



Description

AX5805

Default values for the permissible motors

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BECKHOFF

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1 Foreword

1.1 Notes on the manual

1.1.1 Intendent audience

It is essential that the following notes and explanations are followed when installing and commissioning these components.

This description is only intended for the use of trained specialists in control and automation engineering who are familiar with the applicable national standards. The responsible staff must ensure that the application or use of the products described satisfy all the requirements for safety, including all the relevant laws, regulations, guidelines and standards.

1.1.2 Origin of the document

These operating instructions were originally written in German. All other languages are derived from the German original.

1.1.3 Currentness

Please check whether you have the latest and valid version of this document. On the Beckhoff homepage under the link <http://www.beckhoff.de/english/download/twinsafe.htm> you may find the latest version for download. If in doubt, please contact the technical support (see chapter 5.1 Beckhoff Support and Service).

1.1.4 Product features

Valid are only the product properties that are specified in the respectively current user documentation. Other information, which is given on the product pages of the Beckhoff homepage, in emails or other publications is not relevant.

1.1.5 Disclaimer

The documentation has been prepared with care. The products described are, however, constantly under development. For that reason the documentation is not in every case checked for consistency with performance data, standards or other characteristics.

If it should contain technical or editorial errors, we reserve the right to make changes at any time and without notice.

No claims for the modification of products that have already been supplied may be made on the basis of the data, diagrams and descriptions in this documentation.

1.1.6 Trademarks

Beckhoff®, TwinCAT®, EtherCAT®, Safety over EtherCAT®, TwinSAFE® and XFC® are registered trademarks of and licensed by Beckhoff Automation GmbH.

Other designations used in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owners.

1.1.7 Patent Pending

The EtherCAT technology is patent protected, in particular by the following applications and patents: EP1590927, EP1789857, DE102004044764, DE102007017835 with the corresponding applications and registrations in various other countries.

The TwinCAT technology is patent protected, in particular by the following applications and patents: EP0851348, US6167425 with corresponding applications or registrations in various other countries.



EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany

1.1.8 Copyright

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The reproduction, distribution and utilization of this document as well as the communication of its contents to others without express authorization are prohibited. Offenders will be held liable for the payment of damages. All rights reserved in the event of the grant of a patent, utility model or design.

1.1.9 Delivery conditions

In addition, the general delivery conditions of the company Beckhoff Automation GmbH & Co. KG apply.

1.2 Safety instructions

1.2.1 Delivery state

All the components are supplied in particular hardware and software configurations appropriate for the application. Modifications to hardware or software configurations other than those described in the documentation are not permitted, and nullify the liability of Beckhoff Automation GmbH & Co. KG.






1.2.2 Operator's obligation to exercise diligence

The operator must ensure that

- the TwinSAFE products are only used as intended (see chapter Product description);
- the TwinSAFE products are only operated in sound condition and in working order (see chapter Cleaning).
- the TwinSAFE products are operated only by suitably qualified and authorized personnel.
- the personnel is instructed regularly about relevant occupational safety and environmental protection aspects, and is familiar with the operating instructions and in particular the safety instructions contained herein.
- the operating instructions are in good condition and complete, and always available for reference at the location where the TwinSAFE products are used.
- none of the safety and warning notes attached to the TwinSAFE products are removed, and all notes remain legible.

1.2.3 Description of safety symbols

The following safety symbols are used in these operating instructions. They are intended to alert the reader to the associated safety instructions.

 DANGER	<p>Serious risk of injury!</p> <p>Failure to follow the safety instructions associated with this symbol directly endangers the life and health of persons.</p>
 WARNING	<p>Caution - Risk of injury!</p> <p>Failure to follow the safety instructions associated with this symbol endangers the life and health of persons.</p>
 CAUTION	<p>Personal injuries!</p> <p>Failure to follow the safety instructions associated with this symbol can lead to injuries to persons.</p>
 Attention	<p>Damage to the environment or devices</p> <p>Failure to follow the instructions associated with this symbol can lead to damage to the environment or equipment.</p>
 Note	<p>Tip or pointer</p> <p>This symbol indicates information that contributes to better understanding.</p>

