ac 50/60 Hz
- ② Inputs
1760-L18BWB-..., -IB... 12 inputs 0 to 28.8 V dc
(2 can also be used as 0 to 10 V analog inputs)
1760-L18AWA-..., -IA... 12 inputs 0 to 264 V ac
- ③ *De/*button
Delete contacts/relays/connections/
empty rung
- ④ *Al/t*button
Draw connection
Toggle between make or break contact
Insert rung
- ⑤ Cursor buttons: right, left, up, down
Select contacts, relays, numbers
P button on: Input P1 -> Cursor left
Input P2 -> Cursor up
Input P3 -> Cursor right
Input P4 -> Cursor down
- ⑥ *Ok*button
Enter menu, accept action
- ⑦ *Esc*button
One menu back
Exit function relay parameter menu without saving
- ⑧ Interface (with cover)
Slot for memory card
Socket for PC interface cable
- ⑨ Outputs
- ⑩ Write-on surface
- ⑪ LCD
I/O status display
Operating states
Circuit diagram
Display of clock
- ⑫ Power/Run LED
- ⑬ Central Connection
- ⑭ No connection

DE

- ① Spannungsversorgung
1760-L18BWB-..., -IB... 20.4 bis 28.8 V DC
1760-L18AWA-..., -IA... 85 bis 264 V AC 50/60 Hz
- ② Eingänge
1760-L18BWB-..., -IB... 12 Eingänge 0 bis 28.8 V DC
(2 auch als Analog-Eingänge 0 bis 10 V nutzbar)
1760-L18AWA-..., -IA... 12 Eingänge 0 bis 264 V AC
- ③ *De/*Taste
Löschen von Kontakten/Relais/
Verbindungen/leerem Strompfad
- ④ *Al/t*Taste
Verbindungen zeichnen
Umschalter: Kontakt = Schließer oder Öffner
Strompfad einfügen
- ⑤ Cursortasten: rechts, links, oben, unten
Kontakte, Relais, Nummer wählen
P-Taste an: Eingang P1 -> Cursor links
Eingang P2 -> Cursor oben
Eingang P3 -> Cursor rechts
Eingang P4 -> Cursor unten
- ⑥ *Ok*-Taste
Menü weiterschalten, Aktion übernehmen
- ⑦ *Esc*-Taste
Ein Menü zurück
Menü, Parameter Funktionsrelais verlassen
Verlassen ohne Speichern
- ⑧ Schnittstelle (mit Abdeckung)
Steckplatz für Speicherkarte
Buchse für PC-Schnittstellenkabel
- ⑨ Ausgänge
- ⑩ Gerätekennzeichnungsschild
- ⑪ LCD
Zustandsanzeige der Ein-/Ausgänge
Betriebszustände
Schaltplan
Anzeige der Uhr
- ⑫ Power/Run-LED
- ⑬ Zentrale Kopplung
- ⑭ Kein Anschluss

FR

- ① Alimentation
1760-L18BWB-..., -IB... 20.4 à 28.8 V CC
1760-L18AWA-..., -IA... 85 à 264 V CA 50/60 Hz
- ② Entrées
1760-L18BWB-..., -IB... 12 entrées 0 à 28.8 V CC
(dont 2 utilisables comme entrées analogiques 0 à 10 V)
1760-L18AWA-..., -IA... 12 entrées 0 à 264 V CA
- ③ Touche *Del*
Effacement des objets (contacts, relais, liaison, circuits de courant vides) au niveau de la position du curseur
- ④ Touche *Alt*
Dessiner les liaisons
Inverseur : contact = contact F ou contact O
Insérer circuit de courant
- ⑤ Touches de direction : droite, gauche, haut, bas
Sélectionner opérandes et indices (contacts, relais, numéro)
Affectation des touches entrée P :
entrée P1 -> curseur gauche
entrée P2 -> curseur haut
entrée P3 -> curseur droite
entrée P4 -> curseur bas
- ⑥ Touche *Ok*
Niveau menu, exécuter la fonction
- ⑦ Touche *Esc*
Retour au menu précédent
Quitter le niveau « Entrée du programme »
Quitter sans enregistrer
- ⑧ Interface (avec capot)
Emplacement pour carte mémoire
Connecteur femelle pour câble d'interface PC
- ⑨ Sorties
- ⑩ Etiquette de repérage de l'appareil
- ⑪ LCD
- ⑫ Tension d'alimentation/DEL RUN
- ⑬ Connecteur pour module d'otension local
- ⑭ Non raccordables

