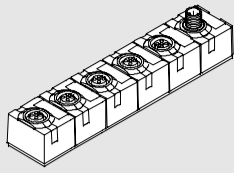


# ASI-4DI3DO-M12X2-5POL-Z

**FESTO**



Bedienungsanleitung  
Operating instructions  
Bruksanvisning

Festo AG & Co. KG  
Postfach  
D-73726 Esslingen  
Phone:  
+49/711/347-0  
www.festo.com

Original: de

**UL**  
LISTED  
IND. CONT. EQ. – 29TS



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**Warnung, Warning, Varning**

**de** Vor Installations- und Wartungsarbeiten Spannungsversorgung ausschalten!  
Nur PELV-Netzteile nach IEC/DIN EN 60204-1 oder Class 2 Circuits verwenden!

**en** Switch off the power supply before carrying out installation and maintenance work!  
Use only PELV power units as per IEC/DIN EN 60204-1 or Class 2 Circuits!

**sv** Innan installations- och underhållsarbete påbörjas ska spänningsmatningen kopplas från!  
Använd endast PELV-nättdelar enligt IEC/DIN EN 60204-1 eller Class 2 Circuits!

**UL** Industrial Control Equipment  
Only for use in Class 2 Circuits

This device is intended to be used with a Class 2 power source or Class 2 transformer in accordance with UL 1310 or UL 1585.

As an alternative a LV/C (Limited Voltage/Current) power source with one of the following properties can be used:  
– This device shall be used with a suitable isolating source such that the maximum open circuit voltage potential available to the product is not more than 24 Vdc and the current is limited to a value not exceeding 8 amperes measured after 1 minute of operation.  
– This device shall be used with a suitable isolating source in conjunction with a fuse in accordance with UL 248. The fuse shall be rated max. 4 A and be installed in the 24 Vdc power supply to the device in order to limit the available current.

Field installed conductors for the device shall be segregated from field and factory installed conductors and insulated live parts of other circuits operating at over 150 V to ground so that a minimum permanent 2 inch (50.8 mm) separation is maintained, unless the field wiring conductors have been provided with recognized insulating material which has an equal or higher voltage rating than the other circuit involved.

Protection class: NEMA Type 1, 2, 3R, 4, 4X, 12, 13.

## AS-i-Modul

### 1 Funktion

Das AS-i-Modul ASI-4DI3DO-M12X2-5POL-Z dient zum Anschluss von bis zu 4 Sensoren (z. B. Näherungsschalter, Lichtschranken) und 3 elektrischen Verbrauchern an das AS-Interface.

### 2 Anwendung

Das Modul ist nur folgendermaßen zu benutzen:  
– im Originalzustand, ohne eigenmächtige Veränderungen,  
– in technisch einwandfreiem Zustand.

### 3 Einbau und Inbetriebnahme



**Warnung**

Heisse Oberfläche! Kurzschluss bzw. Überlast kann zu Temperaturen > 100 °C führen.  
• Befestigen Sie das Modul nur auf hitzebeständigem Untergrund!



**Hinweis**

Der Einbau und die Inbetriebnahme darf nur gemäß der Bedienungsanleitung und von qualifiziertem Fachpersonal erfolgen.

- Eingänge nicht mit externer Versorgungsspannung verbinden (galvanisch gekoppelt mit AS-i)!
- Zum Betrieb sind die angegebenen Grenzwerte der technischen Daten einzuhalten.
- Das Modul unterstützt A/B-Betrieb gemäß AS-i-Spezifikation 2.11 oder höher.

### 4 Technische Daten

Typ	ASI-4DI3DO-M12X2-5POL-Z
AS-i Busspannung	26,5 ... 31,6 V DC
Lastspannung – allgemein	24 V DC ± 25 % (siehe Technische Daten elektrischer Verbraucher)
– gemäß UL	24 V DC, Class 2
Strom AS-i Bus/AUX	max. 4 A/Pin
AS-i-Profil (I/O.ID.ID2)	S-7.A.2
AS-i Gesamtstromaufnahme	max. 250 mA
Digitale Ein-/Ausgänge	4/3, PNP
Eingangsverzögerungszeit	typ. 3 ms
Sensorstrom pro Eingang – allgemein / gemäß UL	max. 240 mA / max. 200 mA
Sensorstrom pro Modul – allgemein / gemäß UL	max. 240 mA / max. 200 mA
Ausgangsstrom – allgemein / gemäß UL	max. 1 A / max. 0,5 A
Parallelschalten	ja
Kurzschlusschutz	ja, thermisch
Autom. Spannungswiederkehr	ja
Zulässige Umgebungstemperatur – Betrieb / Lagerung	-5 °C ... +50 °C / -20 °C ... +70 °C
Gewicht	165 g

## AS-i module

### 1 Funktion

The valve switching module serves for connecting up to 4 sensors (e.g. proximity switches, light barriers) and 3 electrical consuming devices to the AS-interface.