1.2.4 Documentation issue status

Version	Comment
1.3.0	<ul style="list-style-type: none"> • Foreword updated • Default values for AM801x motors added • ASCII input values removed, because not needed anymore
1.2.1	<ul style="list-style-type: none"> • Certificate added
1.2.0	<ul style="list-style-type: none"> • Document origin and documentation versions added • Company address amended
1.1.0	<ul style="list-style-type: none"> • AM8xxx motors added
1.0.0	<ul style="list-style-type: none"> • First released version

2 System description

With the integration of safety technology in the drive technology, Beckhoff consistently developed the TwinSAFE system philosophy further. TwinSAFE enables integrated automation, ranging from digital inputs and logic systems to drives or digital outputs. Simple handling, diagnostic and support functions help the user to implement the required application quickly and safely.

Significant hazards to persons arise from the dynamic movements of the electrical drive equipment of machines. The controlling of these hazards whilst achieving a smooth production flow is a big challenge.

The Beckhoff servo amplifiers from the AX5xxx series become fully-fledged safety drives with the AX5805 TwinSAFE drive option card.

The option card is able to switch the motor torque-free or to monitor speed, position and direction of rotation (in accordance with EN ISO 13849-1:2006 to PLe). No further circuits are necessary for this, such as circuit breakers or contactors in the supply lines or special external encoder systems.

This enables a very lean installation and helps to lower costs and control cabinet space. No special encoder system is required in order to implement the SDI (Safe Direction) or SLS (Safely Limited Speed) functions; all Beckhoff motors listed in the document 'AX5805 – List of permissible motors' can be used without further expenditure and without additional encoder systems for these functions. Even safe position monitoring or position range monitoring is simple to implement with the aid of the AX5805 module.

This does not result in any additional wiring, since EtherCAT communication is used in the AX5xxx basic controllers. The AX5805 TwinSAFE drive option card is a self-contained EtherCAT Slave and communicates directly via the AX controller with a TwinSAFE logic terminal existing in the network.

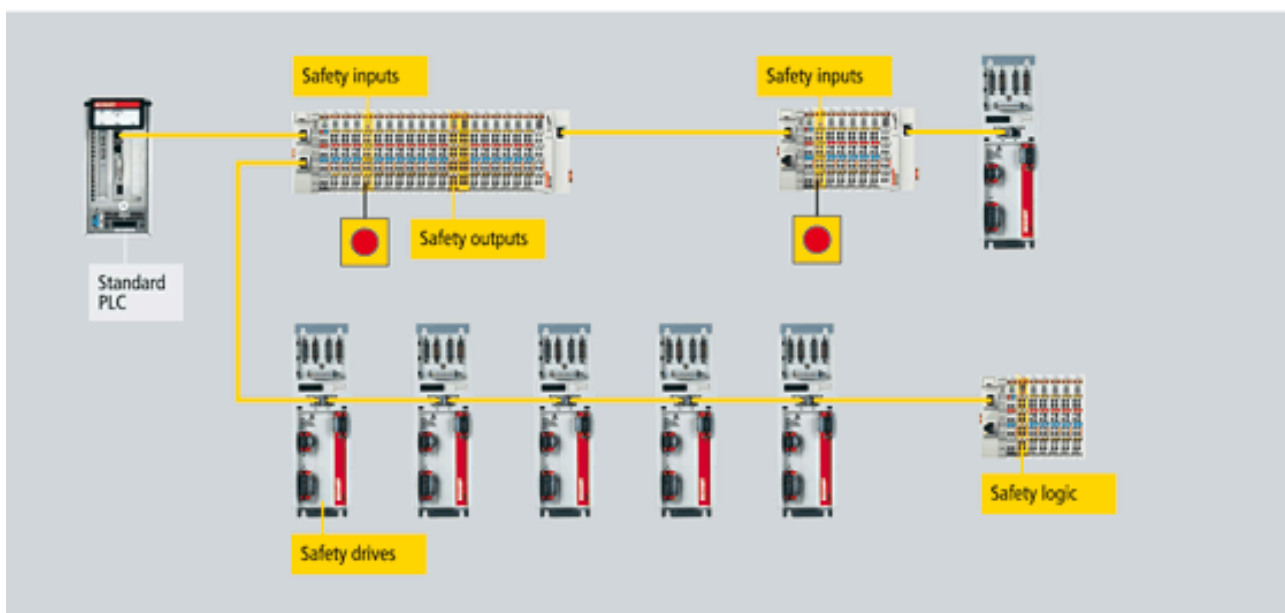


Figure 1: TwinSAFE system overview

3 Prerequisites

3.1 TwinCAT

The use of AX5805 in an AX5000 requires TwinCAT version 2.11 build 2041 or higher. The current version is always available for download from the Beckhoff website.

