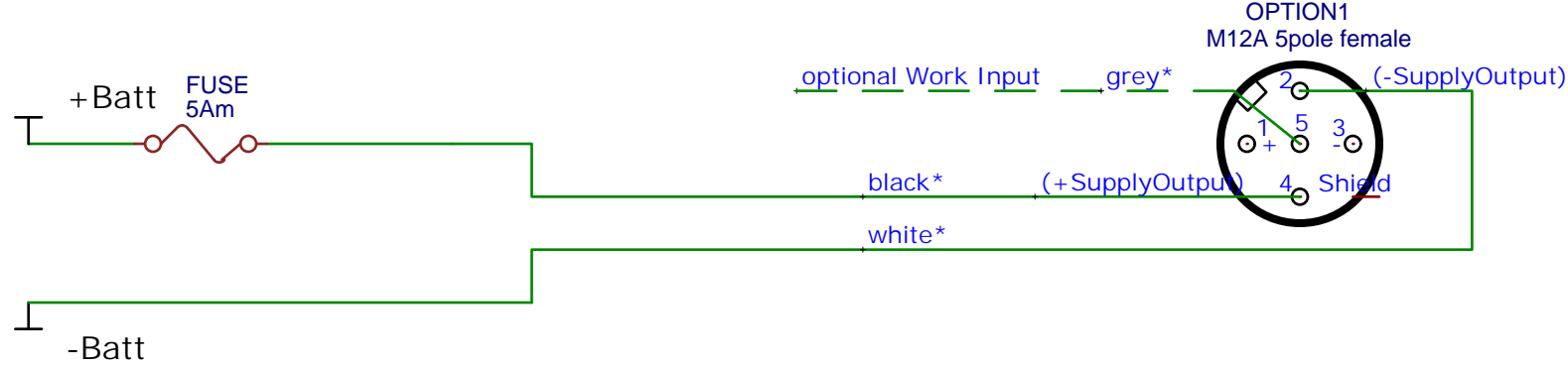
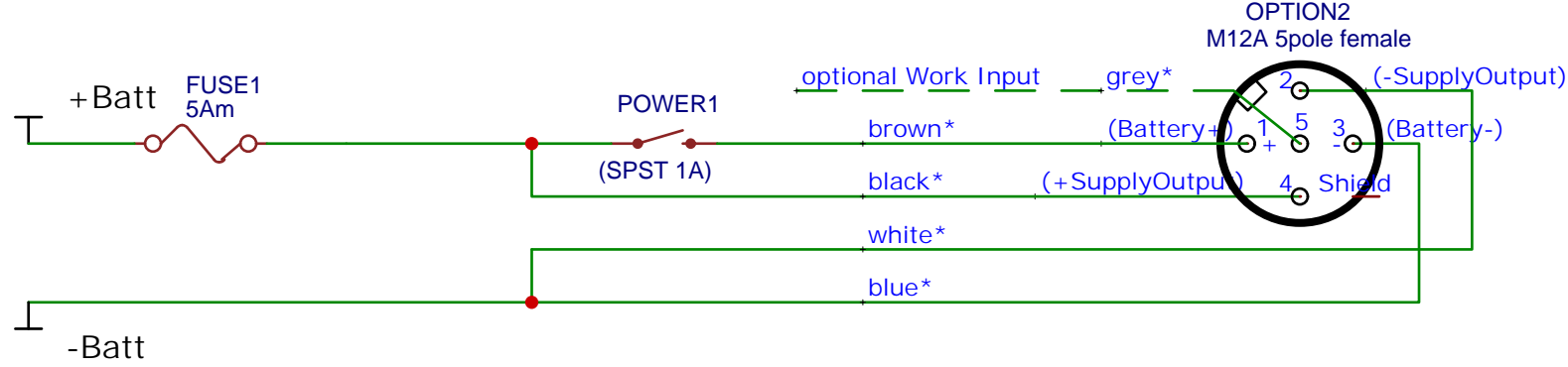


