

# LOFA Industries, LLC

## CANplus RT Typical Schematic



Current Version: 0

Drawing Number:960-0000-09

WIRE REQUIREMENT: SAE TXL WIRE

J1939 CAN WIRE TWIST REQUIREMENT:Twist rate: 1 twist every 1.5 inches

WIRE SPLICE REQUIREMENT: ULTRASONIC SPLICE COVERED BY HEAT SHRINK WITH ADHESIVE

VENDORS CAN CONTACT LOFA WITH QUESTIONS ABOUT THIS DRAWING: vendor-support@lofaengineering.com

Please include the drawing number in the subject line of the email.

VARIATION FROM THIS DRAWING IS PROHIBITED WITHOUT WRITTEN CONSENT FROM LOFA.

### Extended Description:

Typical Connections for 640, 800, 900, & 1000

### Revision History

REV	Date	Author	Description
0	2/17/2020	tyreke.hutcherson	Drawing Created

Title: CANplus RT Typical Schematic		Size: B	
Document Name: Cover page			
Sheet: 1 of 5		Date: 2/17/2020	DrawnBy: tyreke.hutcherson
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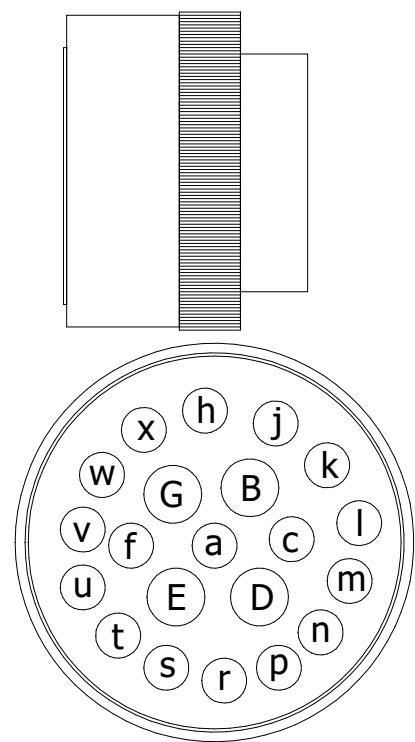
# TYPICAL CONNECTIONS CP640

DRAWING (FOR REFERENCE ONLY) SHOWN IS A TYPICAL SETUP

INPUTS AND OUTPUTS WILL BE CONFIGURED BASED ON APPLICATION

- ①- ENGINE ECU (REFER TO MANUFACTURER DOCUMENTATION)
- ②- RELAY (WITH VOLTAGE SUPPRESSION) MUST BE USED
- ③- IT IS REQUIRED THAT THE SENDER RETURN CONNECTION BE CONNECTED TO A GROUND POINT AS CLOSE TO THE SENDER AS POSSIBLE FOR BEST ACCURACY
- ④- DENOTES TWISTED PAIR: 120 OHM CAN TERMINATING RESISTOR IN THE LOFA PANEL
- ⑤- DENOTES CAN SHIELD: SHIELDED CABLE OR TRIPLE TWISTED (GROUNDED ON ONE SIDE)
- ⑥- INSTALL VOLTAGE SUPPRESSION DIODES TO PROTECT ELECTRONIC COMPONENTS
- ⑦- OPTIONAL CONFIGURABLE INPUT
- ⑧- OPTIONAL CONFIGURABLE OUTPUT
- ⑨- INSTALL APPROPRIATELY SIZED FUSE OR CIRCUIT BREAKER
- \*10 - TYPICAL 8AWG CHARGE WIRE (REFER TO MANUFACTURER DOCUMENTATION)
- \*11 - OPTIONAL CONFIGURABLE SENDER
- \*12 - MECHANICAL ONLY

