Bipolaire Microstap Driver
MSD-50-4.2-C

Specifications:

Power Supply

Minimum Voltage	: 20 Vdc
Maximum Voltage	: 50 Vdc
Logic Signal Current minimal	: 7 mA
Logic Signal Current maximal	: 16 mA
Maximum input frequentie	:400 Khz

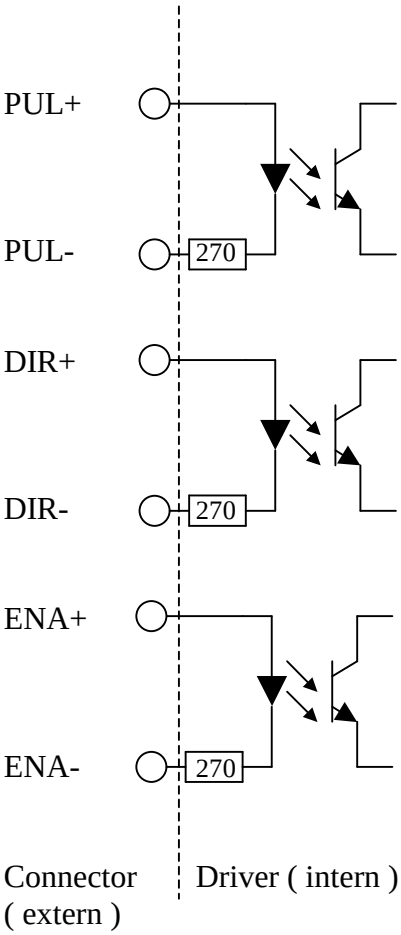
Microsteps

Minimum number of microsteps	: 2
Maximum number of microsteps	: 128
Number of Phases	: 2

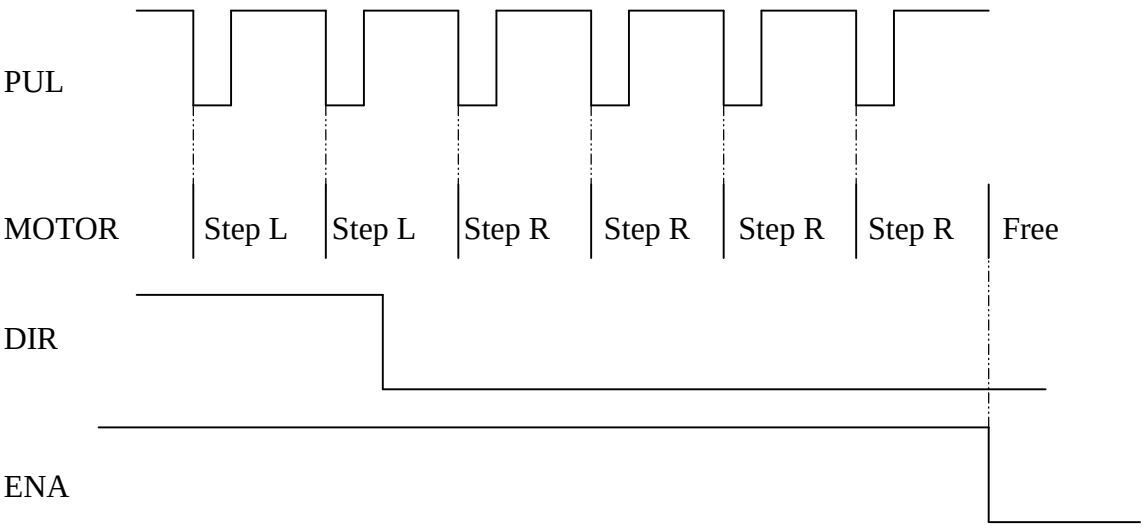
Steppermotor

Minimum Phase Current	: 1.0 A
Maximum Phase Current	: 4.2 A
Number of motorwires (2 phase)	: 4, 6, 8

