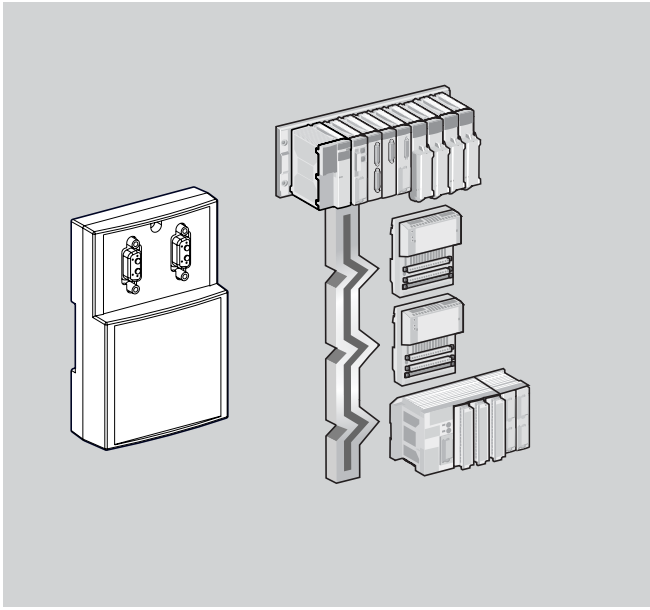
TSX FP ACC3

FIP Cable Connector
Boitier de raccordement FIP
FIP-Anschlußadapter
Caja de conexiones FIP
Scatola di derivazione FIP

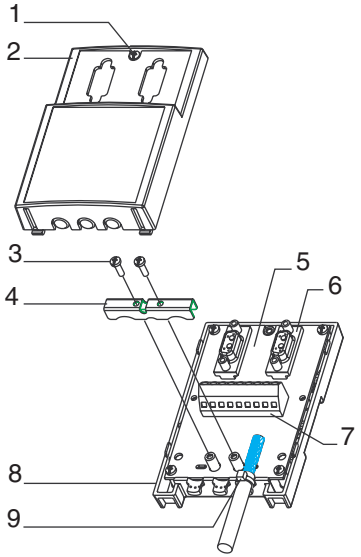
Quick Reference Guide
Kurzanleitung
Instruction de service
Guia de referencias rapidás
Guida di riferimento rapido



Schneider Electric

Cable connector : TSX FP ACC3

This connector is used to connect TSX Micro / Premium PLCs or a control terminal to the FIP bus. Connection can be made by daisy chaining or by tap-off and a 24 VDC supply can also be connected. The connector conforms to standard IEC 1158-2.

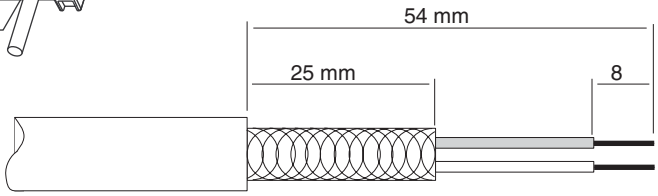


1 Cover fixing screw
2 Cover
3 Bracket fixing screw
4 Grounding bracket
5 Electronic card
6 9-pin SUB-D connector
7 Terminal block
8 Base
9 Cable clamps

Tools required :
3.5mm wide flat screwdriver
Cross recess screwdriver PZ01

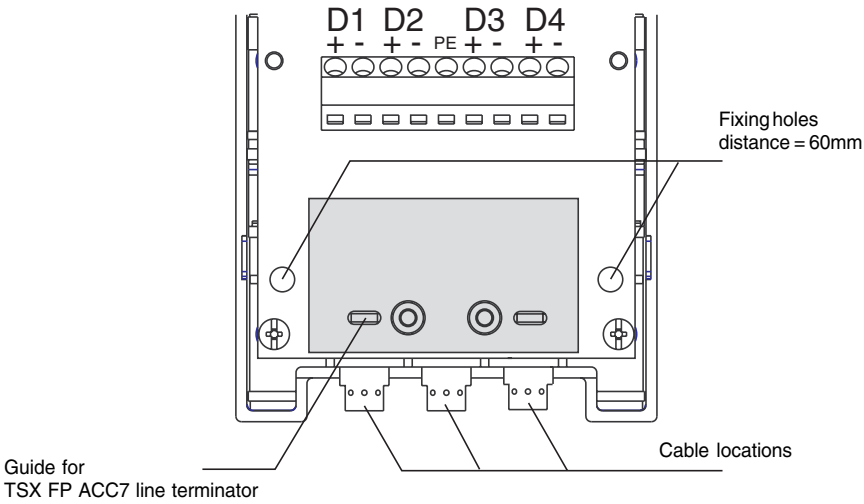
Dimensions : 77x118x33.5mm
Fixing centres : 60mm

Cable preparation
(Scale : 1)



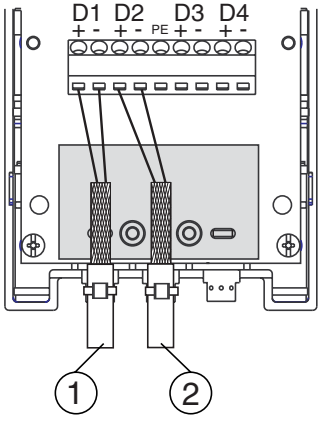
- Unscrew screw (1) with a cross recess screwdriver PZ01 and open the cover (2).
- Mount the base on its holder (DIN rail) or use 2 ϕ 4 screws, L=20mm min. (not supplied).
- Prepare the cables of the main segment and the tap-off as shown in the diagram above.
- Connect the cables to the terminal block (7) as described in the instructions below, using a 3.5mm wide flat screwdriver. Tightening torque : ≤ 0.5 N.m.
- If the terminal block is at the start or end of the line, connect a TSX FP ACC7 standard line terminator.
- Connect the cables, ensuring that the insulating sheath buts up to the edge of the card.
- Connect the protective ground to the terminal marked PE. This conductor fits into the upper slot of the bracket.
- Connect and tighten the cable grounding bracket (4).

