

Yaskawa - 'M' Manufacturers Connector, Cable & Wiring Information

Current Exlar Feedback configurations are as follows:

YS2 = Yaskawa Absolute Encoder for GSX/GSM 40/50/60 Frame Sizes – SGMGH motor wiring w/MS Style connectors for 'M' option

YS3 = Yaskawa Absolute Encoder for GSX/GSM 20/30 Frame Sizes – SGMGH motor wiring w/MS Style connectors for 'M' option

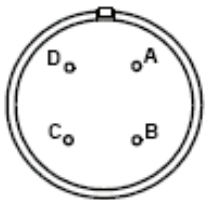
*Please make note, We are unable to provide the Yaskawa feedback options with SLM/SLG Rotary Actuators.

Exlar Actuator Power Wiring

All Yaskawa options are wired from this excerpt taken from the SGMGH motor section of the Sigma II Catalog:

Without Brake Option

Motor Plug

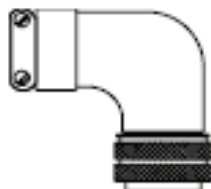


Connector Wiring on the Motor Side	
A	U Phase
B	V Phase
C	W Phase
D	Ground Terminal

Yaskawa 4 Pin Motor Connector MS3102A18-10P, as shown above, is used on the following Exlar models using the 'M' Manufacturers Connector Option:

GSM20,GSM30,GSM40
GSX20,GSX30,GSX40,GSX50

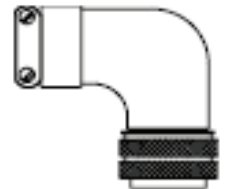
Mating 4 Pin Connector
MS3108B18-10S 90 degree +
MS3057-10A Cable Clamp



Yaskawa 4 Pin Connector

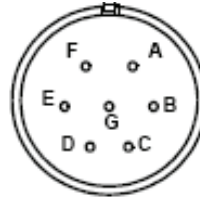
MS3102A22-22P, as shown above, is used on the following Exlar Models using the 'M' Manufacturers Connector Option: GSX60

Mating 4 Pin Connector
MS3108B22-22S 90 degree + MS3057-12A Cable Clamp



With Brake Option

Motor Plug

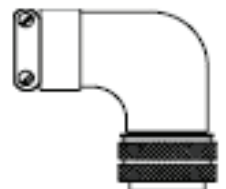


Connector Wiring on the Motor Side			
A	U Phase	E	Brake Terminal
B	V Phase	F	Brake Terminal
C	W Phase	G	—
D	FG (Frame Ground)		

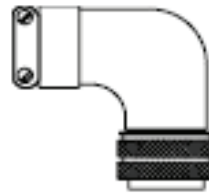
Yaskawa 7 Pin Motor Connector MS3102E20-15P, as shown above, is used on the following Exlar models using the 'M' Manufacturers Connector Option:

GSM20,GSM30,GSM40
GSX20,GSX30,GSX40,GSX50

Mating 7 Pin Connector
MS3108B20-15S 90 degree +
MS3057-12A Cable Clamp



Yaskawa 7 Pin Connector MS3102E24-10P, as shown above, is used on the following Exlar Models using the 'M' Manufacturers Connector Option:
GSX60



Mating 7 Pin Connector
MS3108B24-10S 90 degree + MS3057-16A Cable Clamp

Yaskawa Basic Power Cable Part Numbers

Excerpt from SGMGH Section of the Yaskawa Sigma II Catalog:

Cable Description (C)	Motor Size (kW)	Part Number*		Comments	Item Class
		without Brake	with Brake		
Power Cable with Connectors (IP67)	0.5, 0.9, 1.3	B1E-□□(A)	B1BE-□□(A)	Use the following key to specify needed cable length (last two digits of the part number): 03: 3m 05: 5m 10: 10m (standard) 15: 15m 20: 20m	
	2.0, 3.0	B2E-□□(A)	B2BE-□□(A)		
	4.4	B3E-□□(A)	B3BE-□□(A)		
	5.5, 7.5	B5E-□□(A)	B5E-□□(A) B7BCE-□□(A)**		

The following Yaskawa Power Cables are recommended for all Exlar Actuators using the 'M' Manufacturers Connector Option:

ASSEMBLY

KEYWAY LOCATION

CONNECTION

NOTES:

- ASSEMBLY INFORMATION LABEL: VERSION CODE MMYY
- ADD WHITE TAPE LABEL WITH BLACK PRINT (SEE CONNECTION DIAGRAM FOR PRINTING INFORMATION).
- ADD APPROPRIATE HEAT SHRINK TUBE.
- YASKAWA INFORMATION LABEL: YASKAWA "ITEM NUMBER" ("REV") "VENDOR CODE" "MM/YY"