3.2 TwinCAT Drive Manager

The Tc Drive Manager is part of the TwinCAT installation, although it can be installed separately at any time. The current version (or a version matching the drive) is available from the drive support.

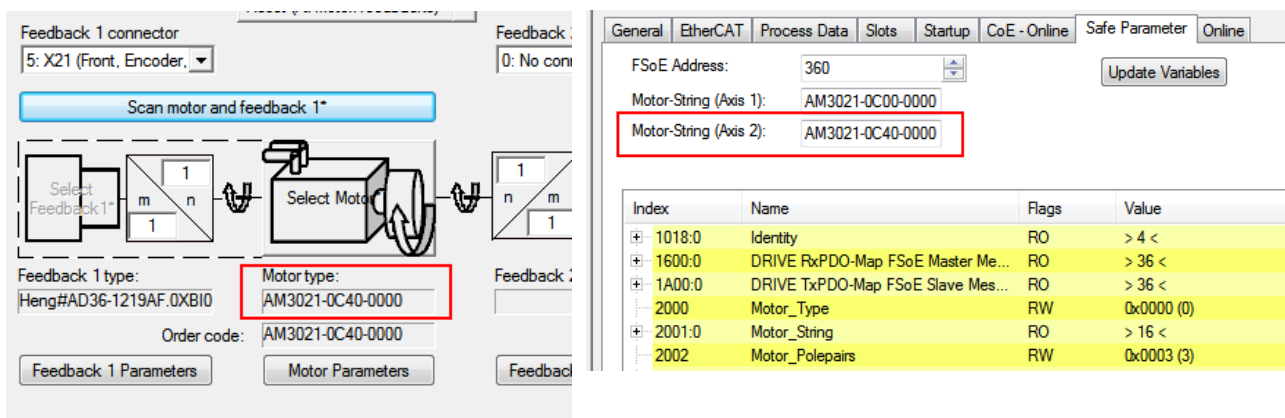
3.3 EtherCAT ESI file

Currently, a separate ESI file (AX5805-0000-0016.xml) is required for the AX5805. It is available from Beckhoff support.

From TwinCAT version 2.11 build 2046 or higher, the AX5805 will be included in the TwinCAT installation as standard. From this version, any AX5805-0000-0016.xml file that may be present in directory TwinCAT/io/EtherCAT has to be removed.

3.4 Motor string

The following tables contain the correct default values for the listed motors. The motor string can be found on the configuration tab for the AX5xxx in the TwinCAT software. In current TwinCAT versions, a distinction may be made between motor type and motor order code. In the safe parameters the motor type is entered, not the order code. In current TwinCAT versions the motor string can be entered in text form, i.e. it no longer has to be entered as an ASCII code.



The screenshot displays the TwinCAT configuration interface for a motor. On the left, the 'Motor type' field is highlighted with a red box and contains the value 'AM3021-0C40-0000'. Below it, the 'Order code' field also contains 'AM3021-0C40-0000'. On the right, the 'Motor-String (Axis 2)' field is highlighted with a red box and contains the value 'AM3021-0C40-0000'. Below this, a table lists parameters for the motor configuration.

Index	Name	Flags	Value
1018:0	Identity	RO	> 4 <
1600:0	DRIVE FxPDO-Map FSoE Master Me...	RO	> 36 <
1A00:0	DRIVE TxPDO-Map FSoE Slave Mes...	RO	> 36 <
2000	Motor_Type	RW	0x0000 (0)
2001:0	Motor_String	RO	> 16 <
2002	Motor_Polepairs	RW	0x0003 (3)

Figure 2: Motor string


Under TwinCAT 3, the settings for the motor string are entered on the alias device for the AX5805. Under the *General AX5805 Settings* tab, editing fields for Axis 1 or Axis 1 and 2 are available, depending on whether an alias device has been created for a 1-axis or 2-axis device.