### 2 Application

The module may only be used as follows:  
– in its original condition without modifications,  
– in technically faultless condition.

### 3 Installation and commissioning



**Warning**

Hot surface! Short circuit or overload can lead to temperatures > 100 °C.  
• Fasten the module only on a heat-resistant base!



**Please note**

Fitting and commissioning must be carried out only in accordance with the operating instructions and only by qualified personnel trained for this purpose.

- Inputs must not be fed with external supply voltages (electrically coupled to AS-i).
- The specified maximum limit values must be observed during operation.
- The module supports A/B operation as per AS-i specification 2.11 or higher.

### 4 Technical specifications

Type	ASI-4DI3DO-M12X2-5POL-Z
AS-i bus voltage	26.5 ... 31.6 V DC
Load voltage – general	24 V DC ± 25 % (see technical specifications of electrical consumers)
– as per UL	24 V DC, Class 2
Current AS-i bus/AUX	max. 4 A/Pin
AS-i-profile (I/O.ID.ID2)	S-7.A.2
AS-i total current consumption	max. 250 mA
Digital inputs/outputs	4/3, PNP
Input delay time	typ. 3 ms
Sensor current per input – general / as per UL	max. 240 mA / max. 200 mA
Sensor current per module – general / as per UL	max. 240 mA / max. 200 mA
Output current – general / as per UL	max. 1 A / max. 0.5 A
Parallel switching	yes
Short-circuit protection	yes, thermal
Autom. voltage recovery	yes
Permitted ambient temperature – operation / storage	-5 °C ... +50 °C / -20 °C ... +70 °C
Weight	165 g

## AS-i modul

### 1 Funktion

Modulen ventilanslutning är avsedd för anslutning av upp till 4 givare (t.ex. cylindergivare, fotoceller) och 3 elektriska förbrukare till AS-Interface.

### 2 Användning

Modulen får endast användas enligt följande:  
– i originalskick, utan egna förändringar,  
– i tekniskt felfritt tillstånd.

### 3 Montering och idrifttagande



**Varning**

Varm yta! Kortslutning resp. överbelastning kan leda till temperaturer > 100 °C.  
• Fäst endast modulen på ett värmebeständigt underlag!



**Notera**

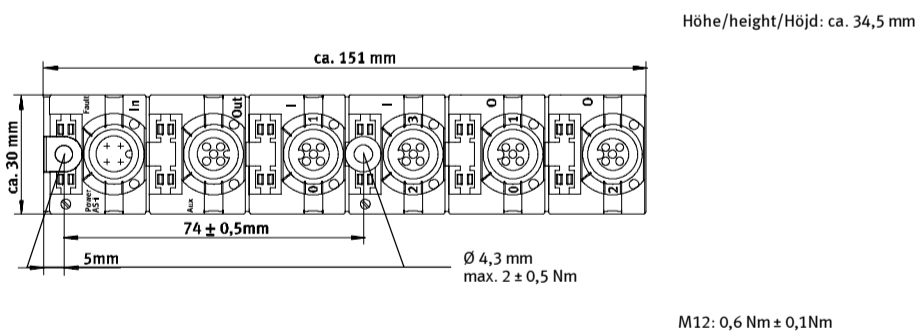
Montering och idrifttagning får endast utföras av behörig personal enligt bruksanvisningen.

- Anslut inte ingångarna med extern matningsspanning (galvaniskt kopplad med AS-i)!
- Vid drift ska de gränsvärden som anges under Tekniska data följas.
- Modulen stöder A/B-drift enligt AS-i-specifikation 2.11 eller högre.