Optocouplers :



Signals



Pulswidth min 1.4 uS

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Dipswitches

S1	S2	S3	Current	S1	S2	S3	Current
On	On	On	1.0 A	On	On	Off	2.84 A
Off	On	On	1.46 A	Off	On	Off	3.31 A
On	Off	On	1.91 A	On	Off	Off	3.76 A
Off	Off	On	2.37 A	Off	Off	Off	4.2A

S4 = 1 = Auto Current Reduction on
S4 = 0 = Auto Current Reduction off

S5	S6	S7	S8	microsteps	Step / Rotation	S5	S6	S7	S8	microsteps	Step / Rotation
						1	1	1	0	5	1000
0	1	1	1	2	400	0	1	1	0	10	2000
1	0	1	1	4	800	1	0	1	0	20	4000
0	0	1	1	8	1600	0	0	1	0	25	5000
1	1	0	1	16	3200	1	1	0	0	40	8000
0	1	0	1	32	6400	0	1	0	0	50	10000
1	0	0	1	64	12800	1	0	0	0	100	20000
0	0	0	1	128	25600	0	0	0	0	125	25000

0 = Off
1 = On

Connections

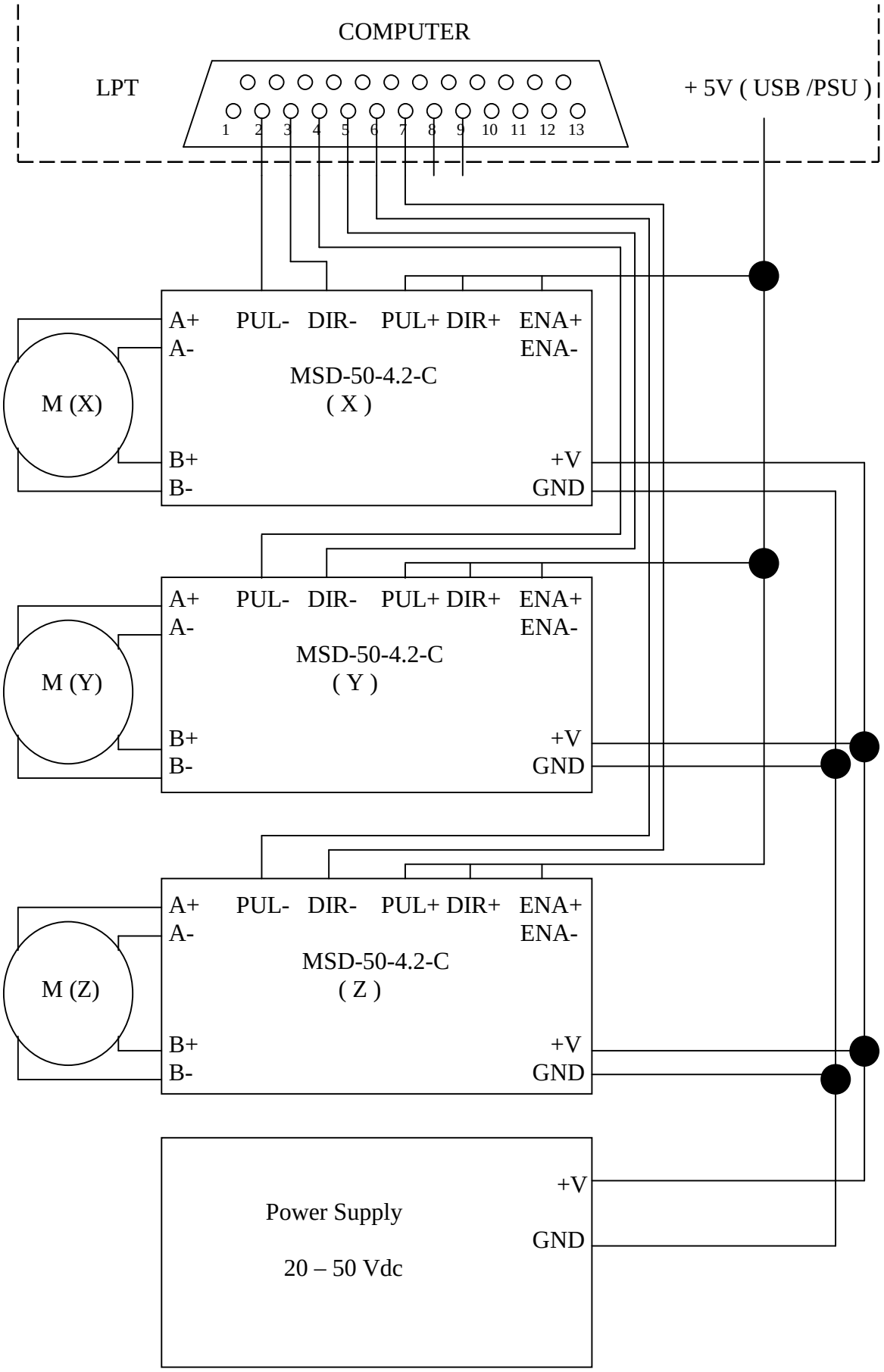
PUL+ : + 5 V
PUL- : STEP
DIR+ : + 5 V
DIR- : DIRECTION
ENA+ : + 5 V (optional)
ENA : SWITCH (optional)

