



HEIDENHAIN

PWM/ATS – Adjusting and Testing Software



Mounting wizard for AK ERP 1010

Anbauassistent für AK ERP 1010

Assistant au montage pour l'AK ERP 1010

Assistente per il montaggio per AK ERP 1010

Asistente para el montaje para AK ERP 1010

Mounting Instructions

Montageanleitung

Instructions de montage

Istruzioni di montaggio

Instrucciones de montaje

ERP 1010



www.heidenhain.de/documentation

09/2020

Warnings
Warnhinweise
Avertissements
Avvertenze
Advertencias



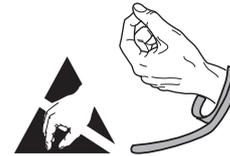
Note: Mounting and commissioning is to be conducted by a qualified specialist under compliance with local safety regulations.
Do not engage or disengage any connections while under power.

Achtung: Die Montage und Inbetriebnahme ist von einer qualifizierten Fachkraft unter Beachtung der örtlichen Sicherheitsvorschriften vorzunehmen. Die Steckverbindung darf nur spannungsfrei verbunden oder gelöst werden.

Attention : Le montage et la mise en service doivent être assurés par un personnel qualifié dans le respect des consignes de sécurité locales. Le connecteur ne doit être connecté ou déconnecté qu'hors potentiel.

Attenzione: il montaggio e la messa in funzione devono essere eseguiti da personale qualificato nel rispetto delle norme di sicurezza locali. I cavi posso essere collegati o scollegati solo in assenza di tensione.

Atención: El montaje y la puesta en marcha deben ser realizados por un especialista cualificado, observando las prescripciones locales de seguridad. Conectar o desconectar el conector sólo en ausencia de tensión.



General information
Allgemeine Hinweise
Informations générales
Informazioni generali
Indicaciones generales



For more information, refer to the ATS software operating instructions.
Weitere Informationen siehe Betriebsanleitung ATS-Software.
Pour plus d'informations, se reporter au manuel d'utilisation du logiciel ATS.
Per ulteriori informazioni vedi il manuale di istruzioni "Software ATS"
Para más información consultar el modo de empleo del software ATS.

ID 543734



For more information about mounting the encoder, refer to the mounting instructions AK ERP 1010.

Weitere Informationen über die Montage des Messgerätes siehe Montageanleitung AK ERP 1010.

Pour plus d'informations sur le montage du système de mesure, se reporter aux instructions de montage AK ERP 1010.

Per ulteriori informazioni sul montaggio del sistema di misura vedi le istruzioni di montaggio AK ERP 1010.

Para más información sobre el montaje del sistema de medida consulta las instrucciones de montaje AK ERP 1010.

ID 1226800

The PWM 2x phase angle measuring unit together with the ATS software serves for the diagnosis and adjustment of HEIDENHAIN encoders. It consists of the following components:

- PWM 20 or PWM 21
- Adjusting and Testing Software (ATS) – AK ERP 1010: from SV8.0.01 with integrated local encoder database for automatic encoder identification. Also available for downloading free of charge from the software download area on the HEIDENHAIN homepage.

Das Phasenwinkel-Messgerät PWM 2x dient zusammen mit der Software ATS zur Diagnose und Justage von HEIDENHAIN-Messgeräten. Es besteht aus folgenden Komponenten:

- *PWM 20 oder PWM 21*
- *Adjusting and Testing Software (ATS) – AK ERP 1010: ab SV8.0.01 mit integrierter lokaler Messgeräte-Datenbank zur automatischen Messgeräte-Erkennung. Die Software steht zum freien Download auf der HEIDENHAIN-Homepage im Software-Downloadbereich zur Verfügung.*

Utilisé avec le logiciel ATS, le phasemètre PWM 2x sert au diagnostic et au réglage des systèmes de mesure.

Il est constitué des éléments suivants :

- PWM 20 ou PWM 21
- Logiciel pour réglage et test (ATS) – AK ERP 1010: avec base de données des systèmes de mesure, intégrée en local, pour pouvoir les détecter automatiquement, à partir de la version logicielle 8.0.01. Le logiciel est téléchargeable gratuitement depuis le site internet HEIDENHAIN, menu Logiciels.

