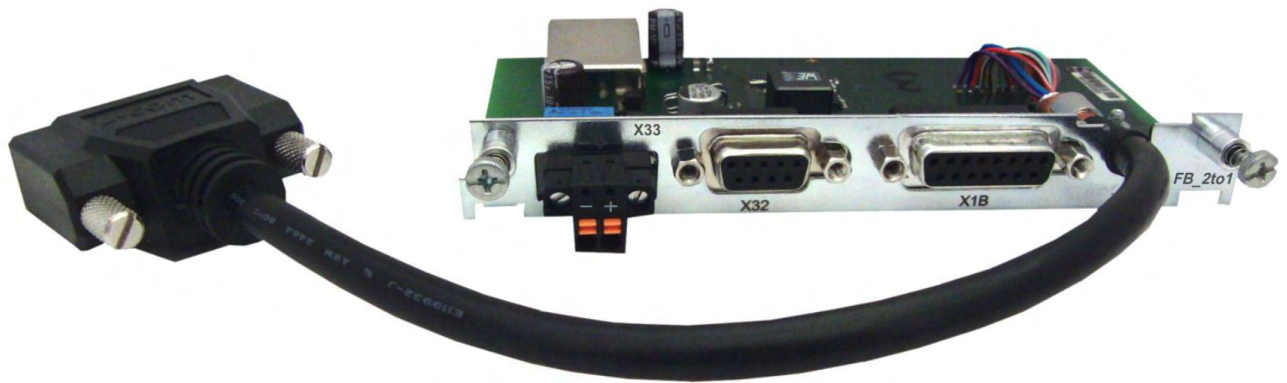


Technical Description



DEUTSCH

FB-2to1 - Erweiterungskarte

ENGLISH

FB-2to1 - Expansion Card

FRANÇAIS

FB-2to1 - Carte d'Expansion

ITALIANO

FB-2to1 - Scheda di Espansione

S300 & S700 Servo Amplifiers

Edition: March 2021



For safe and proper use, follow these instructions.
Keep them for future reference.

Contents



Deutsch

(→ #3)



Français

(→ #7)



English

(→ #5)



Italiano

(→ #9)

Documents available from www.kollmorgen.com

- **Instructions Manual** (PDF format):
This manual provides instructions for installation and servo amplifier setup.
- **Accessories Manual** (PDF format):
It provides information for accessories like cables, filters, chokes and brake resistors.
- **CAN-BUS Fieldbus Interface** (PDF format):
Describes how to use your servo amplifier in CANopen applications.
- **DeviceNET Fieldbus Interface** (PDF format):
Describes how to use your servo amplifier in DeviceNET applications.
- **EtherCAT Fieldbus Interface** (PDF format):
Describes how to use your servo amplifier in EtherCAT applications.
- **PROFIBUS DP Fieldbus Interface** (PDF format):
Describes how to use your servo amplifier in PROFIBUS DP applications.
- **PROFINET Fieldbus Interface** (PDF format):
Describes how to use your servo amplifier in PROFINET applications.
- **sercos[®] 2 Fieldbus Interface** (PDF format):
Describes how to use your servo amplifier in sercos[®] applications.
- **SynqNet Fieldbus Interface** (PDF format):
Describes how to use your servo amplifier in SynqNet applications.
- **DRIVEGUI.EXE Online help** (CHMs format):
The online help includes the *ASCII Object Reference* which provides information for the parameters and commands used to setup the servo amplifier.

Technical changes which improve the performance of the device may be made without prior notice!

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1 Erweiterungskarte - FB-2to1 -

Dieses Kapitel beschreibt die Feedback Erweiterungskarte FB-2to1. Die Karte ermöglicht den gleichzeitigen Anschluss eines digitalen primären und eines analogen sekundären Feedbacks an den Stecker X1. Die Einspeisung einer 24V DC Hilfsspannung an X33 wird auf der Erweiterungskarte in eine präzise 5V DC Geberversorgung für das sekundäre Feedback gewandelt.

1.1 Frontansicht



1.2 Einbau

ACHTUNG

INFO

Schalten Sie die Geräte vor Beginn der Arbeiten spannungsfrei.

