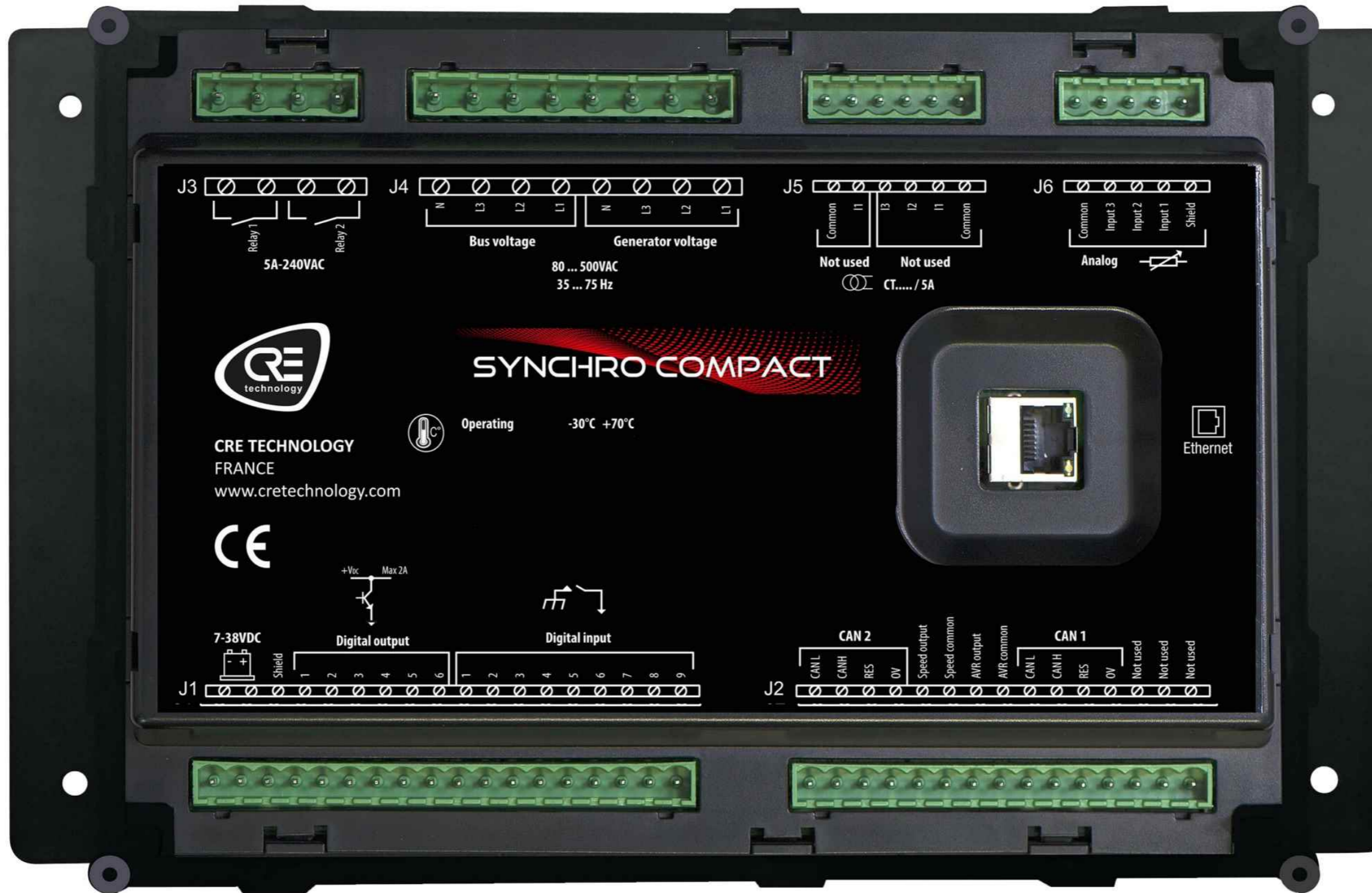


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SYNCHRO COMPACT HMI / CORE  
 STANDARD WIRING SCHEMATICS

Module Front view

