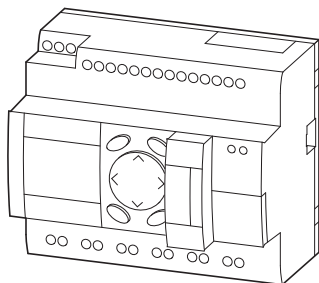


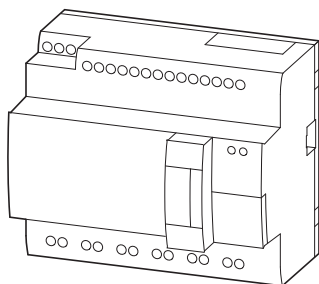
easyControl

EC4-200, EASY410-DC-...
 EASY618-...-E, EASY620-...-E
 EASY200-EASY, EASY202-RE

EC4P-221-M...D1, EC4P-222-M...D1

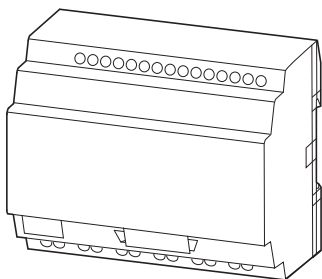




EC4P-221-M...X1, EC4P-222-M...X1



EC4P-...	OS
≧ V03	≧ 2.30

EASY618-...-E, EASY620-...-E





  (en) **Electric current! Danger to life!**
 Only skilled or instructed persons may carry out the following operations.

(de) **Lebensgefahr durch elektrischen Strom!**
 Nur Elektrofachkräfte und elektrotechnisch unterwiesene Personen dürfen die im Folgenden beschriebenen Arbeiten ausführen.

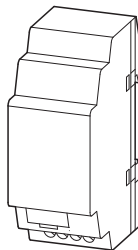
(fr) **Tension électrique dangereuse !**
 Seules les personnes qualifiées et averties doivent exécuter les travaux ci-après.

(es) **¡Corriente eléctrica! ¡Peligro de muerte!**
 El trabajo a continuación descrito debe ser realizado por personas cualificadas y advertidas.

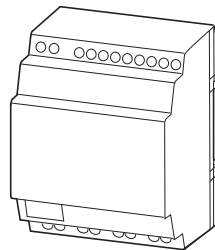
(it) **Tensione elettrica: Pericolo di morte!**
 Solo persone abilitate e qualificate possono eseguire le operazioni di seguito riportate.

  **MN05003003Z**
 (AWB2724-1584...)
www.eaton.eu/doc
www.eaton.eu/ec4p

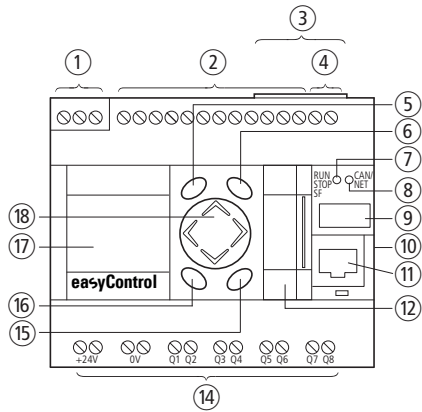
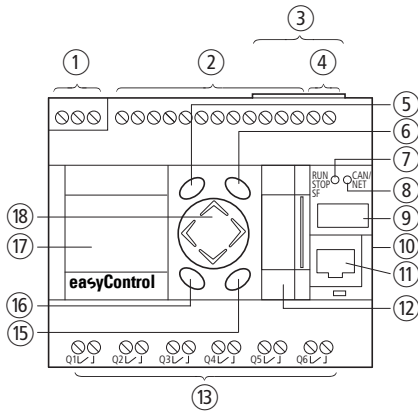
EASY200-EASY,
 EASY202-RE



EASY410-DC-...



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



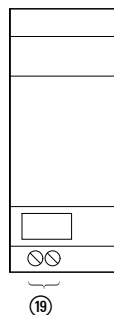
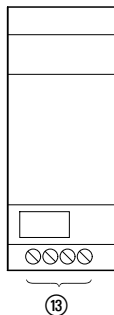
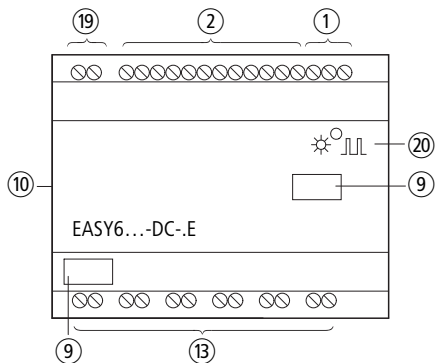
(en)

- ① Voltage supply: 24 V DC/0 V
- ② Inputs
12 digital inputs 24 V DC
– 4 can also be used as analog inputs
– 4 can also be used as interrupt or pulse inputs
- ③ Network connections
2 × CAN/easyNet
- ④ EC4P-221/222-...AD1, ...AX1
Analogue output 0 to 10 V DC/10 bits
- ⑤ DEL button
- ⑥ ALT button
- ⑦ RUN/STOP/SF-LED
- ⑧ CAN/NET-LED
- ⑨ Component label
- ⑩ Central connection (easyLink)
- ⑪ Programming interface
- ⑫ Interface (with cover): slot for memory card, programming cable, modem cable
- ⑬ Outputs (relay)
EC4P-221/222-MR...1, EASY6...RE, EASY202-RE, EASY410-DC-RE
- ⑭ Outputs (transistor)
EC4P-221/222-MT...1, EASY6...TE, EASY410-DC-TE
- ⑮ OK button
- ⑯ ESC button
- ⑰ LCD display (EC4P-221/222-M...D1)
- ⑱ Cursor buttons: right, left, up, down
P button on: Input P1 = Cursor left
Input P2 = Cursor up
Input P3 = Cursor right
Input P4 = Cursor down
- ⑲ Remote connection
- ⑳ Power LED
- ⓪ Digital inputs 24 V DC