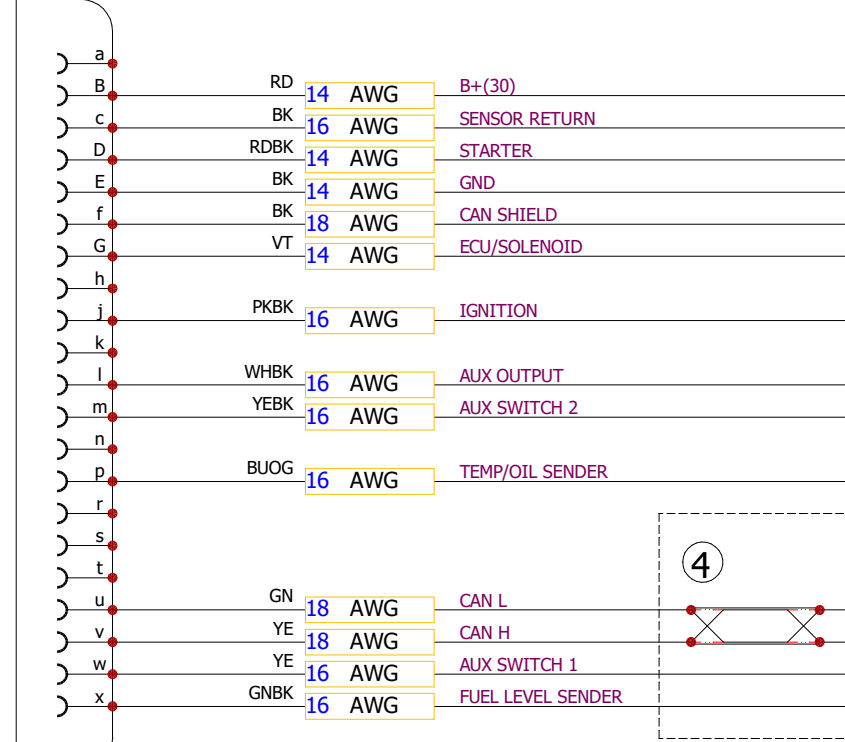
## LOFA PANEL TO ENGINE



21 POSITION CONNECTOR

TE CONNECTIVITY: HDP26-24-21SE

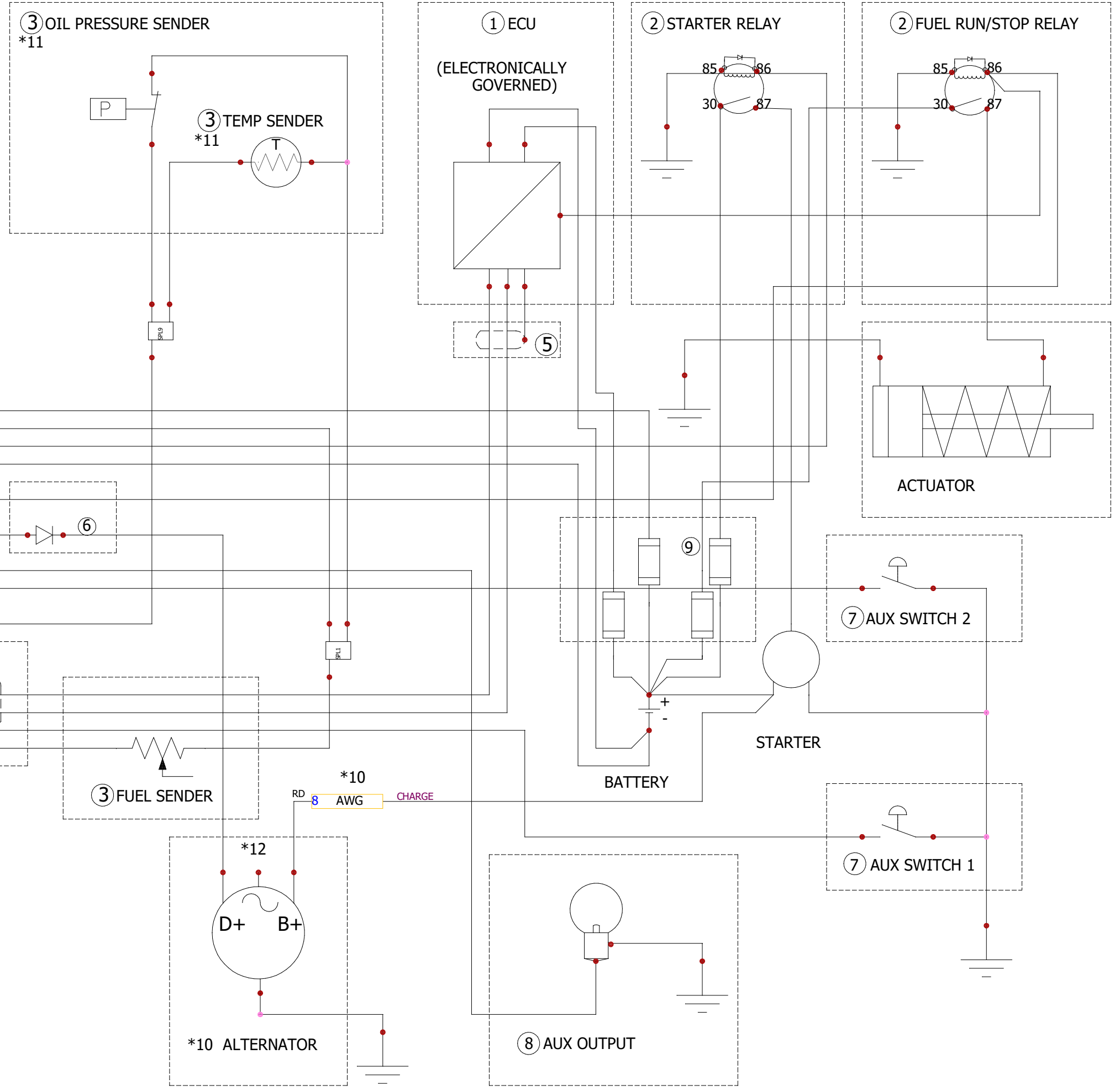
TE Connectivity  
HDP26-24-21SE



Conn Deutsch HDP 21 Pos Fem (HDP26-24-21SE)