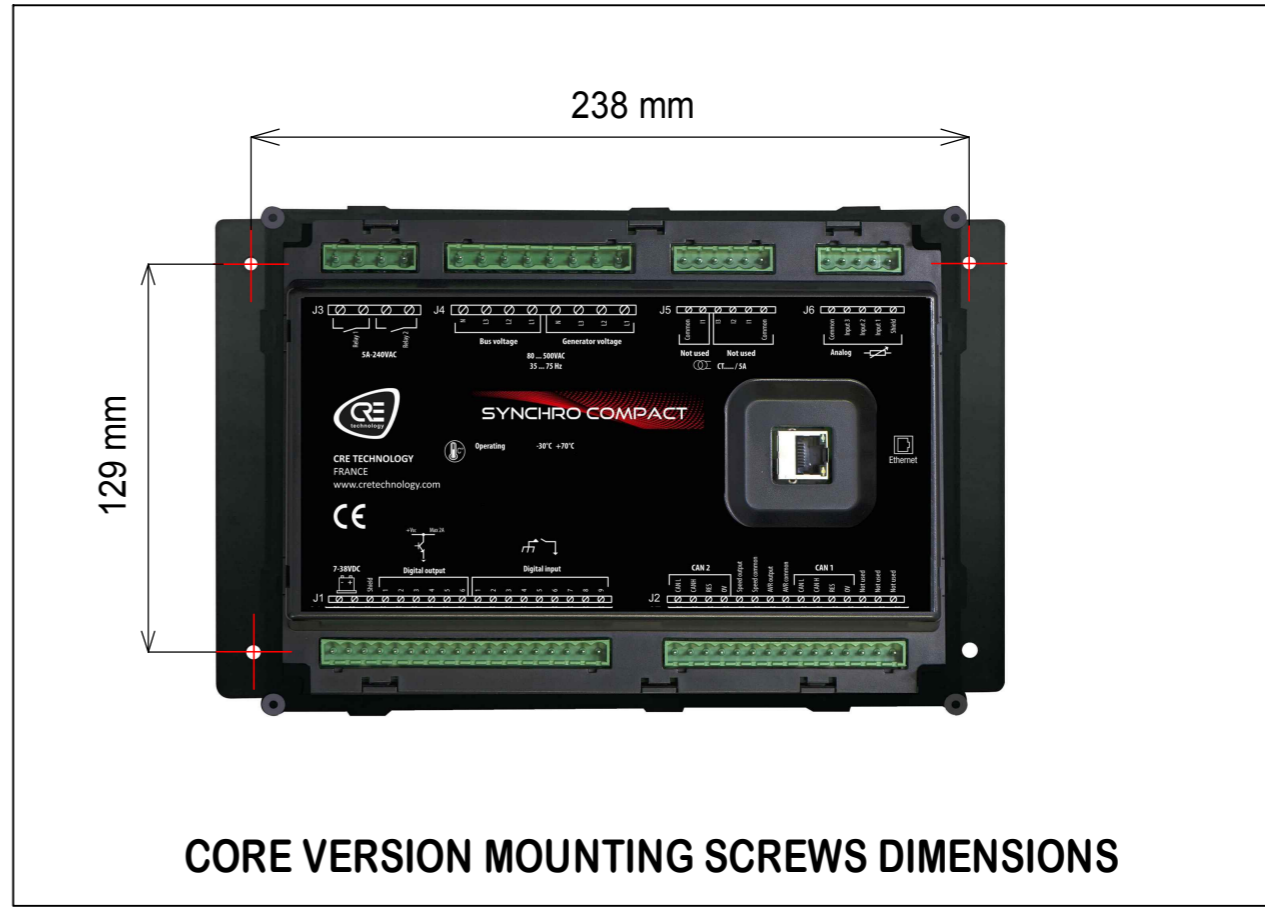
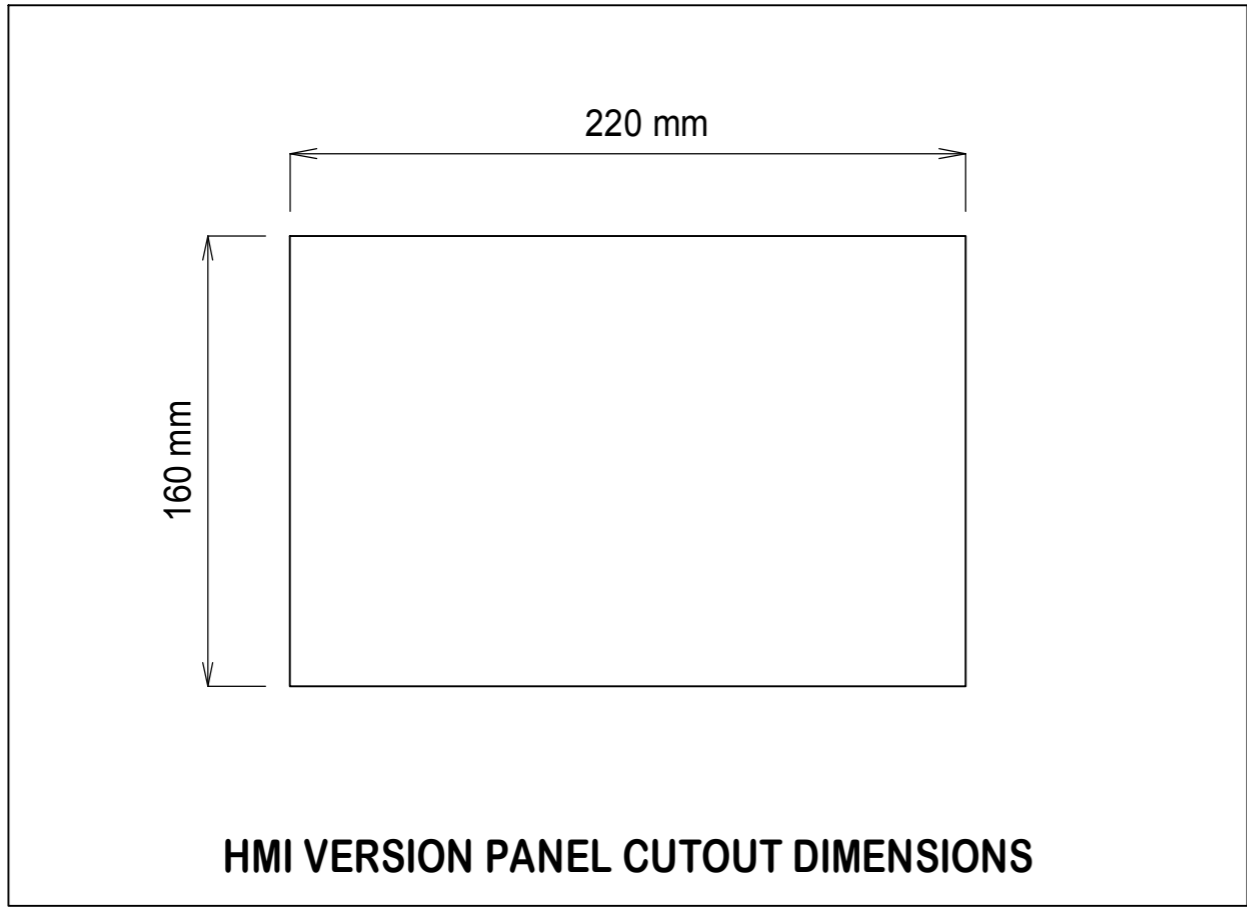
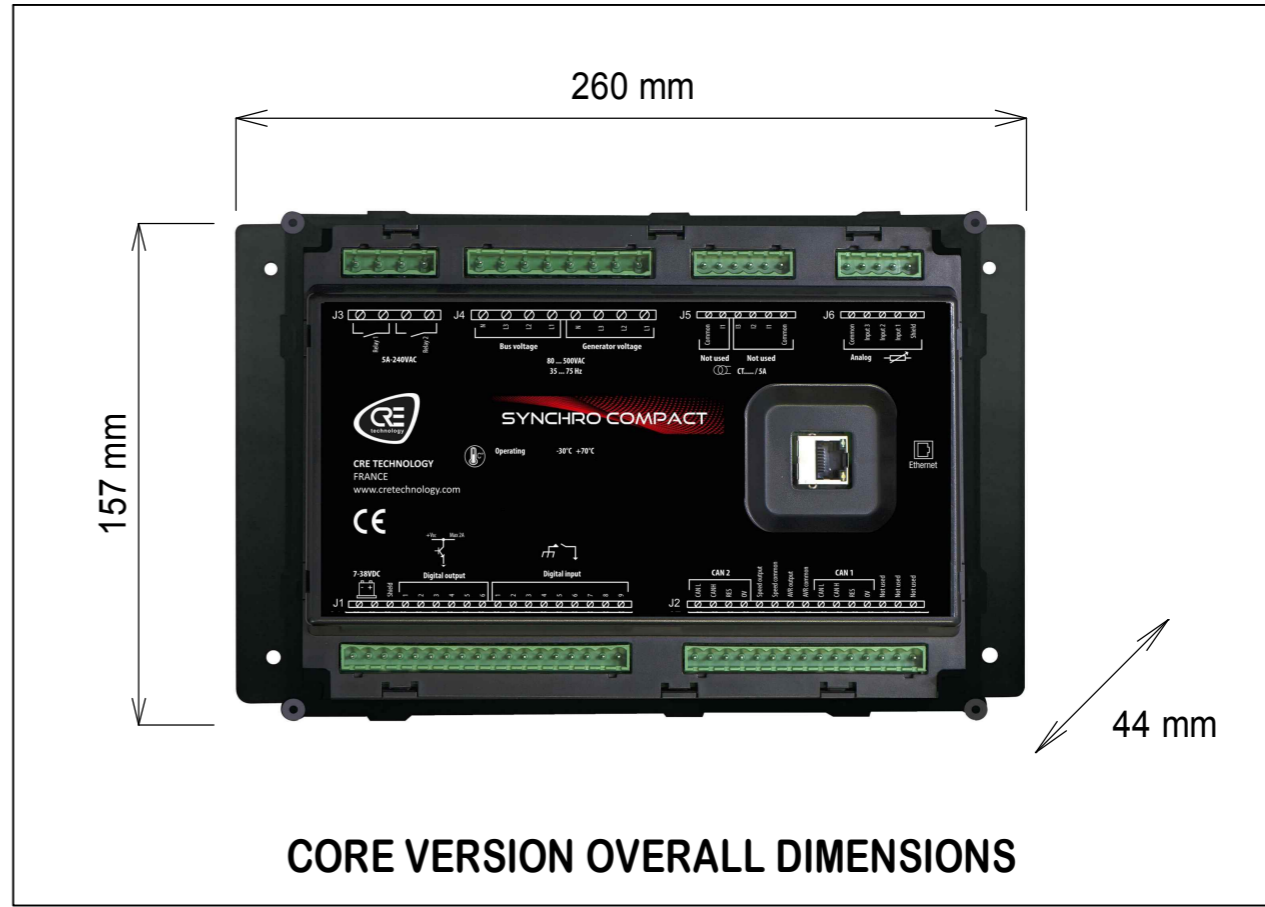
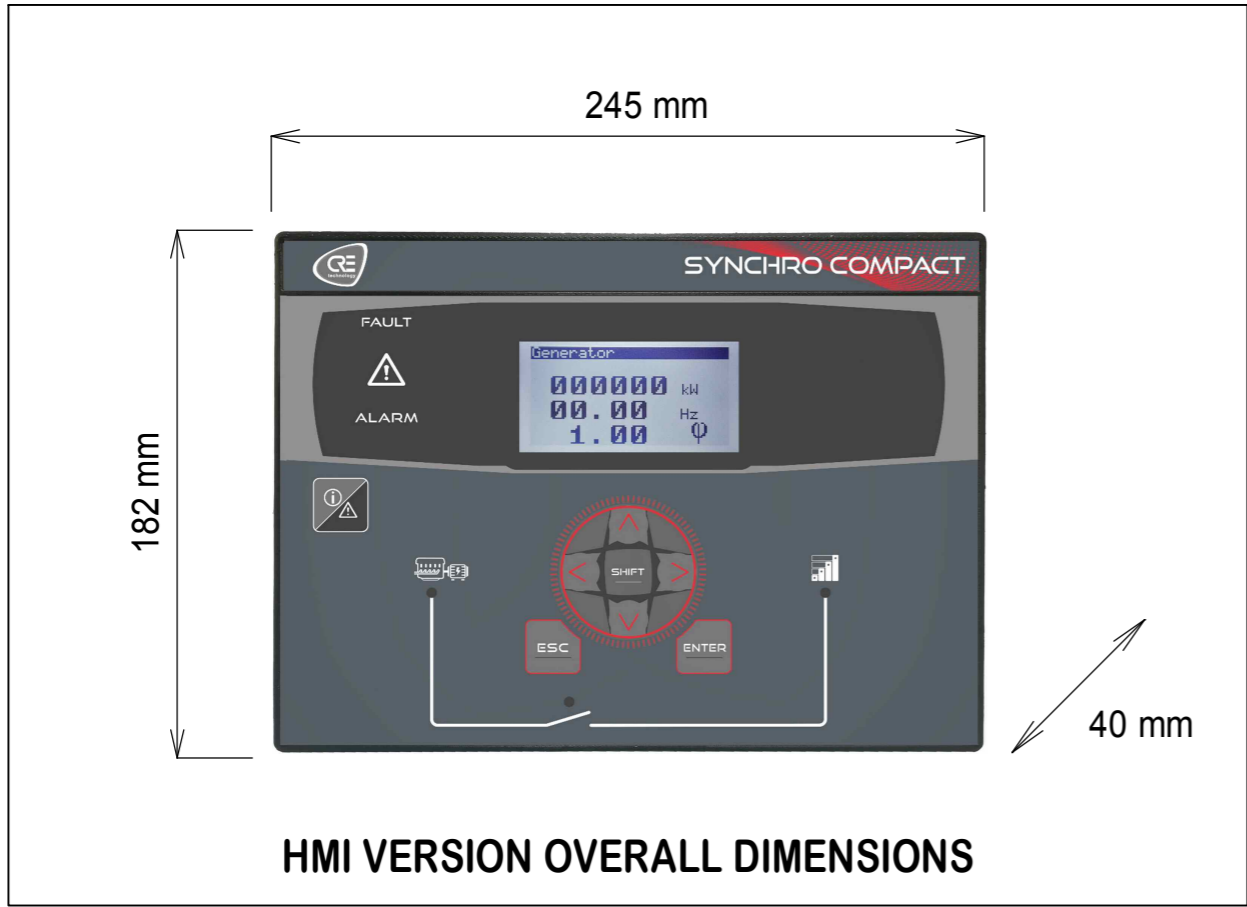