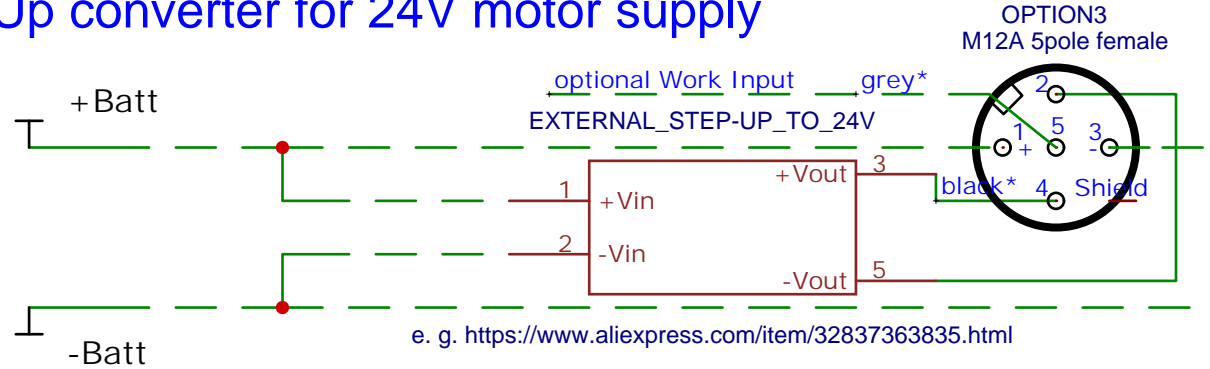
Minimal Connection (12V for Motor/Valves - logic is USB-powered)



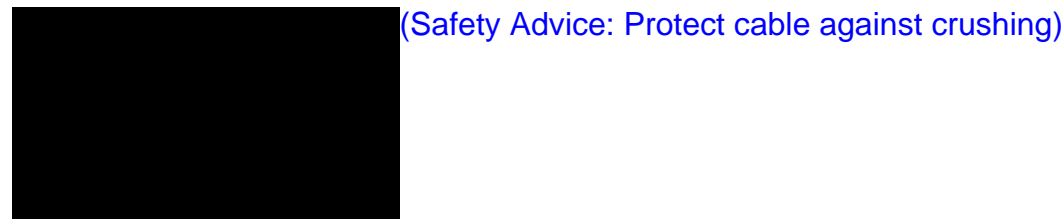
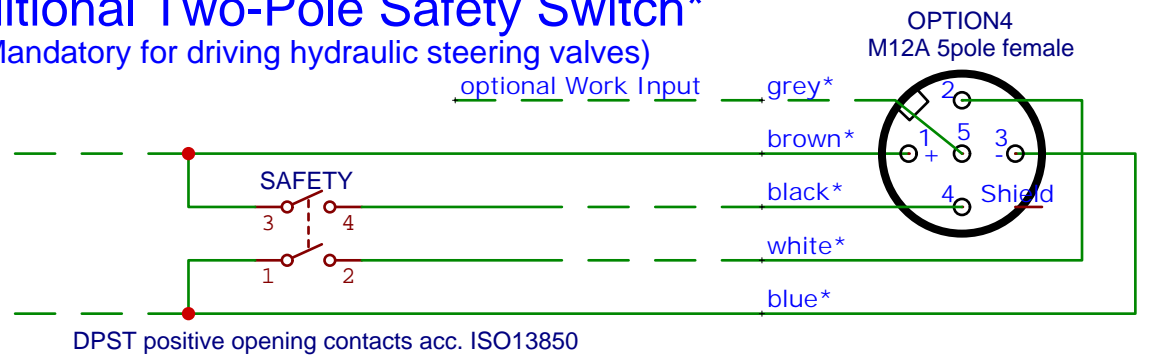
Minimal Connection (12V for Motor/Valves - Ethernet/Wifi)



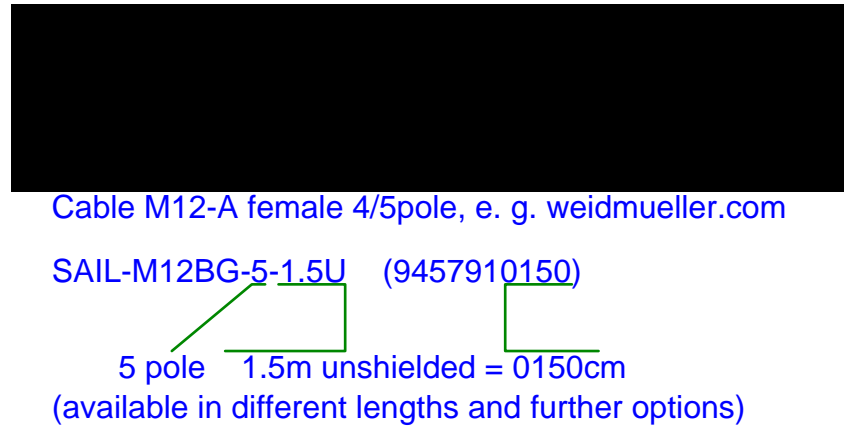
Step-Up converter for 24V motor supply



Additional Two-Pole Safety Switch\*  
(\* Mandatory for driving hydraulic steering valves)

