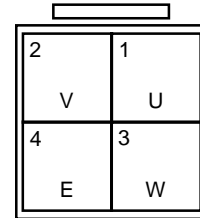


Specification for Connector Plug on Motor (MSMA 30W-750W, MQMA 100W-300W)

Motor

Plug 172167-1 (AMP)
 Pin 170360-1
 Female Plug 172159-1 (AMP)
 Female Pin 170362-1 or 170366-1

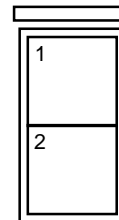
Pin	Wire Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E



Brake

Plug 172165-1 (AMP)
 Pin 170360-1
 Female Plug 172157-1 (AMP)
 Female Pin 170362-1 or 170366-1

Pin	Wire Color	Signal
1	Yellow	Brake
2	Yellow	Brake

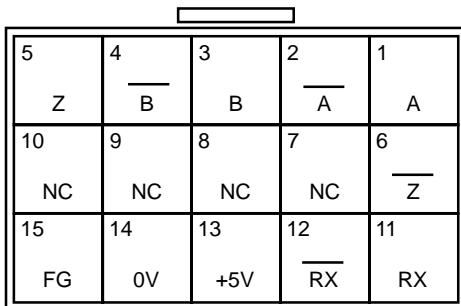


Encoder - 2500p/r Incremental

Plug 172171-1 (AMP)
 Pin 170359-1
 Female Plug 172163-1 (AMP)
 Female Pin 170361-1 or 170365-1

Pin	Wire Color	Signal
1	Red	A
2	Pink	\overline{A}
3	Yellow - Green	B
4	Blue	\overline{B}
5	Yellow	Z
6	Orange	\overline{Z}
7	-	No connection
8	-	No connection

Pin	Wire Color	Signal
9	-	No connection
10	-	No connection
11	Sky Blue	Rx
12	Violet	\overline{Rx}
13	White	+5V
14	Black	0V
15	Shield	FG-Frame ground

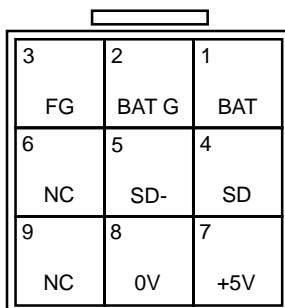


Encoder - 17 bit Absolute

Plug 172169-1 (AMP)
 Pin 170359-1
 Female Plug 172161-1 (AMP)
 Female Pin 170361-1 or 170365-1

Pin	Wire Color	Signal
1	Red	No. 2 battery
2	Pink	Battery ground
3	Yellow - Green	FG- Frame ground
4	Sky Blue	SD
5	Violet	\overline{SD}

Pin	Wire Color	Signal
6	-	No connection
7	White	+5V
8	Black	0V
9	-	No connection



Note: Pin assignment is for 17 bit absolute encoder.
 Connection of pin 1 and 2 not required for 17 bit incremental

Design and specifications are subject to change without notice. Ask Panasonic for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please contact Panasonic immediately for technical consultation.

Specification for Connector Plug on Motor

(MSMA 1kW-5kW, MDMA 750W-5kW, MFMA 400W-4.5kW, MHMA 500W-5kW, MGMA 300W-4.5kW)

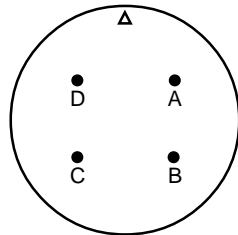
Motor (With Brake / Without Brake)

See Table Below to Determine the Part #:

Plug

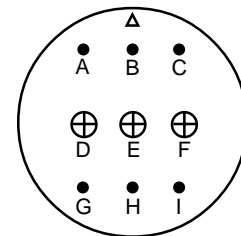
JL04V-2E20-4PE-B
JL04V-2E22-22PE-B

Pin	Signal
A	U
B	V
C	W
D	E



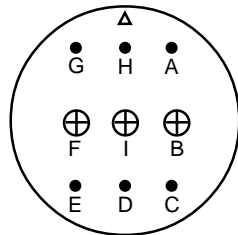
JL04V-2E24-11PE-B

Pin	Signal
A	Brake
B	Brake
C	No Connection
D	U
E	V
F	W
G	FG-Frame Ground
H	FG-Frame Ground
I	No connection



JL04V-2E20-18PE-B

Pin	Signal
G	Brake
H	Brake
A	No Connection
F	U
I	V
B	W
E	FG-Frame Ground
D	FG-Frame Ground
C	No connection



Female Plug - L angle - JL04V-8A20-4SE-EB
 - JL04V-8A20-22SE-EB
 - JL04V-8A20-18SE-EB
 - JL04V-8A24-11SE-EB

Female Plug - Straight - JL04V-6A20-4SE-EB
 - JL04V-6A22-22SE-EB
 - JL04V-6A20-18SE-EB
 - JL04V-6A24-11SE-EB

Cable clamp JL04-2022CK(14)

Brake	MSMA Series		MDMA Series		MFMA Series		MHMA Series		MGMA Series	
	1.0kW-2.5kW	3.0kW-5.0kW	0.75kW-2.5kW	3.0kW-5.0kW	0.4kW-1.5kW	2.5kW-4.5kW	0.5kW-1.5kW	2.0kW-5.0kW	0.3kW-0.9kW	1.2kW-4.5kW
With	20-18	24-11	20-18	24-11	20-18	24-11	20-18	24-11	20-18	24-11
Without	20-4	22-22	20-4	22-22	20-18	24-11	20-4	22-22	20-4	22-22

Specification for Connector Plug on Motor

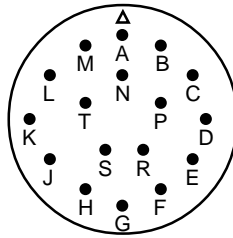
(MSMA 1kW-5kW, MDMA 750W-5kW, MFMA 400W-4.5kW, MHMA 500W-5kW, MGMA 300W-4.5kW)

Encoder - 2500p/r Incremental

Plug MS3102A 20-29P
 Female Plug - Straight JA06A-20-29S-J1-EB
 Female Plug - L angle JA08A-20-29S-J1-EB
 Cable clamp JL04-2022CK(14)

Pin	Signal
A	A
B	\overline{A}
C	B
D	\overline{B}
E	Z
F	\overline{Z}
G	Power ground
H	+5V
J	FG-Frame ground

Pin	Signal
K	No connection
L	No connection
M	No connection
N	No connection
P	RX
R	\overline{RX}
S	No connection
T	No connection

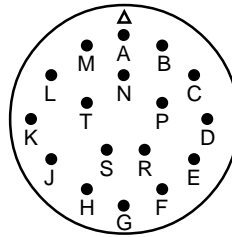


Encoder - 17 bit

Plug MS3102A 20-29P
 Female Plug - Straight JA06A-20-29S-J1-EB
 Female Plug - L angle JA08A-20-29S-J1-EB
 Cable clamp JL04-2022CK(14)

Pin	Signal
A	No connection
B	No connection
C	No connection
D	No connection
E	No connection
F	No connection
G	0V
H	+5V
J	FG-Frame ground

Pin	Signal
K	SD
L	\overline{SD}
M	No connection
N	No connection
P	No connection
R	No connection
S	Battery ground
T	No. 2 battery



Note: Pin assignment is for 17 bit absolute encoder.
 Connection of pin S and T not required for 17 bit incremental