The screenshot shows the 'General AX5805 Settings' tab in the TwinCAT 3 software. The interface is divided into two sections for Axis1 and Axis2. Each section contains a 'Motor String' input field and two 'Maximum Values' buttons labeled 'SMS' and 'SMA'.

Axis	Motor String	Maximum Values
Axis1	AM8013-xDx0	SMS, SMA
Axis2	AM8022-xExx	SMS, SMA

Figure 3: Motor string TwinCAT 3

4 Default values for permissible motors

 Notice	<p>Motor default data</p> <p>The specified values for the motor default data parameter may require adaptation according to the application to be implemented. Should the AX5805 issue diagnostic messages, the motor default data can be decreased or increased by 0x1000, for example.</p>
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 CAUTION	<p>Supported AX5000 devices</p> <p>The following motor types can be used with suitable servo drives of type AX5101 to AX5140 or AX5201 to AX5206, together with the AX5805. Other combinations are not permitted.</p>
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4.1 Motor types AM30xx

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3011-xBxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x3028 AX5805 SW > 05 0x0000
AM3011-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x3028 AX5805 SW > 05 0x0000
AM3011-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x3028 AX5805 SW > 05 0x0000
AM3012-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x4028 AX5805 SW > 05 0x0000
AM3012-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x3028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3013-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x4028 AX5805 SW > 05 0x0000
AM3013-xDxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x4028 AX5805 SW > 05 0x0000
AM3021-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3021-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3021-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3022-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3022-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3022-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3023-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3023-xDxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3023-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3023-xFxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3024-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3024-xDxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3024-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3024-xFxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3031-xCxx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM3031-xExx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM3031-xHxx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM3032-xCxx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM3032-xDxx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM3032-xExx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM3032-xHxx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM3033-xCxx-xxxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3033-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3033-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM3041-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3041-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3041-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3042-xCxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3042-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3042-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3042-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3042-xJxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3043-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3043-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3043-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3043-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3044-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3044-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3044-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3044-xJxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3051-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3051-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3051-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3051-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3052-xExx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3052-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3052-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3052-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3052-xLxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3052-xMxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3053-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3053-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3053-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3053-xLxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3053-xMxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3053-xPxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3054-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3054-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3054-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3054-xLxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3054-xNxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3062-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3062-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3062-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3062-xMxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3062-xPxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3063-xGxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3063-xHxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3063-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3063-xLxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3063-xMxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3063-xNxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3064-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3064-xLxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3064-xPxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3065-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3065-xLxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3065-xMxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3065-xNxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3065-xPxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3072-xKxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3072-xMxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3072-xPxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3072-xQxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3073-xMxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3073-xPxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3073-xQxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3074-xLxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3074-xPxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3074-xQxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3082-xTxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x9028 AX5805 SW > 05 0x0000
AM3083-xTxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x9028 AX5805 SW > 05 0x0000
AM3084-xTxx-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x9028 AX5805 SW > 05 0x0000

4.2 Motor types AM35xx

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM3541-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3542-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3543-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM3551-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3552-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3553-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM3562-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM3563-xxxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000

4.3 Motor types AM80xx

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8011-xBxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0xB4	0x14	AX5805 SW \leq 04 0x3028 AX5805 SW > 05 0x0000
AM8012-xCxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0xB4	0x14	AX5805 SW \leq 04 0x4028 AX5805 SW > 05 0x0000
AM8013-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0xB4	0x14	AX5805 SW \leq 04 0x4028 AX5805 SW > 05 0x0000
AM8021-xBxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM8021-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM8022-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM8022-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM8023-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8023-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	3	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8031-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8031-xCxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8031-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8032-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8032-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8032-xHxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8033-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8033-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8033-xJxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8041-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8041-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8041-xHxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x5028 AX5805 SW > 05 0x0000
AM8042-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8042-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8042-xJxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8043-xHxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8043-xExx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8043-xKxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8051-xGxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8051-xExx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8051-xKxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8052-xJxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8052-xFxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8052-xLxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8053-xKxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8053-xGxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8053-xNxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8061-xJxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8061-xGxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8061-xMxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8062-xLxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8062-xJxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM8062-xPxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8063-xNxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8063-xKxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM8063-xTxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8071-xNxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM8072-xPxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM8073-xQxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000

