Connector Pinout

Part number example:

AKM62P - AN C N DA 00

Abbreviations:

U	Motor phase U	**BR**	Motor holding brake	**Up**	Sensor Voltage supply
V	Motor phase V	**TH**	Thermal sensor	**0V**	Ground for Sensor Voltage supply
W	Motor phase W	**Z**	Zero pulse		
PE	Protection Earth	**n.c.**	not connected		

Connector Options (C)

Code PTC	Code KTY 84-130	Usable with	Description	Location
B	1	AKM2	Two IP65 connectors size 1.0, angular, rotatable	Motor mounted
C	7	AKM1 - AKM2	Two IP65 connects size 1.0	0.5m cable mounted
C	1	AKM3 - AKM7	Two IP65 connectors size 1.0, angular, rotatable	Motor mounted
D	-	AKM1, with SFD, w/o brake	One IP65 hybrid connector i-tec	Motor mounted
D	-	AKM2 - AKM6, SFD w/o brake	One IP65 hybrid connector size 1.0, angular, rotatable	Motor mounted
G	-	AKM2 - AKM6	Two IP65 connectors size 1.0, straight	Motor mounted
H	1	AKM74Q & AKM82T	One IP65 feedback connector size 1.0, one IP65 power connector size 1.5	Motor mounted
M	-	AKM1 - AKM4	Two IP20 Molex connectors, Io<6A	0.5m cable mounted
P	-	AKM1 - AKM4, with SFD, w/o brake	One IP20 Molex hybrid connector, Io<6A	0.5m cable mounted
T	2	AKM8	Terminal box IP65 for power, one IP65 feedback connector size 1.0	Motor mounted
Y	1	AKM1	IP65, y-tec connector	Motor mounted

Feedback Options (DA)

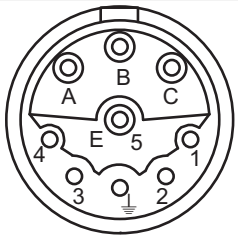
Code	Description	Model	Usable with	Remarks
1-	Comcoder		AKM1 - AKM8	1024 PPR
2-	Comcoder		AKM1 - AKM8	2048 PPR
AA	BiSS B Encoder	AD36	AKM2 - AKM4	Single Turn
AA	BiSS B Encoder	AD58	AKM5 - AKM8	Single Turn
AB	BiSS B Encoder	AD36	AKM2 - AKM4	Multi Turn
AB	BiSS B Encoder	AD58	AKM5 - AKM8	Multi Turn
C-	Smart Feedback Device	Size 10	AKM1	Single Turn
C-	Smart Feedback Device	Size 15	AKM2 - AKM4	Single Turn
C-	Smart Feedback Device	Size 21	AKM5 - AKM8	Single Turn
DA	EnDAT 2.1 Encoder	ECN 1113	AKM2 - AKM4	Single Turn, optical
DA	EnDAT 2.1 Encoder	ECN 1313	AKM5 - AKM8	Single Turn, optical
DB	EnDAT 2.1 Encoder	EQN 1125	AKM2 - AKM4	Multi Turn, optical
DB	EnDAT 2.1 Encoder	EQN 1325	AKM5 - AKM8	Multi Turn, optical
LA	EnDAT 2.1 Encoder	ECI 1118	AKM2 - AKM3	Single Turn, inductive
LA	EnDAT 2.1 Encoder	ECI 1319	AKM4 - AKM8	Single Turn, inductive
LB	EnDAT 2.1 Encoder	EQI 1130	AKM2 - AKM3	Multi Turn, inductive
LB	EnDAT 2.1 Encoder	EQI 1331	AKM4 - AKM8	Multi Turn, inductive
GA*	HIPERFACE Encoder	SKS36	AKM2 - AKM8	Single Turn
GB*	HIPERFACE Encoder	SKM36	AKM2 - AKM8	Multi Turn
GC	HIPERFACE Encoder	SEK34	AKM1	Single Turn, capacitive
GD	HIPERFACE Encoder	SEL34	AKM1	Multi Turn, capacitive
R-	Resolver	Size 10	AKM1	2 poles, hollow shaft
R-	Resolver	Size 15	AKM2 - AKM4	2 poles, hollow shaft
R-	Resolver	Size 21	AKM5 - AKM8	2 poles, hollow shaft

* Not available with AKM2 and connector option "C" (cable with IP65 connectors)

Connector codes 1, Y: AKM1

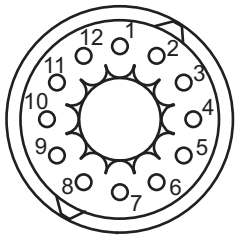
All connector views: facing front.

