

SFA (Smart Feedback Adapter) Datasheet

The AKD2G servo drive is optimized for single hybrid cable technology using HIPERFACE DSL or SFD3 feedback options. For using a conventional feedback, Kollmorgen offers the Smart Feedback Adapter (SFA).

Resolver feedback adapter, 1m cable (with DIN rail clip)	AKD2G-CON-SFA-R00(-D)
Non-resolver feedback adapter, 1m cable (with DIN rail clip)	AKD2G-CON-SFA-E00(-D)

Important Notes

NOTICE

Refer to the **AKD2G Installation Manual** for AKD2G drive system integration. Kollmorgen Feedback cables are described in the **Kollmorgen 2G Cable Guide**.

All manuals are located on www.kollmorgen.com/kdn/akd2g



Read the **AKD2G Installation Manual** before installation and commissioning. Improper handling of the device can cause damage to property. The operator of systems using the SFA must ensure that all personnel who work with the system read and understand the **AKD2G Installation Manual** before using the device.



- SFA adapter may only be connected to X1, X2 or X5 of an AKD2G drive in a cabinet.
- SFA adapter must be mounted by DIN rail or laid into a cable duct.
- Only Kollmorgen feedback cables may be used for connecting a Feedback to X41 of the SFA.

Specialist staff required!

Only properly qualified personnel are permitted to perform such tasks as transport, installation and setup:

- Logistics: only by personnel with knowledge of handling electrostatically sensitive components.
- Mechanical installation: only by personnel with mechanical expertise.
- Electrical installation: only by personnel with expertise in electrical engineering.
- Basic tests / setup: only by personnel with expertise in electrical engineering and drive technology.

The personnel must observe ISO 12100 / IEC 60364 / IEC 60664 and national accident prevention regulations.

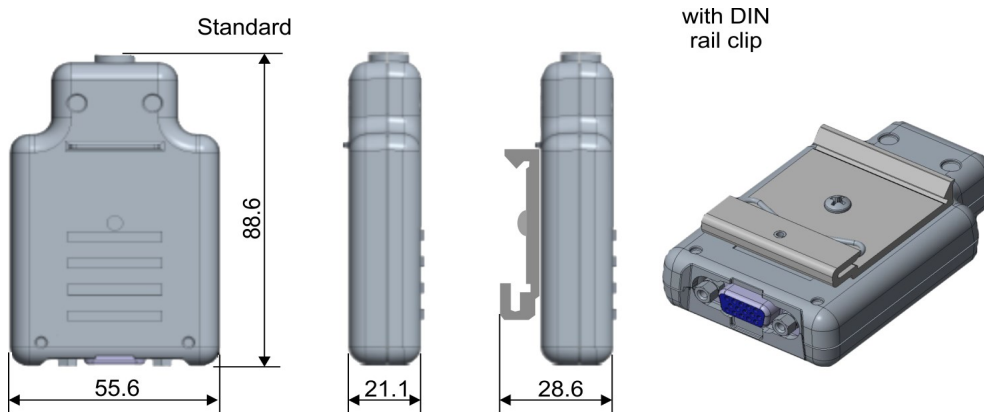
Use as Directed

- The SFA adapter is exclusively intended for connecting conventional feedback systems to two-line feedback input on AKD2G drives.
- SFA adapters may only be operated in environments suitable for the ambient conditions defined in the **AKD2G Installation Manual**.
- Only Kollmorgen cables may be used for connecting the system components.