Drawing History

Current Version: 0



Title: CANplus RT Typical Schematic		Size: B
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Sheet: 2 of 5	Date: 2/17/2020	DrawnBy: tyreke.hutcherson
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# TYPICAL CONNECTIONS CP800

DRAWING (FOR REFERENCE ONLY) SHOWN IS A TYPICAL SETUP

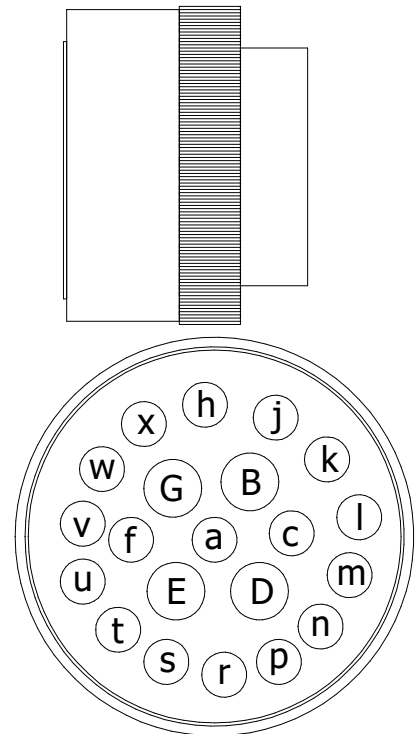
INPUTS AND OUTPUTS WILL BE CONFIGURED BASED ON APPLICATION

Drawing History

Current Version: 0

- ①- ENGINE ECU (REFER TO MANUFACTURER DOCUMENTATION)
- ②- RELAY (WITH VOLTAGE SUPPRESSION) MUST BE USED
- ③- IT IS REQUIRED THAT THE SENDER RETURN CONNECTION BE CONNECTED TO A GROUND POINT AS CLOSE TO THE SENDER AS POSSIBLE FOR BEST ACCURACY
- ④- DENOTES TWISTED PAIR: 120 OHM CAN TERMINATING RESISTOR IN THE LOFA PANEL
- ⑤- DENOTES CAN SHIELD: SHIELDED CABLE OR TRIPLE TWISTED (GROUNDED ON ONE SIDE)
- ⑥- INSTALL VOLTAGE SUPPRESSION DIODES TO PROTECT ELECTRONIC COMPONENTS
- ⑦- OPTIONAL CONFIGURABLE INPUT
- ⑧- OPTIONAL CONFIGURABLE OUTPUT
- ⑨- INSTALL APPROPRIATELY SIZED FUSE OR CIRCUIT BREAKER
- \*10 - TYPICAL 8AWG CHARGE WIRE (REFER TO MANUFACTURER DOCUMENTATION)
- \*11 - OPTIONAL CONFIGURABLE SENDER
- \*12 - OPTIONAL 2 WIRE OR 3 WIRE TRANSDUCER
- \*13 - MECHANICAL ONLY

