

Application Note No. AP 2013/13-2

Date: 08.07.2013

Author: LeS

File name: AP_2013_13-2e

Translation of the "Original documentation"

Rights reserved to make technical changes

History:

Date	Change	Initials
08.07.2013	Important note for users	LeS
22.03.2013	First edition	LeS

Publisher:

AMK Arnold Müller Antriebs- und Steuerungstechnik GmbH & Co. KG

Gaußstraße 37 – 39,
D-73230 Kirchheim/Teck

Germany

Phone: +0049/(0)7021/5005-0,

Fax: +0049/(0)7021/5005-176

E-Mail: info@amk-antriebe.de

Personally liable shareholder: AMK Verwaltungsgesellschaft mbH, Kirchheim/Teck

Managing directors: Eberhard A. Müller, Dr. Günther Vogt, Dr. Thomas Lützenrath

Register court Stuttgart HRB 231283; HRA 230681

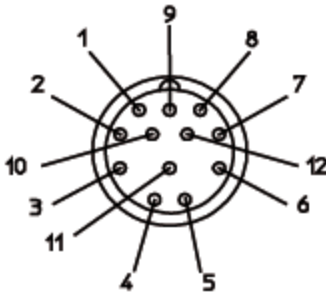
Topic: Replacement for D-encoder

The D-encoder with the AMK part-no. 16598 is not deliverable any more. For replacement the encoder with the part-no. 403284 is used.

!!! Important information for users: !!!

The new encoder system requires an GND connection (connection 6) which is additional to the signal cables so far between the motor encoder and the converter. Check your encoder cable and use a free wire to establish a GND connection or change the encoder cable. An operation free of error is not possible without the GND connection!

Configuration on the motor connector:

Drawing	Connection	Signals	Description
motor side male contacts 	1	+SIN	Analogue track 2 not inverted
	2	-SIN	Analogue track 2 inverted
	3	+COS	Analogue track 1 not inverted
	4	-COS	Analogue track 1 inverted
	5	-	-
	6	GND	Reference for the supply
	7	-	-
	8	Shield	-
	9	+0	Reference track not inverted
	10	-0	Reference track inverted
	11	5 VDC ¹⁾	
	12	-	
			Shield

1) 5 VDC ± 5 %, max. 250 mA

Connection:

Mating plug	encoder plug M23, female, 12-poles
Cable	4 x (2x 0,25 mm ²) twisted-pair + 4 x 0,5 mm ² / AWG 24 + AWG 20, shielded
Shield connection	Both sides

Prefabricated cables:

Designation	AMK part-no.	Description
Encoder cable I-encoder M23 / D-Sub15	101763	Length y m ³), suitable for trailing chain ²⁾ Configuration side 1: D-Sub 15-poles, male → cutting off by customer and new crimping Configuration side 2: M23 female, 12-poles, plug straight, for M23 encoder plug
Encoder cable M23 angled / D-Sub15	101764	Length y m ³), suitable for trailing chain ²⁾ Configuration side 1: D-Sub 15-poles, male → cutting off by customer and new crimping Configuration side 2: M23 female, 12-poles, plug angled, for M23 encoder plug

- 1) Bend radius: 85 mm / Bend cycles: 2000000
- 2) Bend radius: 12 x outer diameter of the cable / Bend cycles: 5000000
- 3) The cable can be ordered in the desired length by the part-no. above.

Connection	Colour
1	white
2	brown
3	green
4	yellow
5	-
6	blue
7	-
8	-
9	grey
10	pink
11	red
12	-

For operation on the drive system AMKASYN AN/AZ/AW no adaptation circuit board is required. The function "encoder adjustment" has to be executed once more.

Adaptation circuit board for MIFA transformer:

With the new encoder a new adaptation circuit board will be delivered which is adjusted to your motor. The delivered adaptation circuit board replaces the existing one and you have to place it into the control device (MIFA transformer). The "old" adaptation circuit board can not be adjusted to the modified motor.

To transfer your application specific parameters from the "old" adaptation circuit board to the "new" one, you have to send the "old" adaptation circuit board to AMK together with your motor. AMK will do the parameter transfer for you.

If you have a KST available, you can transfer the application specific parameters yourself from to "old" to the "new" adaptation circuit board.

D-encoder	adaptation circuit board
"old" part-no. 42881	16598
"new" part-no. 403284	47551