Power



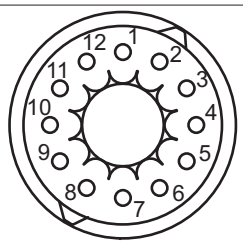
Pin	Function	Pin	Function
1	BR +	A	U
2	BR -	B	W
3	n.c.	C	V
4	n.c.	E	n.c.
5	n.c.	⏚	PE

Resolver (Feedback code R-)



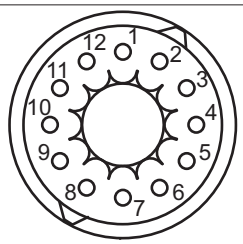
Pin	Function		Pin	Function	
1	n.c.		7	S2	cos+
2	TH +		8	S1	sin+
3	S4	cos-	9	R1	ref+
4	S3	sin-	10	n.c.	
5	R2	ref-	11	n.c.	
6	TH -		12	n.c.	

SFD (Feedback code C-)



Pin	Function	Pin	Function
1	Up	7	n.c.
2	0V	8	n.c.
3	Data -	9	n.c.
4	Data +	10	n.c.
5	n.c.	11	n.c.
6	n.c.	12	n.c.

Encoder (Feedback codes GC, GD)



Pin	Function	Pin	Function
1	TH +	7	Data -
2	TH -	8	Sin +
3	n.c.	9	Cos +
4	Sin -	10	Up
5	Cos -	11	0V
6	Data +	12	n.c.

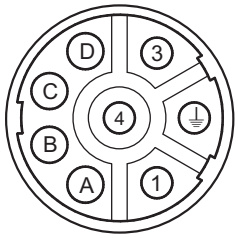
Connector codes 1, 2, 7, B, C, G, H, T: AKM1 - AKM8

All connector views: facing front.

Model	Connector code (PTC)	Connector code (KTY 84-130)
AKM1	C	7
AKM2	B, C	1, 7
AKM3 - AKM7	C	1
AKM2 - AKM6	G	-
AKM74Q, AKM82T	H	1
AKM8	T	2

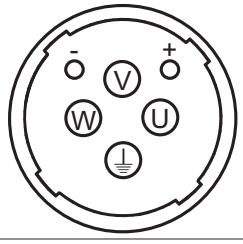
Power

Connector codes 1, 7, B, C, G for AKM1 - AKM7



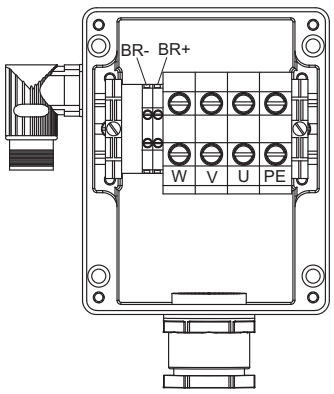
Pin	Function	Pin	Function
1	U	A	BR +
⏚	PE	B	BR -
3	W	C	n.c
4	V	D	n.c.

Connector code 1, H for AKM74Q, AKM82T



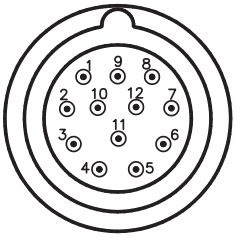
Pin	Function	Pin	Function
U	U	+	BR +
V	V	-	BR -
W	W		
⏚	PE		

Connector code 2, T for AKM8



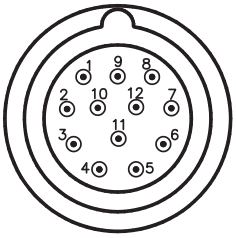
Terminal	Function	Terminal	Function
U	Phase U	BR -	Brake -
V	Phase V	BR +	Brake +
W	Phase W	PE	Protective Earth

Resolver (Feedback code R-)



Pin	Function		Pin	Function	
1	n.c.		7	S2	cos+
2	TH +		8	S1	sin+
3	S4	cos-	9	R1	ref+
4	S3	sin-	10	n.c.	
5	R2	ref-	11	n.c.	
6	TH -		12	n.c.	

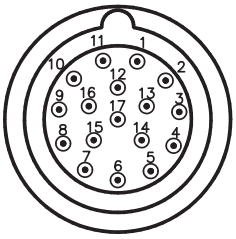
SFD (Feedback code C-)



Pin	Function	Pin	Function
1	Up	7	n.c.
2	0V	8	n.c.
3	Data -	9	n.c.
4	Data +	10	n.c.
5	reserved (shield)	11	n.c.
6	n.c.	12	n.c.