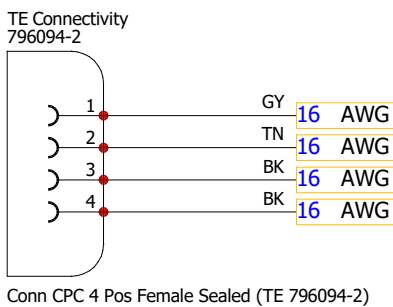
### LOFA PANEL TO ENGINE



21 POSITION CONNECTOR

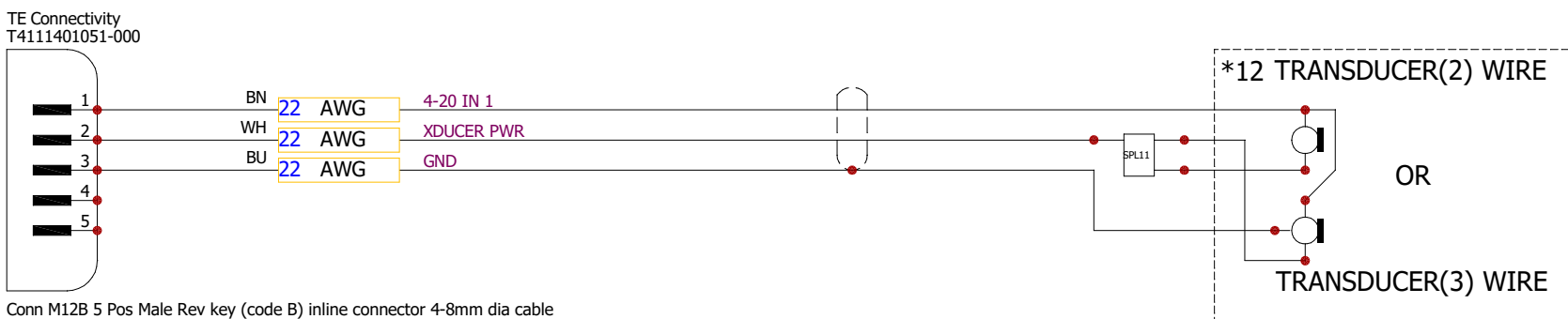
TE CONNECTIVITY: HDP26-24-21SE

### AUTO SWITCH INTERFACE

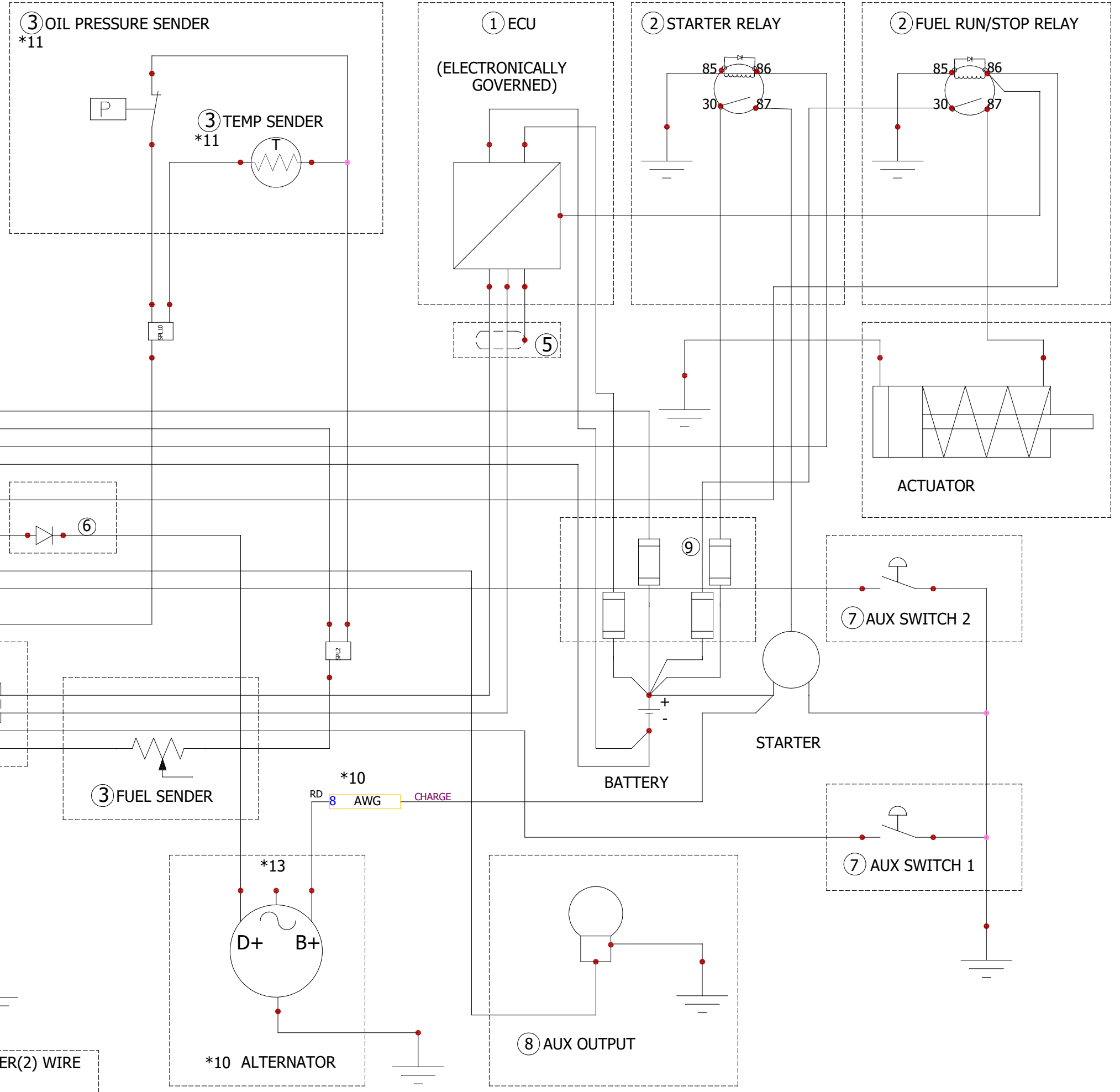


Conn CPC 4 Pos Female Sealed (TE 796094-2)