Prohibited Use

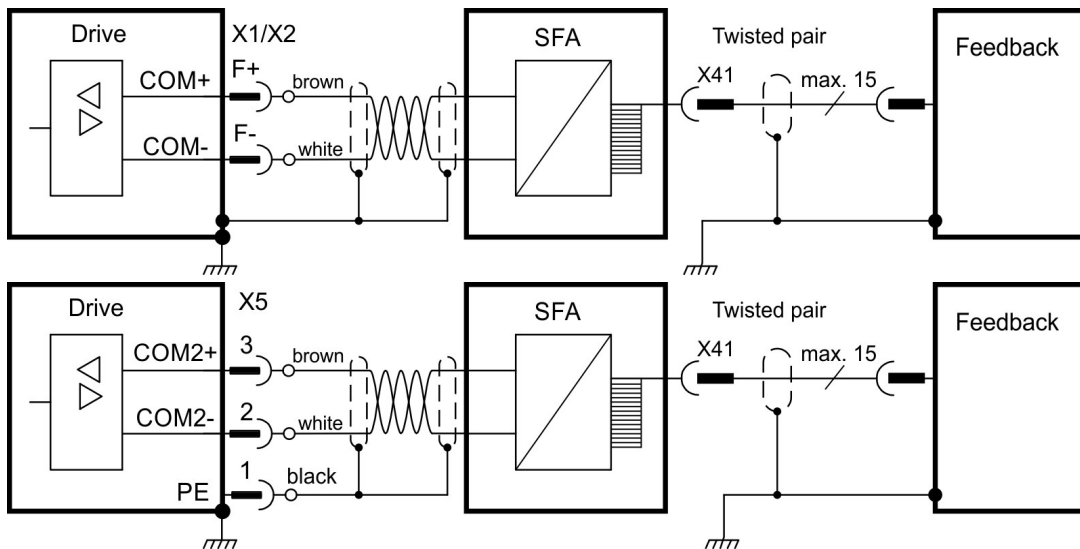
Other use than that described in section “Use as directed” is not intended and can lead to equipment damage. The adapter may not be used with a machine that does not comply with appropriate national directives or standards. It is not allowed to change Kollmorgen cables or adapters.

Dimensions (in mm)



Wiring

Connect the flying leads of the SFA cable to the AKD2G and ground the feedback cable shield near the SFA:



Operating Voltage: 7V to 12V, Maximum Load Current: 350mA

Supported feedback types, pinout

X41		Resol-	BiSS		EnDat		HIPER-	Sin /	Sin /	Incr.	Incr. Enc.	Hall	SSI	Step/	CW/
Pin	SFD	ver (1)	B	C	2.1	2.2	FACE	Cos	Cos	Enc.	+Hall			Dir	CCW
1	-	-	-	-	-	-	-	-	Hall U	-	Hall U	Hall U	-	-	-
2	-	-	CL+	CL+	CL+	CL+	-	-	Hall V	-	Hall V	Hall V	CL+	-	-
3	-	-	CL-	CL-	CL-	CL-	-	-	Hall W	-	Hall W	Hall W	CL-	-	-
4	S+	-	S+	S+	S+	S+	S+	S+	S+	S+	S+	-	-	-	-
5	S-	-	S-	S-	S-	S-	S-	S-	S-	S-	S-	-	-	-	-
6	COM+	R1 Ref+	D+	D+	D+	D+	D+	Z+	Z+	Z+	Z+	-	D+	-	-
7	COM-	R2 Ref-	D-	D-	D-	D-	D-	Z-	Z-	Z-	Z-	-	D-	-	-
8	-	Th+	Th+	-	Th+	-	Th+	Th+	Th+	Th+	Th+	Th+	-	Th+	Th+
9	-	Th-	Th-	-	Th-	-	Th-	Th-	Th-	Th-	Th-	Th-	-	Th-	Th-
10	+5 V	-	+5 V	+5 V	+5 V	+5 V	8 to 9 V	+5 V	+5 V	+5 V	+5 V	+5 V	+5 V	+5 V	+5 V
11	0 V	-	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V
12	-	S1 SIN+	A+	-	A+	-	SIN+	A+	SIN+	A+	A+	-	-	Step+	CW+
13	-	S3 SIN-	A-	-	A-	-	SIN-	A-	SIN-	A-	A-	-	-	Step-	CW-
14	-	S2 COS+	B+	-	B+	-	COS+	B+	COS+	B+	B+	-	-	Dir+	CCW+
15	-	S4 COS-	B-	-	B-	-	COS-	B-	COS-	B-	B-	-	-	Dir-	CCW-

CL = CLOCK, D = DATA, S = SENSE, Th = Thermal control, Z = Zero

(1) : Resolver with AKD2G-CON-SFA-R00 only, all other feedback devices with AKD2G-CON-SFA-E00 only

North America

KOLLMORGEN

203A West Rock Road
Radford, VA 24141, USA

Web: www.kollmorgen.com

Mail: support@kollmorgen.com

Tel.: +1 540 633 - 3545

Europe

KOLLMORGEN Europe GmbH

Pempelfurtstraße 1
D-40880 Ratingen

Web: www.kollmorgen.com

Mail: technik@kollmorgen.com

Tel.: +49 2102 9394 - 0

Italy

KOLLMORGEN srl

Largo Brughetti 1/B2
I-20813 Bovisio Masciago (MI)

Web: www.kollmorgen.it

Mail: mil-info@kollmorgen.com

Tel.: +39 0362 594 260

Edition: D, July 2021

Document part number: 907-200027-00