IT

- ① Tensione di alimentazione
1760-L18BWB-..., -IB... 20.4 a 28.8 V CC
1760-L18AWA-..., -IA... 85 a 264 V CA 50/60 HZ
- ② Ingressi
1760-L18BWB-..., IB... 12 ingressi 0 a 28.8 V CC
(2 utilizzabili anche come ingressi analogici 0 a 10 V)
1760-L18AWA-..., IA... 12 ingressi 0 a 264 V CA
- ③ Tasto *Del*
Cancellazione di contatti, relè, collegamenti, circuiti di corrente vuoti
- ④ Tasto *Alt*
Disegno dei collegamenti
Commutatore: contatto = chiusura/apertura
Inserisci/cancella riga, circuito di corrente
- ⑤ Tasti cursore, destra, sinistra, su, giù
Selezione contatti, relè, numeri
Tasto P a: lato P1 -> cursore a sinistra
lato P2 -> cursore su
lato P3 -> cursore a destra
lato P4 -> cursore giù
- ⑥ Tasto *Ok*
Menu successivo, conferma azione
- ⑦ Tasto *Esc*
Menu precedente
Esci dal menu, parametro relè di funzione
Esci senza salvare
- ⑧ Interfaccia (con copertura)
Posizione di inserimento per la scheda di memoria
Connettore femmina per cavo di interfaccia PC
- ⑨ Uscite
- ⑩ Targhetta per il nome dell'apparecchio
- ⑪ LCD
Visualizzazione di stato degli ingressi/uscite
Stati di funzionamento
Schema a contatti
Visualizzazione dell'ora
LED Power/Run
- ⑫ Collegamento locale
- ⑬ Non collegabili

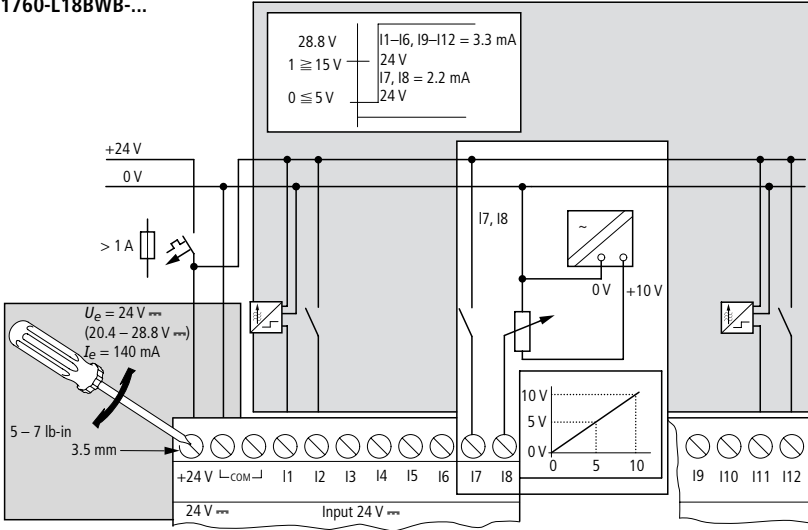
ES

- ① Tensión de alimentación
1760-L18BWB-..., -IB... 20.4 a 28.8 V CC
1760-L18AWA-..., -IA... 85 a 264 V CA 50/60 Hz
- ② Entradas
1760-L18BWB-..., -IB... 12 entradas 0 a 28.8 V CC
(2 también pueden utilizarse como entradas analógicas de 0 a 10 V)
1760-L18AWA-..., -IA... 12 entradas 0 a 264 V CA
- ③ Tecla *Del*
Borrar contactos/relés/conexiones/circuito de corriente en vacío
- ④ Tecla *Alt*
Diseñar conexiones
Accionamiento del interruptor basculante (toggle) entre contacto de apertura o de cierre
Insertar circuito de corriente
- ⑤ Teclas de cursor: derecha, izquierda, arriba, abajo.
Selección de contactos, relés, números
Tecla P sobre: Entrada P1 -> Cursor izquierda
Entrada P2 -> Cursor arriba
Entrada P3 -> Cursor derecha
Entrada P4 -> Cursor abajo