CABLE SPECIFICATION (mm)

	B1E	B2E	B3E	B5E	B6E
OUTER DIAMETER	18.4	17.9	23.9	27.4	32.3
BENDING RADIUS	8 O.D.	8 O.D.	8 O.D.	8 O.D.	8 O.D.
STANDARD	UL	UL	UL	UL	UL

ULIP CLASSIFICATION

CONNECTOR: UL4MVP167

NO.	ITEM	DESCRIPTION	QTY.	NOTES
1	"SEE CHART"	MOISTURE PROOF PLUG	1	DDK
2	"SEE CHART"	MOLDED BACKSHELL 95 DUROMETER PVC	1	INTERCON
3	"SEE CHART"	CABLE (1AWG x 4C, SEOPRENE - 600V)	-	COLEMAN

ITEM NUMBER	DWG VERSION	X = LENGTH	CABLE	CONNECTOR
B1E-03(A)	UWR00418-1	3000	12AWGx4	CE02-6A18-10DS DM53106A18-10S(D190)
B1E-05(A)	UWR00418-2	5000		
B1E-10(A)	UWR00418-3	10000		
B1E-15(A)	UWR00418-4	15000	10AWGx4	CE02-6A22-22DS DM53106A22-22S(D190)
B1E-20(A)	UWR00418-5	20000		
B2E-03(A)	UWR00418-6	3000		
B2E-05(A)	UWR00418-7	5000		
B2E-10(A)	UWR00418-8	10000	8AWGx4	CE05-6A32-17SD-B
B2E-15(A)	UWR00418-9	15000		
B2E-20(A)	UWR00418-10	20000		
B3E-03(A)	UWR00418-11	3000	6AWGx4	CE05-6A32-17SD-B
B3E-05(A)	UWR00418-12	5000		
B3E-10(A)	UWR00418-13	10000		
B3E-15(A)	UWR00418-14	15000		
B3E-20(A)	UWR00418-15	20000	4AWGx4	22471
B5E-03(A)	UWR00418-16	3000		
B5E-05(A)	UWR00418-17	5000		
B5E-10(A)	UWR00418-18	10000	22589	CE05-6A32-17SD-B
B5E-15(A)	UWR00418-19	15000		
B5E-20(A)	UWR00418-20	20000		
B6E-03(A)	UWR00418-21	3000		
B6E-05(A)	UWR00418-22	5000	22471	CE05-6A32-17SD-B
B6E-10(A)	UWR00418-23	10000		
B6E-15(A)	UWR00418-24	15000		
B6E-20(A)	UWR00418-25	20000		