Il tester PWM 2x con il software ATS consente la taratura e diagnostica dei sistemi di misura HEIDENHAIN. È composto da:

- *PWM 20 o PWM 21*
- *Adjusting and Testing Software (ATS) – AK ERP 1010: da SV8.0.01 con database locale integrato per l'identificazione automatica dei sistemi di misura. È disponibile anche per il download gratuito nella homepage HEIDENHAIN nella sezione Software-Downloads.*

El sistema de medida de ángulo de fase PWM 2x junto con el software ATS sirve para el ajuste y diagnóstico de los sistemas de medida HEIDENHAIN. Está formado por los siguientes componentes:

- PWM 20 o PWM 21
- Software de test y ajuste (ATS) – AK ERP 1010: de SV8.0.01 integra una base de datos de los sistemas de medida para el reconocimiento automático de los mismos.

Disponibile también como descarga gratuita desde la página web de HEIDENHAIN en el área de descarga de softwares.

Adjustment and diagnosis

Justage und Diagnose

Réglage et diagnostic

Taratura e diagnostica

Ajuste y diagnóstico

1.

Connect the encoder

Messgerät anschließen

Raccorder le système de mesure

Collegare il sistema di misura

Conectar el aparato de medida

2.

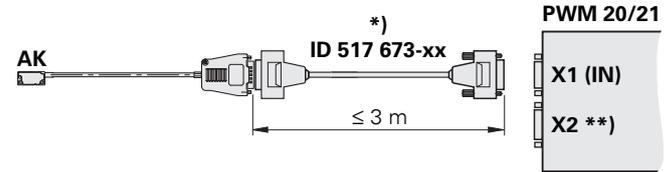
After installation of the ATS adjusting and testing software, click on "Connect the encoder"

Nach Installation der Justage- und Prüf-Software ATS auf "Verbindung zum Messgerät herstellen" klicken

Une fois le logiciel de réglage et de contrôle ATS installé, cliquer sur «Connect the encoder»

Dopo l'installazione del software di taratura e diagnostica ATS fare clic su "Connect the encoder"

Después de la instalación del software de ajuste y comprobación ATS hacer clic en "Establecer conexión con el sistema de medida"



***)** Optional, only for adjusting/diagnostics

Optional, nur für Justage/Diagnose

Optionnel, uniquement pour le réglage/diagnostic

Opzionale, solo per taratura/diagnostica

Opcional, sólo para ajuste/diagnóstico

****)** Do not use!

Nicht verwenden!

Ne pas utiliser !

Non utilizzare!

¡No utilizar!



3.

Input of the device ID number (if the ID number is not recognized, please enter the variant xxxxxx-00).

Eingabe der Geräte-ID-Nummer (wenn die ID-Nummer nicht erkannt wird, bitte Variante xxxxxx-00 eingeben).

Saisie du numéro ID de l'appareil (si le numéro ID n'est pas reconnu, veuillez entrer la variante xxxxxx-00).

Digitare Id. Nr. dello strumento (se non è conosciuto, indicare la variante xxxxxx-00).

Introducción del número de ID del sistema (si el número de ID no se reconoce, introducir variante xxxxxx-00).

Do not use power supply from subsequent electronics.

Spannungsversorgung nicht von Folge-Elektronik verwenden.

Ne pas utiliser la tension d'alimentation de l'électronique consécutive.

Non utilizzare l'alimentazione dell'elettronica successiva.

No utilizar la tensión de alimentación de la electrónica subsiguiente.

Encoder selection

Using this dialog you can enter an encoder's ID number to specify the data required by the program in order to connect the encoder.

Encoder data	
ID number	<input type="text" value="1298486-01"/>
- Encoder designation:	AK ERP 1010
- Encoder interface:	EnDat
- Supply voltage [V]:	5.20

Use power supply from subsequent electronics

 The data refers to the information in the "Interfaces of HEIDENHAIN Encoders" brochure. Pay attention to the documentation of the encoder, since some encoders can have a different definition!

 If the selected encoder does not match the connected encoder, the encoder, interface card, or PC could become damaged. For your own safety, please observe the warnings and directions in the Mounting Instructions.

 Encoders subject to a laser safety class are correspondingly identified. In this case please note the information on the encoder and all information and warnings in the encoder's mounting instructions.
CAUTION: The laser is active once the 'Connect' button has been pressed!