(de)

- ① Spannungsversorgung: 24 V DC/0 V
- ② Eingänge
12 Digital-Eingänge 24 V DC
– 4 auch als Analog-Eingänge nutzbar
– 4 auch als Interrupt- oder Impuls-Eingänge nutzbar
- ③ Netzwerkanschlüsse
2 × CAN/easyNet
- ④ EC4P-221/222-...AD1, ...AX1
Analog-Ausgang 0 bis 10 V DC/10 Bit
- ⑤ DEL-Taste
- ⑥ ALT-Taste
- ⑦ RUN/STOP/SF-LED
- ⑧ CAN/NET-LED
- ⑨ Gerätekenzeichnungsetikett
- ⑩ Zentrale Kopplung (easyLink)
- ⑪ Programmierschnittstelle
- ⑫ Schnittstelle (mit Abdeckung): Steckplatz für Speicherkarte, Programmierkabel, Modemkabel
- ⑬ Ausgänge (Relais)
EC4P-221/222-MR...1, EASY6...RE, EASY202-RE, EASY410-DC-RE
- ⑭ Ausgänge (Transistor)
EC4P-221/222-MT...1, EASY6...TE, EASY410-DC-TE
- ⑮ OK-Taste
- ⑯ ESC-Taste
- ⑰ LCD-Anzeige (EC4P-221/222-M...D1)
- ⑱ Cursortasten: rechts, links, oben, unten
P-Taste an: Eingang P1 = Cursor links
Eingang P2 = Cursor oben
Eingang P3 = Cursor rechts
Eingang P4 = Cursor unten
- ⑲ Dezentrale Kopplung
- ⑳ Power-LED
- ⓪ Digital-Eingänge 24 V DC

03/16 IL05003003Z



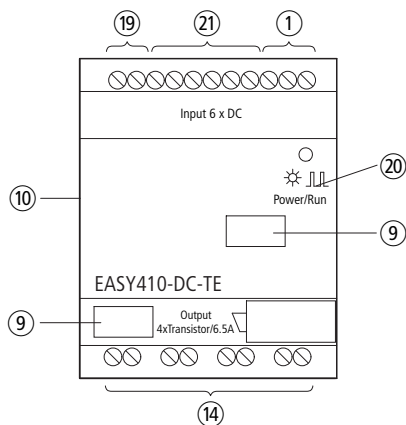
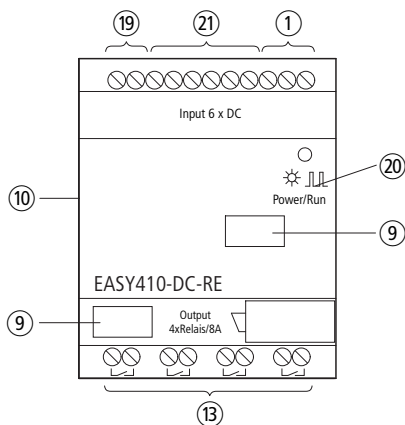
03/16 IL05003003Z

(fr)

- ① Alimentation: 24 V DC/0 V
- ② Entrées
12 entrées TOR 24 V DC
– dont 4 utilisables comme entrées analogiques
– dont 4 utilisables com entrées interrupt ou d'impulsion
- ③ Raccordements réseau
2 × CAN/easyNet
- ④ EC4P-221/222-...AD1, ...AX1
Sortie analogique 0 à 10 V DC/10 bits
- ⑤ Touche DEL
- ⑥ Touche ALT
- ⑦ RUN/STOP/SF-LED
- ⑧ CAN/NET-LED
- ⑨ Étiquette d'appareil
- ⑩ Couplage centralisé (easyLink)
- ⑪ Interface de programmation
- ⑫ Interface (avec cache): emplacement pour carte mémoire, câble de programmation, câble de modem
- ⑬ Sorties (relais)
EC4P-221/222-MR...1, EASY6...RE, EASY202-RE, EASY410-DC-RE
- ⑭ Sorties (transistor)
EC4P-221/222-MT...1, EASY6...TE, EASY410-DC-TE
- ⑮ Touche OK
- ⑯ Touche ESC
- ⑰ Visualisation par DCL (EC4P-221/222-M...D1)
- ⑱ Touches de direction : droite, gauche, haut, bas
Affectation des touches P :
entrée P1 = flèche « gauche »
entrée P2 = flèche « haut »
entrée P3 = flèche « droite »
entrée P4 = flèche « bas »
- ⑲ Couplage décentralisé
- ⑳ DEL tension d'alimentation
- Entrées TOR 24 V DC

(es)

- ① Tensión de alimentación: 24 V DC/0 V
- ② Entradas
12 entradas 24 V DC
– 4 también pueden utilizarse como entradas analógicas
– 4 también pueden utilizarse como entradas interrupt o impulso
- ③ Conexiones de red
2 × CAN/easyNet
- ④ EC4P-221/222-...AD1, ...AX1
Salida analógica 0 hasta 10 V DC/10 bits
- ⑤ Tecla DEL
- ⑥ Tecla ALT
- ⑦ RUN/STOP/SF-LED
- ⑧ CAN/NET-LED
- ⑨ Indicador aparato
- ⑩ Acoplamiento centralizado (easyLink)
- ⑪ Interface de programación
- ⑫ Interface (con tapa): emplazamiento para tarjeta de memoria, cable de programación, cable de módem
- ⑬ Salidas (relé)
EC4P-221/222-MR...1, EASY6...RE, EASY202-RE, EASY410-DC-RE
- ⑭ Salidas (transistor)
EC4P-221/222-MT...1, EASY6...TE, EASY410-DC-TE
- ⑮ Tecla OK
- ⑯ Tecla ESC
- ⑰ Indicador LCD (EC4P-221/222-M...D1)
- ⑱ Teclas de cursor: derecha, izquierda, arriba, abajo.
Tecla P sobre: Entrada P1= Cursor izquierda
 Entrada P2 = Cursor arriba
 Entrada P3 = Cursor derecha
 Entrada P4 = Cursor abajo
- ⑲ Acoplamiento descentralizado
- ⑳ LED alimentación
- Entradas 24 V DC