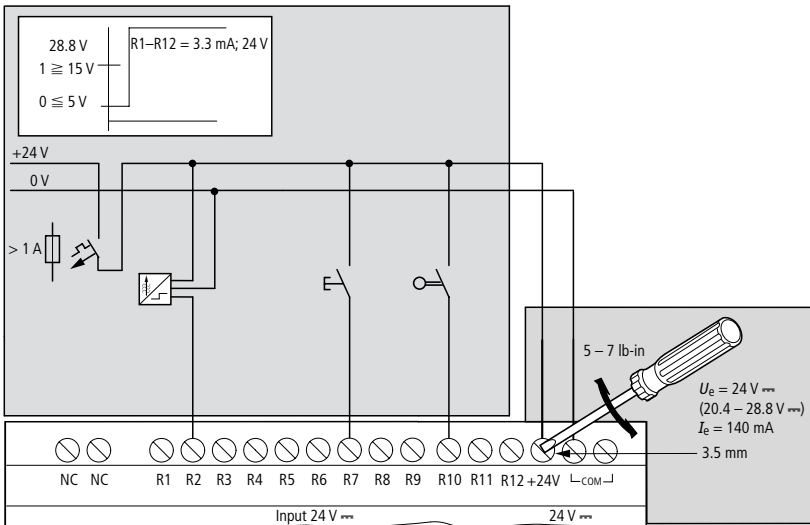
- ⑥ Tecla *Ok*
Entrar menú, aceptar acción
- ⑦ Tecla *Esc*
Un menú hacia atrás
Salir del menú de parámetros del módulo lógico
Salir sin archivar
- ⑧ Interface (con tapa)
Slot para tarjeta de memoria
Hembra para cable de interface a PC
- ⑨ Salidas
- ⑩ Etiqueta de características del aparato
- ⑪ LCD
Visualizador de estado ABIERTO/CERRADO
Estados operativos
Esquema de circuitos
Display del reloj
- ⑫ Cierre/LED de funcionamiento
- ⑬ Acoplamiento centralizado
- ⑭ No conectables

Standard connection, inputs – Standardanschluss, Eingänge – Raccordement standard, entrées – Collegamento standard, ingressi – Conexión estándar, entradas

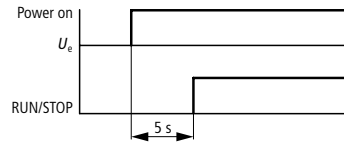
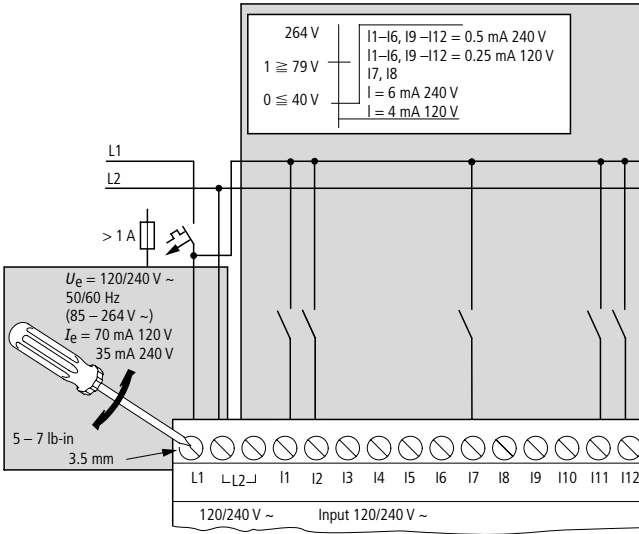
1760-L18BWB-...



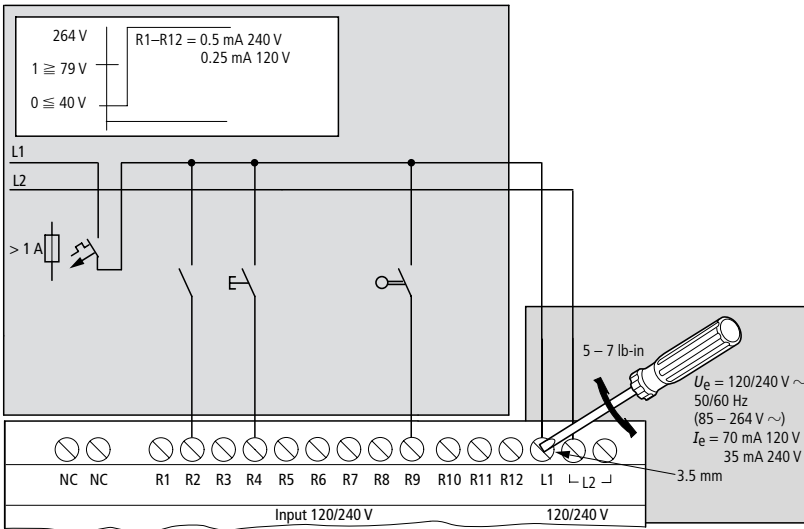
1760-IB12XOB8



1760-L18AWA-...

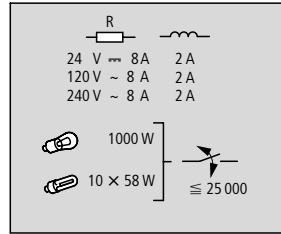
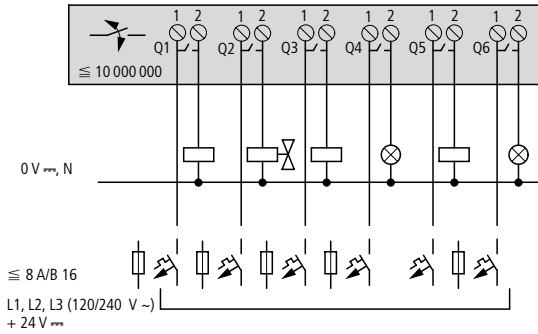