- Fix the cables in place using the clamps (9).
- Break the snap-off tabs on the cover (2) so that the cables can pass through.
- Replace and screw down the cover : screw (1) with a cross recess screwdriver PZ01.



Cables :
For a daisy chain connection use cable TSX FP CA or TSX FP CR.
For connection with power supply transmission use cable TSX FP CF.
For a tap-off connection use cable TSX FP CC.

Daisy chain connection :

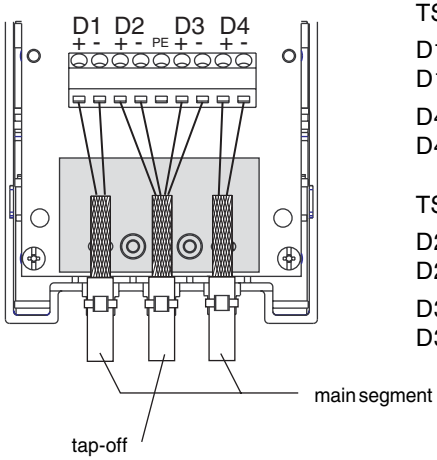


This is the most common type of connection.

Use cables TSX FP CA or TSX FP CR.

D1+	red	1
D1-	green	
D2+	red	2
D2-	green	

Connection of a tap-off on a main segment



TSX FP CA/CR cable for main segment :

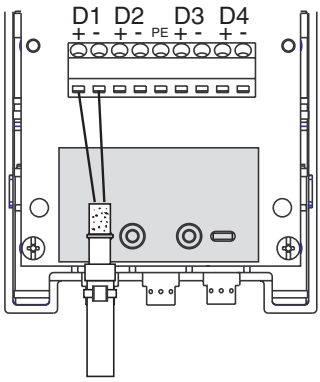
D1+	red
D1-	green
D4+	red
D4-	green

TSX FP CC cable for tap-off :

D2+	red
D2-	green
D3+	orange
D3-	black

Connection at the beginning or end of a line :

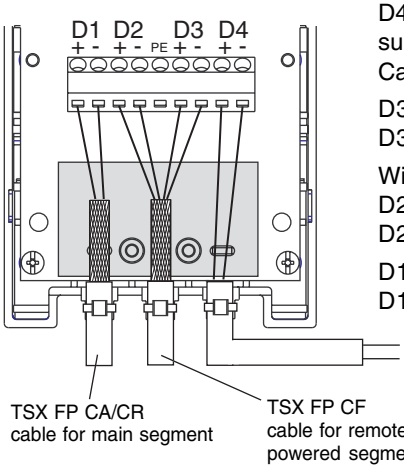
To ensure conformity with standard IEC 1158-2, use of a TSX FP ACC 7 standard line terminator is recommended. This will be mounted in the location shown on the diagram below.



Wiring of TSX FP ACC7 :
the two white wires will be connected to D1+ and D1-.
This wiring should be used when the connector is at the beginning or end of a line, whether it is a daisy chain or tap-off connection.

Connection of an external power supply

In this case, a TSX FP CF cable containing both conductors for the power supply must be used.



D4+ and D4- connection to the 24VDC external supply
Cable for remote-powered segment :

D3+ pink
D3- blue

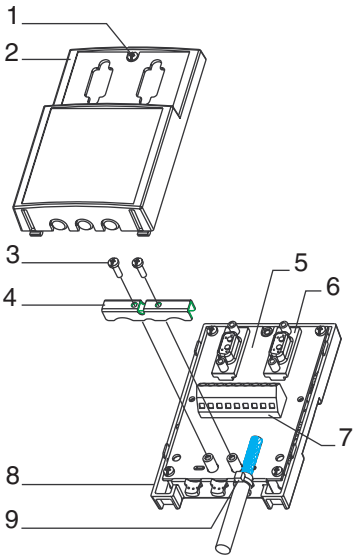
Wiring of the main segment :

D2+ orange
D2- black

D1+ red
D1- green

Anschlußadapter: TSX FP ACC3

Dieses Zubehör dient zum Anschluß einer Steuerung TSX Micro / Premium oder eines Überwachungsterminals an den FIP-Bus. Die Anschaltung erfolgt in Ketten- oder Abzweigungsstruktur. Die Einbindung einer 24-VDC-Versorgung ist möglich. Der Anschlußadapter entspricht der Norm IEC 1158-2.

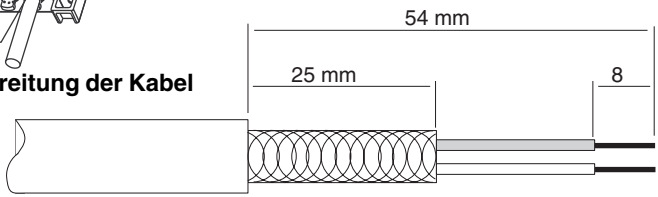


1 Befestigungsschraube Deckel
2 Deckel des Anschlußadapters
3 Befestigungsschrauben für Masseschelle
4 Masseschelle
5 Elektronik
6 9poliger SUB-D-Stecker
7 Anschlußklemmleiste
8 Sockel des Anschlußadapters
9 Kabelbänder

Erforderliches Werkzeug:
Flacher Schraubendreher 3,5 mm
Kreuzschlitzschraubendreher PZ01