Click

4.

The image shows a software interface with a menu titled "Separate the connection to the encoder". The menu is organized into several sections, each with a folder icon:

- Basic functions**
 - Position display
 - Display encoder memory
 - Comparison of encoder memory
 - Voltage display
- Diagnostics**
 - Add on info position 2
 - Online diagnostics
- Mounting**
 - Mounting
 - Mounting check
- Configuration**
 - Configure hardware
 - Language selection
 - Manage product keys

An arrow labeled "Click" points to the "Mounting" option in the Mounting section.

5.

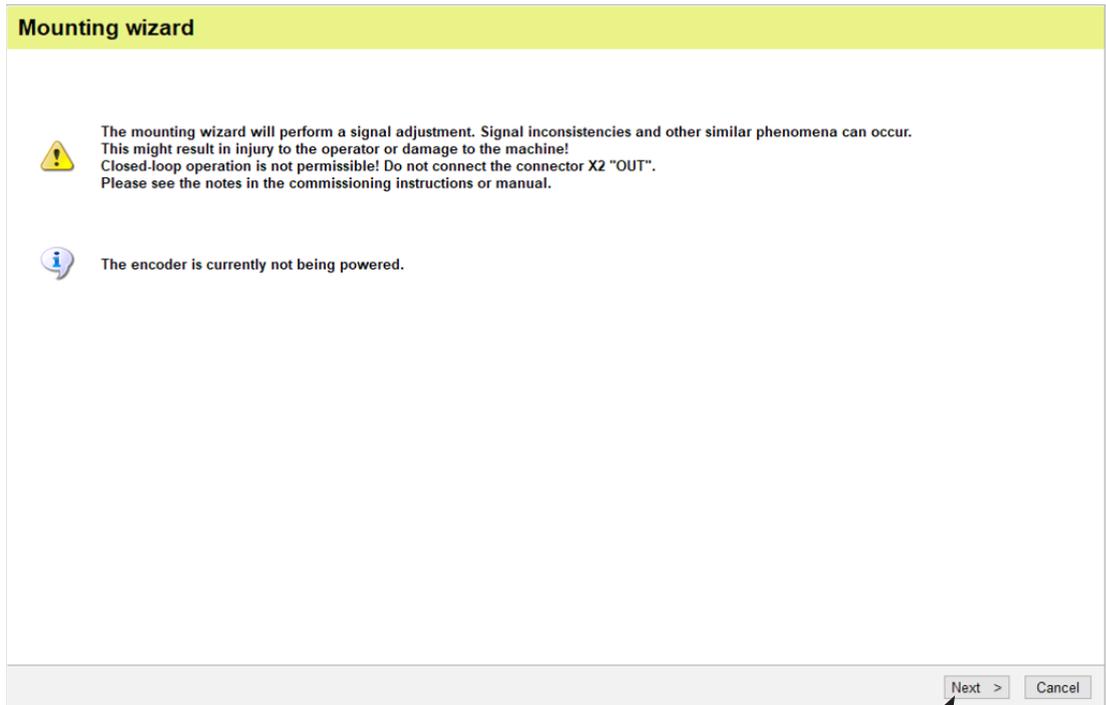
Observe the Information

Hinweise beachten

Tenir compte des informations

Osservare le indicazioni fornite

Tener en cuenta la información





The mounting wizard will perform a signal adjustment. Signal inconsistencies and other similar phenomena can occur during this adjustment. This might result in injury to the operator or damage to the machine!

Closed-loop operation is not permissible! Do not connect the X2 "OUT" connection!
Please see the notes in the commissioning instructions or manual.

Der Anbau-Assistent führt eine Signaljustage durch, die zu Signal-Unstetigkeiten etc. führen kann. Es besteht die Gefahr von Personen- und Maschinenschäden!

Ein Durchschleifbetrieb darf nicht erfolgen! Anschluss X2 OUT nicht verbinden!

Bitte beachten Sie die Hinweise in der Inbetriebnahmeanleitung bzw. im Handbuch.

L'assistant au montage procède au réglage du signal. Des irrégularités de signal ou autres peuvent se produire pendant cette procédure. Danger pour l'opérateur et la machine !