1760-IA12XOW6I

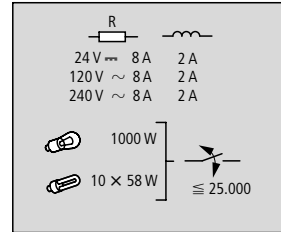
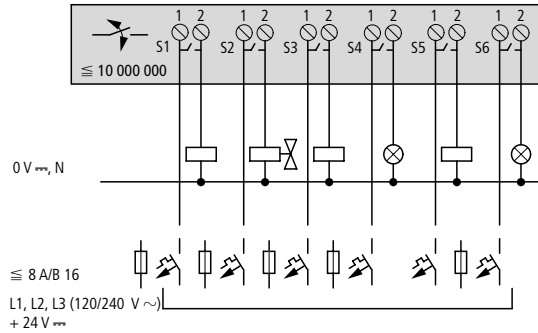


Standard connection, outputs – Standardanschluss, Ausgänge – Raccordement standard, sorties – Collegamento standard, uscite – Conexión estándar, salidas

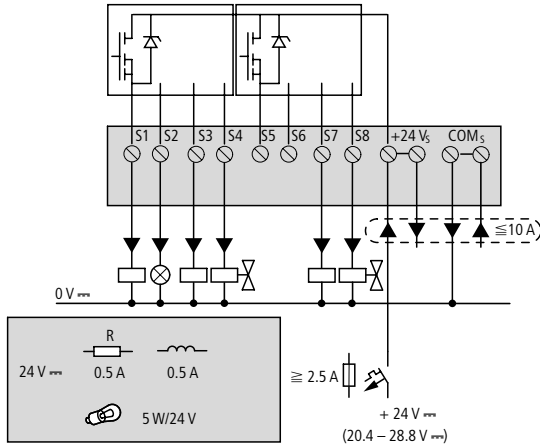
1760-L18-...



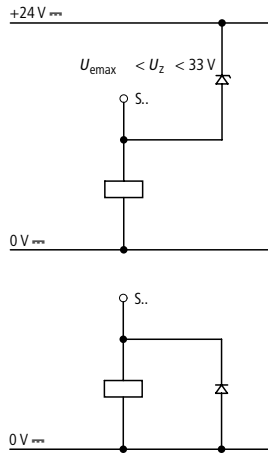
1760-IA12XOW6I



1760-IB12XOB8



Protective circuit Schutzbeschtaltung Circuit de protection Circuito di protezione Circuito supresor



Connecting the Expansion Module – Anschluss Zentrale Erweiterung – Raccordement extension centralisée – Collegamento Espansione locale – Conexión Ampliación centralizada

Expansion Connector

| | | |
|----------------|--|----------------|
| | | |
| 1760-L18AWA-EX | | 1760-IA12XOW6I |
| 1760-L18BWB-EX | | 1760-IB12XOB8 |
| | | |
| | | |

Fitting **1** + **2**, removing **3** + **4**

Einbau **1** + **2**, Ausbau **3** + **4**

Montage **1** + **2**, démontage **3** + **4**

Montaggio **1** + **2**, smontaggio **3** + **4**

Montaje **1** + **2**, desmontaje **3** + **4**



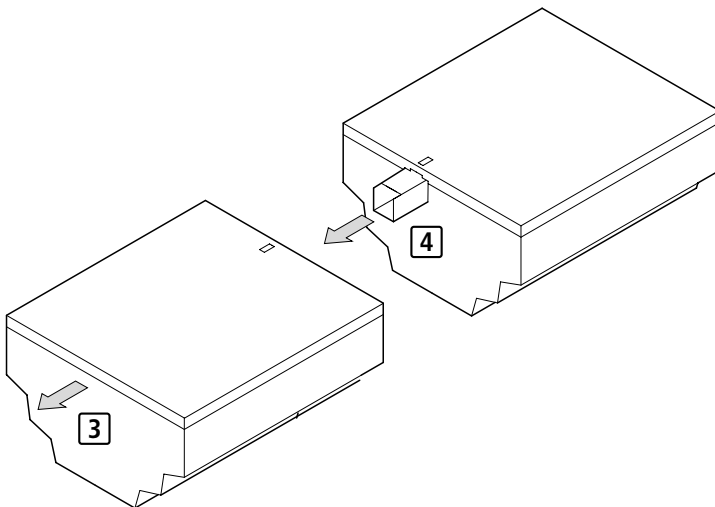
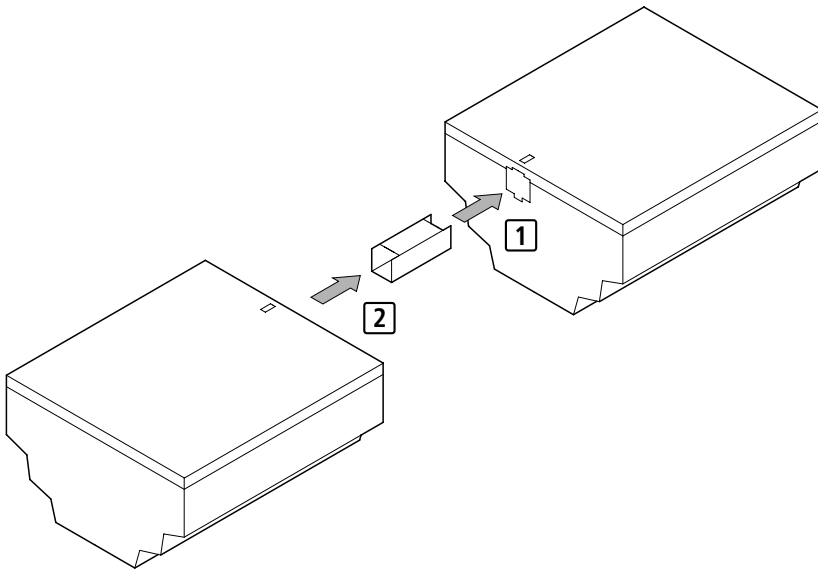
Devices must be de-energized!