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SYNCHRO COMPACT HMI / CORE  
 STANDARD WIRING SCHEMATICS

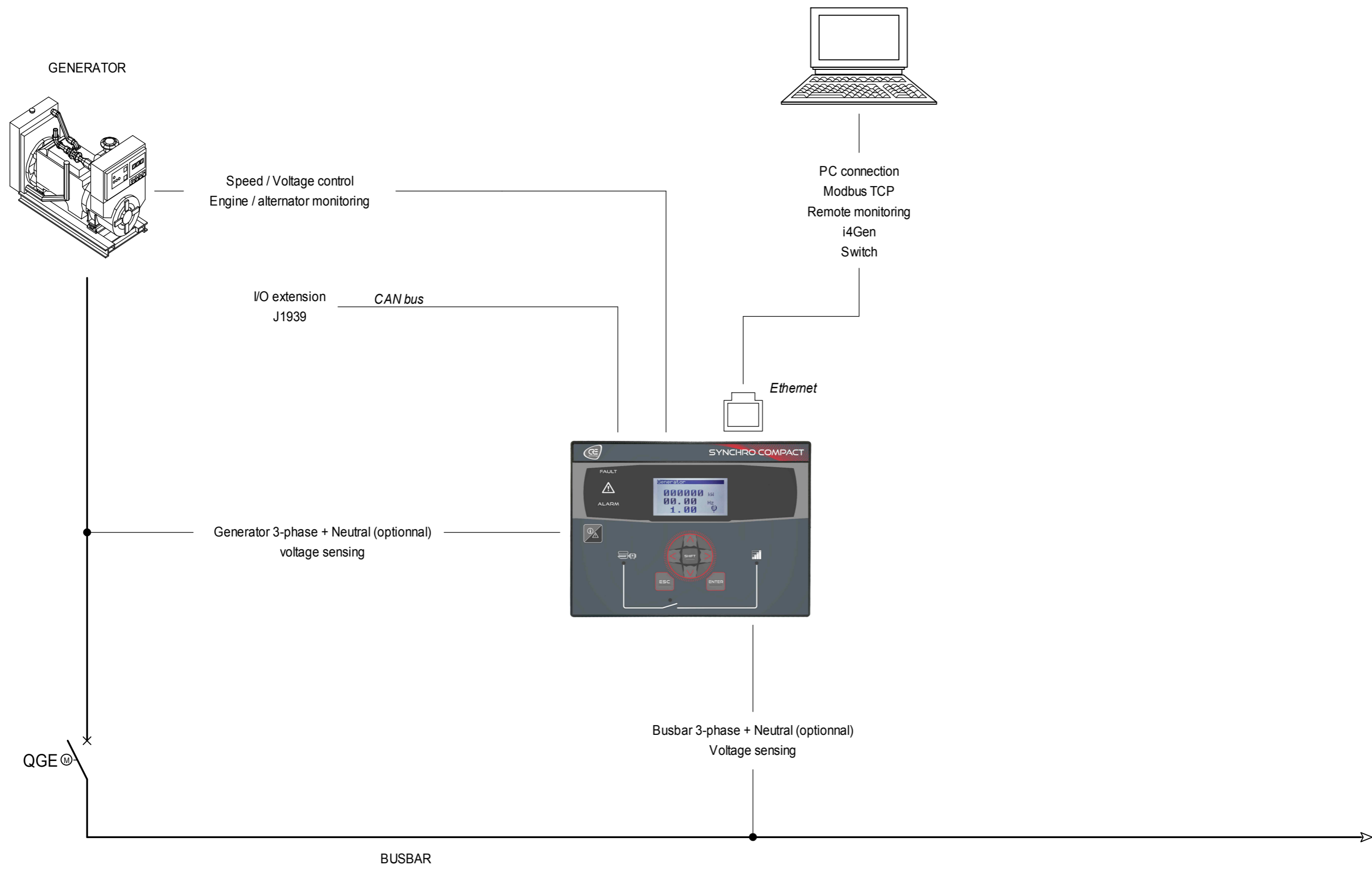
Module Rear / Core view



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SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS

Dimensions / Panel cut

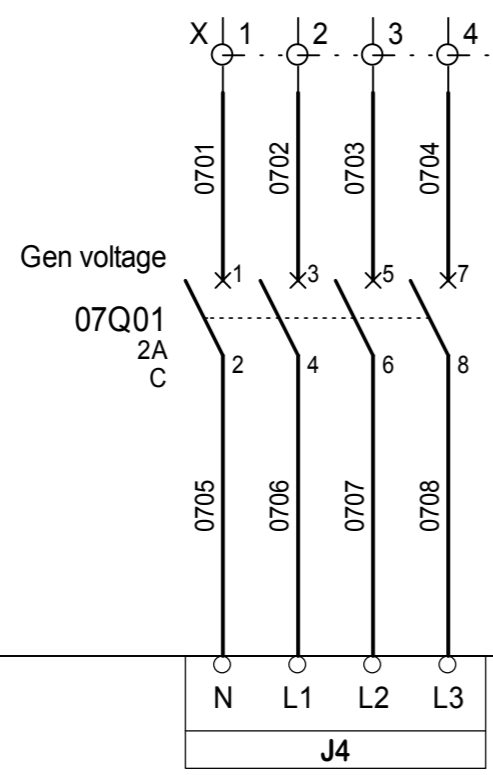
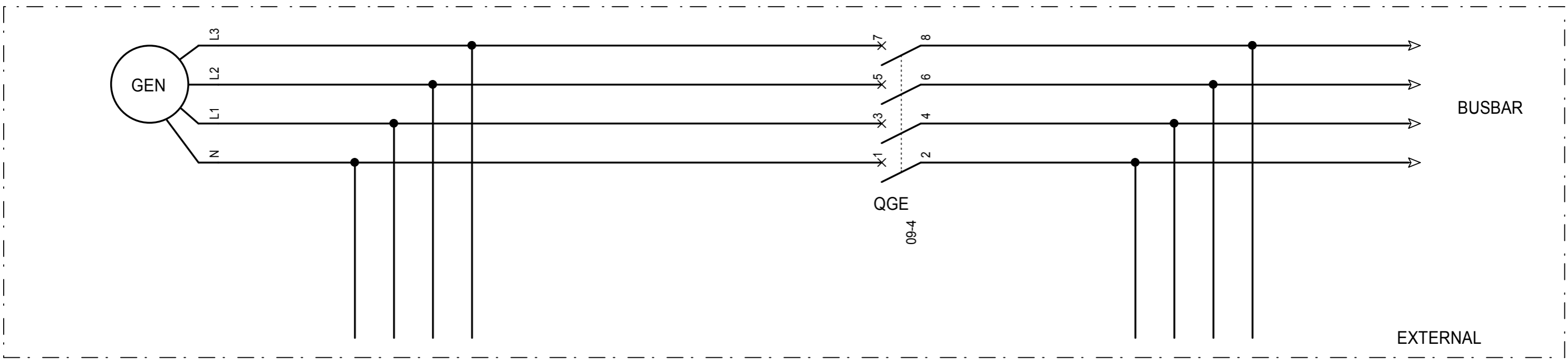


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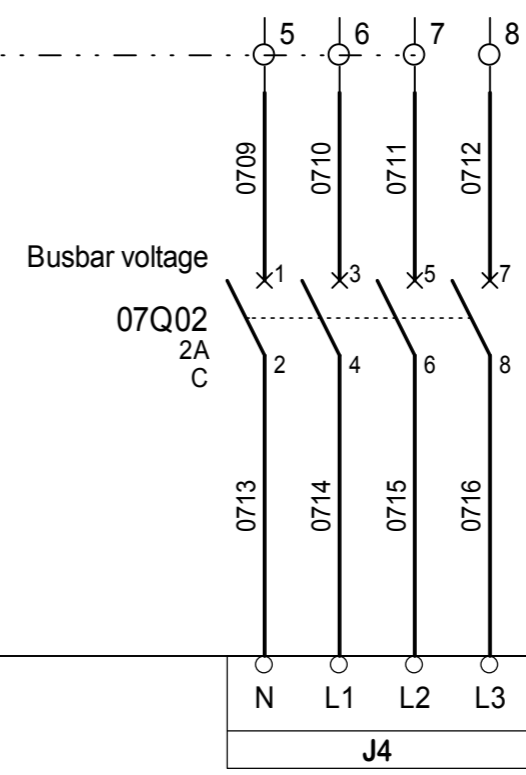
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**SYNCHRO COMPACT HMI / CORE  
 STANDARD WIRING SCHEMATICS**