Ne pas recourir au mode Boucle fermée ! Ne pas relier le port X2 «OUT» !

Veuillez tenir compte des instructions contenues dans le guide de mise en service ou dans le manuel.

L'assistente per il montaggio esegue una taratura del segnale che può comportare irregolarità del segnale ecc. Sussiste il pericolo per danni personali e materiali!

Non è ammesso il funzionamento in closed loop! Non collegare la porta X2 OUT!

Prestare attenzione anche alle avvertenze riportate nelle istruzioni di messa in servizio o nel manuale.

El asistente del montaje ejecutará un ajuste de señal que puede ocasionar inestabilidad de la señal o similar. ¡Puede existir peligro de daños personales o a la máquina!

¡No es admisible el funcionamiento en bucle cerrado! ¡No establecer la conexión X2 OUT!

Consulte las notas en la documentación para la puesta en marcha o en el modo de empleo.



The encoder is currently not being powered. A remote sense cable is required.

Das Messgerät ist derzeit spannungsfrei. Ein Remote-Sense-Kabel ist erforderlich!

Le système de mesure est actuellement hors tension. Un câble avec lignes de retour sensor est requis !

Il sistema di misura è attualmente privo di tensione. È necessario un cavo Remote Sense!

El sistema de medida está en este momento sin corriente. Se requiere un cable Remote-Sense.

6.
Be sure to mount the scanning head according to the corresponding Mounting Instructions!
Auf sachgemäßen Anbau des Abtastkopfes entsprechend der Montageanleitung achten!
S'assurer que la tête caprice est bien montée conformément aux instructions de montage !
Prestare attenzione al regolare montaggio della testina secondo le relative istruzioni!
Asegúrese que está procediendo al montaje del cabezal lector de acuerdo con las instrucciones de montaje.

Mounting wizard

Step 1: Mounting the encoder

Please mount the scanning head according to the mounting instructions included.
Use the supplied spacer foils for this.

Confirm that mounting has been completed with "Next >". Power will then be applied.

Settings currently set

- Electrical adjustment of reference-mark signal
- No limited traverse range
- Adjustment while rotating

Confirm that mounting has been completed with "Next >". Power will then be applied.
or: Change settings, see page 11.

*Bestätigen Sie den Anbauvorgang mit "Weiter >". Die Spannung wird dann angelegt.
oder: Einstellungen ändern, siehe Seite 11.*

Confirmez que le montage est terminé en cliquant sur «Next >». Une tension sera alors appliquée.
Ou : «Change settings», voir page 11.

*Confermare l'operazione di montaggio con "Next": La tensione è quindi applicata.
Oppure: Change settings, vedi pagina 11.*

Confirmar que se ha completado el montaje con "Continuar>". La tensión se aplicará en ese momento.
o: Change settings, ver página 11



Only limited reference-mark traverse possible
Nur eingeschränkte Referenzmarken-Überfahrt möglich
Seul un franchissement limité des marques de référence possible
Possibile solo superamento limitato degli indici di riferimento
Únicamente es posible sobrepasar marcas de referencia restringidas

Electrical adjustment of reference-mark signal
Elektrischer Abgleich Referenzmarken-Signals
Réglage électrique du signal des marques de référence
Taratura elettrica del segnale degli indici di riferimento
Ajuste de la señal de la marca de referencia

Settings

Reference mark signal

Adjustment of reference-mark signal

Only limited reference-mark traverse possible

Scale used

Adjustment in alternating table mode

Adjustment in rotation mode

Ok Cancel

Adjustment in alternating table mode (TKN ERP 1002 segment)
Abgleich im Pendelbetrieb (TKN ERP 1002 - Segment)
Réglage en mode Pendulaire (TKN ERP 1002 - segment)
Taratura in pendolamento (TKN ERP 1002 - arco)
Ajuste en funcionamiento pendular (TKN ERP 1002 - Segmento)

Adjustment in rotation mode (TKN ERP 1000 full circle)
Abgleich im Rotationsbetrieb (TKN ERP 1000 - Vollkreis)
Réglage en mode Rotation (TKN ERP 1000 - cercle entier)
Taratura in rotazione (TKN ERP 1000 - circonferenza)
Ajuste en funcionamiento rotacional (TKN ERP 1000 - círculo completo)

Click

7.