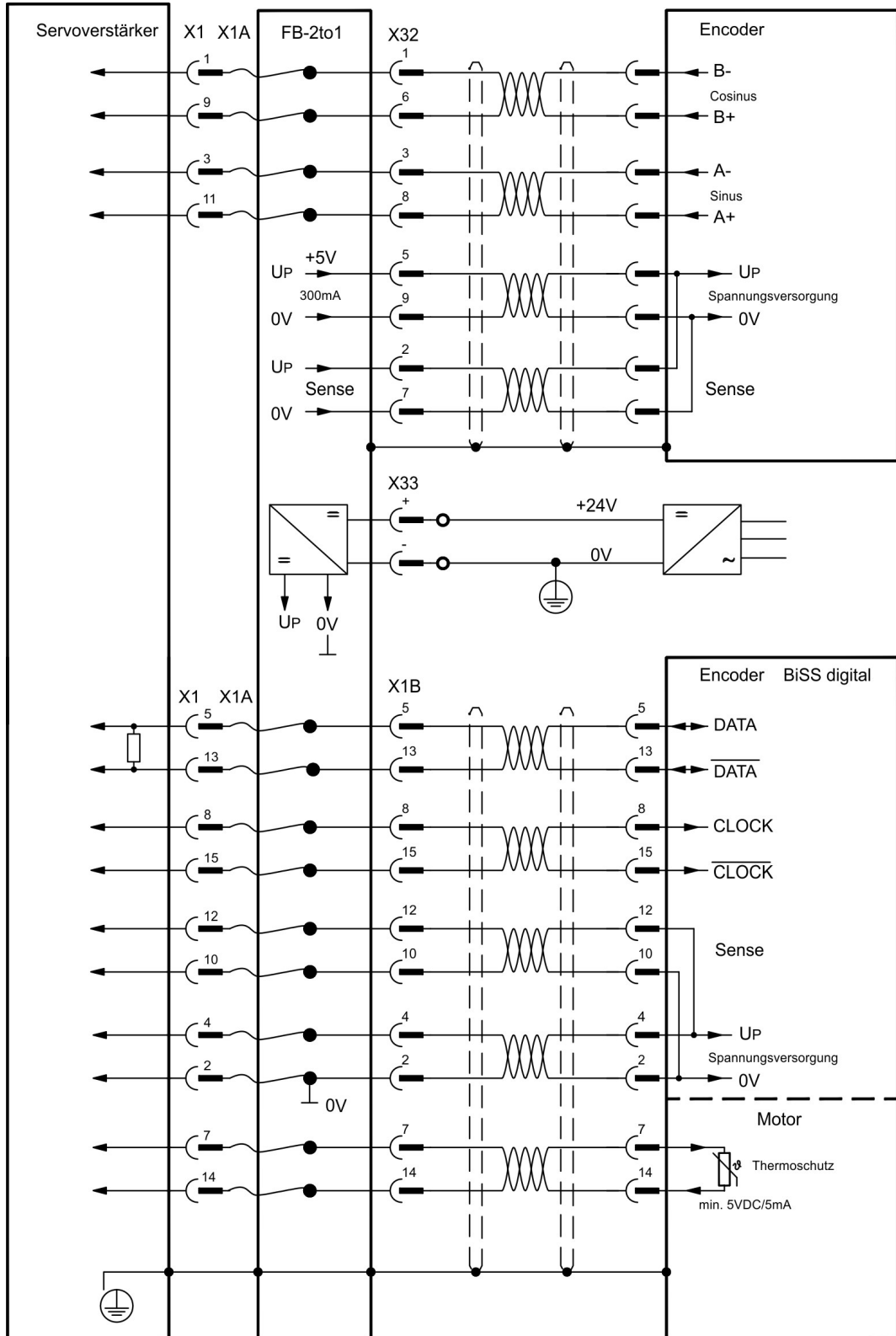
- Hebeln Sie die Abdeckung des Optionsschachtes mit einem geeigneten Schraubendreher heraus.
- Achten Sie darauf, dass keine Kleinteile (Schrauben o.ä.) in den geöffneten Optionsschacht fallen.
- Stecken Sie die Erweiterungskarte in den Schacht.
- Verschrauben Sie die Frontplatte der Erweiterungskarte.