Geräte müssen spannungsfrei sein!

Assurer la mise hors tension des appareils !

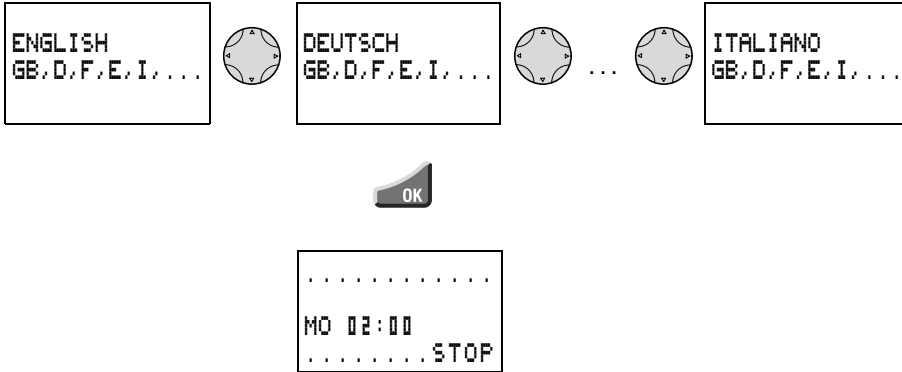
Gli apparecchi non devono essere alimentati!

¡Los aparatos deben encontrarse libres de tensión!

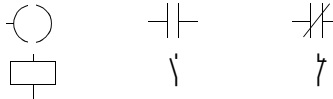


Language selection for commissioning
Sprachauswahl bei erster Inbetriebnahme
Choix de la langue en cas de première mise en service
Selezione della lingua alla prima messa in servizio
Selección de lenguaje en la puesta en marcha

EN, DE, FR, ES, IT, PT, NL, SV, PL, TR



Relays, contacts – Relais, Kontakte – Relais, contacts – Relè, contatti – Relés, contactos



| | | | | |
|---|-------------|-------------|-------------------|-------|
| Controller inputs | | I | \bar{I} | 1-12 |
| Expansion status | | | | 14 |
| Controller outputs | \emptyset | \emptyset | $\bar{\emptyset}$ | 1-6 |
| Internal Marker bits | M | M | \bar{M} | 1-16 |
| Analog Setpoint Compare | | A | \bar{A} | 1-8 |
| Real Time Clock | | \emptyset | $\bar{\emptyset}$ | 1-4 |
| Counters | C | C | \bar{C} | 1-8 |
| Timers | T | T | \bar{T} | 1-8 |
| Soft Inputs-Keypad | | P | \bar{P} | 1-4 |
| Text Display | D | D | \bar{D} | 1-8 |
| Jump to label | : | : | | 1-8 |
| Expansion inputs | | R | \bar{R} | 1-12 |
| Expansion overload detection | | | | 15-16 |
| Expansion outputs or Internal Marker bits | S | S | \bar{S} | 1-8 |

Temperature range:

- LCD display legible in range 0 to 55 °C
- On no account allow condensation to form on the device!

Temperaturbereich:**Plage de température :**

- LCD-Anzeige im Bereich 0 bis 55 °C lesbar
- Betauung des Gerätes unbedingt verhindern!

Campo temperatura:**Margen de temperatura:****-25...+55 °C**

- Afficheur à cristaux liquides lisible dans la plage 0 à 55 °C
- Eviter impérativement toute condensation sur l'appareil !

- Visualizzatore LCD leggibile a una temperatura compresa tra 0 a 55 °C
- Impedire assolutamente la formazione di condensa sull'apparecchio!