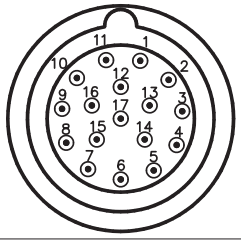
Encoder (Feedback codes Ax, Dx, Lx, Gx)

Model	Feedback code
AKM1	GC, GD
AKM2 - AKM7	AA, AB, DA, DB, LA, LB, GA, GB



Pin	Function	Pin	Function	Pin	Function
1	B -	7	TH +	13	Data -
2	0V	8	Clock +	14	TH -
3	A -	9	B +	15	Clock -
4	Up	10	Sense -	16	n.c
5	Data +	11	A +	17	n.c.
6	n.c.	12	Sense +		

ComCoder (Feedback codes 1-, 2-)

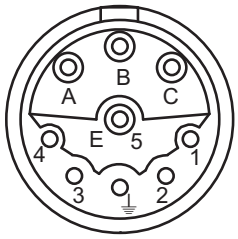


Pin	Function	Pin	Function	Pin	Function
1	B +	7	0V	13	n.c.
2	B -	8	TH +	14	n.c.
3	A +	9	TH -	15	Hall U
4	A -	10	Up	16	Hall V
5	Z +	11	n.c.	17	Hall W
6	Z -	12	n.c.		

Connector code D: AKM1 - AKM6

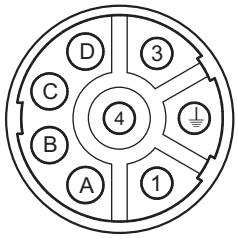
All connector views: facing front.

Power & SFD AKM1 (Feedback code C-)



Pin	Function	Pin	Function
1	Up	A	U
2	0V	B	W
3	Data -	C	V
4	Data +	E	n.c.
5	n.c.	⏚	PE

Power & SFD AKM2 - AKM6 (Feedback code C-)

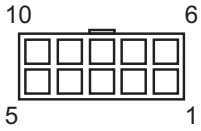


Pin	Function	Pin	Function
1	U	A	Up
⏚	PE	B	0V
3	W	C	Data -
4	V	D	Data +

Connector code P: AKM1 - AKM4

All connector views: facing front.

Power & SFD



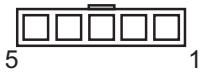
Pin	Function	Pin	Function
1	Up	6	Data -
2	0V	7	Data +
3	Power shield	8	Data shield
4	PE	9	V
5	U	10	W

Connector code M: AKM1 - AKM4

All connector views: facing front.

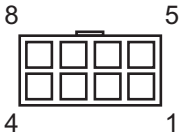
Power

Without brake



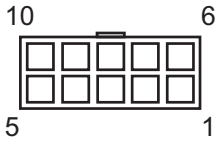
Pin	Function
1	U
2	V
3	W
4	PE
5	Shield

With brake



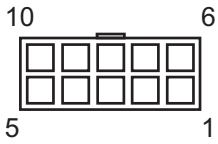
Pin	Function	Pin	Function
1	U	5	Shield
2	V	6	BR +
3	W	7	BR -
4	PE	8	n.c.

Resolver (Feedback code R-)



Pin	Function		Pin	Function	
1	n.c.		6	TH -	
2	TH +		7	S2	cos+
3	S4	cos-	8	S1	sin+
4	S3	sin-	9	R1	ref+
5	R2	ref-	10	Shield	

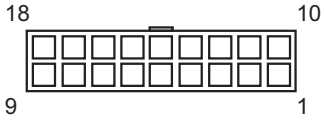
SFD (Feedback code C-)



Pin	Function	Pin	Function
1	Up	4	Data +
2	0V	5	Shield
3	Data -	6...10	n.c.

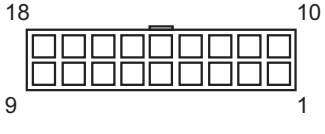
Encoder (Feedback codes Ax, Dx, Lx, Gx)

Model	Feedback code
AKM1	GC, GD
AKM2 - AKM4	AA, AB, DA, DB, LA, LB, GA, GB



Pin	Function	Pin	Function	Pin	Function
1	B -	7	TH +	13	Data -
2	0V	8	Clock +	14	TH -
3	A -	9	B +	15	Clock -
4	Up	10	Sense -	16	n.c
5	Data +	11	A +	17	n.c.
6	n.c.	12	Sense +	18	Shield

ComCoder (Feedback codes 1-, 2-)



Pin	Function	Pin	Function	Pin	Function
1	B +	7	0V	13	n.c.
2	B -	8	TH +	14	n.c.
3	A +	9	TH -	15	Hall U
4	A -	10	Up	16	Hall V
5	Z +	11	n.c.	17	Hall W
6	Z -	12	n.c.	18	Shield