Mechanical mounting: Measurement in progress

Mechanischer Anbau: Messung läuft

Montage mécanique : mesure en cours

Montaggio meccanico: misurazione in corso

Montaje mecánico: medición en marcha

Mounting wizard

Step 2: Mechanical mounting: Measurement in progress...

The interface is divided into several sections. On the left is a circular plot with concentric red and green circles on a grid. To the right is the 'Incremental signal properties' section with three sliders for Sig A, Sig B, and A/B, each set to 1.00. Below these are three more sliders with values 5, 10, and 15. At the bottom is the 'Reference pulse' section with a horizontal scale from -360 to 360, with a green marker at 0. A dialog box is overlaid in the center, titled 'Mounting wizard', with the message 'The encoder will be reset to its factory settings.' and 'OK' and 'Cancel' buttons. An arrow points to the 'OK' button with the label 'Click'. At the bottom left is a button labeled 'Query encoder information...' with an information icon.

Incremental signal properties

Sig A 1.00

Sig B 1.00

A/B 1.00

5 10 15

5 10 15

5 10 15

Reference pulse

-360 -270 -180 -90 0 90 180 270 360

Mounting wizard

The encoder will be reset to its factory settings.

OK Cancel

Click

Query encoder information...

The encoder will be reset to its factory settings

Das Messgerät wird nun auf Werkseinstellungen zurückgesetzt

Le système de mesure est maintenant réinitialisé aux paramètres d'usine

Il sistema di misura viene ora resettato alla programmazione base

El sistema de medida se restablecerá a los ajustes de fábrica

8.

The encoder was restored to its factory settings.
HSP is off.

The traverse speed should be approximately
10 mm/s.

*Das Messgerät wurde in den Auslieferungszustand
zurückgesetzt. HSP wurde deaktiviert.*

*Die Verfahrensgeschwindigkeit sollte ca. 10 mm/s
betragen.*

Le système de mesure a été réinitialisé à l'état de
livraison. Le HSP a été désactivé.

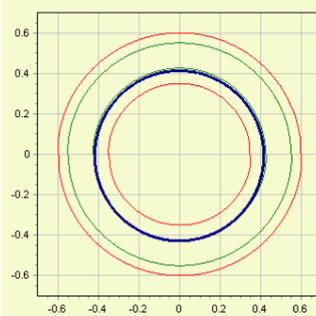
La vitesse de déplacement doit être d'environ
10 mm/s.

*Il sistema di misura è stato resettato alla
programmazione base. HSP è stato disattivato.
La velocità di traslazione dovrebbe essere di
ca. 10 mm/s.*

El sistema de medida se ha restablecido al estado
de suministro inicial. HSP fue desactivado.
La velocidad de desplazamiento debería ser de
aproximadamente 10mm/s.

Mounting wizard

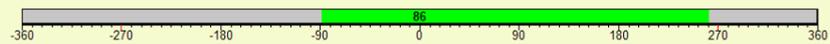
Step 2: Mechanical mounting: Measurement in progress...



Incremental signal properties



Reference pulse



The encoder was restored to its factory settings. HSP is off.
The traverse speed should be approximately 10 mm/s.

Hint < Back Next > Cancel



9.

Please note:

The green circles in the circle diagram show the limits of optimal mounting and the recommended tolerances.

The red circles are the absolute limits for permissible adjustment.

Adjustment is not possible if signals are outside the red circles.

In this case, check the mounting tolerances and inspect for contamination!

Bitte beachten Sie:

Die grünen Kreise im Kreisdiagramm zeigen die Grenzen der optimalen Montage und der empfohlenen Toleranzen.

Die roten Kreise sind die absoluten Grenzwerte für die zulässige Einstellung.

Eine Einstellung ist nicht möglich, wenn die Signale außerhalb der roten Kreise liegen, in diesen Fall Anbautoleranzen überprüfen und auf Verschmutzung achten!

Veillez tenir compte des remarques suivantes :

Les cercles verts qui figurent dans le diagramme circulaire indiquent les limites du montage optimal et les tolérances recommandées.

Les cercles rouges indiquent les limites absolues admissibles pour le réglage.