DESIGN: - MATERIAL: SEE CHART ABOVE

DRAWN: R. GRAVES 1-28-03 **SPIC:** SEE CHART ABOVE

CHKD: J. PINCENTI 2-10-03 **FINISH:** N/A

TECH: - **TOLERANCE/REFERENCES:**

APPR: M. MORAN 8-17-03 **UES00002**

YASKAWA Energy in Motion

TITLE: SGM(H)/S(H) MOTOR POWER CABLE

DWG: UWR00418

ITEM #: *SEE CHART ABOVE

REVISIONS: 1/1 SCALE: NTS

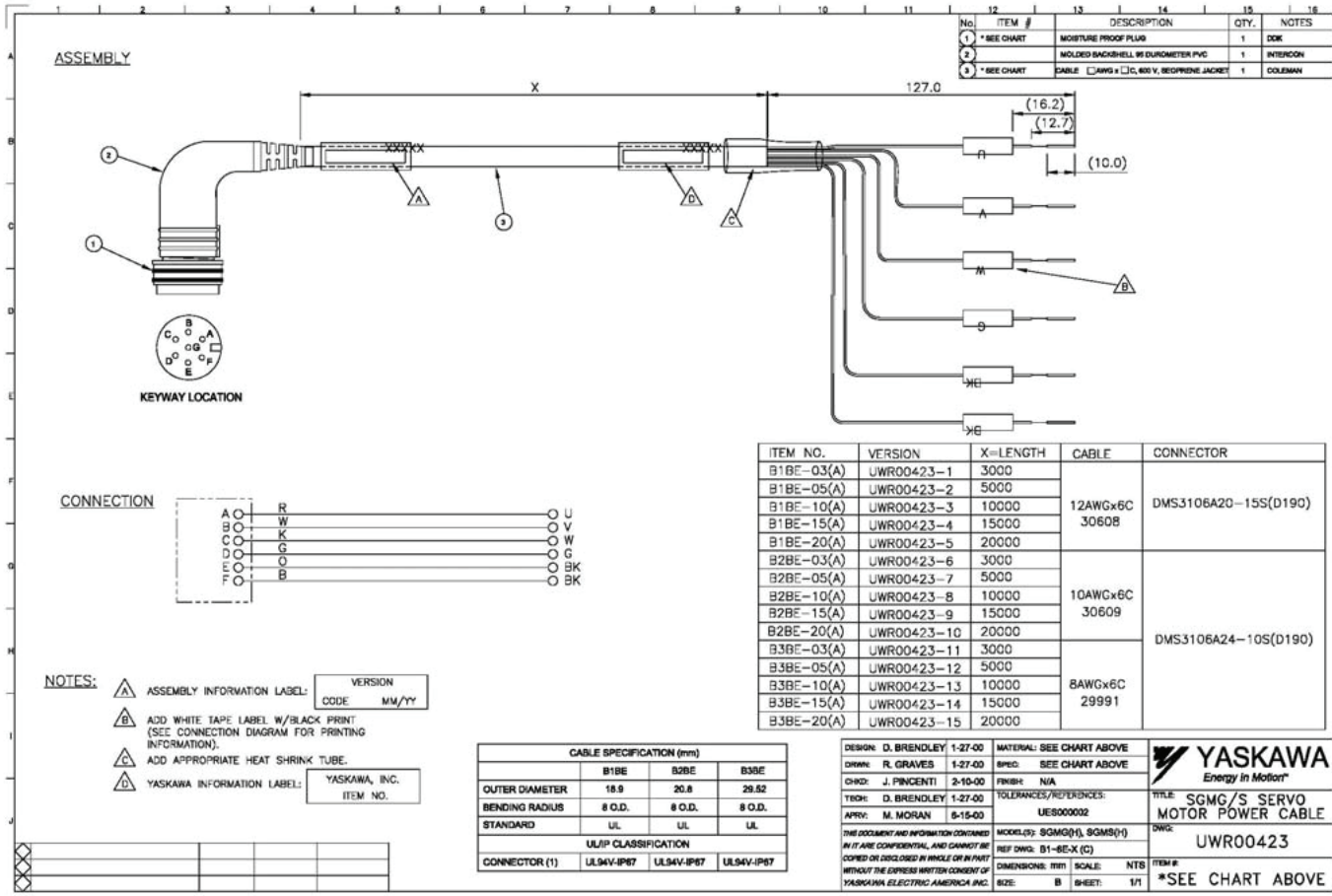
DATE: 8/17/03

BY: B

CHKD: 1/1

Without Brake

GSM20, GSM30, GSM40, GSX20, GSX30, GSX40, GSX50 – B1E-xx(A)
GSX60 – B2E-xx(A)



With RB-Rear Brake Option

GSM20, GSM30, GSM40, GSX20, GSX30, GSX40, GSX50 - **B1BE-xx(A)**
 GSX60 - **B2BE-xx(A)**

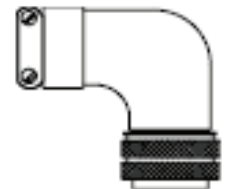
*When selecting part numbers other than Exlar recommends, please consult your Yaskawa Representative, Distributor or Agent.

Exlar Actuator Feedback Wiring

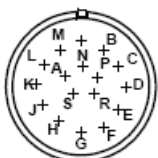
'M' Manufacturers Connector Option with YS2 or YS3 Feedback: Serial Absolute Encoder connections excerpt from SGMGH Section of the Yaskawa Sigma II Catalog:

Yaskawa 17 Pin Connector MS3102A20-29P, as shown above, is used on All Exlar Models using the 'M' Manufacturers Connector Option.

Mating 17 Pin Connector
 MS3108B20-29S 90 degree +
 MS3057-12A Cable Clamp



Encoder Plug



MS3102A20-29P

Connector Wiring on the Encoders			
A	—	K	—
B	—	L	—
C	Data +	M	—
D	Data -	N	—
E	—	P	—
F	—	R	—
G	OV	S	Battery - (Note*)
H	+5Vdc	T	Battery + (Note*)
J	FG (Frame Ground)		

*Note: Used with an absolute encoder only.
 Non Environmental Mating Connector
 MS3108B20-29S (L Type)
 MS3106B20-29S (Straight Type)