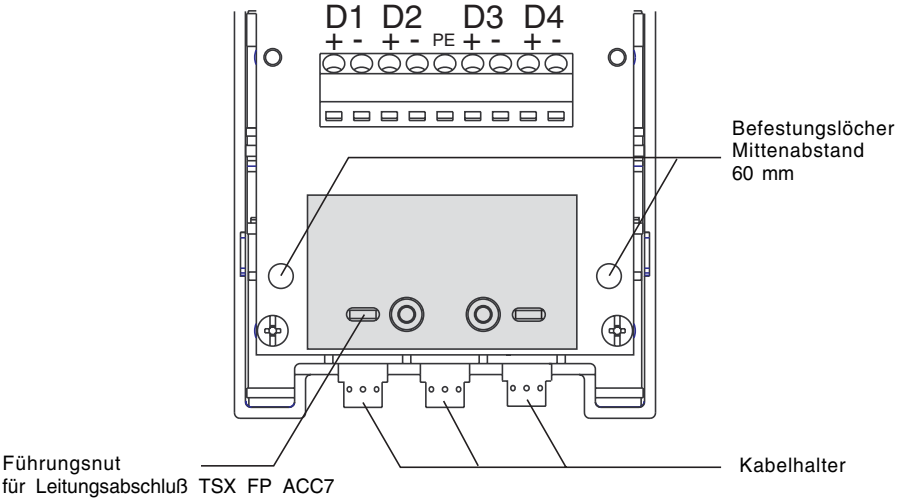
Abmessungen: 77 x 118 x 33,5 mm
Mittenabst. Befestigungsschrauben: 60mm

Schablone zur Vorbereitung der Kabel
(Maßstab: 1:1)



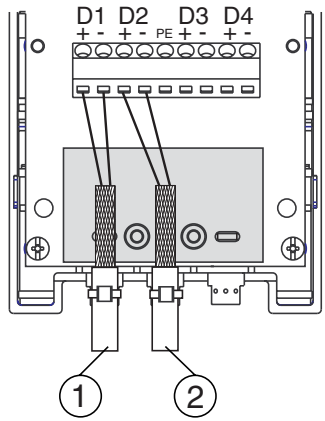
- Schraube (1) mit einem Kreuzschlitzschraubendreher PZ01 abnehmen und den Deckel (2) öffnen,
- Sockel des Anschlußadapter s auf einer DIN-Schiene oder dem Träger montieren (2 Schrauben ϕ M4, min. L = 20 mm, nicht im Lieferumfang enthalten).
- Nach der obigen Abisolierschablone das Haupt- und das Abzweigkabel vorbereiten.
- Kabeladern an der Klemmleiste (7) entsprechend den nachstehenden Anleitungen verschrauben (flacher Schraubendreher 3,5 mm). Max. Drehmoment: 0,5 Nm.
- Falls sich der Anschlußadapter am Ende eines Kabelabschnitts befindet, einen normalisierten Abschlußwiderstand TSX FP ACC7 anbringen.
- Kabel anbringen, wobei die Isolierung direkt an die Elektronikkarte (5) anstößt.
- Die Schutzerde mit der Klemme PE verbinden. Dabei den Leiter in den oberen Schlitz der Masseschelle einführen.
- Schelle (4) zur Befestigung der Kabelmasse anbringen und festschrauben.

- Kabel mit Kabelbändern (9) befestigen,
- Im Deckel (2) die Kabeldurchführungen ausbrechen,
- Deckel aufsetzen und festschrauben: Schraube (1) mit Kreuzschlitzschraubendreher PZ01.



Zu verwendende Kabel:
Hauptstrang in Kettenschaltung: TSX FP CA oder TSX FP CR,
Anschaltung mit Spannungsversorgung: TSX FP CF,
Abzweigkabel: TSX FP CC.

Verkabelung des Anschlußadapters in einem Hauptstrang (Kettenschaltung)

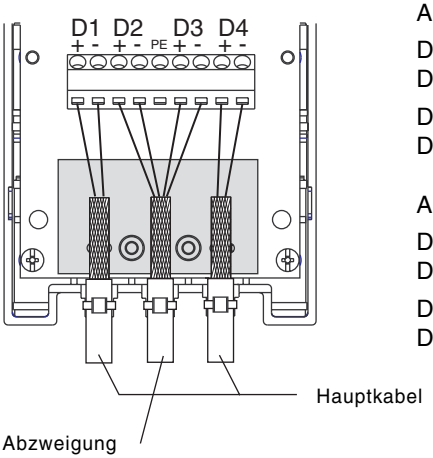


Dies ist die häufigste Verkabelungsform.

Es sind die Kabeltypen TSX FP CA oder TSX FP CR zu verwenden.

D1+	rot	1
D1-	grün	
D2+	rot	2
D2-	grün	

Anschluß einer Abzweigung an das Hauptkabel



Anschluß des Hauptkabels TSX FP CA/CR:

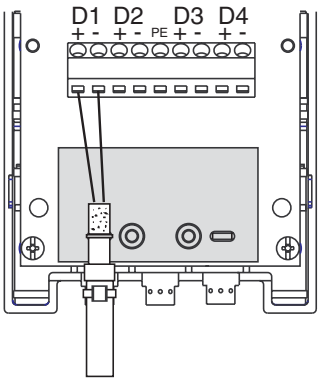
D1+	rot
D1-	grün
D4+	rot
D4-	grün

Anschluß des Abzweigkabels TSX FP CC:

D2+	rot
D2-	grün
D3+	orange
D3-	schwarz

Verkabelung am Ende eines Kabelstrangs

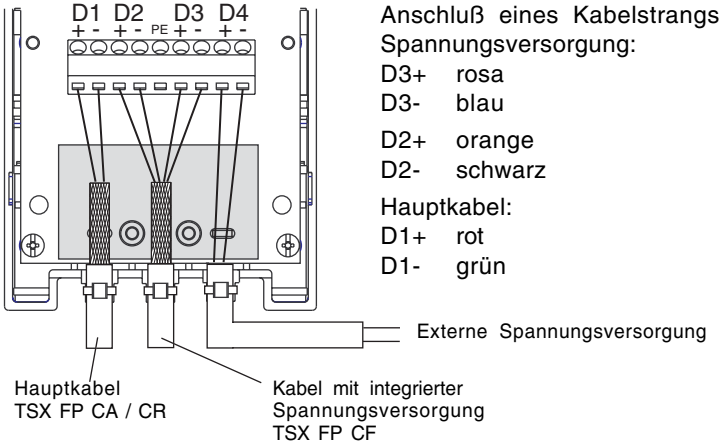
Um der Norm IEC 1159-2 zu genügen, wird der Einsatz eines normalisierten Abschlußwiderstands TSX FP ACC 7 empfohlen. Dieser Abschlußwiderstand wird entsprechend der nachstehenden Abbildung installiert.