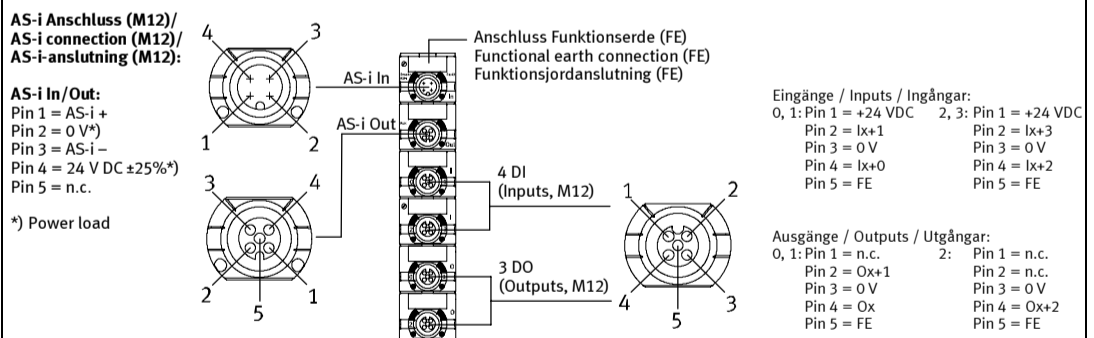
### 4 Tekniska data

Typ	ASI-4DI3DO-M12X2-5POL-Z
AS-i busspanning	26,5 ... 31,6 V DC
Matningsspanning – allmänt	24 V DC ± 25 % (se tekniska data för elektriska förbrukare)
– enligt UL	24 V DC, Class 2
Ström AS-i-buss/AUX	max. 4 A/Pin
AS-i-profil (I/O.ID.ID2)	S-7.A.2
AS-i total strömförbrukning	max. 250 mA
Digitala in-/utgångar	4/3, PNP
Ingångsfördröjningstid	typ. 3 ms
Givarström per ingång – allmänt / enligt UL	max. 240 mA / max. 200 mA
Givarström per modul – allmänt / enligt UL	max. 240 mA / max. 200 mA
Utgångsström – allmänt / enligt UL	max. 1 A / max. 0,5 A
Parallellkoppling	ja
Kortslutningsskydd	ja, termiskt
Autom. spänningstillkoppling	ja
Tillåten omgivningstemperatur – Drift / Förvaring	-5 °C ... +50 °C / -20 °C ... +70 °C
Vikt	165 g

## Einbauhinweise / Mechanical connection / Mekaniska anslutningar

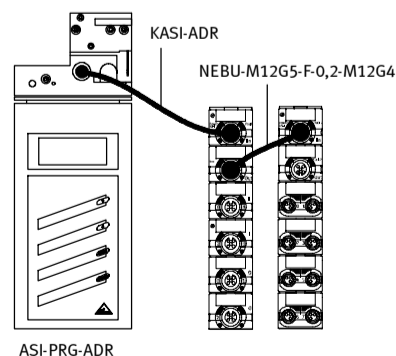


## Elektrischer Anschluss / Electrical connection / El-anslutningar

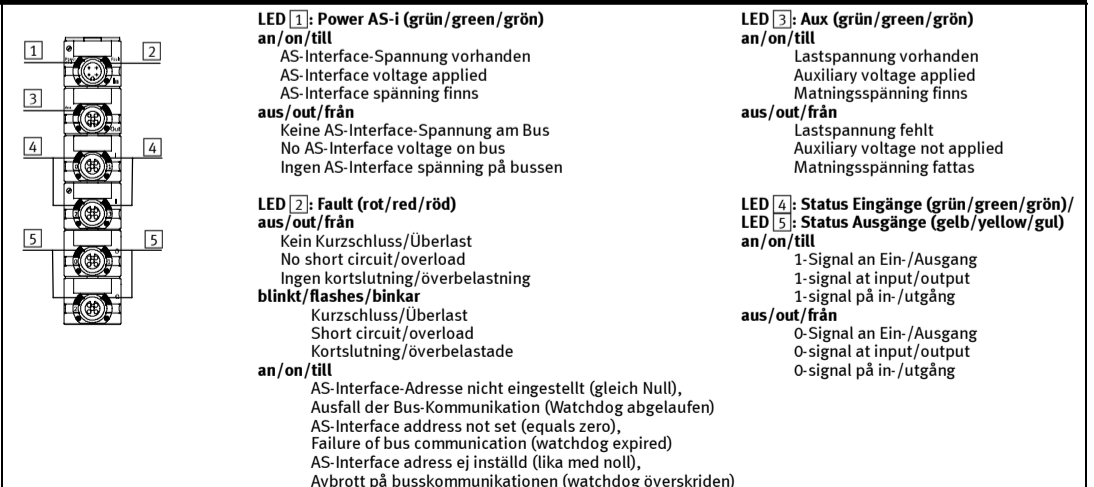


## Adressierung / Addressing / Adressering

<b>de</b> AS-i-Adresse (Werkseinstellung)	#0a
Adressierbereich	#1a,#1b ... #31a,#31b
Anzahl Adresszyklen	beliebig
<b>en</b> AS-i-Address (Default)	#0a
address range	#1a,#1b ... #31a,#31b
numbers of address cycles	as desired
<b>sv</b> AS-i-adress (förinställt)	#0a
Adressfält	#1a,#1b ... #31a,#31b
Antal adresscykler	valfritt