**Single line diagram**



**Generator voltage**  
 80...500Vac  
 35...75Hz  
 \* Note 1



**Busbar voltage**  
 80...500Vac  
 35...75Hz  
 \* Note 1

COMPACT SYNCHRO

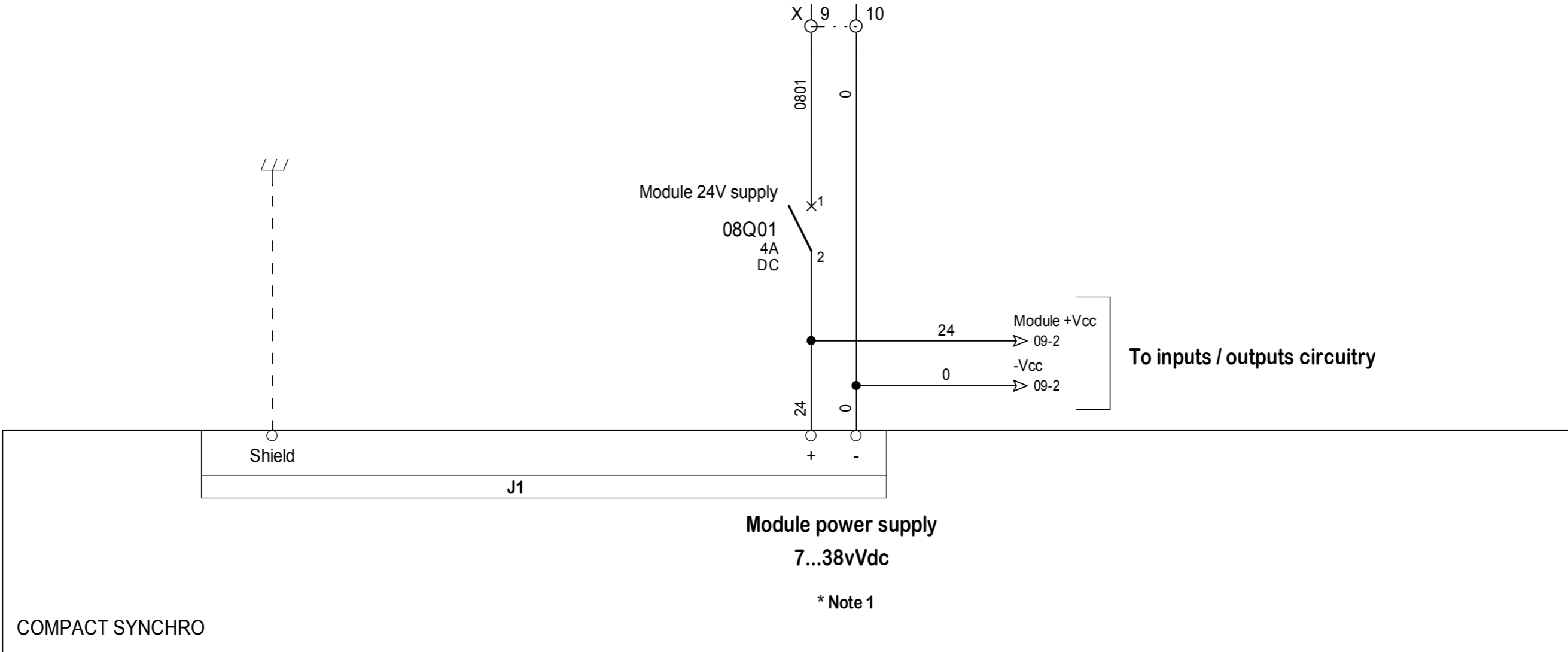
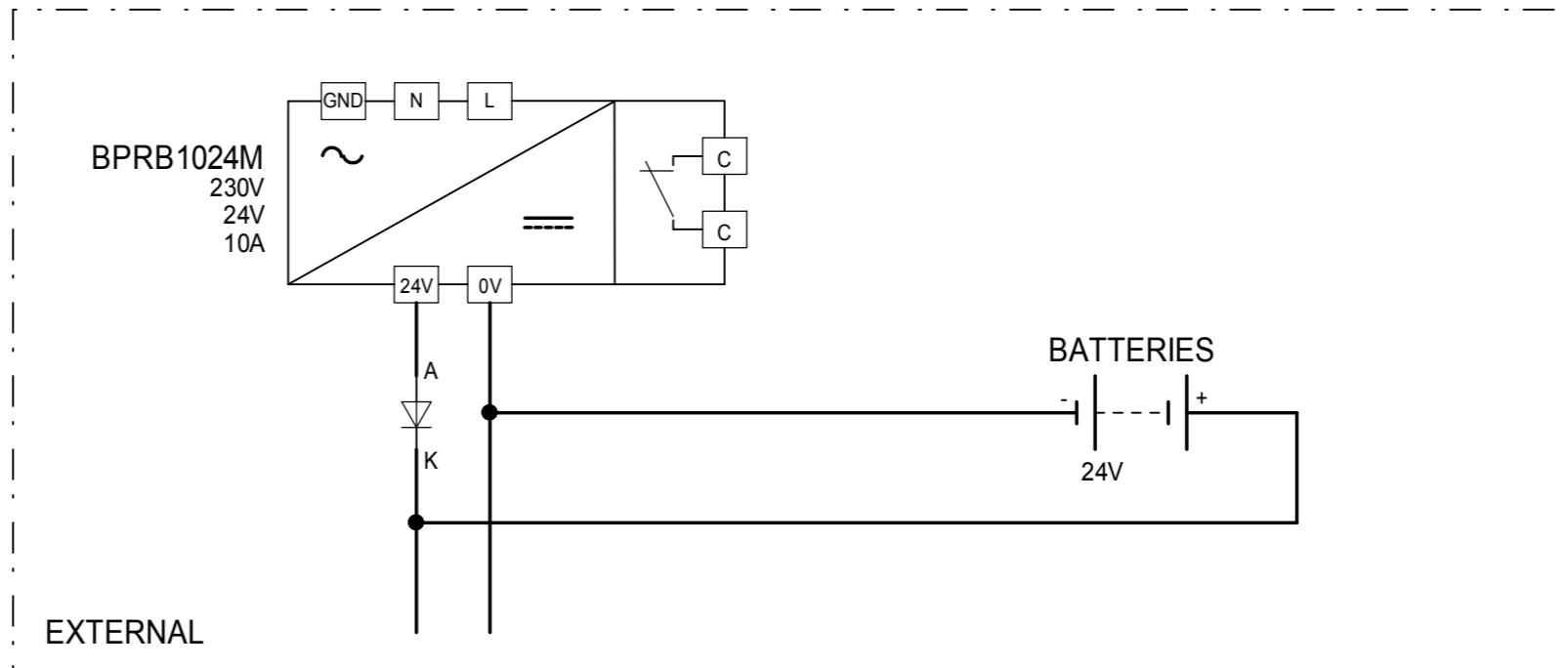
\* Note1: Shall voltage transformers be required, refer to technical documentation



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SYNCHRO COMPACT HMI / CORE  
 STANDARD WIRING SCHEMATICS

**Voltages and currents sensing**



\* Note1: Example given with use of a 24Vdc battery charger, but applies identically with 12Vdc

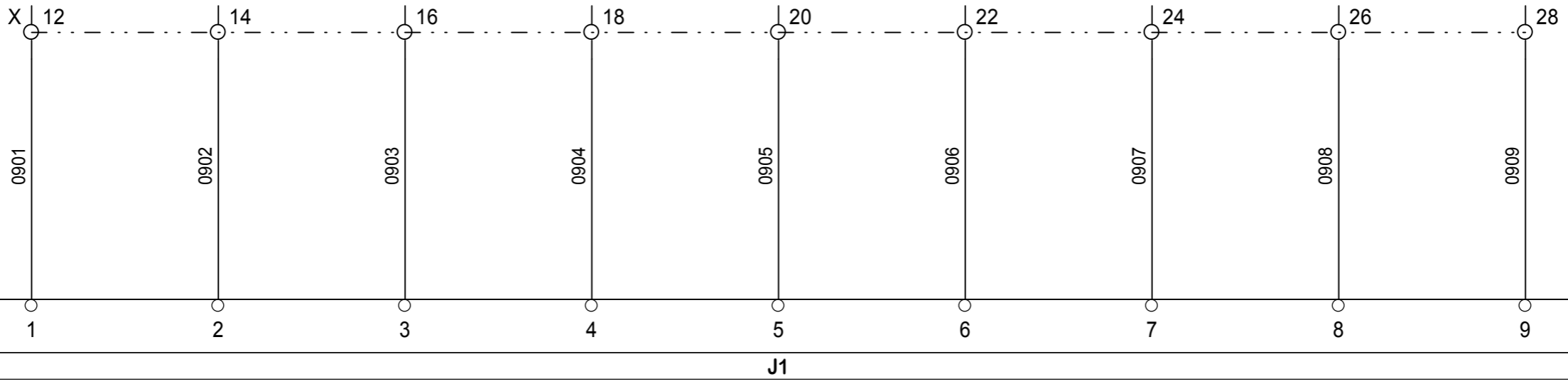
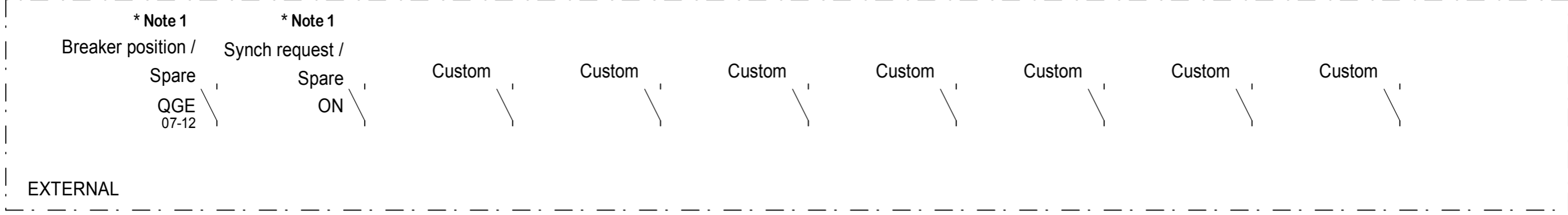
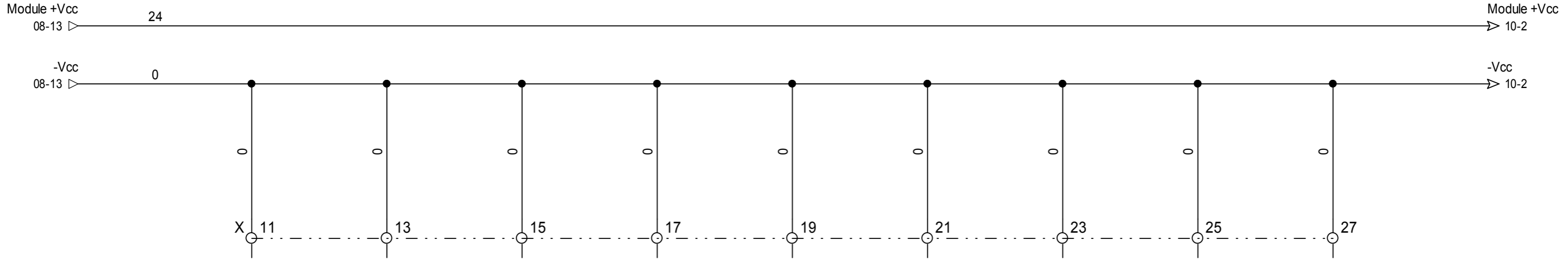