+ V : Positive of Power Supply
GND : Negative of Power Supply (or ground)

A+ : A connection of 1 phase of steppermotor
A- : A\ connection of 1 phase of steppermotor

B+ : B connection of 2 phase of steppermotor
B- : B\ connection of 2 phase of steppermotor

Connection Example



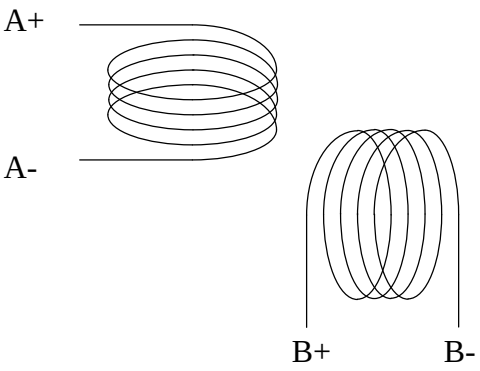
Standard Connections (Example)

X-axes
PUL+ : + 5 V
PUL- : LPT – 2
DIR+ : + 5 V
DIR- : LPT - 3
ENA : NC

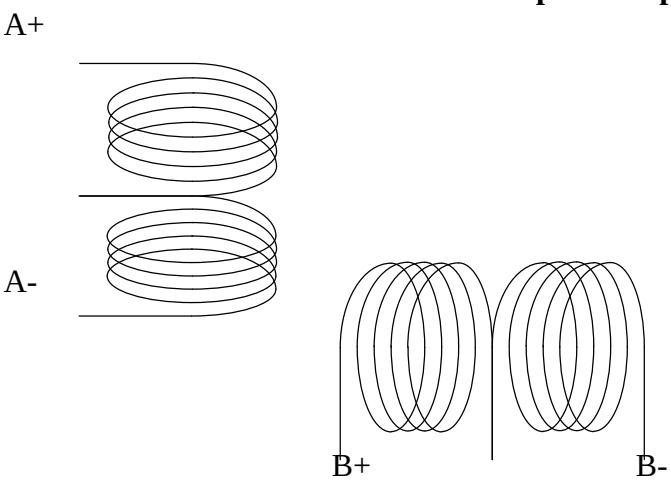
Y-axes
PUL+ : + 5 V
PUL- : LPT – 4
DIR+ : + 5 V
DIR- : LPT - 5
ENA : NC