1.3 Pinbelegung

X33	Belegung Combicon Stecker
+	+24V DC (20...30V), ca. 500mA
-	GND

X32	Belegung SubD 9 polig (sekundäres Feedback) SinCos (1V p-p)	X1B	Belegung SubD 15 polig (primäres Feedback) EnDat 2.2, BiSS digital, SSI absolut
1	B- (Kosinus)	1	n.c.
2	SENSE+	2	0V
3	A- (Sinus)	3	n.c.
4	n.c.	4	+5V DC
5	+5V DC (300mA)	5	DATA
6	B+ (Kosinus)	6	n.c.
7	SENSE-	7	Temperaturfühler Motor
8	A+ (Sinus)	8	CLOCK
9	0V	9	n.c.
-	-	10	Sense 0V
-	-	11	n.c.
-	-	12	Sense +5V
-	-	13	DATA
-	-	14	Temperaturfühler Motor
-	-	15	CLOCK

1.4 Anschlussbeispiel BiSS digital (primär) und SinCos (sekundär)



2 Expansion card - FB-2to1 -

This chapter describes the Feedback extension card FB-2to1. The card enables simultaneous connection of a digital primary and of an analog secondary feedback to the connector X1. The supply of 24V DC auxiliary voltage to X33 is converted on the extension card into a precise 5V DC encoder supply for the secondary feedback.

2.1 Front view



2.2 Installation

NOTICE

Before starting work, switch off the power to the device

NOTE

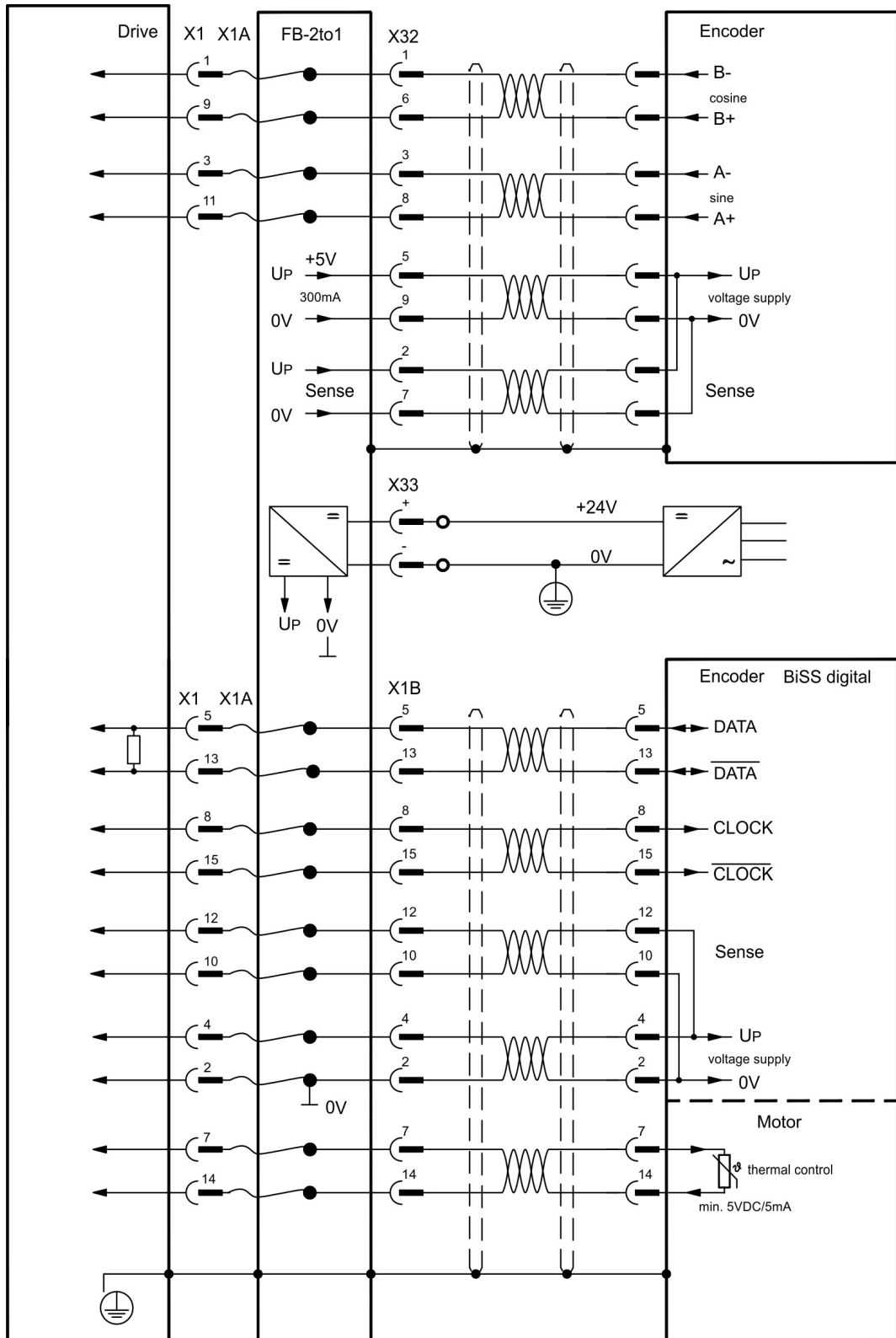
- Use a suitable screwdriver to lever off the cover of the option slot.
- Take care that no small items (such as screws) fall into the open option slot.
- Push the expansion card into the slot.
- Use the screws provided to fasten the front plate of the expansion card in place.