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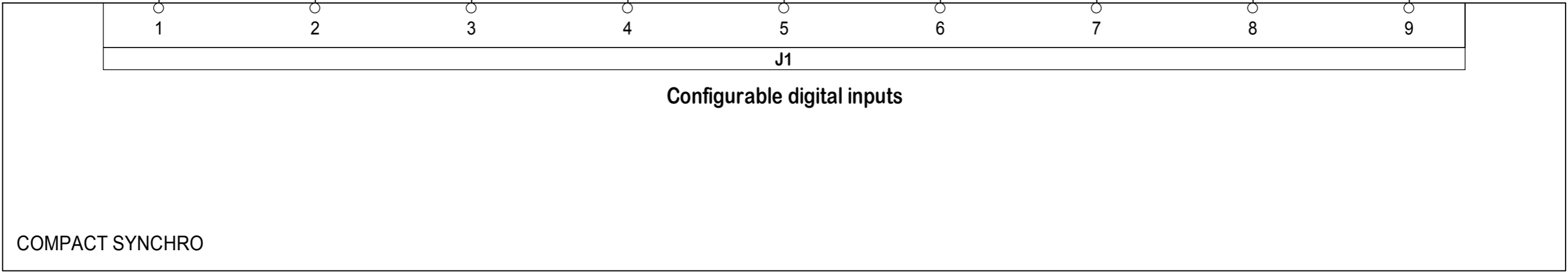
SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS

Power supply and shield connection





Configurable digital inputs



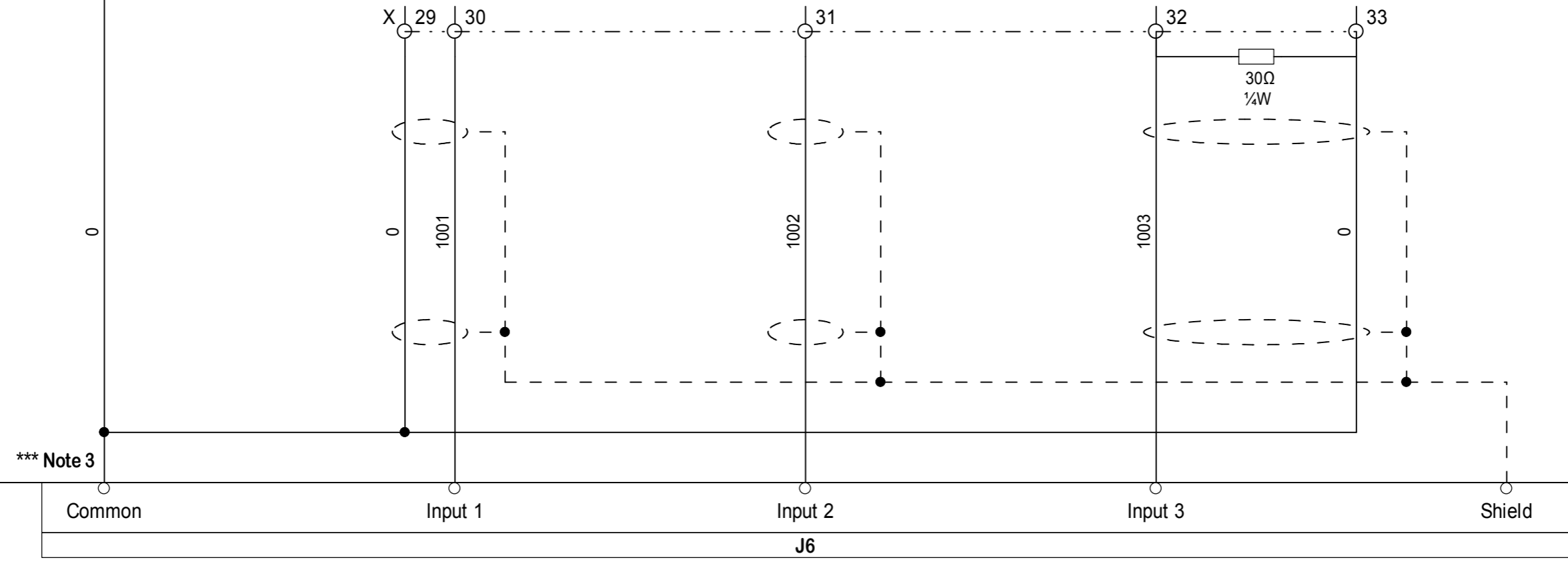
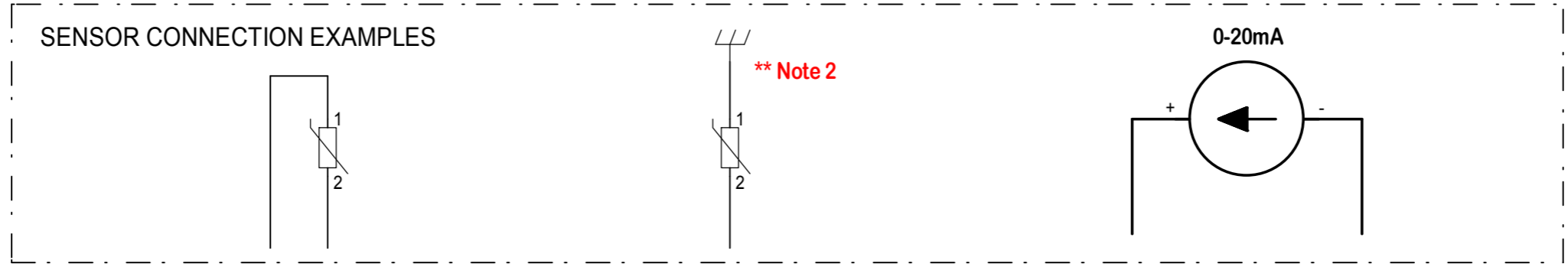
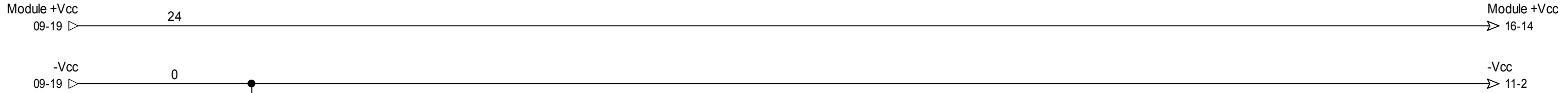
\* Note 1: Default setting, can be adjusted via PC software as desired



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SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS

Digital inputs



**Configurable analog inputs**

**\* Note 1**

COMPACT SYNCHRO

\* Note1: Analog inputs can be used with resistive sensors (max. range 0-500 Ohms), with external 20mA current transducers fitted with a 30-ohm 1/4 Watt resistor or as additional digital inputs  
**\*\* Note2: Ensure engine body and 0Vcc are connected in case of use of a single-wire sensor**  
 \*\*\* Note3: The common analog input terminal must have a direct connection to the -Batt terminal of the controller