Verkabelung des Abschlußwiderstands TSX FP ACC7: die beiden weißen Adern werden an D1+ und D1- angeschlossen.
Diese Verkabelungsform ist zu verwenden, wenn sich der Anschlußadapter am Ende eines Kabelstrangs befindet, wobei es ohne Bedeutung ist, ob es sich um eine Kettenschaltung oder um eine Abzweigung handelt.

Verkabelung einer externen Spannungsversorgung

Bei dieser Verkabelungsform ist der Kabeltyp TSX FP CF einzusetzen. Dieses Kabel enthält zwei Spannungsversorgungsadern.



D4+ und D4- : Anschluß der externen Versorgungsspannung 24 VDC.

Anschluß eines Kabelstrangs mit integrierter Spannungsversorgung:

D3+ rosa
D3- blau

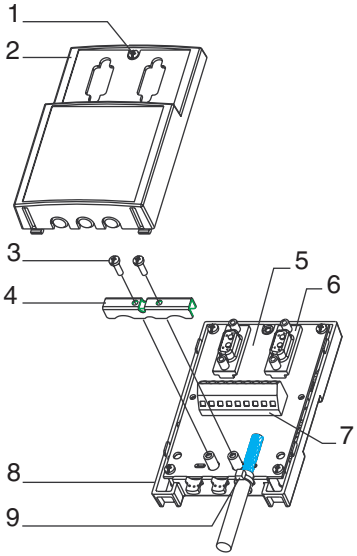
D2+ orange
D2- schwarz

Hauptkabel:

D1+ rot
D1- grün

Boîtier de raccordement : TSX FP ACC3

Ce boitier permet la connexion au bus FIP des automates TSX Micro / Premium ou d'un terminal de contrôle. La connexion peut se faire par chaînage ou par dérivation et il est possible d'injecter une alimentation 24VDC. Ce boitier est conforme à la norme CEI 1158-2

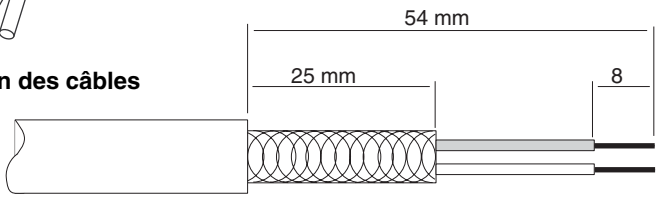


1 Vis de fixation du couvercle
2 Couvercle du produit
3 Vis de fixation de l'étrier
4 Etrier de reprise de masse
5 Carte électronique
6 Connecteur SUB-D 9 points
7 Bornier de raccordement
8 Embase du produit
9 Colliers de maintien des câbles

Matériel nécessaire :
Tournevis plat de largeur 3,5mm
Tournevis cruciforme empreinte PZ01

Encombrement : 77x118x33,5mm
Entraxe de fixation : 60mm

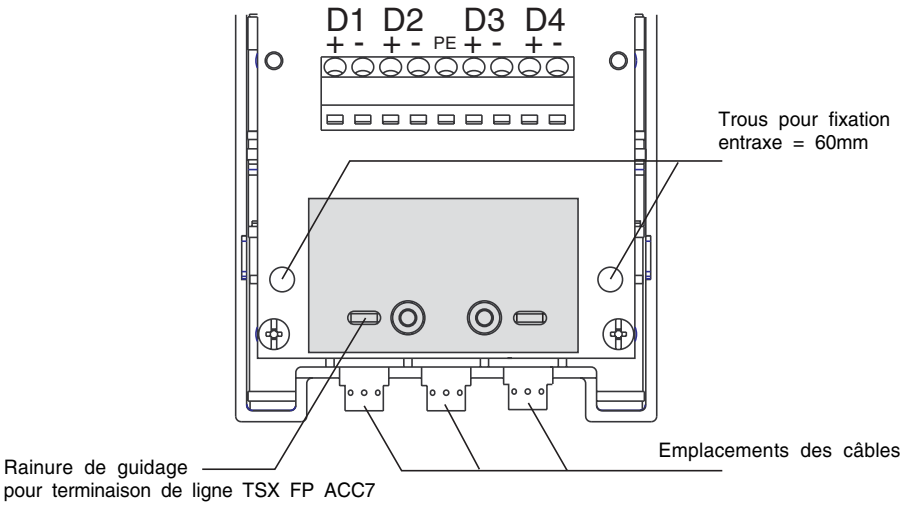
Gabarit de préparation des câbles
(Ech : 1)



- Dévisser la vis 1 avec un tournevis cruciforme PZ01, ouvrir le couvercle 2,
- Fixer l'embase sur son support (Rail Din) ou par 2 vis ϕ 4, L=20mm min. (non fournies),
- Préparer les câbles du tronçon principal et de la dérivation selon le gabarit ci-dessus,
- Raccorder les câbles sur le bornier (7) selon les instructions ci-après, en utilisant un tournevis plat de largeur 3,5mm. Couple de serrage : ≤ 0,5 N.m,
- Raccorder, si le boîtier est en début ou fin de ligne, une terminaison de ligne normalisée TSX FP ACC7,
- Placer les câbles, gaine isolante en butée sur le bord de la carte (5),
- Raccorder la terre de protection à la borne marquée PE. Ce conducteur se loge dans la fente supérieure de l'étrier,
- Placer et serrer l'étrier (4) de reprise de masse des câbles,

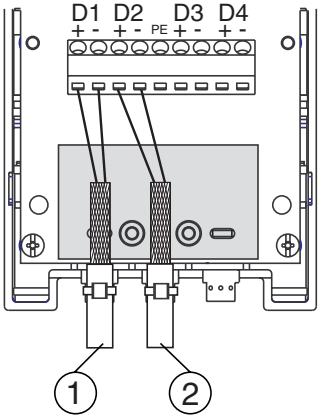
FRANCAIS

- Immobiliser les câbles à l'aide des colliers (9),
- Casser les languettes sécables du couvercle (2) pour le passage des câbles,
- Monter et visser le couvercle : vis (1) avec un tournevis cruciforme PZ01.