- (it)
- | | |
|--|---|
| <p>① Tensione di alimentazione: 24 V DC/0 V</p> <p>② Ingressi
12 ingressi 24 V DC
– 4 utilizzabili anche come ingressi analogici
– 4 utilizzabili anche come ingressi interrupt o impulso</p> <p>③ Collegamenti di rete
2 × CAN/easyNet</p> <p>④ EC4P-221/222-...AD1, ...AX1
Uscita analogica da 0 a 10 V DC/10 bit</p> <p>⑤ Tasto DEL</p> <p>⑥ Tasto ALT</p> <p>⑦ RUN/STOP/SF-LED</p> <p>⑧ CAN/NET-LED</p> <p>⑨ Targhetta apparecchio</p> <p>⑩ Collegamento locale (easyLink)</p> <p>⑪ Interfaccia di programmazione</p> <p>⑫ Interfaccia (con coperchio): slot per scheda memoria, cavo di programmazione, cavo di modem</p> | <p>⑬ Uscite (relè)
EC4P-221/222-MR...1, EASY6...RE, EASY202-RE, EASY410-DC-RE</p> <p>⑭ Uscite (transistor)
EC4P-221/222-MT...1, EASY6...TE, EASY410-DC-TE</p> <p>⑮ Tasto OK</p> <p>⑯ Tasto ESC</p> <p>⑰ Display a LCD (EC4P-221/222-M...D1)</p> <p>⑱ Tasti: cursore, destra, sinistra, su, giù
Tasto P su: lato P1 = cursore a sinistra
lato P2 = cursore su
lato P3 = cursore a destra
lato P4 = cursore giù</p> <p>⑲ Collegamento remoto</p> <p>⑳ LED Power</p> <p>㉑ Ingressi 24 V DC</p> |
|--|---|

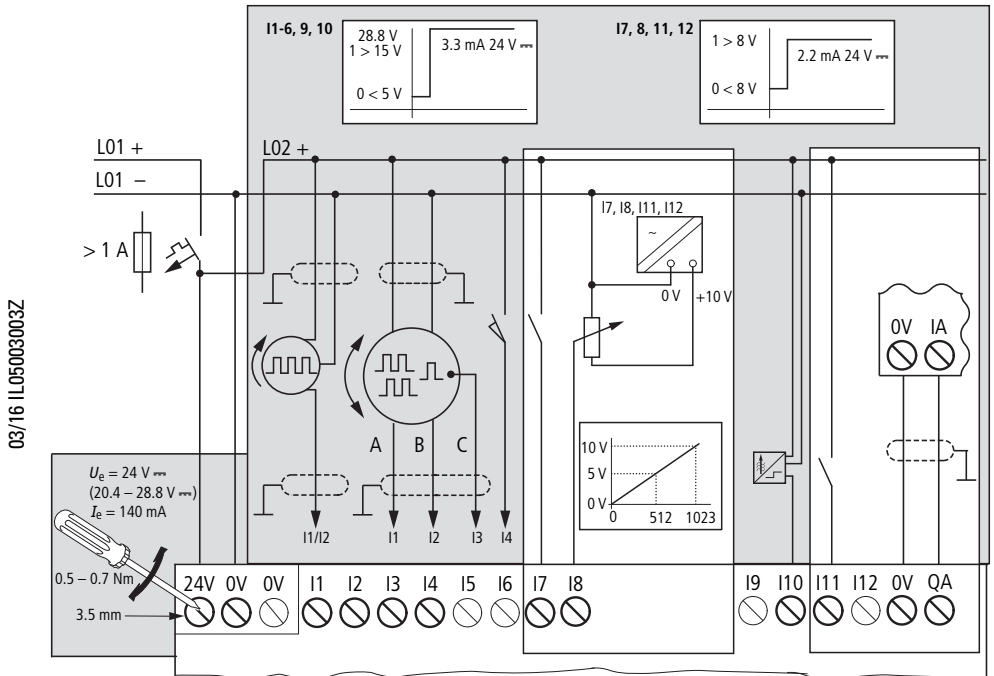
03/16 IL05003003Z

EC4-200

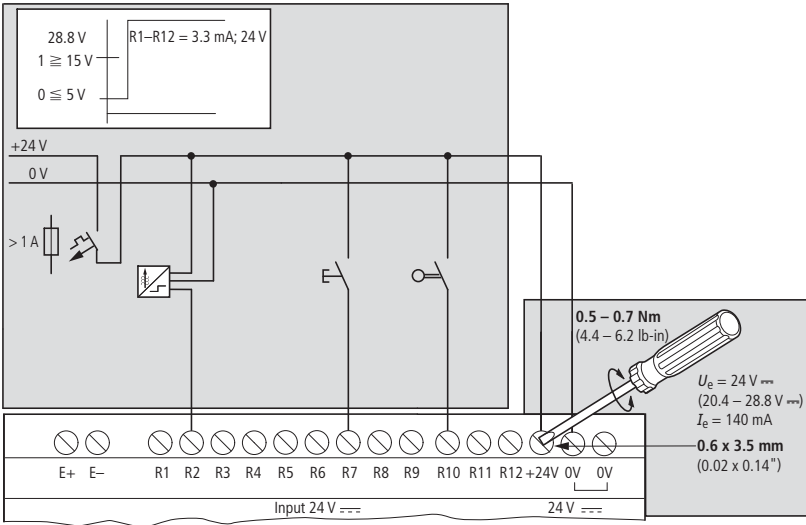
Standard connection – Standardanschluss – Raccordement standard – Conexión estándar – Collegamento standard

- Power supply
- Spannungsversorgung
- Tension d'alimentation
- Tensión de alimentación
- Tensione di alimentazione