- El visualizador LCD es legible dentro de un margen entre 0 – 55 °C
- No debe producirse condensación en el aparato!

Retention – Remanenz – Rémanence – Rimanenza – Retención

S, R, J, D1–D8, M13, M14, M15, M16, T7, T8, C5, C6, C7, C8:

Retentive with menu display RETENT. OFF (retention off)

Remanent bei Menüanzeige REMANENZ AUS

Rémanents lors de l'affichage REMANENT NON (rémanence désactivée)

Rimanenti nella visualizzazione menu RET. PARO (senza rimanenza)

Remanentes con visualización RIMANEN. OFF (retención desactivada)

```
DEBOUNCE ON
P OFF
MODE: RUN
RETENT. OFF
```

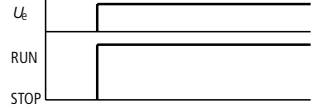
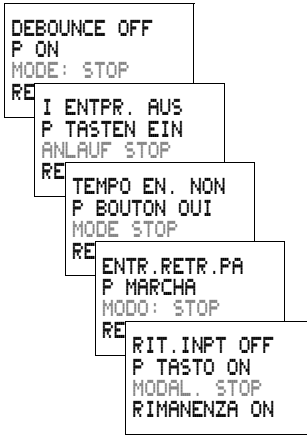
```
I ENTPR. EIN
P TASTEN AUS
ANLAUF RUN
REMANENZ AUS
```

```
TEMPO EN. OUI
P BOUTON NON
MODE RUN
REMANENT NON
```

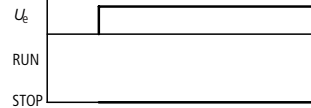
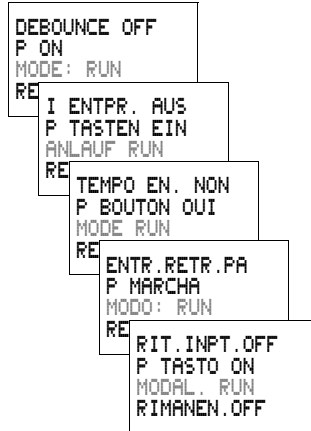
```
ENTR. RETR. MA
P PARADA
MODD: RUN
RET: PARO
```

```
RIT. INPUT ON
P TASTO OFF
MODAL. RUN
RIMANEN. OFF
```

"RUN" mode
Anlauf „RUN“
Mode « RUN »
Avviamento con "RUN"
Modo "RUN"



"STOP" mode
Anlauf im „STOP“
Mode « STOP »
Avviamento con "STOP"
Modo "STOP"



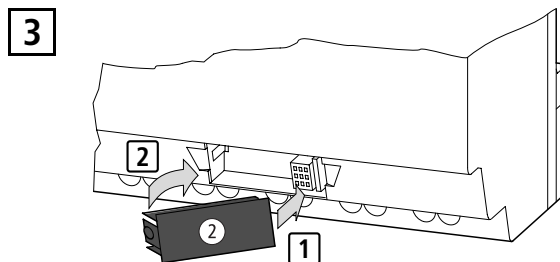
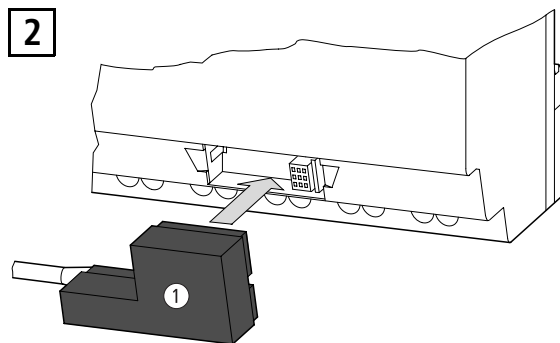
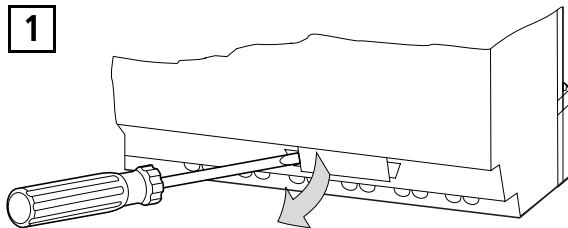
1760-CBL-PM02 interface ①/1760-MM2 memory card ②

Schnittstelle 1760-CBL-PM02 ①/Speichermodul 1760-MM2 ②

Interface 1760-CBL-PM02 ①/carte mémoire 1760-MM2 ②

Interfaccia 1760-CBL-PM02 ①/scheda di memoria 1760-MM2 ②

Interface 1760-CBL-PM02 ①/tarjeta de memoria 1760-MM2 ②





1760-L18AWA-...

ATTENTION. ELECTRICAL SHOCK HAZARD!