### 4-20 mA INTERFACE



Conn M12B 5 Pos Male Rev key (code B) inline connector 4-8mm dia cable



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# TYPICAL CONNECTIONS CP900

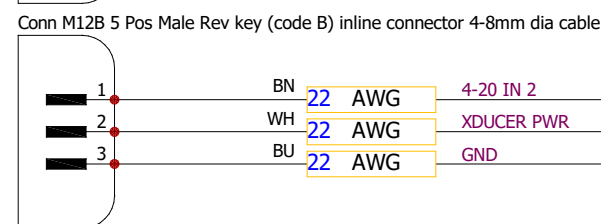
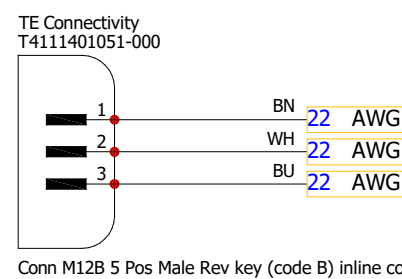
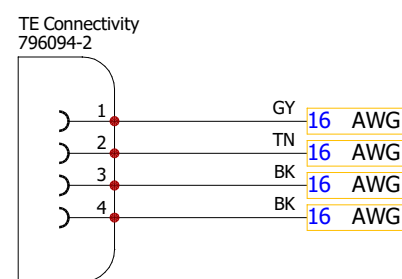
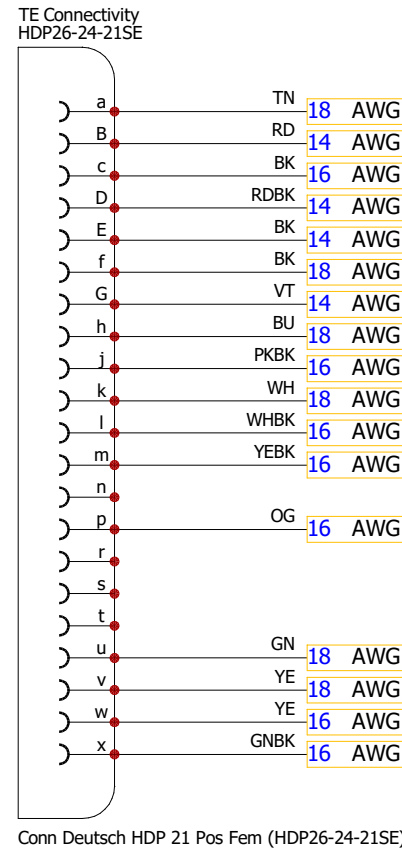
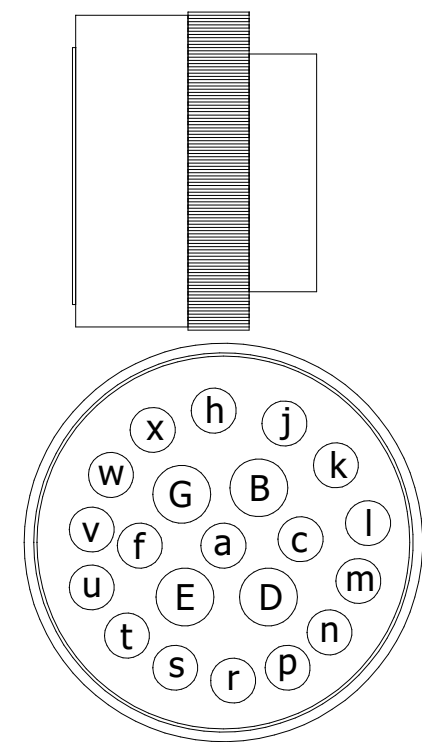
DRAWING (FOR REFERENCE ONLY) SHOWN IS A TYPICAL SETUP  
INPUTS AND OUTPUTS WILL BE CONFIGURED BASED ON APPLICATION

Drawing History

Current Version: 0

- ①- ENGINE ECU (REFER TO MANUFACTURER DOCUMENTATION)
- ②- RELAY (WITH VOLTAGE SUPPRESSION) MUST BE USED
- ③- IT IS REQUIRED THAT THE SENDER RETURN CONNECTION BE CONNECTED TO A GROUND POINT AS CLOSE TO THE SENDER AS POSSIBLE FOR BEST ACCURACY
- ④- DENOTES TWISTED PAIR: 120 OHM CAN TERMINATING RESISTOR IN THE LOFA PANEL
- ⑤- DENOTES CAN SHIELD: SHIELDED CABLE OR TRIPLE TWISTED (GROUNDED ON ONE SIDE)
- ⑥- INSTALL VOLTAGE SUPPRESSION DIODES TO PROTECT ELECTRONIC COMPONENTS
- ⑦- OPTIONAL CONFIGURABLE INPUT
- ⑧- OPTIONAL CONFIGURABLE OUTPUT
- ⑨- INSTALL APPROPRIATELY SIZED FUSE OR CIRCUIT BREAKER
- \*10 - TYPICAL 8AWG CHARGE WIRE (REFER TO MANUFACTURER DOCUMENTATION)
- \*11 - OPTIONAL 2 WIRE OR 3 WIRE TRANSDUCER
- \*12 - MECHANICAL ONLY