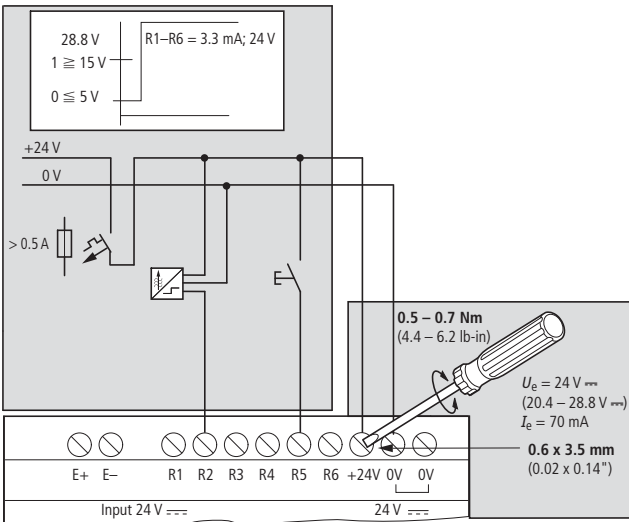
- Digital inputs, analog inputs, analog output
- Digital-Eingänge, Analog-Eingänge, Analog-Ausgang
- Entrées TOR, entrées analogiques, sortie analogique
- Entradas digitales, entradas analógicas, salida analógica
- Ingressi digitali, ingressi analogici, uscita analogica



EASY6...-DC-E

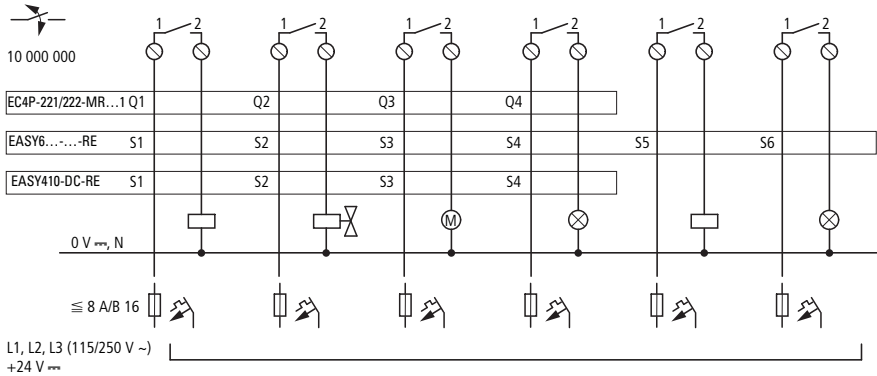


EASY410-DC-...

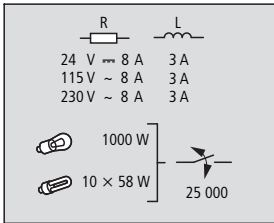


03/16 IL05003003Z

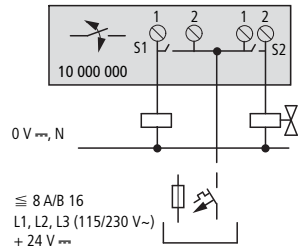
EC4P-221/222-MR...1, EASY6...-RE, EASY410-DC-RE



EC4P-221/222-MR...1, EASY6...-RE, EASY410-DC-RE

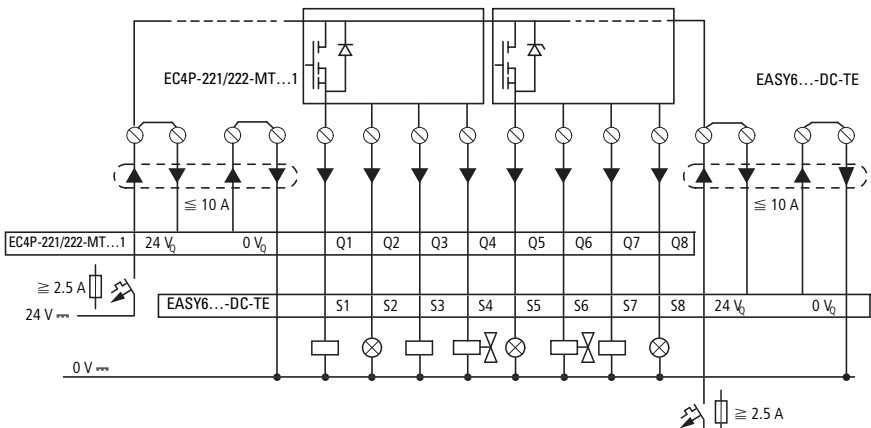


EASY202-RE

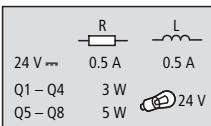


03/16 IL05003003Z

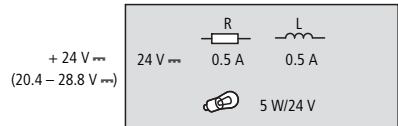
EC4P-221/222-MT...1, EASY6...-DC-TE



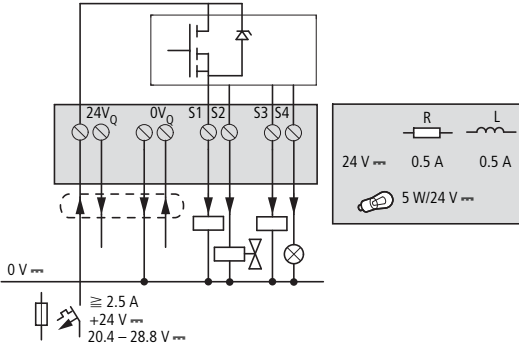
EC4P-221/222-MT...1



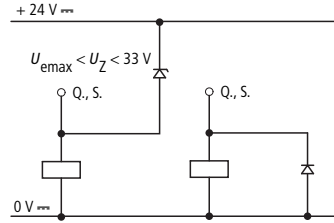
EASY6...-DC-...