4.4 Motor types AM85xx

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8531-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8531-xCxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8531-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8532-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8532-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8532-xHxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8533-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8533-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8533-xJxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8541-xExx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8541-xDxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8541-xHxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x5028 AX5805 SW > 05 0x0000
AM8542-xFxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8542-xExx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8542-xJxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x6028 AX5805 SW > 05 0x0000
AM8543-xHxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8543-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8543-xKxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8551-xGxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8551-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8551-xKxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8552-xJxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8552-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8552-xLxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8553-xKxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8553-xGxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8553-xNxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8561-xJxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8561-xGxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8561-xMxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8562-xLxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW ≤ 04 0x7028 AX5805 SW > 05 0x0000
AM8562-xJxx	0	TwinCAT version ≥ 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW ≤ 04 0x8028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor Default Data
AM8562-xPxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8563-xNxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM8563-xKxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000
AM8563-xTxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000

4.5 Motor types AM88xx

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor default data
AM8831-xBxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8832-xCxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8833-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor default data
AM8841-xCxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8842-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8843-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8851-xDxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8852-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x6028 AX5805 SW > 05 0x0000
AM8853-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	4	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8861-xExx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x7028 AX5805 SW > 05 0x0000
AM8862-xFxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW > 05 0x0000

Motor	Motor type	Motor string	Number of pole pairs	Speed Compare Window	Speed Compare Violationlevel	Motor default data
AM8863-xGxx	0	TwinCAT version \geq 2.11 R3 build 2221: Motor type in text form (see chapter 3.4)	5	0x B4	0x14	AX5805 SW \leq 04 0x8028 AX5805 SW $>$ 05 0x0000

4.6 ASCII table

Hex value	Character	Hex value	Character	Hex value	Character	Hex value	Character	Hex value	Character	Hex value	Character
0	(zero)	2E	.	5C	\	8A	è	B8	©	E6	μ
1	☺	2F	/	5D	]	8B	ï	B9	ƒ	E7	þ
2	●	30	0	5E	^	8C	î	BA	||	E8	ð
3	♥	31	1	5F	_	8D	ì	BB	ƒ	E9	Ú
4	♦	32	2	60	`	8E	ÿ	BC	ƒ	EA	Û
5	♣	33	3	61	a	8F	á	BD	¢	EB	Ü
6	♠	34	4	62	b	90	É	BE	¥	EC	ý
7	•	35	5	63	c	91	æ	BF	ƒ	ED	Ý
8	■	36	6	64	d	92	Æ	C0	Ł	EE	ˆ
9	○	37	7	65	e	93	ô	C1	Ł	EF	˙
A	■	38	8	66	f	94	ö	C2	ƒ	F0	
B	♂	39	9	67	g	95	ò	C3	ƒ	F1	±
C	♀	3A	:	68	h	96	ú	C4	—	F2	—
D	♪	3B	;	69	i	97	ù	C5	+	F3	¾
E	♫	3C	<	6A	j	98	ÿ	C6	ã	F4	¶
F	☼	3D	=	6B	k	99	Ö	C7	Ã	F5	§
10	▶	3E	>	6C	l	9A	Ü	C8	ℒ	F6	÷
11	◀	3F		6D	m	9B	ø	C9	℞	F7	„
12	↑	40	@	6E	n	9C	£	CA	ℒ	F8	°
13	!!	41	A	6F	o	9D	Ø	CB	ƒ	F9	“
14	¶	42	B	70	p	9E	x	CC	ƒ	FA	•
15	§	43	C	71	q	9F	f	CD	=	FB	¹
16	—	44	D	72	r	A0	á	CE	‡	FC	³
17	↓	45	E	73	s	A1	í	CF	¤	FD	²
18	↑	46	F	74	t	A2	ó	D0	ð	FE	■
19	↓	47	G	75	u	A3	ú	D1	Ð	FF	(empty)
1A	→	48	H	76	v	A4	ñ	D2	Ê		
1B	←	49	I	77	w	A5	Ñ	D3	Ë		
1C	└	4A	J	78	x	A6	ª	D4	Ë		
1D	↔	4B	K	79	y	A7	º	D5	ì		
1E	▲	4C	L	7A	z	A8	¿	D6	Í		
1F	▼	4D	M	7B	{	A9	®	D7	Î		
20	(blank)	4E	N	7C	|	AA	¬	D8	Ï		
21	!	4F	O	7D	}	AB	½	D9	Ĵ		
22	"	50	P	7E	~	AC	¼	DA	ƒ		
23	#	51	Q	7F	△	AD	ı	DB	■		
24	\$	52	R	80	Ç	AE	«	DC	■		
25	%	53	S	81	ü	AF	»	DD	ı		
26	&	54	T	82	é	B0	☼	DE	ı		
27		55	U	83	â	B1	☼	DF	■		
28	(	56	V	84	ä	B2	☼	E0	Ó		
29	)	57	W	85	à	B3	|	E1	ß		
2A	*	58	X	86	â	B4	†	E2	Ô		
2B	+	59	Y	87	ç	B5	Á	E3	Ò		
2C	,	5A	Z	88	ê	B6	Â	E4	ó		
2D	"_"	5B	[	89	ë	B7	À	E5	Õ		