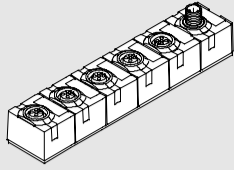


## LED-Anzeige / LED display / LED-indikering



# ASI-4DI3DO-M12X2-5POL-Z

**FESTO**



Instrucciones de funcionamiento  
Notice d'utilisation  
Istruzioni d'uso

Festo AG & Co. KG  
Postfach  
D-73726 Esslingen  
Phone:  
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Original: de



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## Módulo AS-i

### 1 Función

El módulo conmutador de válvulas sirve para conectar hasta 4 sensores (p.ej. detectores de proximidad, barreras de luz) y 3 dispositivos consumidores eléctricos a la AS-interface.

### 2 Aplicación

- El módulo sólo debe utilizarse como sigue:
- en sus condiciones originales sin modificaciones,
  - en condiciones técnicas sin fallos.

### 3 Montaje y puesta en funcionamiento



**Atención**

Superficie caliente! Cortocircuitos o sobrecargas pueden producir temperaturas de > 100 °C.

- Fije el módulo sólo sobre una base resistente al calor!



**Por favor, observar**

El montaje y la puesta en funcionamiento debe llevarse a cabo únicamente de acuerdo con las instrucciones de funcionamiento y por personas cualificado y formadas para ello.

- Las entradas no deben alimentarse con tensiones externas (eléctricamente acoplado a AS-i).
- Durante el funcionamiento deben observarse los valores límite máximos especificados.
- El módulo soporta el funcionamiento A/B según especificación AS-i 2.11 o superior.

### 4 Especificaciones técnicas

Tipo	ASI-4DI3DO-M12X2-5POL-Z
Tensión del bus AS-i	26,5 ... 31,6 V DC
Tensión de carga - general	24 V DC ± 25 % (ver las especificaciones técnicas de los consumidores eléctricos)
- según UL	24 V DC, Class 2
Corriente bus AS-i/AUX	max. 4 A/Pin
Perfil AS-i (IO.ID.ID2)	S-7.A.2
Consumo total de corriente AS-i	max. 250 mA
Entradas/salidas digitales	4/3, PNP
Tiempo de retardo de entrada	tip. 3 ms
Corriente de sensor por entrada - general / según UL	max. 240 mA / max. 200 mA
Corriente de sensor por módulo - general / según UL	max. 240 mA / max. 200 mA
Corriente máxima de salida - general / según UL	max. 1 A / max. 0,5 A
Conmutación en paralelo	si
Protección ante cortocircuito	si, térmica
Recuperación de tensión automática	si
Temperatura ambiente permitida - funcionamiento / almacenamiento	-5 °C ... +50 °C / -20 °C ... +70 °C
Peso	165 g

## Module AS-i

### 1 Fonction

Module interface de distributeur sert à raccorder jusqu'à 4 capteurs (p. ex. des capteurs de proximité, des cellules photo-électriques) et 3 consommateurs électriques sur l'interface AS.

### 2 Application

- Le module doit être utilisé exclusivement de la façon suivante :
- dans son état d'origine, sans modifications non autorisées,
  - dans un état technique correct.

### 3 Montage et mise en service



**Avertissement**

Surface chaude ! Un court-circuit ou une surcharge peut provoquer des températures > 100 °C.

- Fixer le module uniquement sur une surface résistante à la chaleur !



**Note**

Le montage et la mise en service doivent être effectués uniquement conformément aux instructions d'utilisation et par du personnel agréé.

- Ne pas relier les entrées à une alimentation électrique externe (couplage galvanique avec AS-i) !
- Pendant le fonctionnement, veiller à respecter les valeurs limites indiquées dans le chapitre Caractéristiques techniques.
- Le module supporte le mode A/B selon les spécifications AS-i 2.11 ou supérieures.