2.3 Pinout

X33	Pinout Combicon Connector
+	+24V DC (20...30V), approx. 500mA
-	GND

X32	Pinout SubD 9 poles (secondary Feedback) SinCos (1V p-p)	X1B	Pinout SubD 15 poles (primary Feedback) EnDat 2.2, BiSS digital, SSI absolute
1	B- (cosine)	1	n.c.
2	SENSE+	2	0V
3	A- (sine)	3	n.c.
4	n.c.	4	+5V DC
5	+5V DC (300mA)	5	DATA
6	B+ (cosine)	6	n.c.
7	SENSE-	7	Temperature Sensor Motor
8	A+ (sine)	8	CLOCK
9	0V	9	n.c.
-	-	10	Sense 0V
-	-	11	n.c.
-	-	12	Sense +5V
-	-	13	DATA
-	-	14	Temperature Sensor Motor
-	-	15	CLOCK

2.4 Wiring example with BiSS digital (primary) and SinCos (secondary)



3 Carte d'expansion - FB-2to1 -

Ce chapitre décrit la carte d'expansion de rétroaction FB-2to1. Cette carte permet de raccorder simultanément un système de feedback primaire numérique et un système de feedback secondaire analogique au connecteur X1. L'alimentation d'une tension auxiliaire de 24 V DC sur X33 est convertie sur la carte d'expansion en une alimentation de codeur précise de 5 V CC pour le feedback secondaire.

3.1 Vue de face



3.2 Montage

AVIS

Avant de commencer le travail, mettez l'appareil hors tension.

INFORMATION

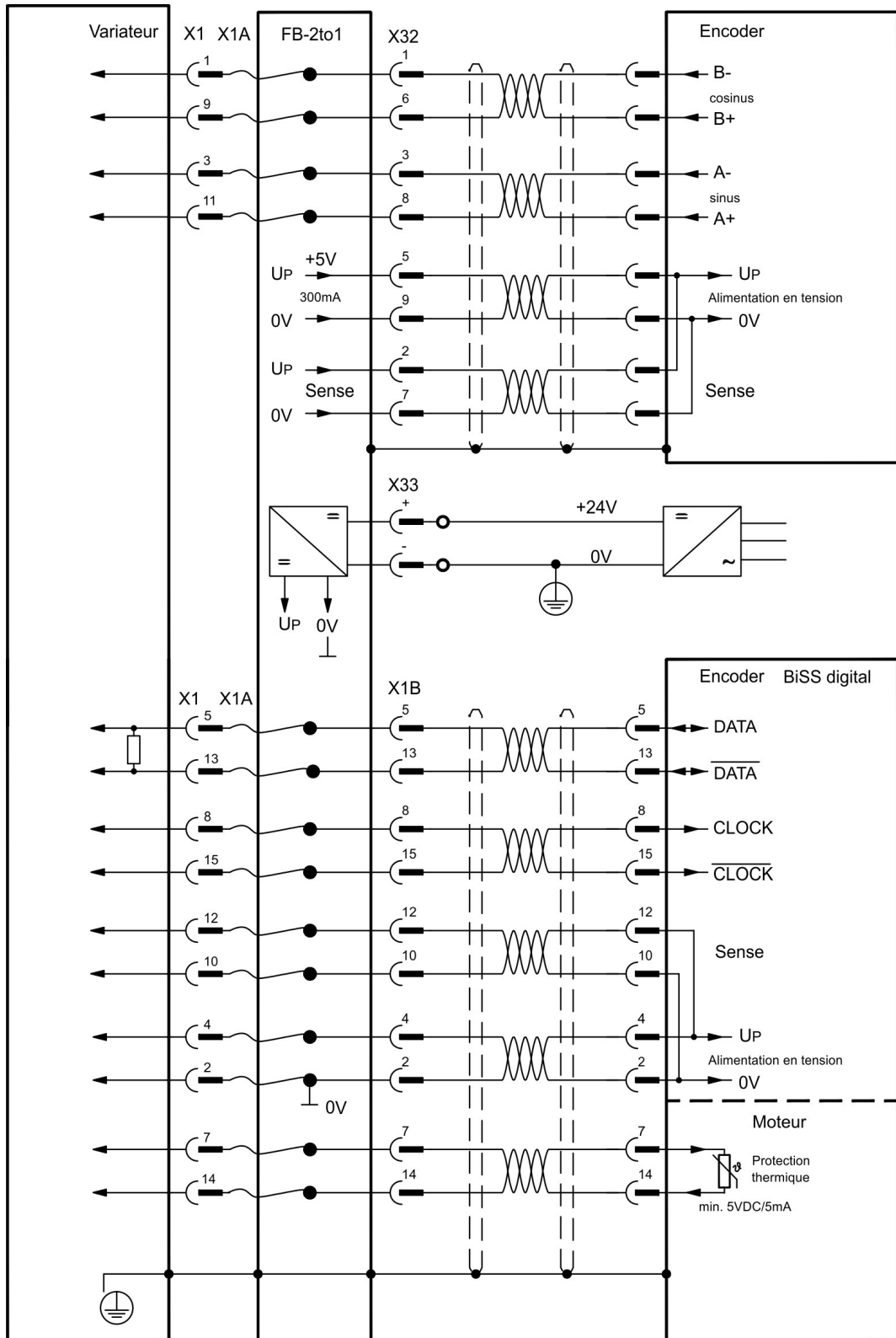
- Soulever le couvercle de l'emplacement des options à l'aide d'un tournevis approprié.
- S'assurer qu'aucune petite pièce (vis ou autres) ne chute dans l'emplacement ouvert.
- Enfichez la carte d'expansion dans le port.
- Vissez la face avant de la carte d'expansion à l'aide des vis prévues à cet effet.