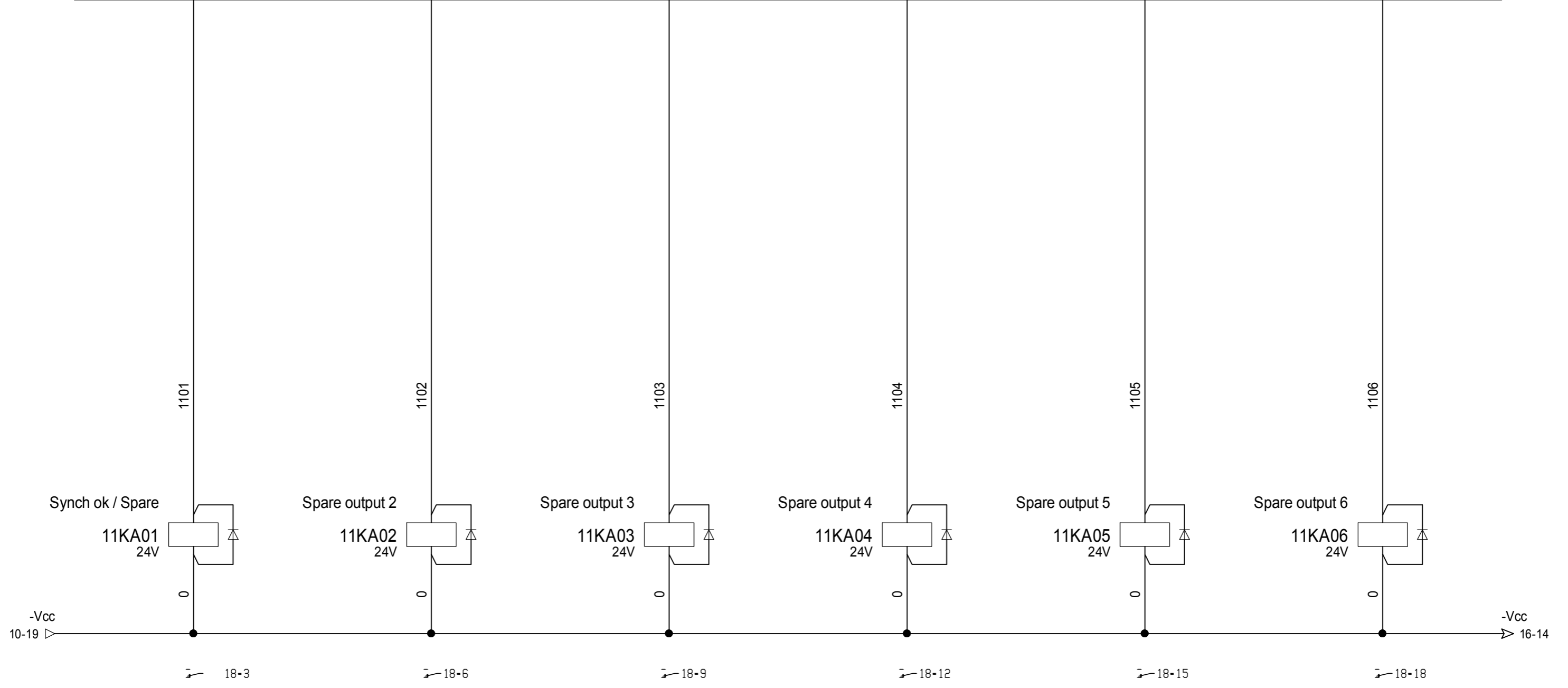
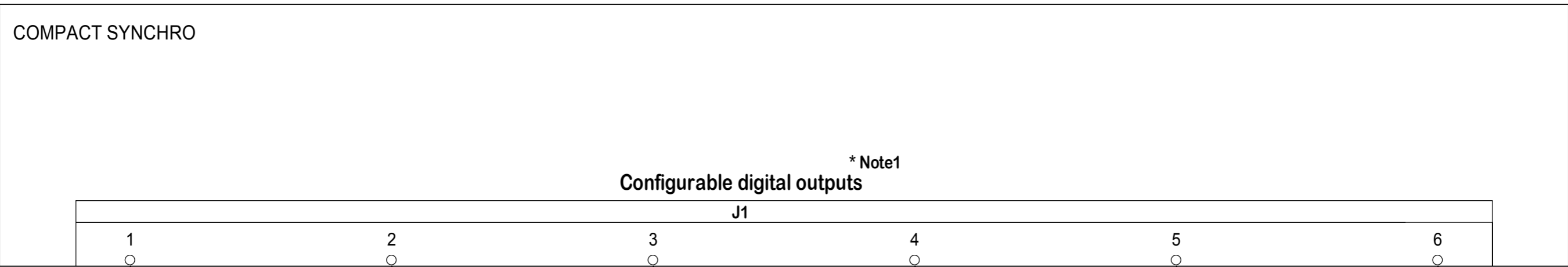


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 STANDARD WIRING SCHEMATICS

**Analog inputs**



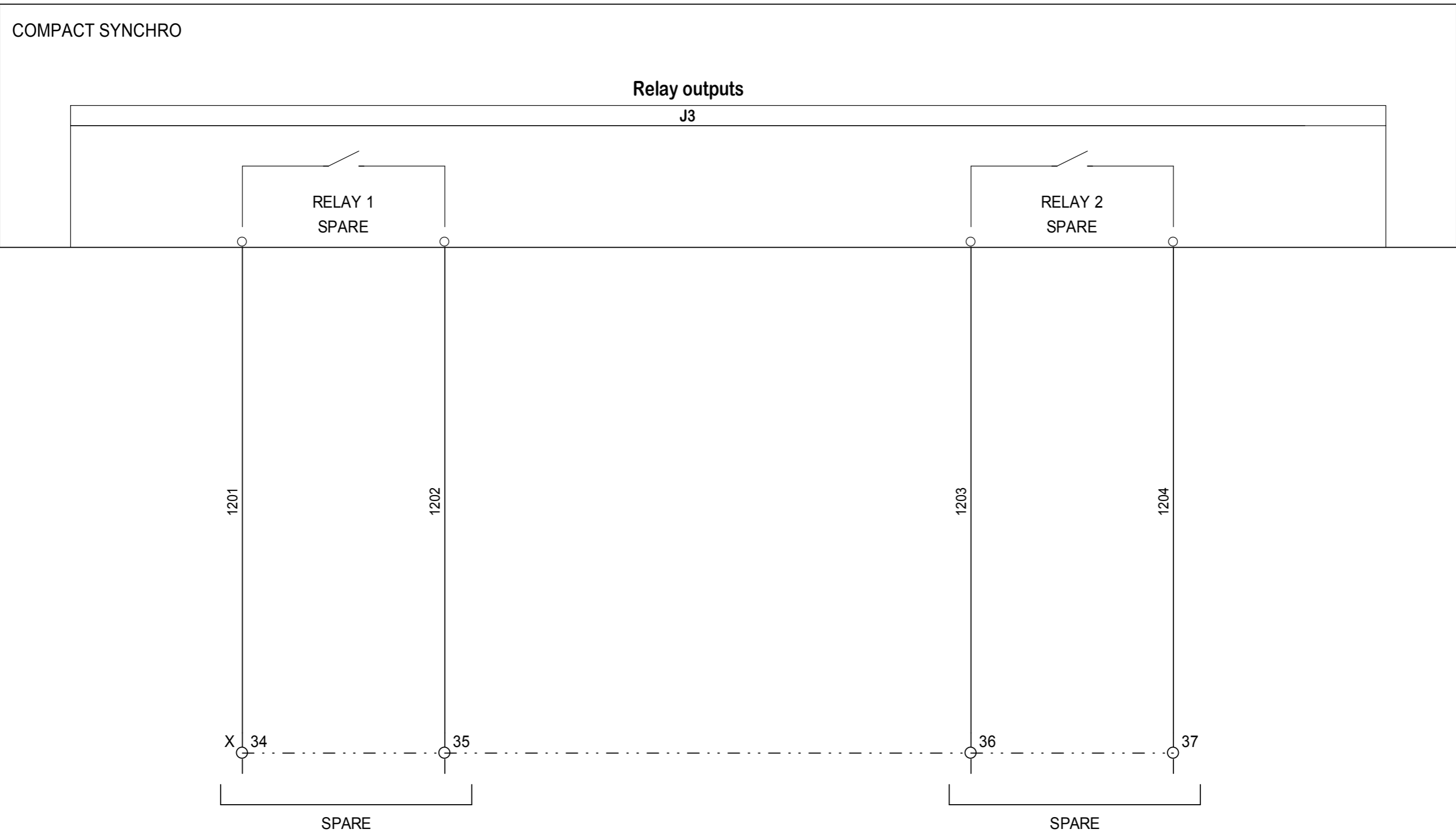
\* Note1: Maximum output current is 1.8 Amps



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STANDARD WIRING SCHEMATICS

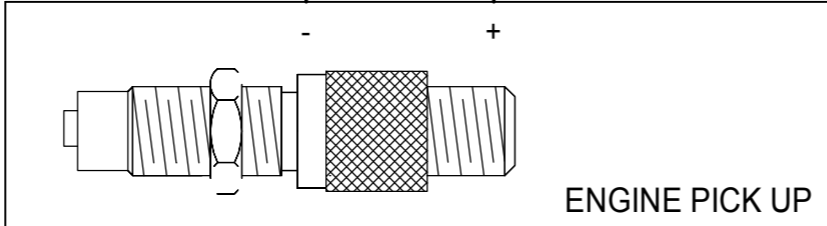
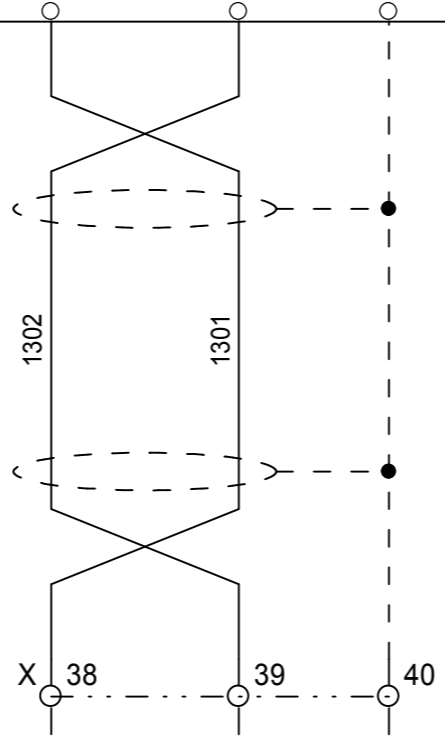
Digital outputs