### 4 Caractéristiques techniques

Type	ASI-4DI3DO-M12X2-5POL-Z
Tension du bus AS-i	26,5 ... 31,6 V DC
Tension d'alimentation - généralement	24 V DC ± 25 % (voir les caractéristiques techniques du consommateur électrique)
- selon UL	24 V DC, Class 2
Courant bus AS-i/AUX	max. 4 A/Pin
Profile AS-i (IO.ID.ID2)	S-7.A.2
Consommation totale de courant du module AS-i	max. 250 mA
Entrées/sorties TOR	4/3, PNP
Durée de temporisation des entrées	3 ms val. type
Courant capteur par entrée - généralement / selon UL	max. 240 mA / max. 200 mA
Courant capteur par module - généralement / selon UL	max. 240 mA / max. 200 mA
Courant de sortie - généralement / selon UL	max. 1 A / max. 0,5 A
Montage en parallèle	oui
Protection contre les court-circuits	oui, thermique
Autom. Rétablissement de la tension	oui
Température ambiante adm - Fonctionnement / Stockage	-5 °C ... +50 °C / -20 °C ... +70 °C
Poids	165 g

## Modulo AS-i

### 1 Funzionamento

Il modulo per connessione valvole viene utilizzato per collegare fino a 4 sensori (ad es. finecorsa magnetici, fotocellule) e 3 utenze elettriche all'AS-Interface.

### 2 Utilizzo

- Utilizzare il modulo solo nel modo seguente:
- nello stato originale, senza apportare modifiche non autorizzate,
  - in uno stato tecnicamente perfetto.

### 3 Montaggio e messa in servizio



**Avvertenza**

Superficie calda! Cortocircuito o sovraccarico possono provocare temperature di > 100 °C.

- Fissare il modulo su una superficie termoresistente!



**Nota**

Montaggio e messa in funzione devono essere effettuati attenendosi alle istruzioni per l'uso e da personale specializzato autorizzato.

- Non collegare gli ingressi con la tensione di alimentazione esterna (accoppiata galvanicamente con AS-i)!
- Per l'esercizio dei moduli osservare i valori limite riportati nei dati tecnici.
- Il modulo supporta il modo I/O secondo la specificazione AS-i 2.11 o superiore.

### 4 Dati tecnici

Tipo	ASI-4DI3DO-M12X2-5POL-Z
AS-i Bussspannung	26,5 ... 31,6 V DC
Tensione di carico - caratteristiche generali	24 V DC ± 25 % (vedi Dati tecnici delle utenze elettriche)
- secondo UL	24 V DC, Class 2
Corrente bus AS-i/AUX	max. 4 A/Pin
Profilo AS-i (IO.ID.ID2)	S-7.A.2
Assorbimento di corrente complessivo AS-i	max. 250 mA
Ingressi/Uscite digitali	4/3, PNP
Tempo di ritardo d'ingresso	tip. 3 ms
Corrente sensore per ingresso - allgemein / gemäß UL	max. 240 mA / max. 200 mA
Corrente sensore per modulo - allgemein / gemäß UL	max. 240 mA / max. 200 mA
Corrente di uscita - allgemein / gemäß UL	max. 1 A / max. 0,5 A
Collegabile in parallelo	si
Protezione anticortocircuito	si, termica
Boot-up della tensione	si
Temperatura ambiente ammissibile - Esercizio / Magazzinaggio	-5 °C ... +50 °C / -20 °C ... +70 °C
Peso	165 g

## Atención, Attention, Attenzione

**es** Desconectar la fuente de alimentación antes de realizar trabajos de instalación y mantenimiento! Utilizar sólo fuentes PELV según IEC/DIN EN 60204-1 o Class 2 Circuits!

**fr** Avant toute intervention d'installation ou de maintenance, couper l'alimentation électrique ! Utiliser exclusivement des blocs d'alimentation TBT conformes à la norme CEI/DIN EN 60204-1 ou Circuits de Classe 2 !

**it** Prima di iniziare i lavori di installazione e di manutenzione scollegare l'alimentazione elettrica! Utilizzare solo alimentatori PELV secondo IEC/DIN EN 60204-1 o Class 2 Circuits!

## Industrial Control Equipment Only for use in Class 2 Circuits

This device is intended to be used with a Class 2 power source or Class 2 transformer in accordance with UL 1310 or UL 1585.