The memory module and PC-cable socket is at the potential of L2. There is a danger of electrical shock if L2 is not grounded. Do not make contact with electrical components under the socket cover.

ACHTUNG, STROMSCHLAGGEFAHR!

Das Speichermodul und die Anschlussbuchse für das PC-Kabel haben das Potential L2. Es besteht die Gefahr eines Stromschlags, wenn LS nicht geerdet ist. Berühren Sie keine elektrischen Komponenten, die sich unter der Buchsenabdeckung befinden.

ATTENTION. RISQUE DE DECHARGE ELECTRIQUE !

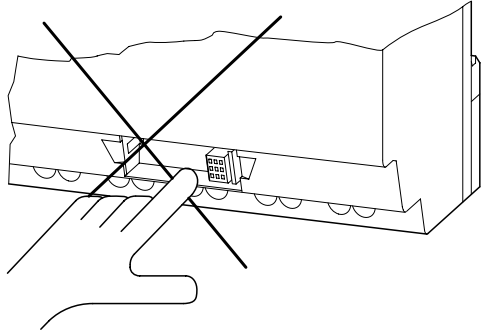
Le module mémoire et le connecteur du câble PC sont au potentiel L2. Il y a risque de décharge électrique si L2 n'est pas mis à la terre. N'entrez pas en contact avec les composants électriques sous le couvercle du connecteur.

ATTENZIONE. PERICOLO DI SCOSSA ELETTRICA!

Il modulo di memoria e la presa del cavo del PC sono al potenziale di L2. Se L2 non è collegato a terra esiste il pericolo di scossa elettrica. Non fare contatto con i componenti elettrici sotto il coperchio della presa.

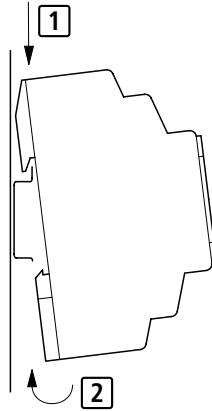
ATENCION. PELIGRO DE CHOQUE ELECTRICO!

El módulo de memoria y el enchufe del cable de PC se encuentran en el potencial de L2. Existe un peligro de choque eléctrico si no se conecta a tierra L2. No toque los componentes eléctricos ubicados debajo de la cubierta del enchufe.

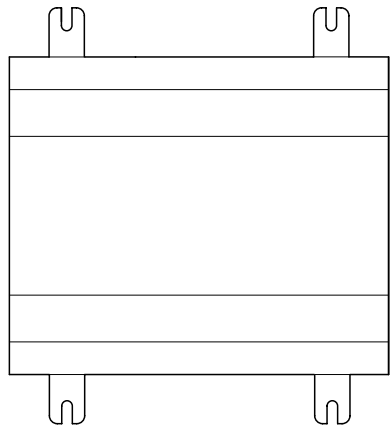
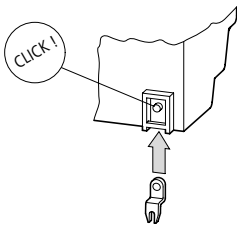


Fitting – Montage – Montaggio – Montaje

on 35 mm DIN rail
auf 35-mm-Hutschiene
sur profilé-support 35 mm
su guida DIN 35 mm
sobre guía semétrica de 35 mm

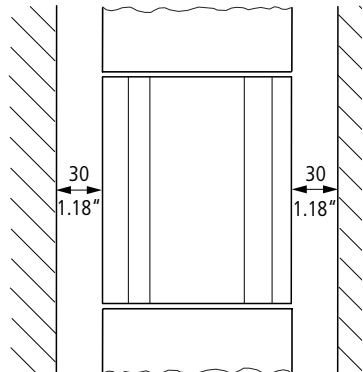
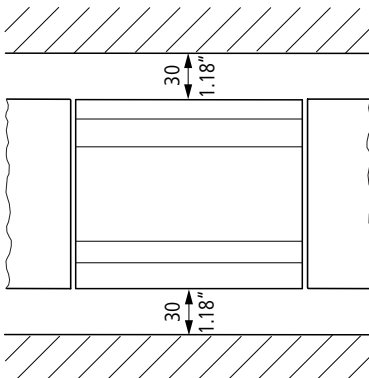


on mounting plate (horizontal)
auf Montageplatte (waagrecht)
sur plaque de montage (horizontal)
su piastra di montaggio (orizzontale)
sobre placa de montaje (horizontal)