EASY410-DC-TE



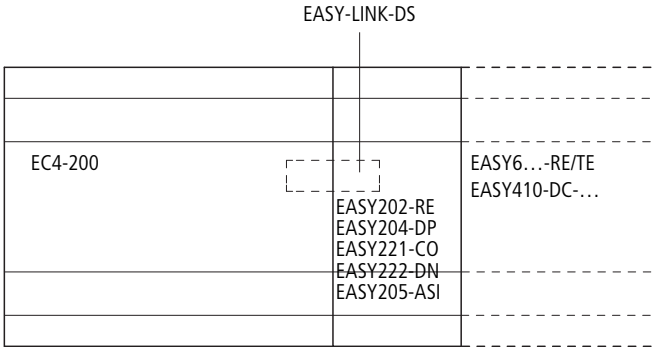
Protective circuit – Schutzbeschaltung – Circuit de protection – Circuito supresor – Circuito di protezione



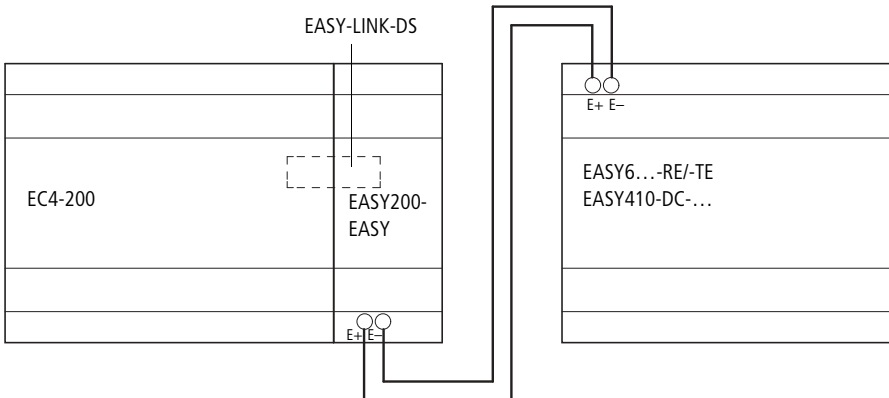
Connection – Anschluss – Connexion – Conexión – Collegamento

Central expansion – Zentrale Erweiterung – Extension centralisée – Ampliación centralizada – Espansione locale **EASY202-RE, EASY6...-RE/TE, EASY410-DC...**

Network connection – Netzwerkkopplung – Liaison réseau – Conexión red – Collegamento rete: **EASY204-DP, EASY221-CO, EASY222-DN, EASY205-ASI**



Remote expansion – Dezentrale Erweiterung – Extension décentralisée – Ampliación descentralizada – Espansione remota



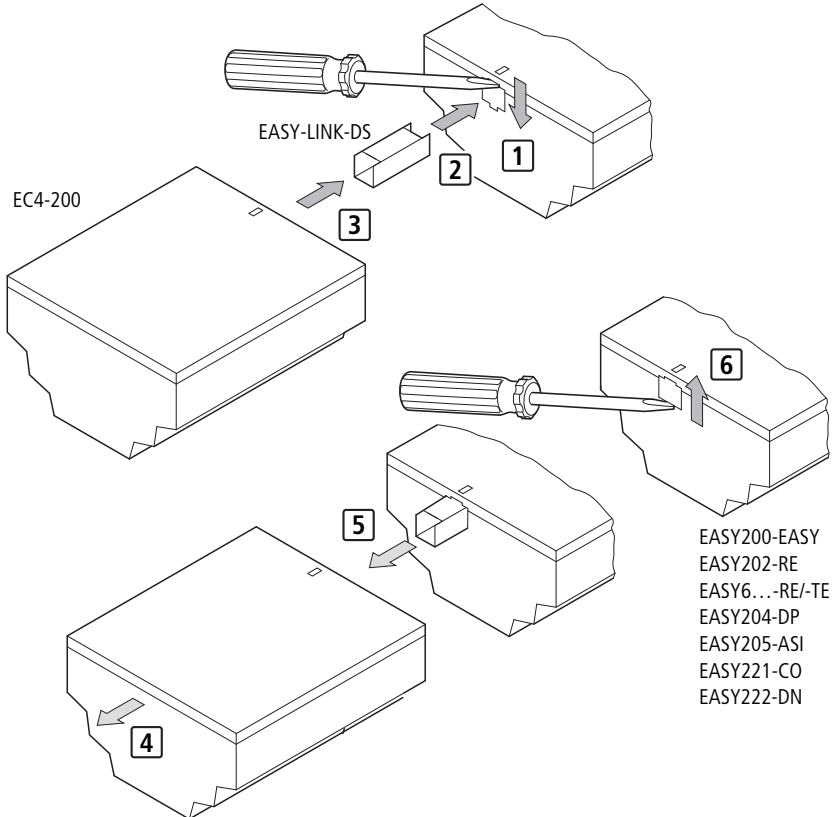
03/16 IL05003003Z

Expansion – Erweiterung – Extension – Ampliación – Espansione

- Fitting 1 + 2 + 3, removing 4 + 5 + 6
- Einbau 1 + 2 + 3, Ausbau 4 + 5 + 6
- Montage 1 + 2 + 3, démontage 4 + 5 + 6
- Montaje 1 + 2 + 3, desmontaje 4 + 5 + 6
- Montaggio 1 + 2 + 3, smontaggio 4 + 5 + 6



- Devices must be de-energized!
- Geräte müssen spannungsfrei sein!
- Assurer la mise hors tension des appareils !
- ¡Los aparatos deben encontrarse libres de tensión!