Le réglage n'est pas possible si les signaux se trouvent en dehors des cercles rouges.

Dans ce cas, vérifier les tolérances de montage et s'assurer de l'absence de salissures !

Importante:

I cerchi verdi del diagramma circolare mostrano i limiti del montaggio ottimale e delle tolleranze raccomandate.

I cerchi rossi sono i valori limite assoluti per la regolazione ammessa.

Una regolazione non è possibile se i segnali non rientrano nei cerchi rossi; in tal caso controllare le tolleranze di montaggio e verificare la presenza di contaminazione.

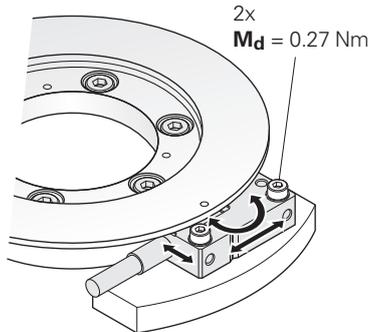
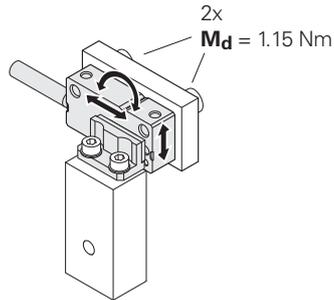
Tenga Ud. En cuenta:

Los círculos verdes del diagrama de círculos marcan los límites del montaje óptimo y de las tolerancias recomendadas.

Los círculos rojos son los valores límite absolutos admitidos para el ajuste.

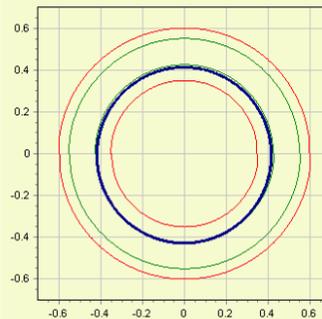
Un ajuste no es posible si las señales se encuentran situadas más allá de los círculos rojos. Dado el caso, comprobar las tolerancias de montaje y comprobar la posible suciedad.

Adjust mechanically and tighten the screws
Mechanisch justieren und Schrauben festziehen
 Procéder au réglage mécanique et serrer les vis
Procedere alla taratura meccanica e stringere a fondo le viti
 Ajustar mecánicamente y fijar los tornillos

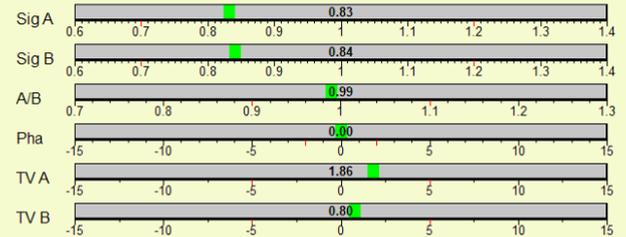


Mounting wizard

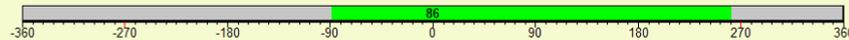
Step 2: Mechanical mounting: Measurement in progress...



Incremental signal properties



Reference pulse



The encoder was restored to its factory settings. HSP is off.
 The traverse speed should be approximately 10 mm/s.

Hint < Back Next > Cancel

Proceed to electronic fine adjustment
Weiter zum elektronischen Feinabgleich
 Poursuivre avec le réglage électronique, plus précis
Proseguire con la taratura elettrica di precisione
 Continuar al ajuste fino electrónico

Click

10.

Adjusting incremental signal and reference pulse

Abgleich des Inkrementalsignals und des Referenzimpulses

Réglage du signal incrémental et de l'impulsion de référence

Taratura del segnale incrementale e dell'impulso di riferimento

Ajuste de la señal incremental y del impulso de referencia

Mounting wizard

Step 3: Adjusting incremental signals 1Vpp and reference pulse ...