3.3 Affectation des connecteurs

X33	Connecteur Combicon
+	+24V DC (20...30V), environ 500mA
-	GND

X32	SubD 9 pôles (Feedback secondaire) SinCos (1V p-p)	X1B	SubD 15 pôles (Feedback primaire) EnDat 2.2, BiSS numér., SSI absolu
1	B- (cosine)	1	n.c.
2	SENSE+	2	0V
3	A- (sine)	3	n.c.
4	n.c.	4	+5V DC
5	+5V DC (300mA)	5	DATA
6	B+ (cosine)	6	n.c.
7	SENSE-	7	Sonde de température du moteur
8	A+ (sine)	8	CLOCK
9	0V	9	n.c.
-	-	10	Sense 0V
-	-	11	n.c.
-	-	12	Sense +5V
-	-	13	$\overline{\text{DATA}}$
-	-	14	Sonde de température du moteur
-	-	15	$\overline{\text{CLOCK}}$

3.4 Exemple de raccordement BiSS digital (primaire) et SinCos (secondaire)



4 Scheda di espansione - FB-2to1 -

Il presente capitolo descrive la scheda di espansione per retroazione FB-2to1. La scheda consente il collegamento simultaneo di una retroazione digitale primaria e di una analogica secondaria al connettore X1. L'alimentazione con una tensione 24 V CC su X33 viene convertita nella scheda di espansione in un'alimentazione 5 V CC precisa del trasduttore per la retroazione secondaria.

4.1 Vista frontale



4.2 Montaggio

AVVISO

Prima di iniziare il lavoro, spegnere il dispositivo.