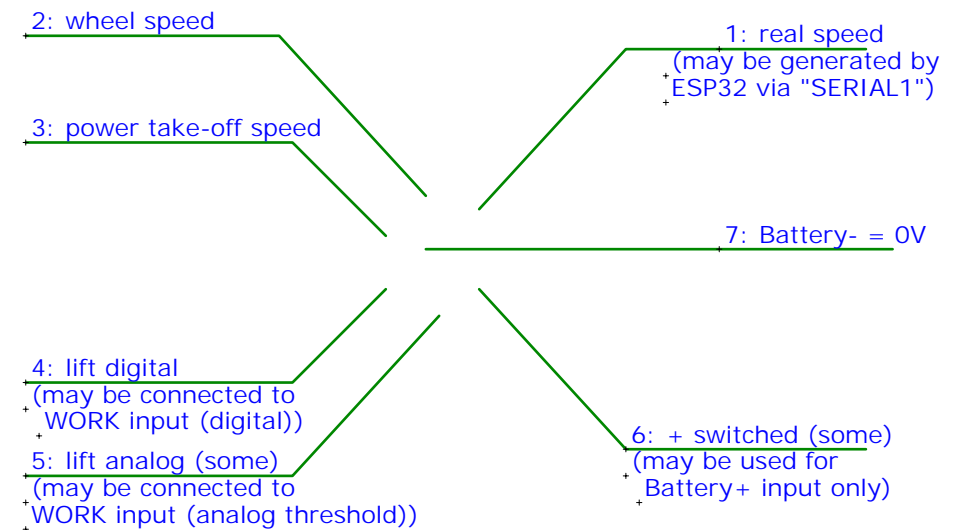


M12 female cable

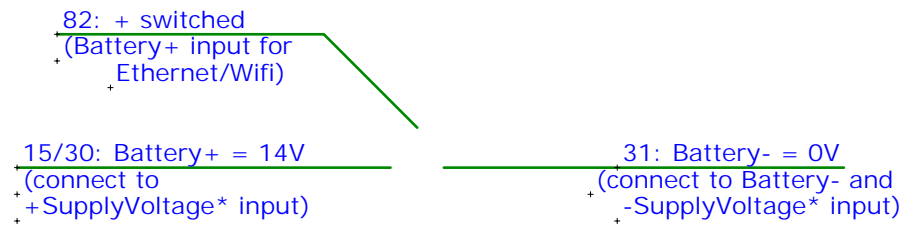


ISO 11786 (DIN 9684-1) Socket

Socket DIN 9681-1 ISO 11786 e. g. Fendt X007 plug / Steyr, etc:  
pin 4 => WorkSwitch digital (low = lower end, high = higher end pos)  
pin 5 (Fendt, if connected) => WorkSwitch analog instead of pin 4 (0V = lower end)  
pin 6 (Fendt) => +Battery and via Stopp switch (5A max for ISO plug!)  
pin 7 (Fendt) => -Battery