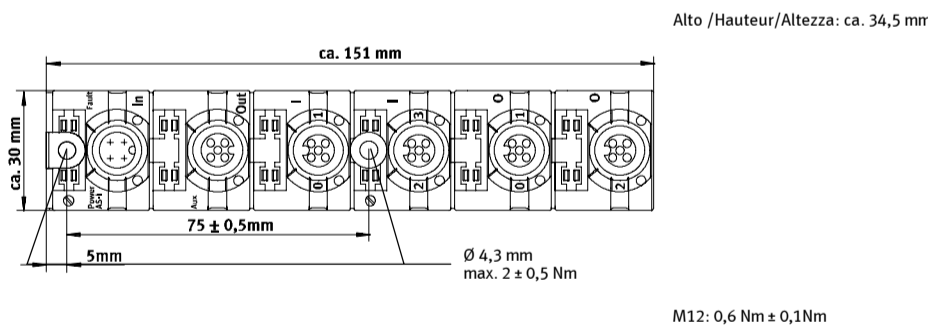
As an alternative a LV/C (Limited Voltage/Current) power source with one of the following properties can be used:

- This device shall be used with a suitable isolating source such that the maximum open circuit voltage potential available to the product is not more than 24 Vdc and the current is limited to a value not exceeding 8 amperes measured after 1 minute of operation.
- This device shall be used with a suitable isolating source in conjunction with a fuse in accordance with UL 248. The fuse shall be rated max. 4 A and be installed in the 24 Vdc power supply to the device in order to limit the available current.

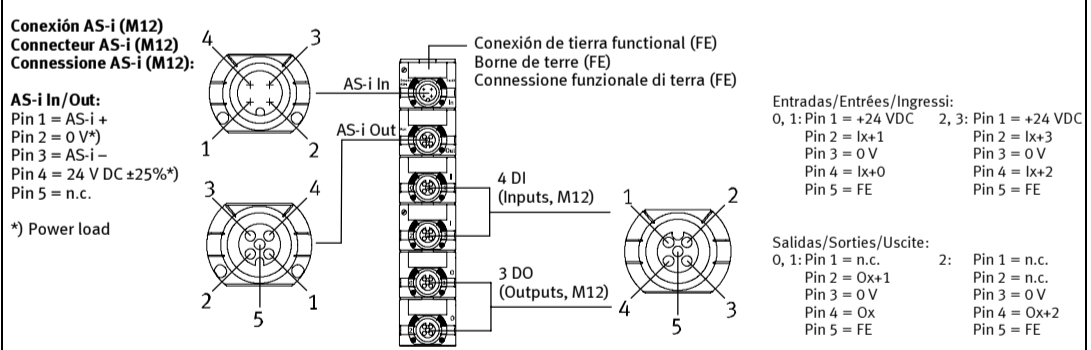
Field installed conductors for the device shall be segregated from field and factory installed conductors and uninsulated live parts of other circuits operating at over 150 V to ground so that a minimum permanent 2 inch (50.8 mm) separation is maintained, unless the field wiring conductors have been provided with recognized insulating material which has an equal or higher voltage rating than the other circuit involved.

Protection class: NEMA Type 1, 2, 3R, 4, 4X, 12, 13.

## Conexión mecánica / Montage mécanique / Collegamento meccanico



## Conexión eléctrica / Raccordement électrique / Collegamento elettrico

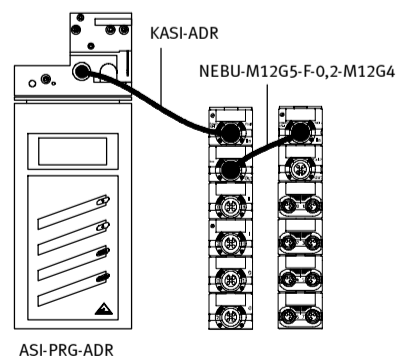


## Direcciónamiento / Adressage / Indirizzamento

**es** Dirección AS-i (Predeterminado) #0a  
margen de direcciones #1a,#1b ... #31a,#31b

**fr** nombre de cycles de direcciones indifférent  
Adresse AS-i (réglage usine) #0a  
Plage d'adressage #1a,#1b ... #31a,#31b

**it** Numero de cycles d'adressage indifférent  
Indirizzo AS-i (impostazione di fabbrica) #0a  
Campo di indirizzamento #1a,#1b ... #31a,#31b  
Numero dei cicli di indirizzamento qualsiasi



## Indicator LED / Témoin LED / LED di segnalazione