INFORMAZIONI

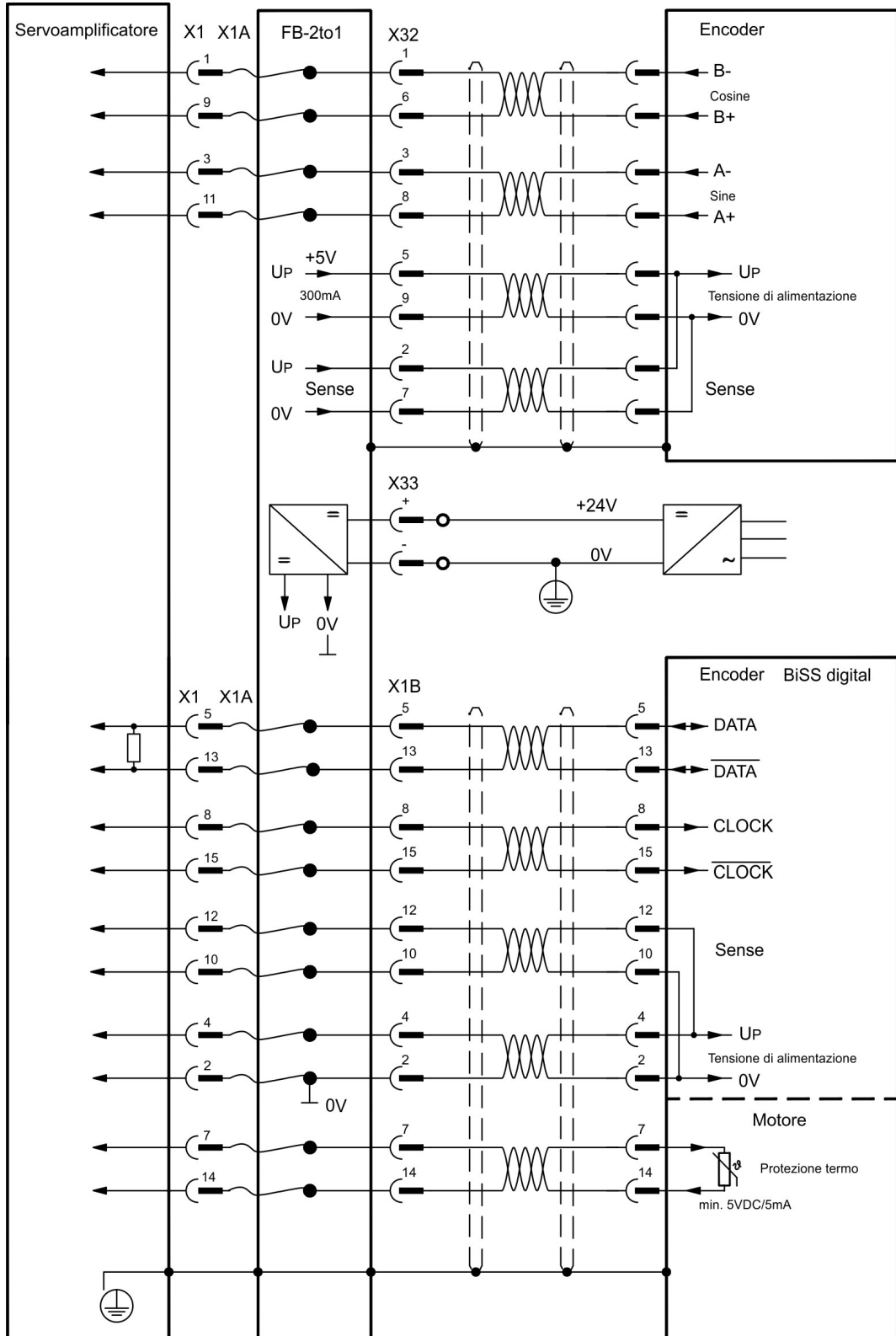
- Utilizzare un cacciavite adatto per rimuovere il coperchio dello slot opzionale.
- Fare attenzione che nessun piccolo oggetto (come le viti) cada nello slot opzionale aperto.
- Inserire la scheda di espansione nello slot.
- Avvitare la piastra frontale della scheda di espansione con le viti in dotazione.

4.3 Assegnazione dei connettori

X33	Assegnazione connettore Combicon
+	+24V DC (20...30V), approx. 500mA
-	GND

X32	Assegnazione SubD 9 poli (retroazione secondaria) SinCos (1V p-p)	X1B	Assegnazione SubD 15 poli (retroazione primaria) EnDat 2.2, BiSS digitale, SSI assoluto
1	B- (Cosine)	1	n.c.
2	SENSE+	2	0V
3	A- (Sine)	3	n.c.
4	n.c.	4	+5V DC
5	+5V DC (300mA)	5	DATA
6	B+ (Cosine)	6	n.c.
7	SENSE-	7	Sensore temperatura motore
8	A+ (Sine)	8	CLOCK
9	0V	9	n.c.
-	-	10	Sense 0V
-	-	11	n.c.
-	-	12	Sense +5V
-	-	13	DATA
-	-	14	Sensore temperatura motore
-	-	15	CLOCK

4.4 Esempio di collegamento BiSS digitale (primario) e SinCos (secondario)



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