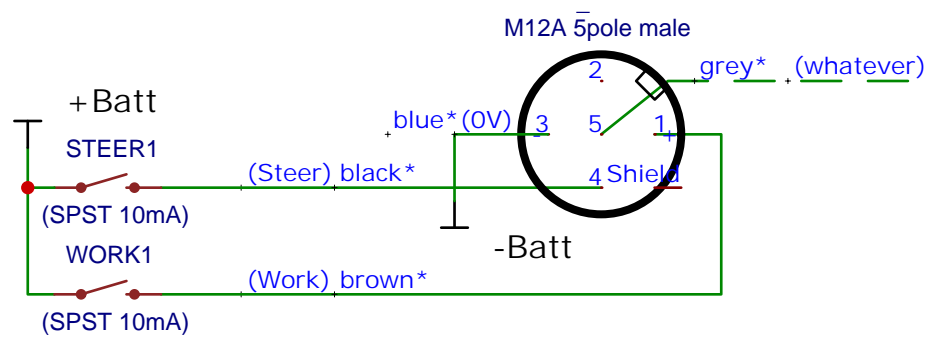
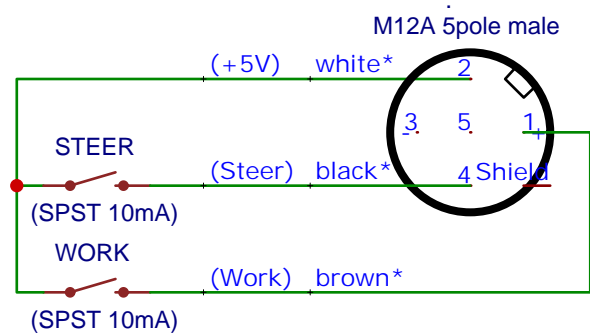
DIN 9680 Socket



\* = Weidmüller cable colors

TITLE: Connecting Power Socket		REV: 2.0
EasyEDA	Company: <a href="https://discourse.agopengps.com">https://discourse.agopengps.com</a>	Sheet: 1/6
	Date: 2021-09-18	Drawn By: GoRoNb

Connection for Control Signals



(work signal may be analog or digital)

M12 male cable

Cable M12-A male 4/5pole, e. g. weidmueller.com

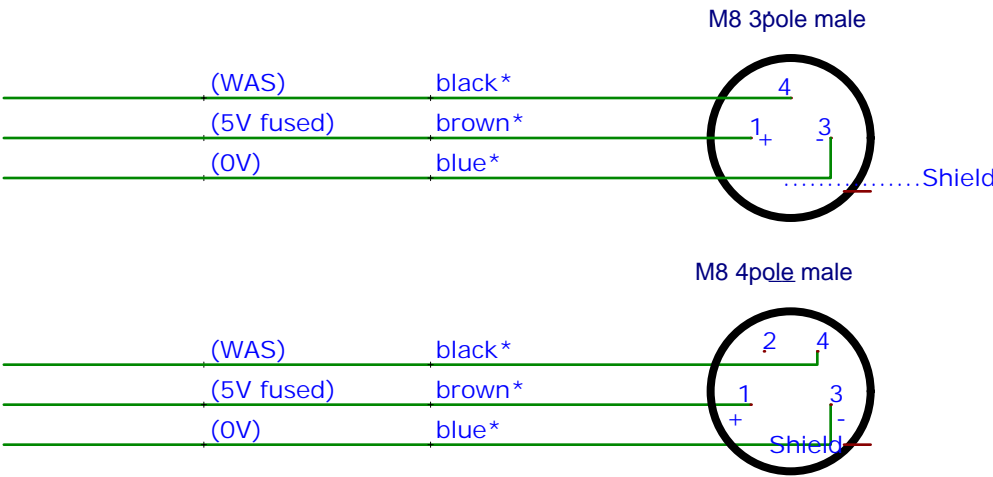
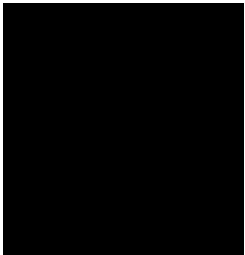
SAIL-M12G-5-1.5U (9457610150)

5 pole 1.5m unshielded = 0150cm  
(available in different lengths and further options)

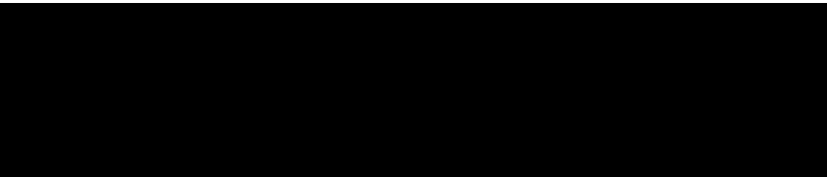
\* = Weidm ü ller cable colors

A

## Connection to (new) WAS



## M8 male cable



Cable M8 male 3/4pole, e. g. [weidmueller.com](https://www.weidmueller.com)