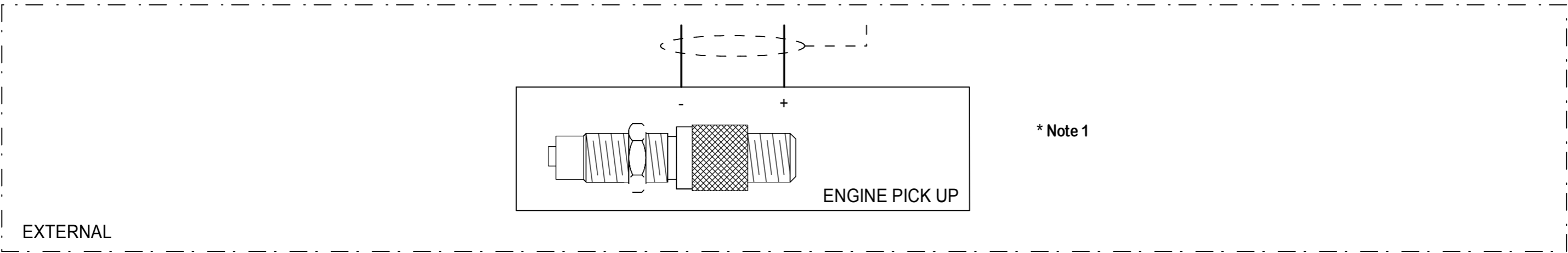
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**SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS**

**Relay outputs**



\* Note 1



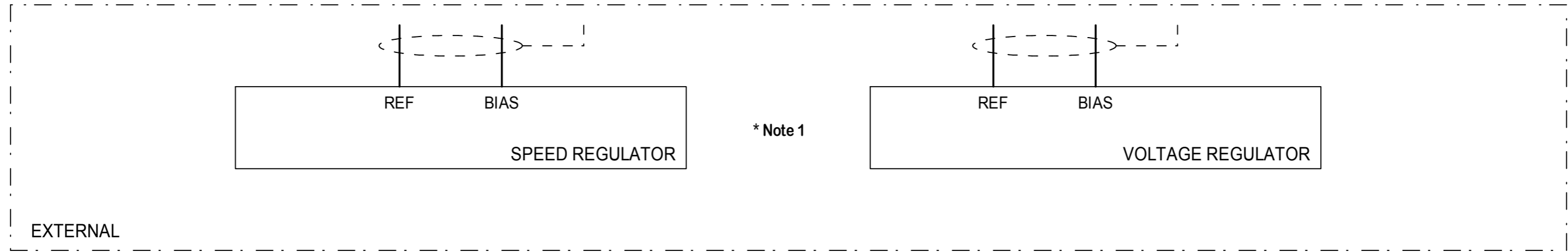
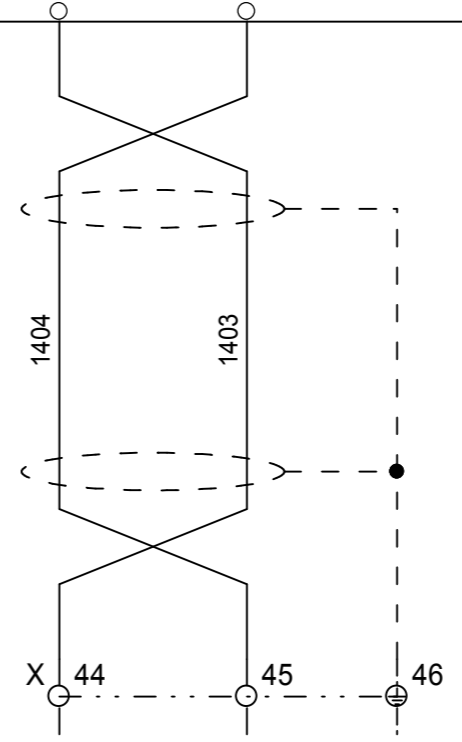
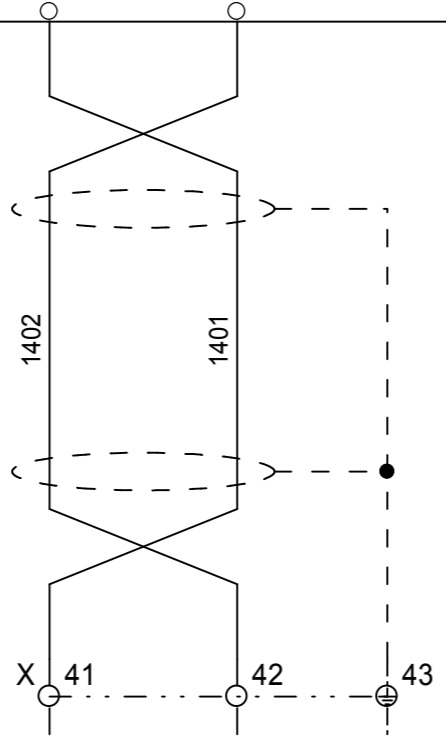
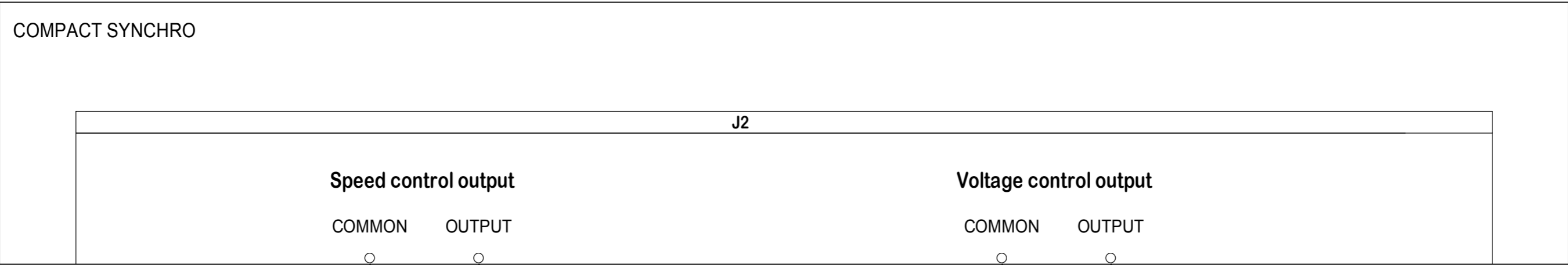
\* Note1: Refer to the engine technical sheet to set the number of teeth



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SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS

Speed sensing



\* Note 1

\* Note1: Settings vary upon the type of regulator used. Refer to the technical sheet for more information