03/16 IL05003003Z

Temperature range:

Temperaturbereich:

Plage de température :

Margen de temperatura:

Campo temperatura:

-25...+55 °C

(-13... +131 °F)

- LCD display legible in range 0 to 55 °C (32 to 131 °F)
- On no account allow condensation to form on the device!
- LCD-Anzeige im Bereich 0 bis 55 °C lesbar (32 bis 131 °F)
- Betauung des Gerätes unbedingt verhindern!
- Afficheur à cristaux liquides lisible dans la plage 0 à 55 °C (32 à 131 °F)
- Eviter impérativement toute condensation sur l'appareil !
- El visualizador LCD es legible dentro de un margen entre 0 – 55 °C (32 - 131 °F)
- No debe producirse condensación en el aparato!
- Visualizzatore LCD leggibile a una temperatura compresa tra 0 a 55 °C (32 a 131 °F)
- Impedire assolutamente la formazione di condensa sull'apparecchio!

①
CAN/easyNet

②
EU4A-RJ45-CAB1

EC4-200 ↔ PC (RS232)

EU4A-RJ45-USB-CAB1

EC4-200 ↔ PC (USB)

XT-CAT5-X-2/5

EC4-200 ↔ PC (Ethernet)

③
EU4A-MEM-CARD1

Adapter with memory card

Adapter mit Speicherkarte

Adaptateur avec carte mémoire

Adaptador con tarjeta de memoria

Adattatore con scheda memoria

1 Remove sealing cap – Verschlusskappe entfernen – Retirer cache – Quitar tapón – Rimuovere calotta di chiusura

2a 2b fit – stecken – enficher – meter – inserire

3a 3b remove – entfernen – retirer – quitar – rimuovere

4 Fit sealing cap – Verschlusskappe stecken – Enficher cache – Meter tapón – Inserire calotta di chiusura



Warning!

The interface must be kept closed.
Electrostatic discharges may destroy the device if the interface is open.

Warnung!

Decken Sie die Schnittstelle ab.
Elektrostatische Entladungen können bei geöffneter Schnittstelle das Gerät zerstören.

Avertissement !

Lorsqu'aucun connecteur n'est enfiché dans l'interface, cette dernière doit impérativement être obturée à l'aide du capot prévu à cet effet (fourni avec l'appareil). Dans le cas contraire, des décharges électrostatiques risquent d'endommager gravement l'appareil et de le rendre inutilisable.

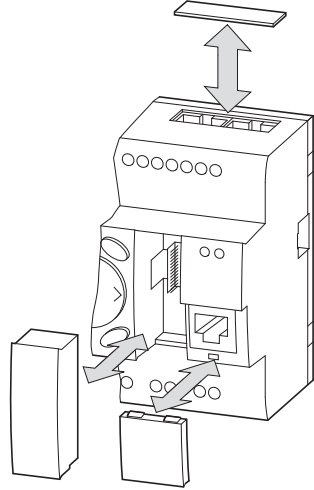
¡Advertencia!

La interface debe permanecer cerrada.
De lo contrario, descargas electrostáticas podrían dañar el aparato.

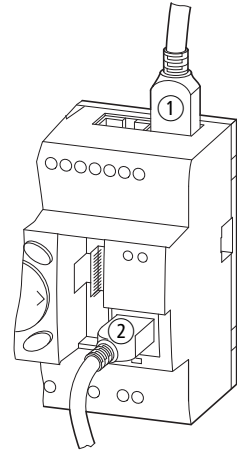
Avvertimento!

L'interfaccia deve restare chiusa. Scariche elettrostatiche con interfaccia aperta possono distruggere l'apparecchio.

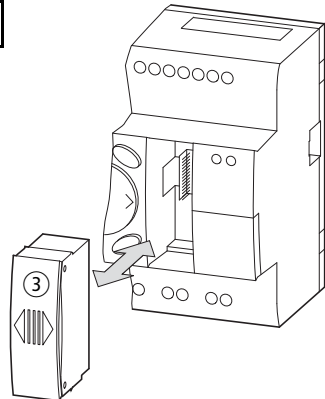
1 4



2a 3a

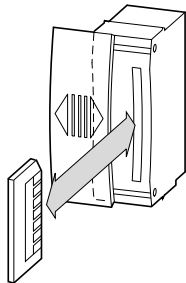


2b 3b

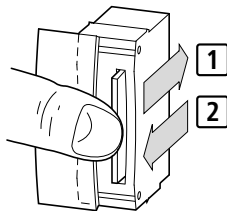


03/16 IL05003003Z

Fit memory card
Speicherkarte stecken
Enficher carte mémoire
Meter tarjeta de memoria
Inserire scheda di memoria



Remove memory card
Speicherkarte ziehen
Retirer carte mémoire
Extraer tarjeta de memoria
Estrarre scheda di memoria



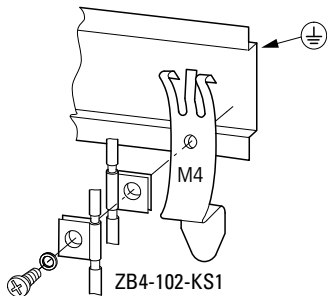
Insert memory card and latch in.
 Speicherkarte eindrücken, bis sie einrastet.
 Enficher carte mémoire et encliqueter.
 Meter tarjeta de memoria y enclavar.
 Inserire scheda di memoria e far scattare.

Insert memory card and unlatch.
 Speicherkarte eindrücken, bis sie entrastet.
 Enficher carte mémoire et débrocher.
 Meter tarjeta de memoria y desenclavar.
 Inserire scheda di memoria e sbloccare.