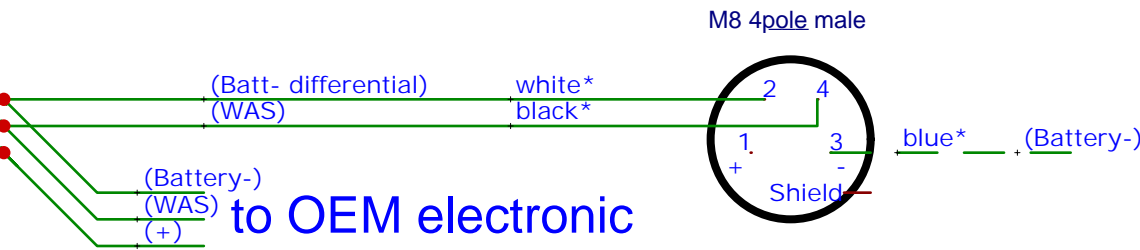
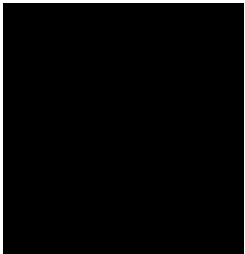
SAIL-M8G-3-3.0U (1824590300)

SAIL-M8G-4-3.0U (1906270300)

4 pole 3m unshielded = 0300cm  
(available in different lengths and further options)

B

## Connection to OEM WAS



to OEM electronic

A

B

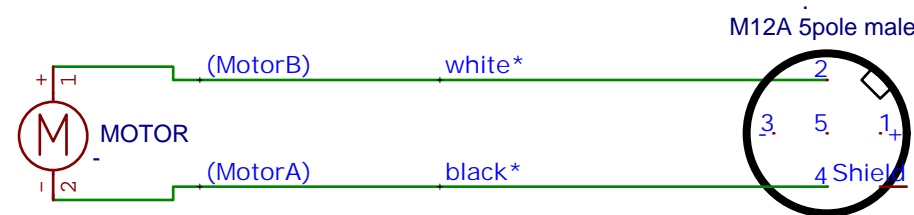
C

D

\* = Weidm ü ller cable colors

TITLE: Connecting the Wheel Angle Sensor (WAS)		REV: 2.0
	Company: <a href="https://discourse.agopengps.com">https://discourse.agopengps.com</a>	Sheet: 3/6
	Date: 2021-09-18 Drawn By: GoRoNb	

# Connection to Steering Motor



# M12 male cable

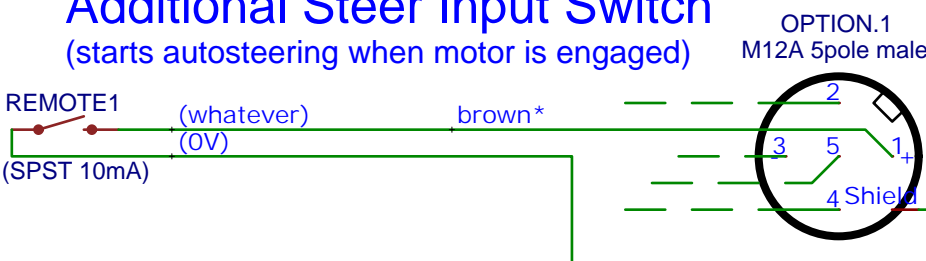
Cable M12-A male 4/5pole, e. g. weidmueller.com

SAIL-M12G-5-1.5U (9457610150)

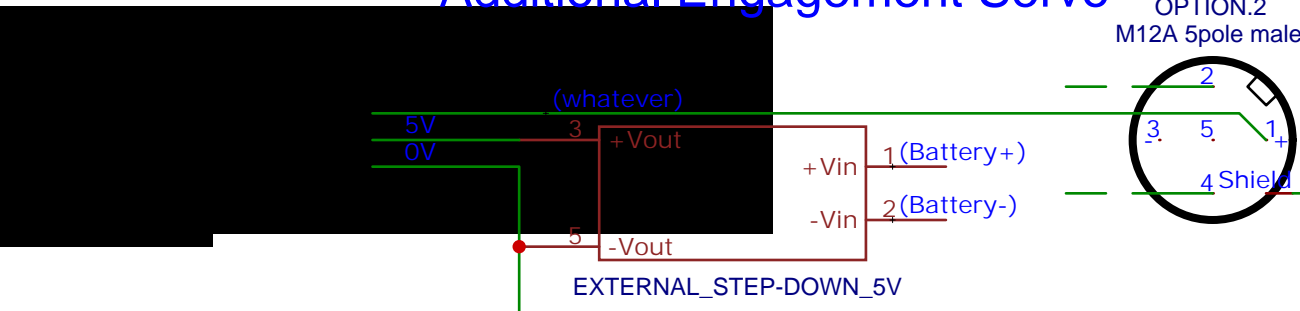
5 pole 1.5m unshielded = 0150cm  
(available in different lengths and further options)