Z-axes
PUL+ : + 5 V
DIR- : LPT - 6
PUL+ : + 5 V
DIR- : LPT - 7
ENA : NC

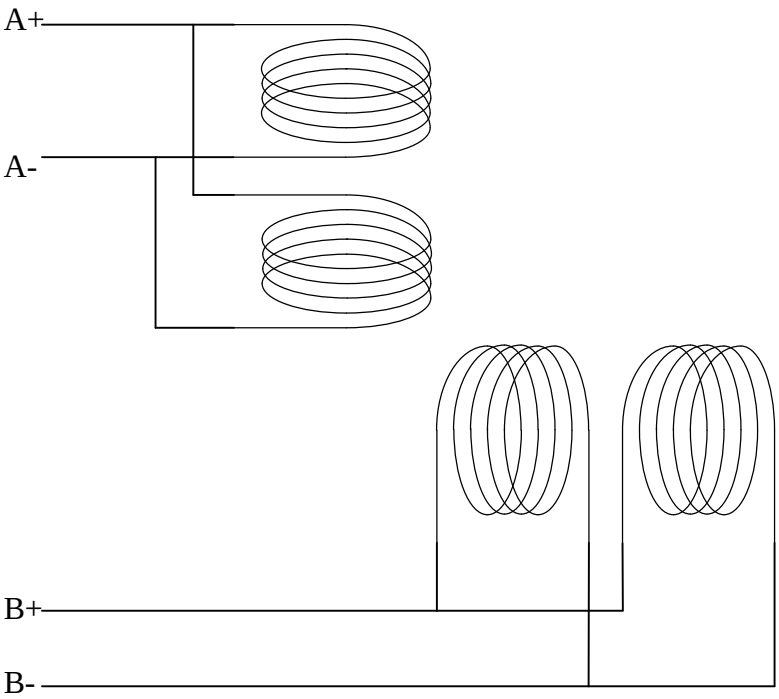
4 Wire 2 phase steppermotor



6 Wire 2 phase steppermotor

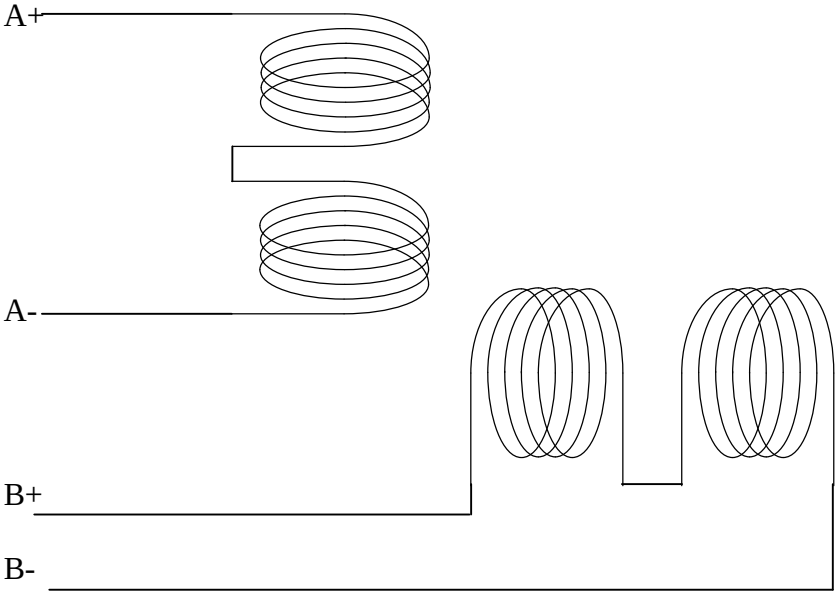


8 Wire 2 phase steppermotor
Parallel connected



I = 2 * Icoil V = Vcoil H = Hcoil

8 Wire 2 phase steppermotor
Serial connected



I = Icoil V = 2 * Vcoil H = 4 * Hcoil