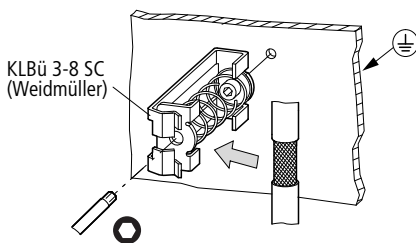
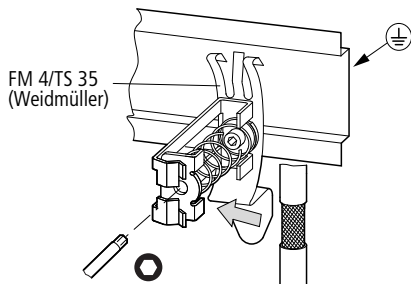
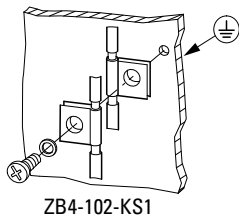
**Earthing the screen – Schirmerdung – Mise à la terre du blindage –
 Conexión a tierra de pantalla – Collegamento alla terra dello schermo**

03/16 IL05003003Z

- ① for top-hat rail – für Hutschiene –
 pour profilé-support – para carril DIN – per
 guida



- ② for mounting plate – für Montageplatte –
 pour platine de montage – para placa de montaje
 – per piastra di montaggio



ISO11898

Baud rate/cable length – Baudrate/Leitungslänge – Vitesse de transmission/longueur des câbles – Velocidad de transmisión/longitud de cable – Velocità di trasmissione in baud/lunghezza linea

[kBaud]	[m]	[ft]
500	100	328
250	250	820
125	500	1640
50	1000 ¹⁾	3281 ¹⁾
20	2500 ¹⁾	8202 ¹⁾
10	5000 ¹⁾	16404 ¹⁾

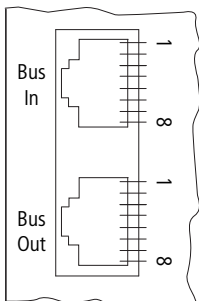
1) Inclusive bridges and repeater – inklusiv Bridges und Repeater –
Ponts et répéteur inclus – Bridges y repeater incluidos –
Bridge e repeater inclusi

Cable length, resistance and cross-section – Leitungslänge, Widerstand und Querschnitt – Longueur des câbles, résistivité et sections – Longitud de cable, resistencia y sección – Lunghezza linea, resistenza e sezione cavo

l		Cable resistance Leitungswiderstand Résistivité Resistencia de cable Resistenza conduttore	\varnothing	AWG
[m]	[ft]	[m Ω /m]	[mm ²]	
0 – 40	131	≤ 140	0.13	26
0 – 175	574	≤ 70	0.25 – 0.34	23, 22
0 – 250	820	≤ 60	0.34 – 0.6	22, 21, 20
0 – 400	1313	≤ 40	0.5 – 0.6	19, 20
0 – 600	1969	≤ 26	0.75 – 0.8	18
0 – 1000	3280	≤ 16	1.5	16

Connections CAN – Anschlüsse CAN – Connexions CAN – Conexiones CAN – Collegamenti CAN

RJ 45

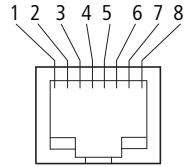


- | | | |
|---|-------|--------------|
| 1 | ————— | (E) CAN_H |
| 2 | ————— | (E) CAN_L |
| 3 | ————— | GND (Ground) |
| 4 | ————— | SELECT_IN |
| | | |
| 1 | ————— | (E) CAN_H |
| 2 | ————— | (E) CAN_L |
| 3 | ————— | GND (Ground) |
| 4 | ————— | SELECT_OUT |

03/16 IL05003003Z

**Programming interface – Programmierschnittstelle – Interface de programmation –
Interface de programación – Interfaccia di programmazione**

RJ 45	Signal – Señal – Segnale		
EC4-...	221-...	222-...	
	RS232	RS232	Ethernet
1	–	–	Tx+
2	–	–	Tx-
3	–	–	Rx+
4	GND	GND	–
5	TxD	TxD	–
6	–	–	Rx-
7	GND	GND	–
8	RxD	RxD	–



**Plug crimping tool – Quetschwerkzeug für RJ-45-Stecker – Outil de sertissage pour connecteurs –
Herramienta de presión, conector – Attrezzo per crimpare il connettore**

EASY-NT-TOOL

- possible up to 0,4 mm² (AWG 21)
- bis 0,4 mm² möglich (AWG 21)
- possible jusqu'à 0,4 mm² (AWG 21)
- posible hasta 0,4 mm² (AWG 21)
- possibile fino a 0,4 mm² (AWG 21)

03/16 IL05003003Z

**Mains terminating resistor – Netzabschlusswiderstand – Résistance de terminaison de bus –
Resistencia de terminación de red – Resistenza di terminazione della rete**



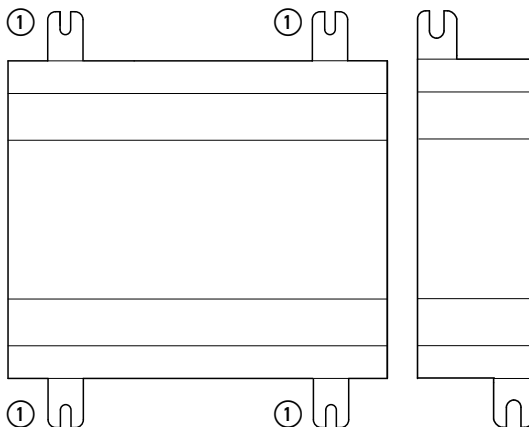
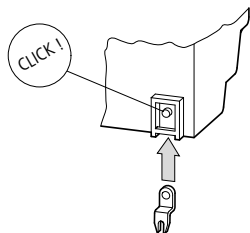
- First and last location with EASY-NT-R
- Erster und letzter Platz mit EASY-NT-R
- Première et dernière positions avec EASY-NT-R
- R
- Primera y última posición con EASY-NT-R
- Prima ed ultima posizione con EASY-NT-R