# Additional Steer Input Switch

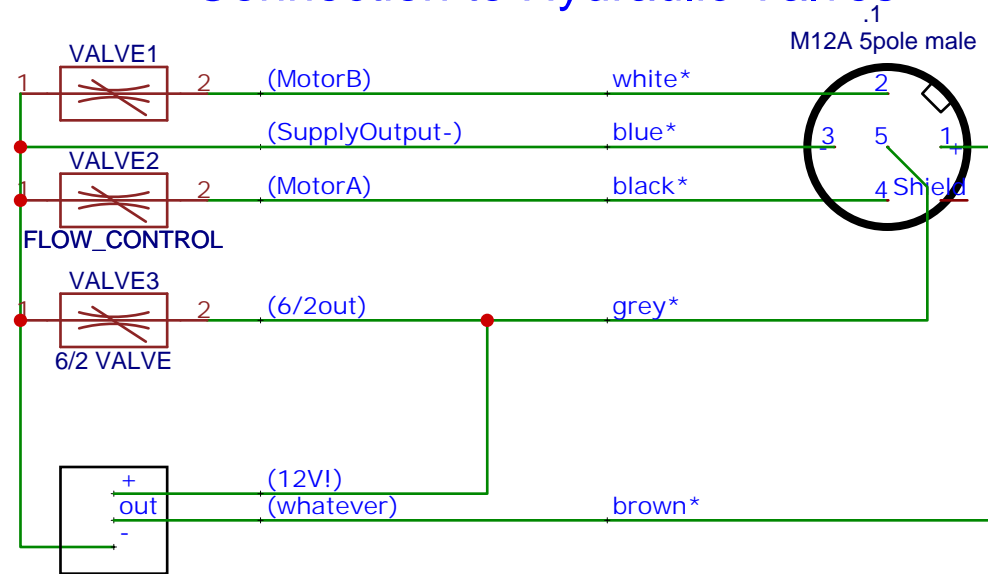
(starts autosteering when motor is engaged)