Câbles :
Pour le raccordement en chaînage utiliser le câble TSX FP CA ou TSX FP CR,
pour le raccordement avec transmission d'alimentation utiliser le câble TSX FP CF,
pour le raccordement d'une dérivation utiliser le câble TSX FP CC.

Raccordement du boitier par chaînage :

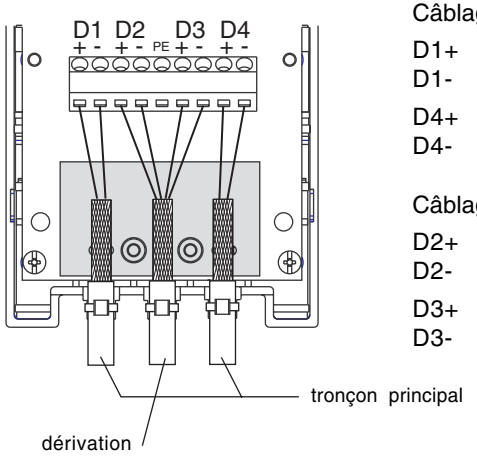


C'est le type de raccordement le plus utilisé.

Utiliser des câbles TSX FP CA ou TSX FP CR

D1+	rouge	1
D1-	vert	
D2+	rouge	2
D2-	vert	

Raccordement d'une dérivation sur un tronçon principal



Câblage du tronçon principal TSX FP CA/CR:

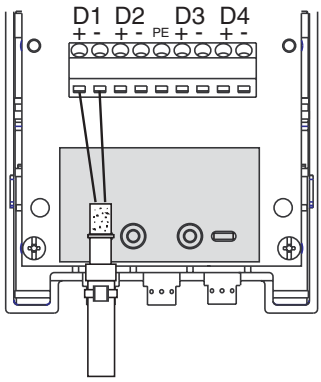
D1+	rouge
D1-	vert
D4+	rouge
D4-	vert

Câblage de la dérivation TSX FP CC :

D2+	rouge
D2-	vert
D3+	orange
D3-	noir

Raccordement en début ou fin de ligne :

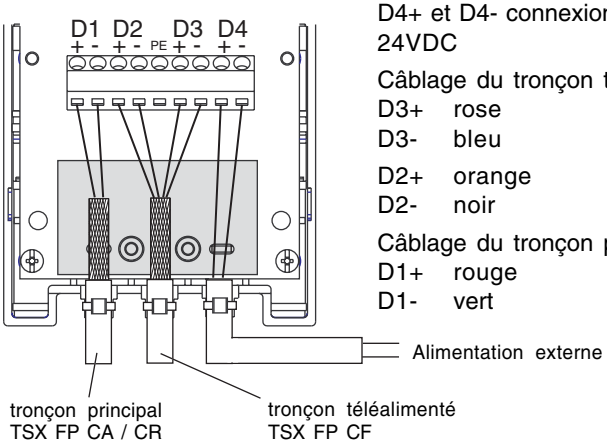
Pour répondre au standard CEI 1158-2, il est recommandé d'utiliser une terminaison de ligne normalisée TSX FP ACC 7. Celle-ci sera montée à l'emplacement indiqué sur le dessin ci-dessous.



Câblage de TSX FP ACC7 :
les deux fils blancs seront raccordés en D1+ et D1-
Ce montage est à effectuer quand le boitier se trouve en début ou en fin de ligne, que le raccordement du boitier soit en chaînage ou dérivation.

Raccordement d'une alimentation extérieure

Dans ce cas il faut utiliser un câble TSX FP CF contenant les deux conducteurs pour l'alimentation.



D4+ et D4- connexion à l'alimentation externe 24VDC

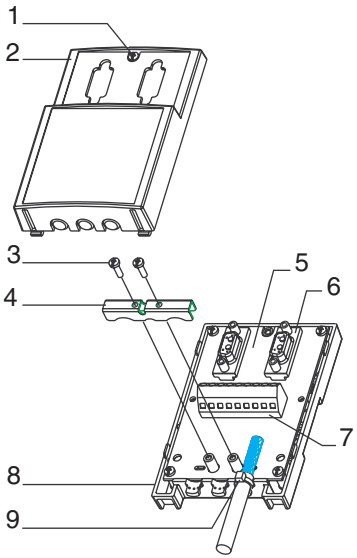
Câblage du tronçon téléalimenté:
D3+ rose
D3- bleu

D2+ orange
D2- noir

Câblage du tronçon principal:
D1+ rouge
D1- vert

Caja de conexiones: TSX FP ACC3

Esta caja permite la conexión al bus FIP de los autómatas TSX Micro / Premium, o de un terminal de control. La conexión se puede realizar por encadenamiento o por derivación, y es posible inyectar una alimentación 24VCC. Esta caja cumple con la norma CEI 1158-2

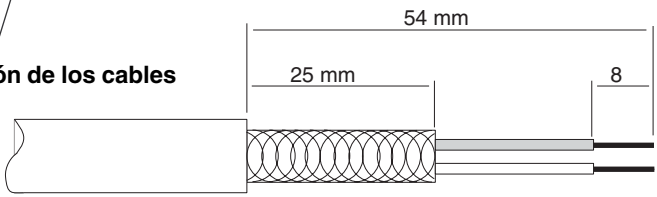


1 Tornillo de fijación de la tapa
2 Tapa del producto
3 Tornillos de fijación del estribo
4 Estribo de recuperación de masa
5 Tarjeta electrónica
6 Conector SUB-D de 9 puntos
7 Placa de bornas
8 Base del producto
9 Collarines de sujeción de los cables