Fitting – Montage – Montaje – Montaggio

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

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

ZB4-101-GF1

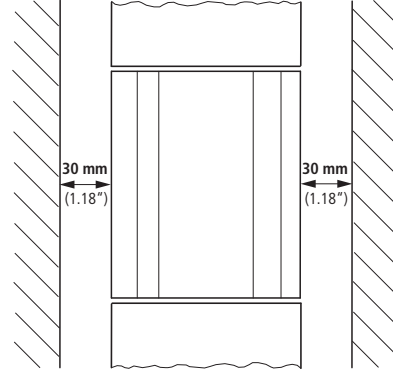
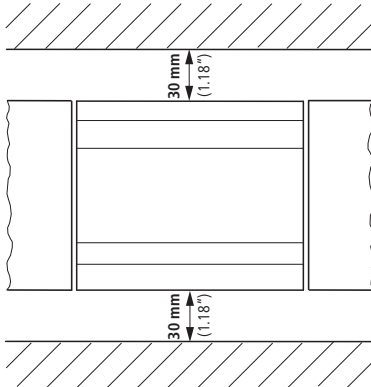


03/16 IL05003003Z

- ① 3 fixing feet sufficient
- 3 Gerätefüße ausreichend
- 3 pattes de fixation suffisent
- 3 pies de sujeción adecuados
- 3 piedini di fissaggio sufficienti

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

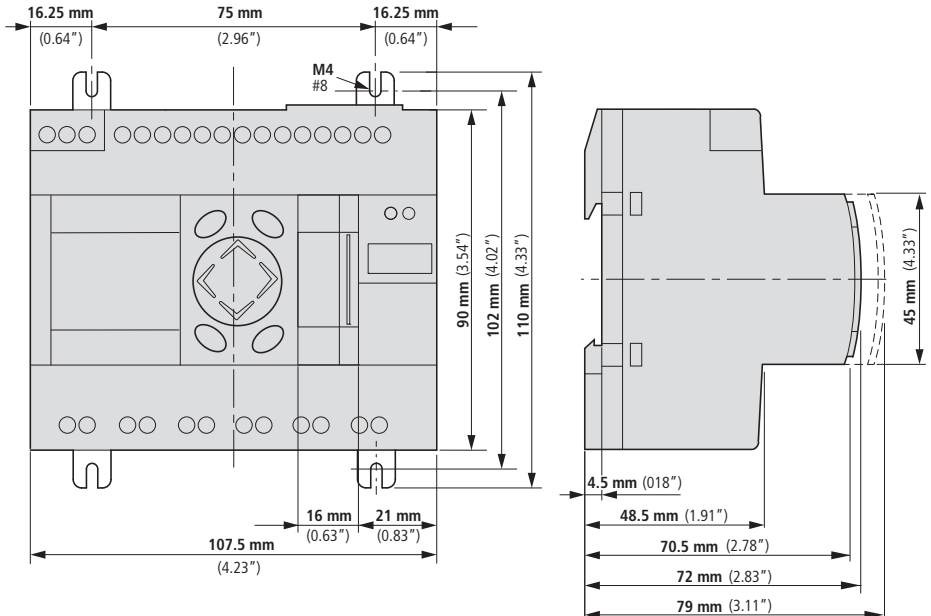
- with top-hat rail (horizontal and vertical)
- mit Hutschiene (waagrecht und senkrecht)
- sur profilé chapeau (horizontale et verticale)
- sobre carril (horizontal y vertical)
- su guida DIN (orizzontale e verticale)

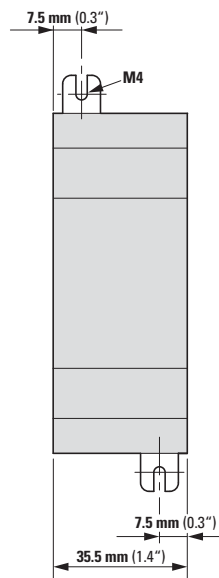
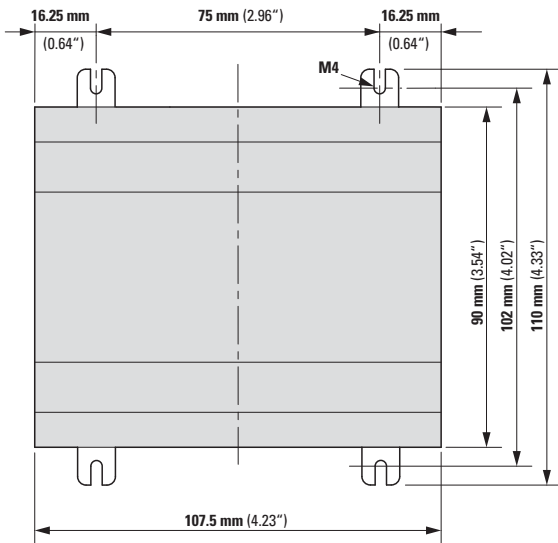
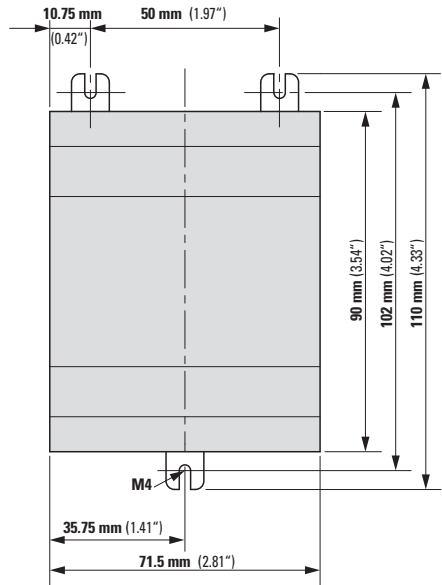
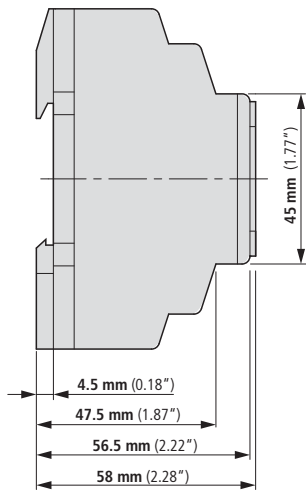


03/16 IL05003003Z

Dimensions – Abmessungen – Dimensiones – Dimensioni [mm (inch)]

EC4-200





03/16 IL05003003Z