The screenshot displays the 'Mounting wizard' interface for adjusting incremental signals and a reference pulse. It consists of several panels:

- Incremental signal properties:** A panel on the right containing six sliders for Sig A, Sig B, A/B, Pha, TVA, and TV B. Each slider has a numerical value displayed above it, all set to 1.00 or 0.00.
- Reference pulse:** A horizontal slider at the bottom with a scale from -360 to 360, currently set to 0.
- Graph:** A circular plot on the left showing four concentric circles in red, blue, green, and black, representing the incremental signals.
- Message:** A blue information icon with a white 'i' is followed by the text: "Automatic adjustment of incremental signals in progress. Please traverse reference mark continuously in one direction. Progress: 2%". An arrow points from this message to the information icon.
- Buttons:** A "Cancel" button is located in the bottom right corner.

Automatic adjustment of incremental signals is in progress. Please traverse reference mark according to setting (page 11).

Automatische Einstellung der Inkrementalsignale läuft. Bitte überfahren Sie die Referenzmarke entsprechend der Einstellung (Seite 11).

Le réglage automatique du signal incrémental est en cours. Veuillez franchir la marque de référence conformément au réglage (page 11).

Regolazione automatica dei segnali incrementali in corso. Superare l'indice di riferimento secondo la regolazione (pagina 11).

En marcha el ajuste automático de las señales incrementales. Por favor, sobrepasar la marca de referencia en referencia a lo ajustado (página 11).

11.

Adjustment completed successfully.

Adjustment values were saved permanently in the encoder.

Signal control HSP is deactivated in this step.

Anpassung erfolgreich beendet.

Anpassungswerte wurden dauerhaft im Messgerät gespeichert.

Die Signalregelung HSP ist in diesem Schritt deaktiviert.

L'ajustement est terminé.

Les valeurs d'ajustement ont été mémorisées de manière permanente dans le système de mesure.

A cette étape, l'asservissement des signaux HSP est désactivé.

La taratura è terminata con successo.

I valori di taratura sono stati permanentemente salvati nel sistema di misura.

La regolazione del segnale HSP è disattivata in questa fase.

El ajuste se ha completado con éxito.

Los valores de ajuste serán memorizados de forma permanente en el sistema de medida.

En este paso se ha desactivado la regulación de la señal HSP.

Mounting wizard

Step 3: Adjusting incremental signals 1Vpp and reference pulse ...

Incremental signal properties

Parameter	Value
Sig A	1.05
Sig B	1.05
A/B	1.00
Pha	-0.13
TV A	-0.10
TV B	0.28

Reference pulse

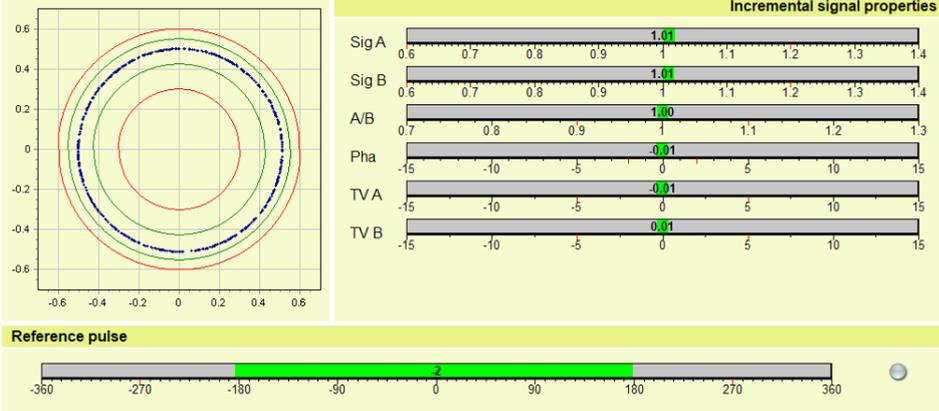
Adjustment completed successfully. Adjustment values were saved permanently in the encoder.
HSP is off.

Adjustment < Back Next > Cancel

Click

Mounting wizard

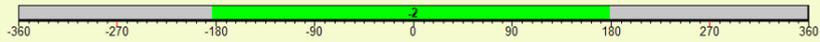
Step 4: Verify mounting...



The interface displays a circular plot on the left and a list of signal properties on the right. The circular plot shows concentric circles in red, green, and blue. The signal properties are as follows:

Signal	Value
Sig A	1.01
Sig B	1.41
A/B	1.00
Pha	0.01
TV A	0.01
TV B	0.01

Reference pulse



The reference pulse bar chart shows a pulse from -180 to 0 degrees. The x-axis ranges from -360 to 360 degrees.