Material necesario:
Atornillador plano de 3,5mm de ancho
Atornillador en cruz huella PZ01

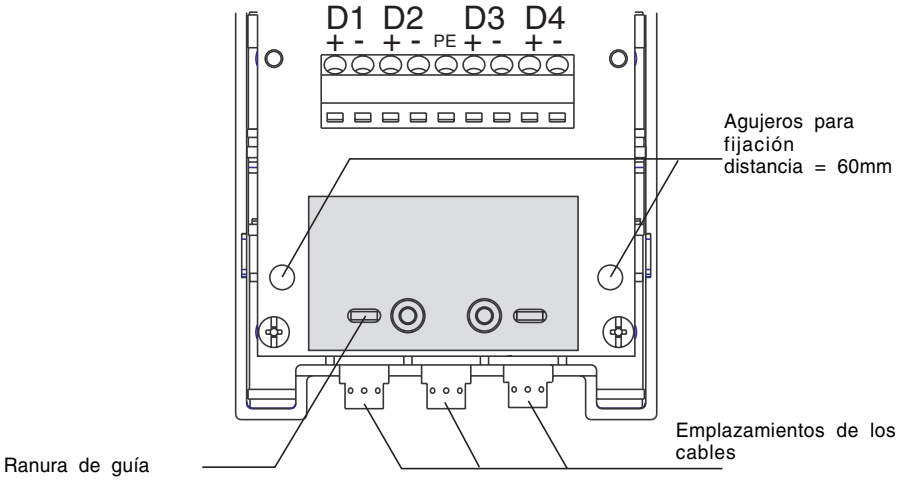
Dimensiones: 77x118x33,5mm
Distancia entre agujeros: 60mm

Plantilla de preparación de los cables
(Escala: 1)



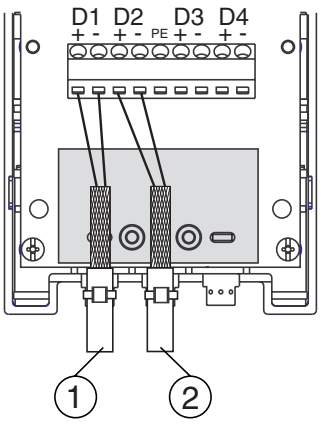
- Desatornillar el tornillo 1 con un atornillador en cruz PZ01, abrir la tapa 2,
- Fijar la base en su soporte (Rail Din) o mediante 2 tornillos ϕ 4, L=20mm min. (no suministrados),
- Preparar los cables del tramo principal y de la derivación según la plantilla de arriba,
- Conectar los cables a la placa de bornas (7) según las instrucciones que siguen, utilizando un atornillador plano de 3,5mm de ancho. Par de apriete: ≤ 0,5 N.m,
- Si la caja está al inicio o al fin de línea, conectar una terminación de línea homologada TSX FP ACC7,
- Colocar los cables, funda aislante al tope en el borde de la tarjeta (5)
- Colocar la tierra de protección a la borna marcada PE. Este conductor se aloja en la ranura superior del estribo,
- Colocar y apretar el estribo (4) de recuperación de masa de los cables,

- Inmovilizar los cables mediante los collarines (9),
- Romper las lengüetas cortables de la tapa (2) para el paso de los cables,
- Montar y atornillar la tapa: tornillo (1) con un atornillador en cruz PZ01.



Cables:
Para la conexión en cadena, utilizar el cable TSX FP CA o TSX FP CR,
para la conexión con transmisión de alimentación, utilizar el cable TSX FP CF,
para la conexión de una derivación, utilizar el cable TSX FP CC.

Conexión de la caja por encadenamiento:

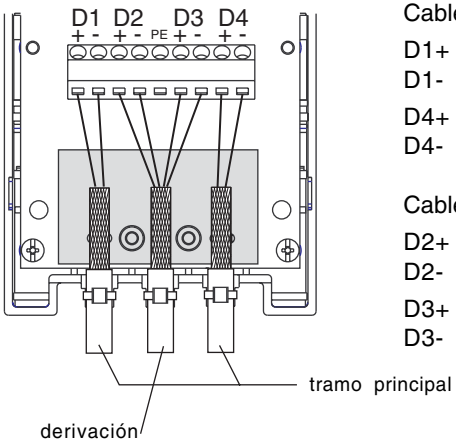


Este tipo de conexión es el que más se utiliza.

Utilizar cables TSX FP CA o TSX FP CR

D1+	rojo	1
D1-	verde	
D2+	rojo	2
D2-	verde	

Conexión de una derivación en un tramo principal



Cableado del tramo principal TSX FP CA/CR:

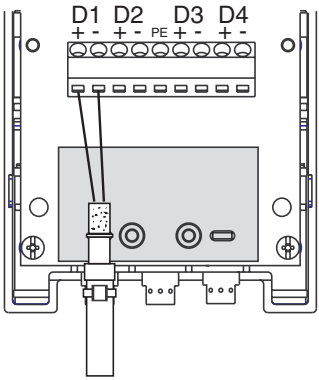
D1+	rojo
D1-	verde
D4+	rojo
D4-	verde

Cableado de la derivación TSX FP CC:

D2+	rojo
D2-	verde
D3+	anaranjado
D3-	negro

Conexión al inicio o al fin de línea:

Para responder al estándar CEI 1158-2, se recomienda utilizar una terminación de línea homologada TSX FP ACC 7. Esta terminación se debe montar en el emplazamiento indicado en el diagrama presentado a continuación.