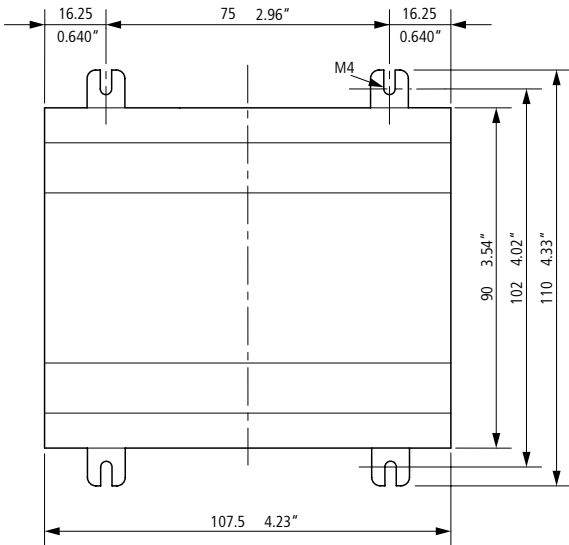
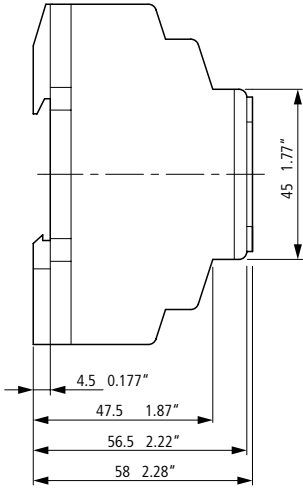


Mounting position – Einbaulage – Position de montage – Posizione di montaggio – Posición de montaje

with DIN rail (horizontal and vertical) – mit Hutschiene (waagrecht und senkrecht) – sur profilé chapeau (horizontale et verticale) – su guida DIN (orizzontale e verticale) – sobre carril (horizontal y vertical)



Dimensions – Abmessungen – Dimensioni – Dimensiones



For More Information

| For | Refer to this Document | Pub Number |
|---|---|------------------|
| A more detailed description of how to install and use your Pico controller. | Pico Controller User Manual | 1760-UM001B-EN-P |
| A basic overview of Pico and an introduction to Pico programming. | Pico Controller Getting Results | 1760-GR001B-EN-P |
| More information on proper wiring and grounding techniques. | Industrial Automation Wiring and Grounding Guidelines | 1770-4.1 |

If you would like a manual, you can:

- download a free electronic version from the internet: www.ab.com/pico or www.theautomationbookstore.com
- purchase a printed manual by:
 - contacting your local distributor or Rockwell Automation representative visiting www.theautomationbookstore.com and placing your order calling **1.800.963.9548** (USA/Canada) or **001.330.725.1574** (Outside USA/Canada)

Weitere Informationen

| Für | Siehe Dokument | Pub.-Nr. |
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| Eine ausführlichere Beschreibung der Installation und Handhabung Ihrer programmierbaren Steuerung Pico. | Steuerung Pico™ Benutzerhandbuch | 1760-UM001B-DE-P |
| Eine grundlegende Übersicht über Pico und eine Einführung in die Pico-Programmierung. | Steuerung Pico™ Praxishandbuch | 1760-GR001B-DE-P |
| Weitere Informationen über ordnungsgemäße Verdrahtungs- und Erdungsverfahren. | Richtlinien zur Verdrahtung und Erdung von industriellen Automatisierungssystemen | 1770-4.1DE |

Zu diesem Produkt gibt es ein Benutzerhandbuch, das Sie wie folgt bestellen können:

- durch kostenloses Herunterladen vom Internet: www.ab.com/pico oder www.theautomationbookstore.com
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 - bei Ihrem Distributor oder einer Niederlassung von Rockwell Automation in Ihrer Nähe per Internet: www.theautomationbookstore.com
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Pour en savoir plus

| Pour | Lisez ce document | Référence |
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| Plus de détails sur l'installation et l'utilisation de l'automate Pico. | Module Pico™ Manuel utilisateur | 1760-UM001B-FR-P |
| Présentation générale de Pico et introduction à la programmation Pico. | Module Pico™ Guide pratique | 1760-GR001B-FR-P |
| Plus d'informations sur le câblage et les techniques de mise à la terre. | Directives de câblage et de mise à la terre pour automatisation industrielle | 1770-4.1FR |

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| Avere descrizioni più dettagliate su come installare e usare il controllore Pico. | Controllore Pico™ Manuale dell'utente | 1760-UM001B-IT-P |
| Informazioni generali su Pico e sulla sua programmazione. | Controllore Pico™ Per essere operativi | 1760-GR001B-IT-P |
| Avere ulteriori informazioni sui modi appropriati di cablaggio e della messa a terra. | Industrial Automation Wiring and Grounding Guidelines | 1770-4.1IT |

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Para obtener más información

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| Una descripción detallada sobre cómo instalar y usar el controlador Pico. | Controlador Pico™ Manual del usuario | 1760-UM001B-ES-P |
| Vista general de Pico e introducción a la programación Pico. | Controlador Pico™ Obtención de resultados | 1760-GR001B-ES-P |
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