### LOFA PANEL TO ENGINE

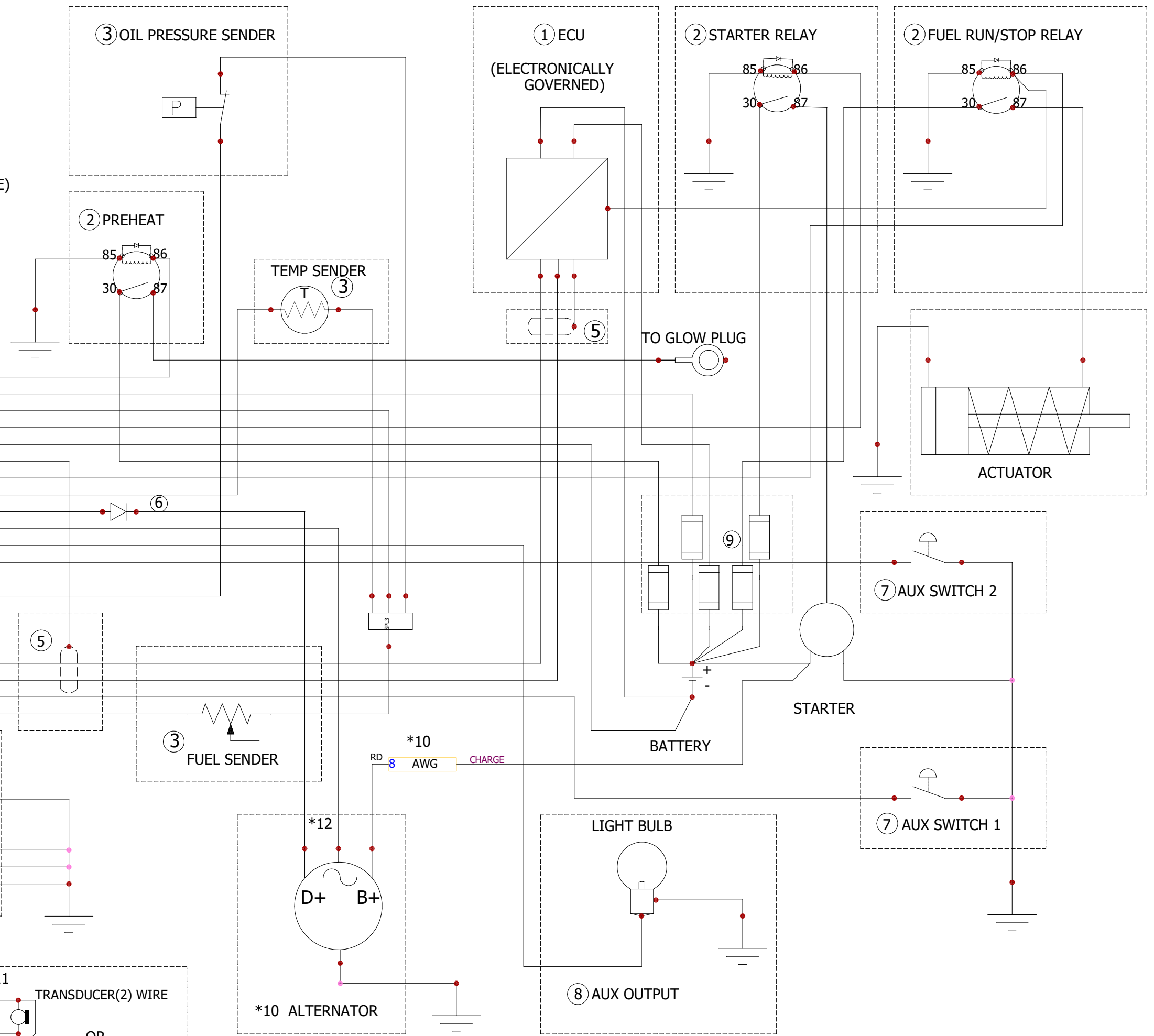


21 POSITION CONNECTOR

TE CONNECTIVITY: HDP26-24-21SE

AUTO SWITCH INTERFACE

4-20 mA INTERFACES



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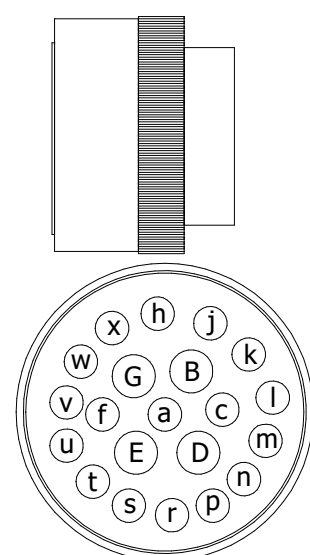
# TYPICAL CONNECTIONS CP1000