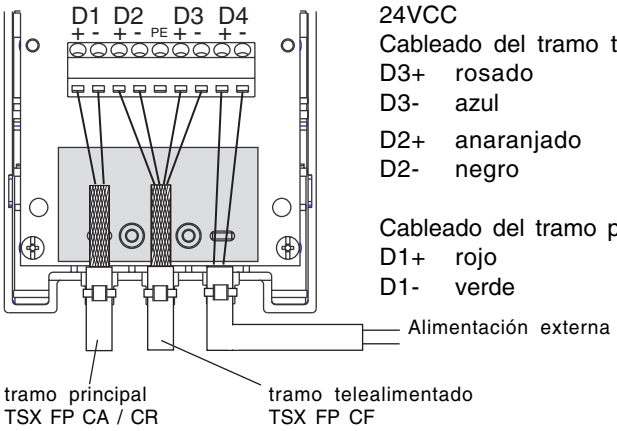


Cableado de TSX FP ACC7:
los dos hilos blancos se conectarán en D1+ y D1-
Este montaje se efectúa cuando la caja se encuentra al inicio o al fin de línea, trátese de una conexión de la caja por encadenamiento o derivación.

ESPAÑOL

Conexión de una alimentación exterior

En este caso hay que utilizar cables TSX FP CF que contengan conductores para la alimentación.



D4+ y D4- conexión a la alimentación externa 24VCC

Cableado del tramo telealimentado:

D3+ rosado
D3- azul
D2+ anaranjado
D2- negro

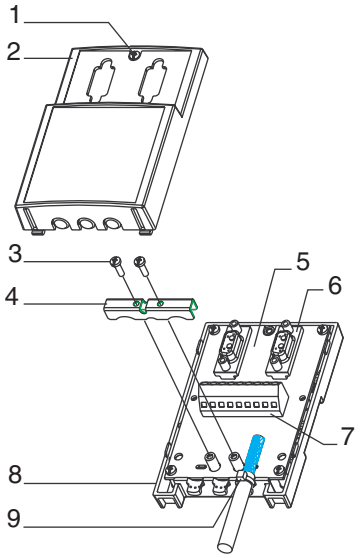
Cableado del tramo principal:

D1+ rojo
D1- verde

ESPAÑOL

Scatola di derivazione: TSX FP ACC3

Questa scatola di derivazione permette di collegare al bus FIP dei PLC TSX Micro / Premium o un terminale di controllo. Il collegamento può essere fatto in serie (concatenamento) o con una derivazione e di utilizzare una tensione di 24VDC. La scatola di derivazione è conforme alle norme CEI 1158-2

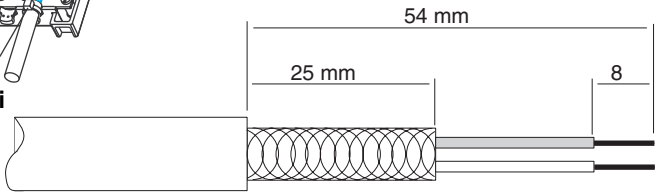


1 Vite di fissaggio del coperchio
2 Coperchio del prodotto
3 Vite di fissaggio della staffetta
4 Staffetta di fissaggio della schermataura
5 Scheda elettronica
6 Connettore SUB-D 9 pin
7 Morsettiera
8 Base del prodotto
9 Serracavo

Attrezzi necessari:
Cacciavite a testa piatta di 3,5mm
Cacciavite a stella tipo PZ01

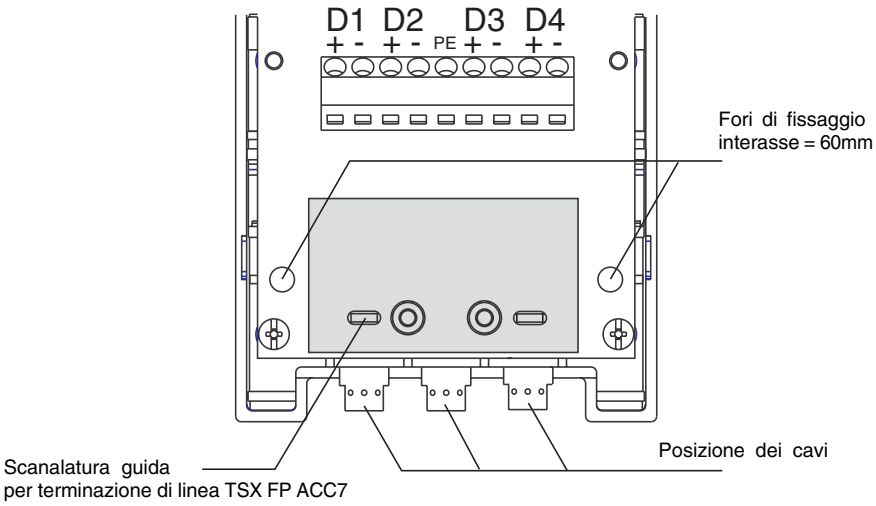
Ingombro: 77x118x33,5mm
Interasse di fissaggio: 60mm

Preparazione dei cavi
(Scala: 1)



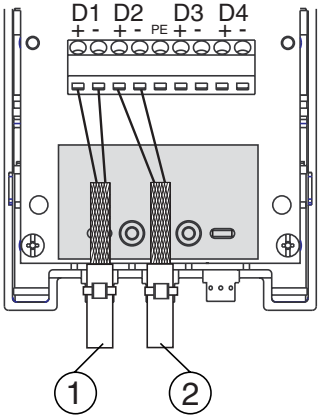
- Svitare la vite 1 con un cacciavite a stella PZ01 e aprire il coperchio 2,
- Fissare la base al suo supporto (Rail Din) o con 2 viti f M4, L=20mm min. (non fornite),
- Preparare i cavi del tronco principale e della derivazione come mostrato nel disegno,
- Collegare i cavi alla morsettiera (7) utilizzando un cacciavite piatto di larghezza 3,5mm, come indicato dalle istruzioni di seguito. Coppia di serraggio: ≤ 0,5 N.m
- Se la scatola di derivazione è all'inizio o alla fine di una linea, installare una terminazione di linea normalizzata TSX FP ACC7,
- Inserire i cavi con la guaina isolante fissata sul bordo della scheda (5),
- Collegare la terra al morsetto marcato PE. Questo conduttore viene alloggiato nella scanalatura superiore della staffetta,
- Fissare i cavi avvalendosi degli appositi serracavi (9),
- Forare l'impronta per il passaggio dei cavi sul coperchio (2),
- Montare e avvitare il coperchietto: vite (1), usare il cacciavite a stella PZ01,

- Fissare i cavi con gli appositi serracavi (9),
- Forare l'impronta del passaggio cavi sul coperchio (2),
- Montare il coperchio e fissarlo: vite (1) e usare un cacciavite a stella PZ01.