5 Appendix

5.1 Beckhoff Support and Service

Beckhoff and their partners around the world offer comprehensive support and service, making available fast and competent assistance with all questions related to Beckhoff products and system solutions.

5.1.1 Beckhoff branches and partner companies Beckhoff Support

Please contact your Beckhoff branch office or partner company for [local support and service](#) on Beckhoff products!

The contact addresses for your country can be found in the list of Beckhoff branches and partner companies: www.beckhoff.com. You will also find further [documentation](#) for Beckhoff components there.

5.1.2 Beckhoff company headquarters

Beckhoff Automation GmbH & Co.KG
Huelshorstweg 20
33415 Verl
Germany

Phone: + 49 (0) 5246/963-0
Fax: + 49 (0) 5246/963-198
E-mail: info@beckhoff.com
Web: www.beckhoff.com

Beckhoff Support

Support offers you comprehensive technical assistance, helping you not only with the application of individual Beckhoff products, but also with other, wide-ranging services:

- world-wide support
- design, programming and commissioning of complex automation systems
- and extensive training program for Beckhoff system components

Hotline: + 49 (0) 5246/963-157
Fax: + 49 (0) 5246/963-9157
E-mail: support@beckhoff.com

Beckhoff Service

The Beckhoff Service Center supports you in all matters of after-sales service:

- on-site service
- repair service
- spare parts service
- hotline service

Hotline: + 49 (0) 5246/963-460
Fax: + 49 (0) 5246/963-479
E-mail: service@beckhoff.com

5.2 Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

CERTIFICATE

No. Z10 15 04 62386 024

Holder of Certificate: Beckhoff Automation GmbH & Co. KG

Hülshorstweg 20
33415 Verl
GERMANY

Factory(ies):

62386

Certification Mark:



Product:

Safety components

Model(s):

AX5805/5806 for use in AX5000-0000-0200-Series

Parameters:

Safety Functions:
STO, SS1, SS2, SOS,
SLS, SSM, SSR, SMS,
SLP, SCA, SLI, SAR,
SMA, SDI
PL e, CAT 4 (EN ISO 13849)
SIL 3 (EN 61508)
SILCL 3 (EN 62061)

Tested according to:

2006/42/EC
EN ISO 13849-1:2006/AC:2009 (Cat.4, PL e)
EN 61508-1:2010 (SIL 3)
EN 61508-2:2010 (SIL 3)
EN 61508-3:2010 (SIL 3)
EN 61508-4:2010 (SIL 3)
EN 62061:2005 (SILCL 3)
EN 61800-5-2:2007
EN 61326-3-1:2008
IEC 61784-3(ed.2)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

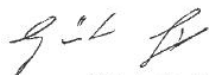
Test report no.:

BV83877T

Valid until:

2020-04-28

Date, 2015-04-29


(Günter Greil)



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