DRAWING (FOR REFERENCE ONLY) SHOWN IS A TYPICAL SETUP

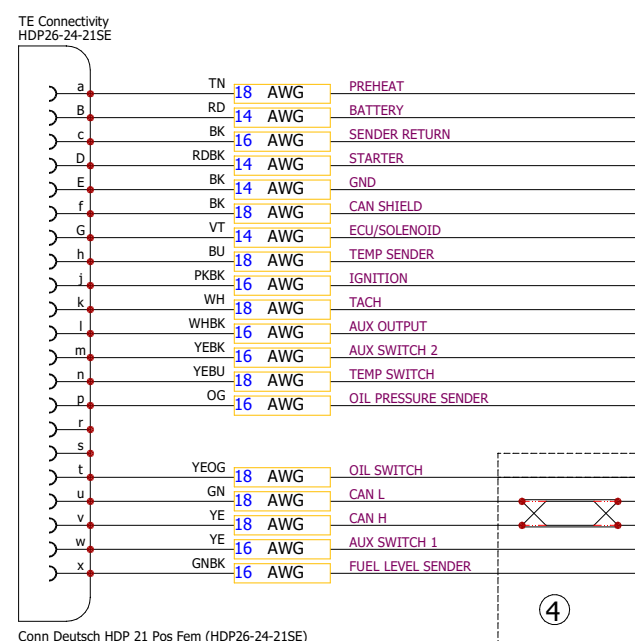
INPUTS AND OUTPUTS WILL BE CONFIGURED BASED ON APPLICATION

- ①- ENGINE ECU (REFER TO MANUFACTURER DOCUMENTATION)
- ②- RELAY (WITH VOLTAGE SUPPRESSION) MUST BE USED
- ③- IT IS REQUIRED THAT THE SENDER RETURN CONNECTION BE CONNECTED TO A GROUND POINT AS CLOSE TO THE SENDER AS POSSIBLE FOR BEST ACCURACY
- ④- DENOTES TWISTED PAIR: 120 OHM CAN TERMINATING RESISTOR IN THE LOFA PANEL
- ⑤- DENOTES CAN SHIELD: SHIELDED CABLE OR TRIPLE TWISTED (GROUNDED ON ONE SIDE)
- ⑥- INSTALL VOLTAGE SUPPRESSION DIODES TO PROTECT ELECTRONIC COMPONENTS
- ⑦- OPTIONAL CONFIGURABLE INPUT
- ⑧- OPTIONAL CONFIGURABLE OUTPUT
- ⑨- INSTALL APPROPRIATELY SIZED FUSE OR CIRCUIT BREAKER
- \*10- TYPICAL 8AWG CHARGE WIRE (REFER TO MANUFACTURER DOCUMENTATION)
- \*11- OPTIONAL 2 WIRE OR 3 WIRE TRANSDUCER
- \*12- ELECTROMAGNETIC PULSE FLOW METER CONFIGURABLE
- \*13- MECHANICAL ONLY