# Additional Engagement Servo



# Connection to Hydraulic Valves

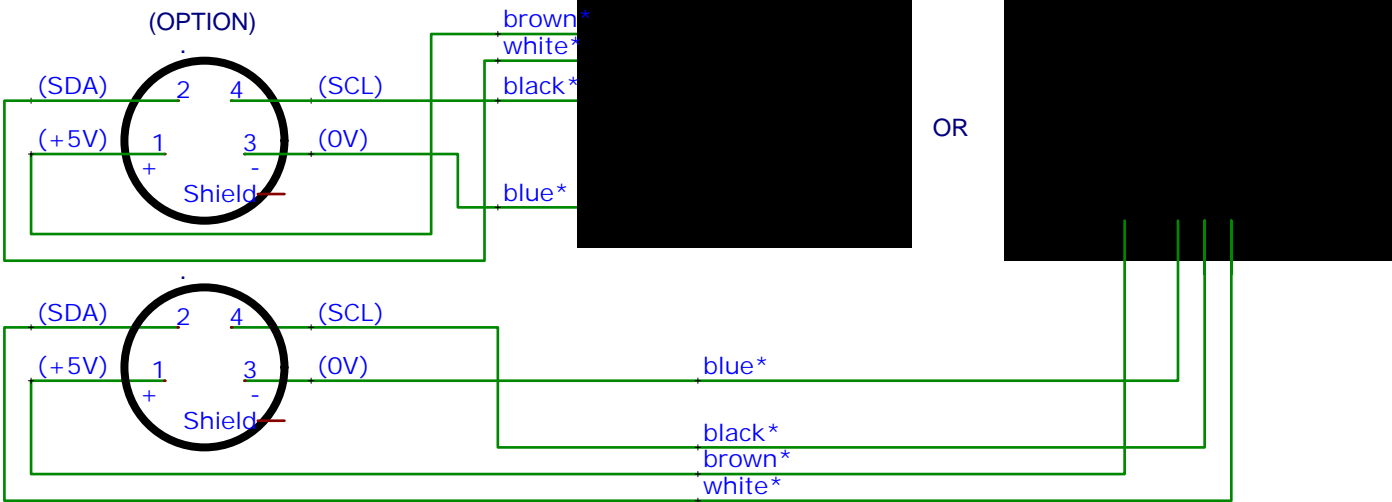


\* = Weidm ü ller cable colors

Turn Sensor or Pressure Switch for disengaging

TITLE: Motor Connector		REV: 2.0
EasyEDA	Company: <a href="https://discourse.agopengps.com">https://discourse.agopengps.com</a>	Sheet: 4/6
	Date: 2021-09-18	Drawn By: GoRoNb

IMU via I<sup>2</sup>C



<https://learn.adafruit.com/adafruit-9-dof-orientation-imu-fusion-breakout-bno085>

M8 male cable



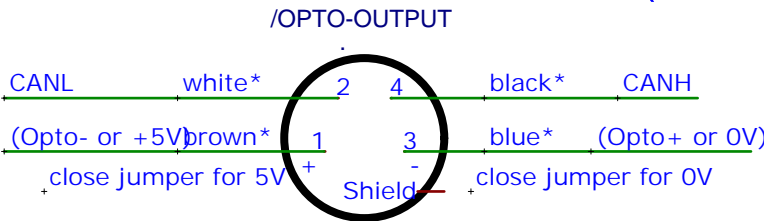
Cable M8 male 4pole, e. g. weidmueller.com

SAIL-M8G-4-3.0U (1906270300)

4 pole 3m unshielded = 0300cm

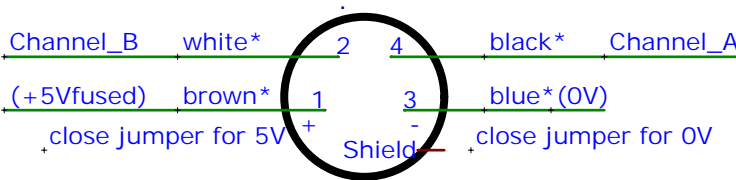
(available in different lengths and further options)

Controller Area Network (CAN)



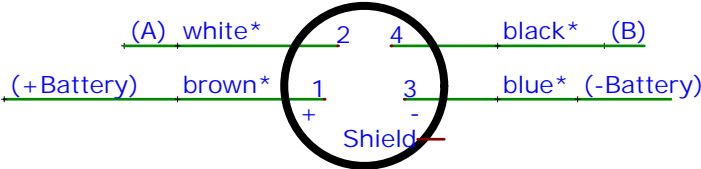
Alternative: Rotary Encoder

(EXPERIMENTAL)



RS485 / ModbusRTU

EG\_MACHINE\_CONTROL



\* = Weidmüller cable colors

TITLE: Bus Connections		REV: 2.0
	Company: <a href="https://discourse.agopengps.com">https://discourse.agopengps.com</a>	Sheet: 5/6
	Date: 2021-09-18	Drawn By: GoRoNb



# PushIn Connector Option

instead of M12/M8



P1	
I2C:SCL	1
CAN:H	3
RS485:A	5
Opto+ /0V	7
WorkSwitch	9
WAS	11
WAS_N	13
Opto- /5V	15
+Battery	17
+SupplyOutput	19
6/2Out	21
Valve/MotorA	23
	2
	4
	6
	8
	10
	12
	14
	16
	18
	20
	22
	24
I2C:SDA	2
CAN:L	4
RS485:B	6
5Vfused	8
SteerSwitch	10
5Vfused	12
0V	14
whatever	16
0V	18
-SupplyOutput'	20
-SupplyOutput'	22
Valve/MotorB	24

S2C-SMT 3.50/24/90LF 3.2SN BK BX

P1: Weidmuller 1289550000 + 1372870000  
S2C-SMT 3.50/24/90LF 3.2SN BK BX + B2CF 3.50/24/180LH SN BK BX

TITLE: PushIn Connector Option		REV: 2.0
	Company: <a href="https://discourse.agopengps.com">https://discourse.agopengps.com</a>	Sheet: 6/6
	Date: 2021-09-18 Drawn By: GoRoNb	