Cavi:
per il collegamento in serie utilizzare il cavo TSX FP CA o TSX FP CR,
per il collegamento con invio dell'alimentazione utilizzare il cavo TSX FP CF,
per il collegamento di una derivazione utilizzare il cavo TSX FP CC.

Collegamento della scatola per il concatenamento:



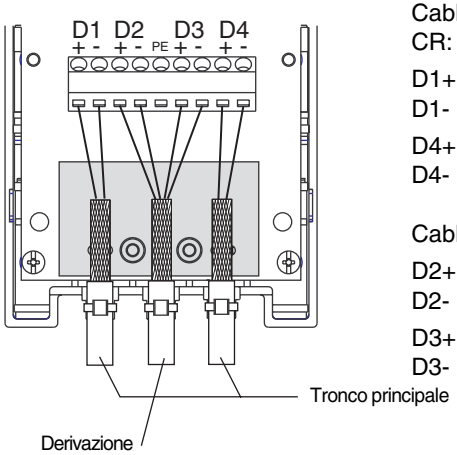
È il tipo di collegamento più utilizzato.

Utilizzare i cavi TSX FP CA o TSX FP CR

D1+	rosso	1
D1-	verde	
D2+	rosso	2
D2-	verde	

ITALIANO

Collegamento di una derivazione su un tronco principale



Cablaggio del troncone principaleTSX FP CA/ CR:

D1+ rosso
D1- verde

D4+ rosso
D4- verde

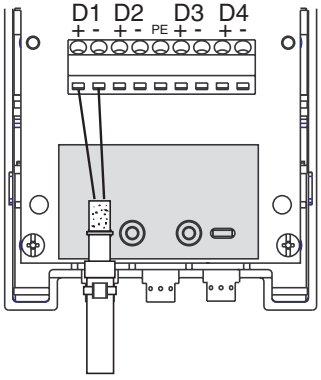
Cablaggio della derivazione TSX FP CC:

D2+ rosso
D2- verde

D3+ arancione
D3- nero

Collegamento all'inizio o fine della linea:

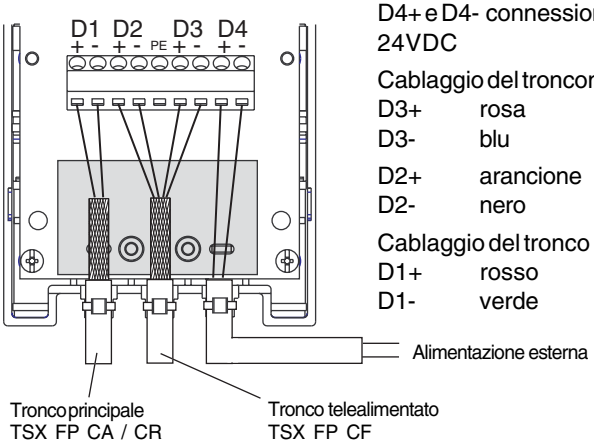
Per rispondere alle norme CEI 1158-2, si raccomanda di utilizzare una terminazione di linea normalizzata TSX FP ACC 7. Quest'ultima montata alla posizione indicata sul grafico seguito.



Cablaggio del TSX FP ACC7:
i due fili bianchi devono essere raccordati a D1+ e D1-
Questo tipo di montaggio viene adottato quando la scatola si trova all'inizio o alla fine della linea, sia che il raccordo è di tipo concatenato sia che sia in derivazione.

Collegamento di un'alimentazione esterna

In questo caso occorre utilizzare un cavo TSX FP CF contenente i due conduttori per l'alimentazione.



D4+ e D4- connessione all'alimentazione esterna di 24VDC

Cablaggio del troncone telealimentato:

D3+	rosa
D3-	blu
D2+	arancione
D2-	nero

Cablaggio del tronco principale:

D1+	rosso
D1-	verde

© Copyright Schneider Automation S.A. 1998.
All rights reserved. This document may not be reproduced or copied, in whole or in part, in any form or by any means, graphic, electronic or mechanical, including photocopying, recording, or storage in a retrieval system.

All programming examples in this manual are given for information only. Before being used in an industrial application, they must be suitably adapted to the specific functions and safety requirements of the application concerned.

PL7 Software © Schneider Automation S.A. 1998.
This software is the property of **Schneider Automation.**

Each sale of a stored unit of this software grants the purchaser a nonexclusive licence which is strictly limited to the use of the specific unit in a compatible **Telemecanique/Square D** programming terminal.

Apart from the creation of a back-up copy for the exclusive use of the purchaser, this software may not be duplicated, reproduced or copied in any form or by any means whatsoever. Modification or adaptation of the software is forbidden.

Schneider Automation's warranty is limited to the conformity of the products of **Modicon**, **Square D** and **Telemecanique** with their functional characteristics. **Schneider Automation** assumes no liability for the use that is made of its products, nor for any damages or other consequences that may result from their use.

The software products are designed for use in a wide variety of applications. Although thoroughly tested, it is impossible for the tests to cover all the various applications for which the software could be used.

PL7 is a registered trademark of Schneider Automation.
Windows is a registered trademark of Microsoft Corporation.



W915905610801A03

Schneider Electric
One High Street
North Andover, MA 01845
Tél. : +1 978 794 0800
Fax : +1 978 975 2844

Schneider Automation S.A.
245, route des Lucioles - BP 147
F-06903 Sophia Antipolis
Tél. : 33 04 92 38 20 00
Fax : 33 04 93 65 30 31

Schneider Automation GmbH
Steinheimer Straße 117
D-63500 Seligenstadt
Tél. : (49 6182 81-00
Fax : 49 6182 81-3306

Printed in

June 2009