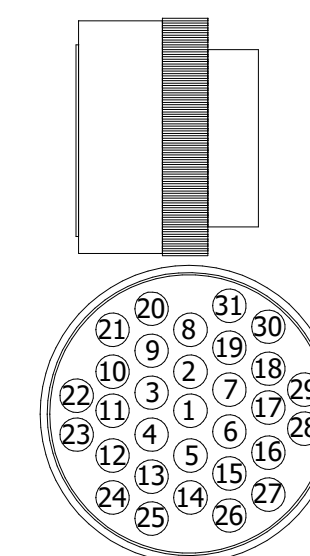
### LOFA PANEL TO ENGINE



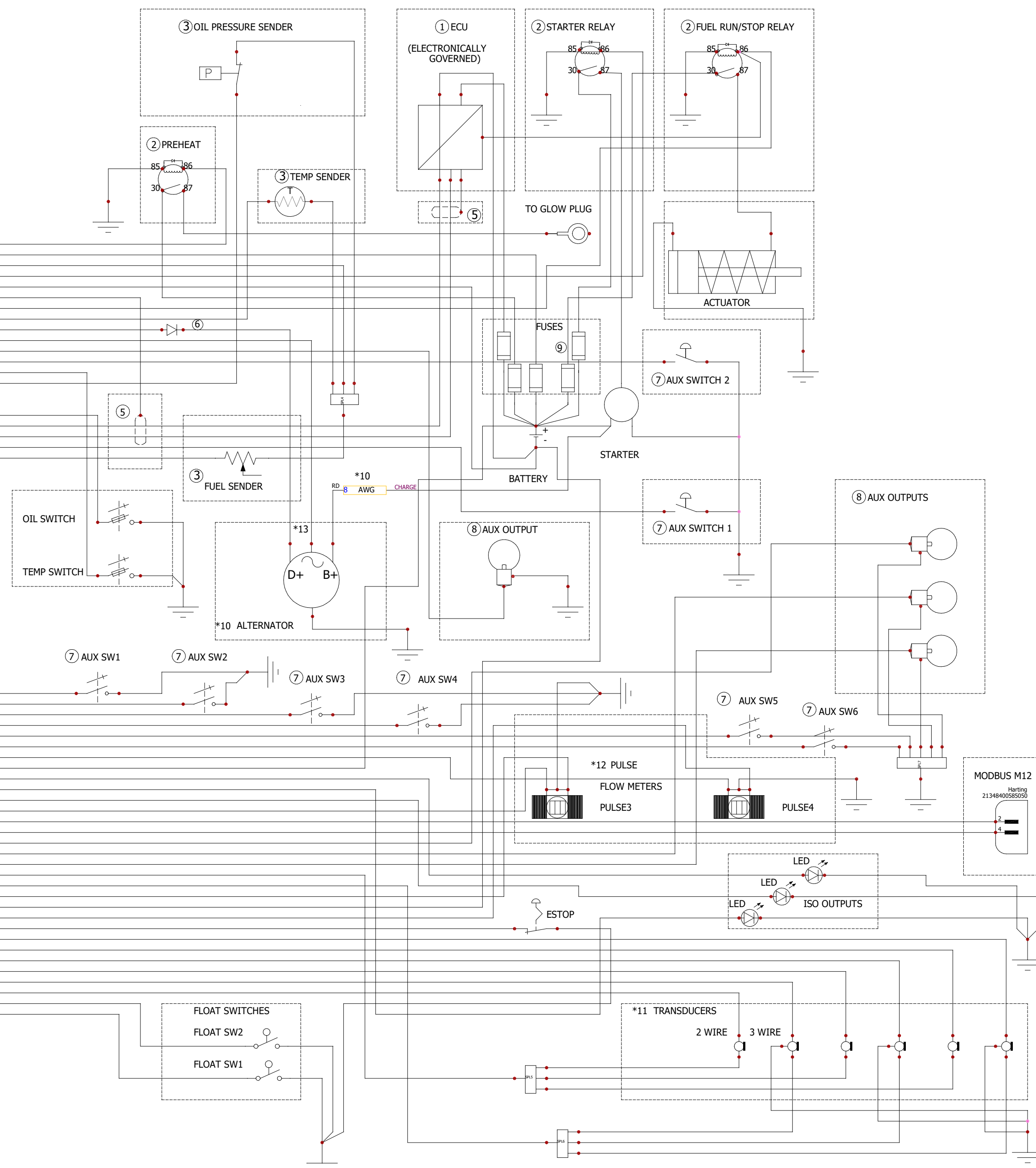
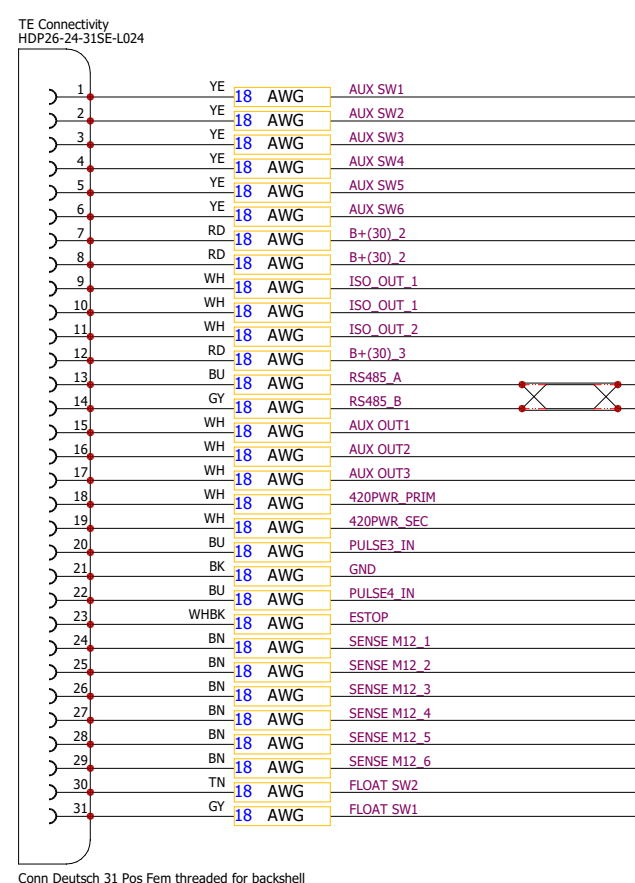
21 POSITION CONNECTOR  
TE CONNECTIVITY: HDP26-24-21SE



### INPUT/OUTPUT CONNECTOR



31 POSITION CONNECTOR  
TE CONNECTIVITY: HDP26-24-31SE



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Sheet: 5 of 5	Date: 2/17/2020	DrawnBy: tyreke.hutcherson
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