HSP is on. The function display is activated.

Buttons: HSP, Function display, < Back, Next >, Cancel

In normal operation, HSP is always on.

HSP can be switched on or off while mounting.

Im Normalbetrieb ist HSP immer angeschaltet.

Während des Anbaus kann HSP an- oder ausgeschaltet werden.

En mode normal, le HSP est toujours activé.

Au cours du montage, le HSP peut être activé ou désactivé.

In modalità normale, HSP è sempre attivo.

Durante il montaggio HSP può essere attivato o disattivato.

En el funcionamiento normal, el HSP siempre está encendido.

HSP puede activarse o desactivarse durante el montaje.

Permanent activation/deactivation of the LED function display

Dauerhafte Aktivierung/Deaktivierung der LED-Funktionsanzeige

Activation/désactivation permanente du témoin LED

Attivazione/disattivazione permanente dell'indicatore di funzionalità a LED

Activación/desactivación permanente de la pantalla de función LED

13.

The encoder restarts before the function reserves are shown.

Bevor die Funktionsreserve angezeigt wird startet das Gerät neu.

L'appareil redémarre avant que la réserve fonctionnelle ne s'affiche.

Prima di visualizzare il tempo funzionale residuo, l'apparecchiatura si riavvia.

El dispositivo se reinicia antes de que se muestre la reserva de rendimiento.

The screenshot displays the 'Mounting wizard' interface. At the top, it says 'Step 5: Verify mounting diagnostics...'. Below this, there are three sections for 'Function reserves':

- Incremental or scanning track**: Minimum 100 % at 115060296. The bar is filled to 100%.
- Reference pulse width**: Minimum 100 % at 360652335. The bar is filled to 100%.
- Reference pulse position**: Minimum 100 % at 360652335. The bar is filled to 100%.

Below the reserves, there is a table with two columns: 'Status' and 'Relative position'. The 'Status' column shows a red dot. The 'Relative position' column shows a large green digital display reading '169405800' with the label 'Measured value [steps]' above it.

At the bottom, there is an information icon with the text 'HSP is on.' and two buttons: 'Status' and 'Reset'. At the very bottom, there are three navigation buttons: '< Back', 'New mounting', and 'Exit'.

Display of the encoder status

Anzeige Encoder Status

Affiche l'état du système de mesure

Indicazione stato sistema di misura

Visualización del estado del encoder

Resets the min/max displayed values

Setzt min/max Anzeigewerte zurück

Réinitialise les valeurs min/max affichées

Reset dei valori di visualizzazione min/max

Restablece los valores mínimos y máximos del valor visualizado

14.

Encoder status

Overview of encoder and transmission errors

Errors:

None

Warnings:

Bit 4 - Reference mark not traversed



Clears the displayed error
Löscht den angezeigten Fehler
Supprime l'erreur affichée
Cancellazione dell'errore visualizzato
Borra el error visualizado

Back
Zurück
Retour
Indietro
Atrás

15.

The adjustment was successfully completed

Der Abgleich wurde erfolgreich beendet

Le réglage est terminé

La taratura è stata conclusa con successo

l ajuste se ha completado con éxito

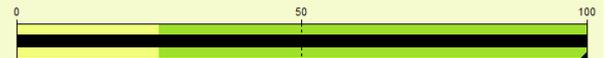
Mounting wizard

Step 5: Verify mounting diagnostics...

Function reserves

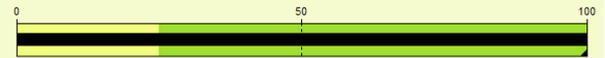
Incremental or scanning track

▲ Minimum 100 % at 115060296



Reference pulse width

▲ Minimum 100 % at 360652335



Reference pulse position

▲ Minimum 100 % at 360652335



Status	Relative position
	Measured value [steps] 266077208



HSP is on.

Status

Reset

< Back

New mounting

Exit

Select "Exit" or "New mounting"
„Beenden“ oder „Neu-Anbau“ auswählen
Sélectionner «Exit» ou «New mounting»
Selezionare "Exit" o "New mounting"
Seleccionar "Exit" o "New mounting"

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