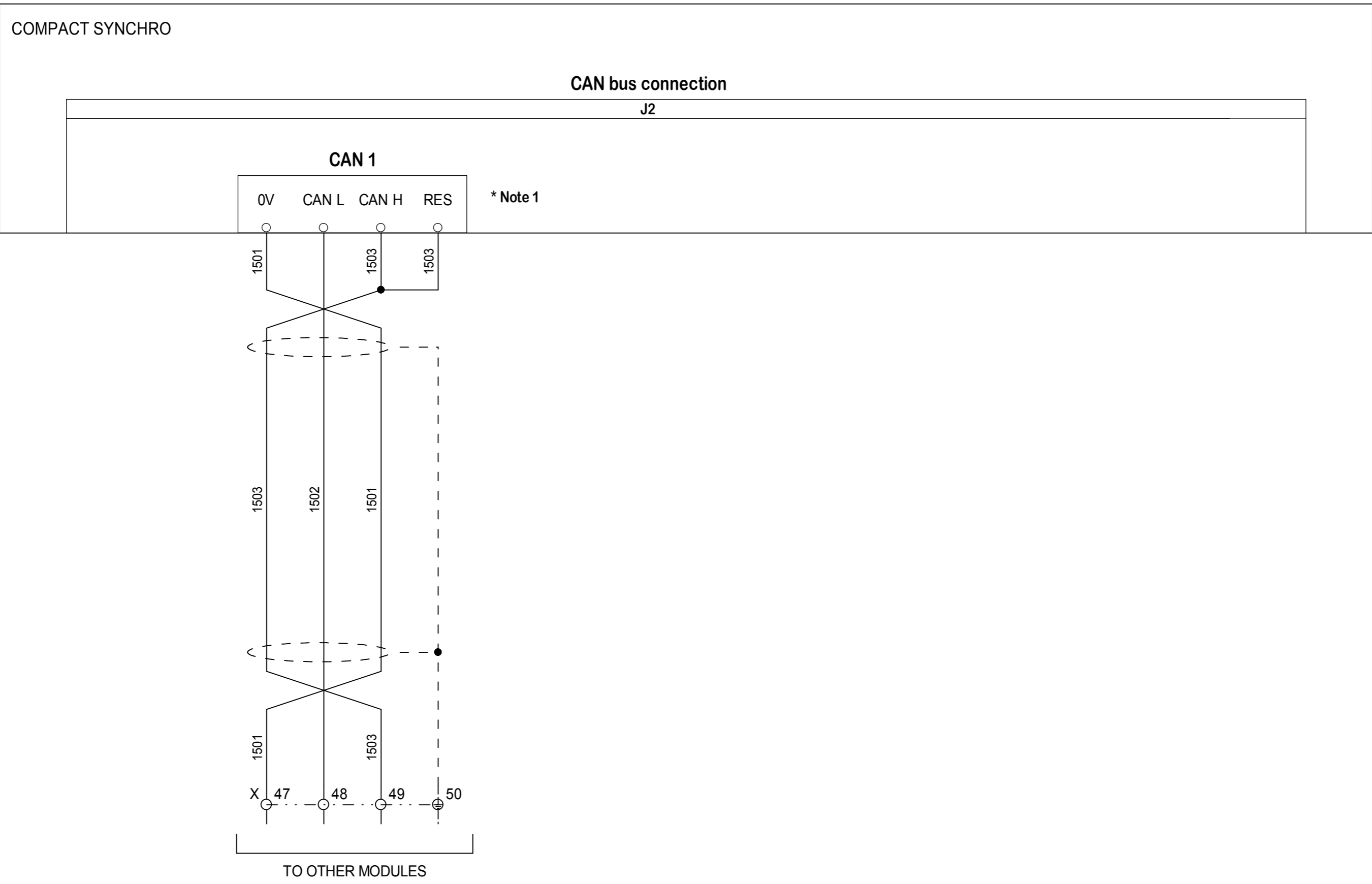


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**SYNCHRO COMPACT HMI / CORE  
 STANDARD WIRING SCHEMATICS**

**Speed & voltage control**



\*\* Note 2

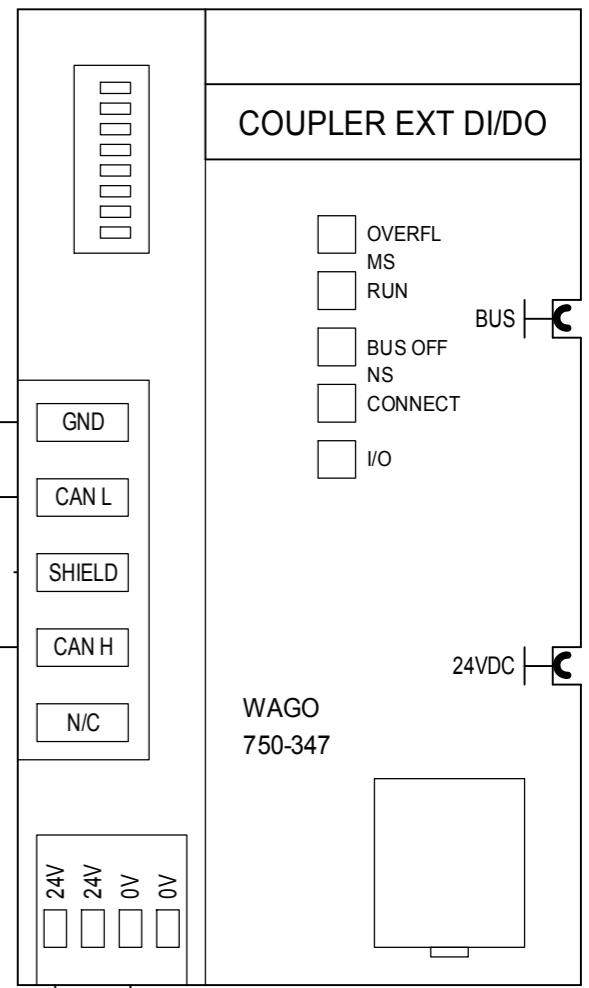
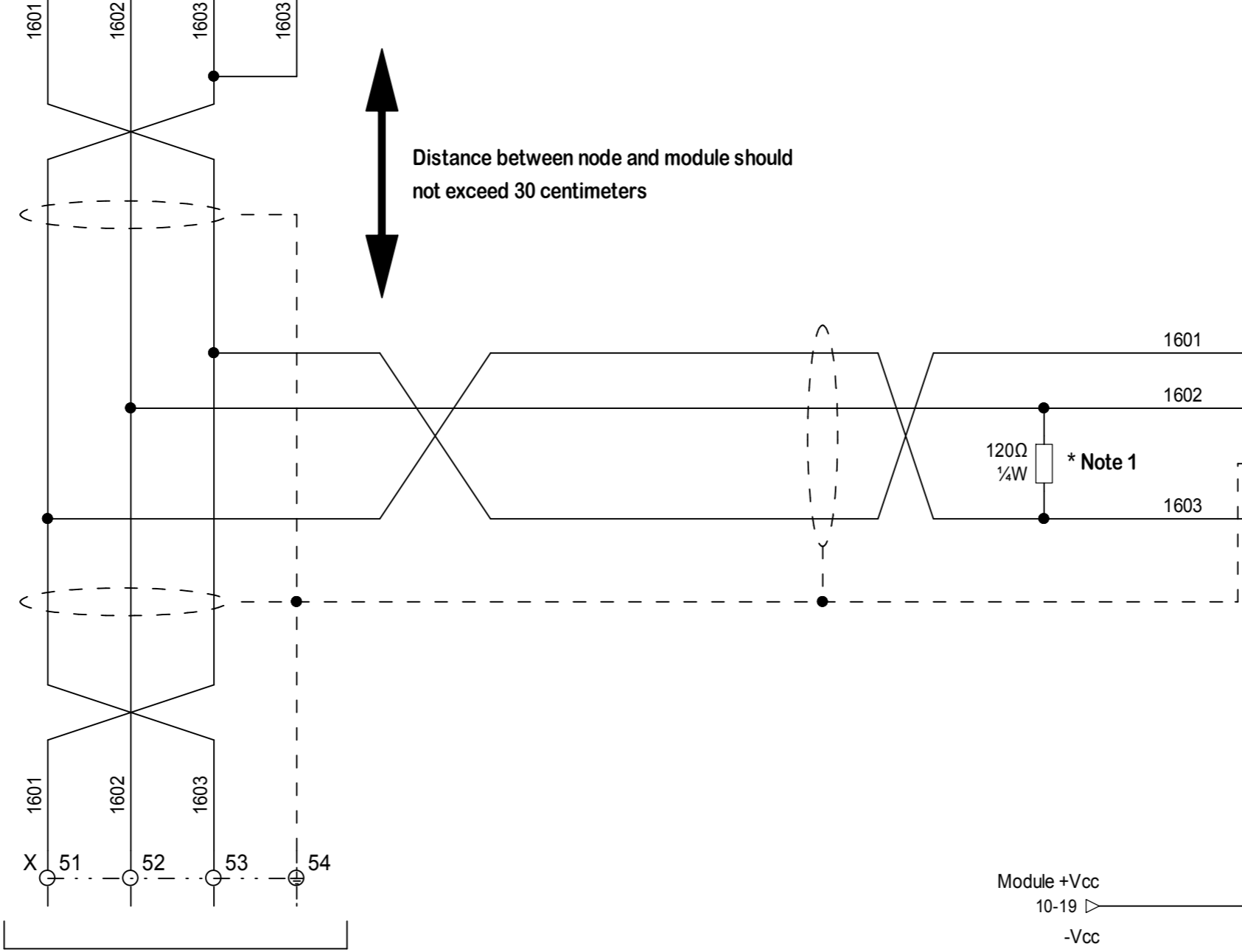
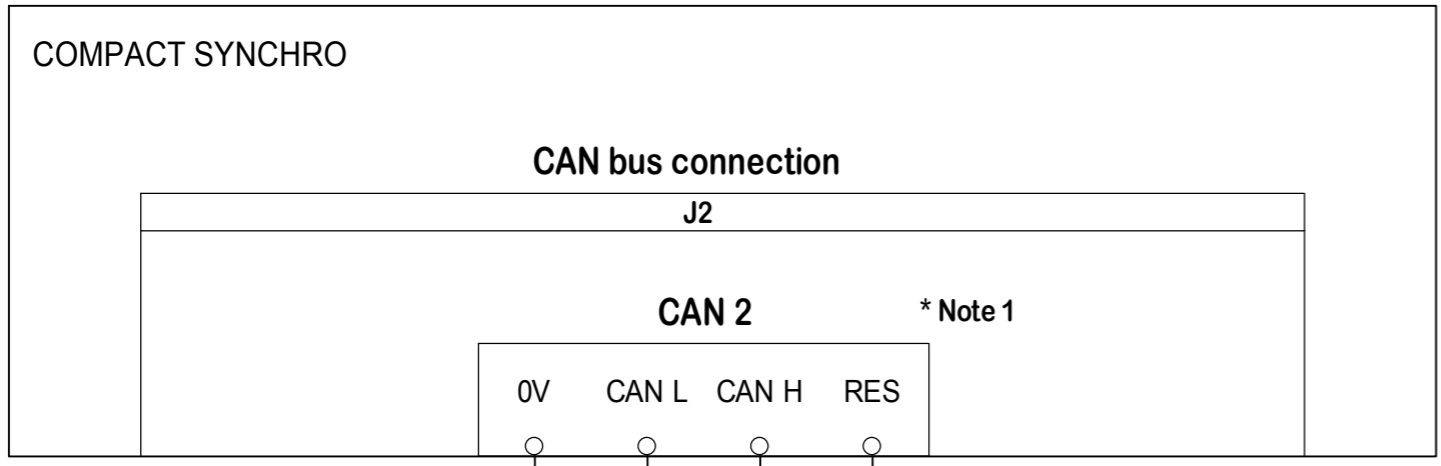
\* Note1: Embedded 120-ohm resistance to be bridged to CAN H terminal on first and last bus module only  
 \*\* Note2: CAN 1 is dedicated to inter-module communication. CAN options are available on CAN2



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SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS

CAN 1 connection



Module +Vcc 10-19  
-Vcc 11-19

TO ENGINE J1939 ECU

\* Note 1

\* Note1: Bus end 120-ohm resistor to be placed between CAN L and CAN H terminal on last equipment only



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SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS

CAN 2 connection



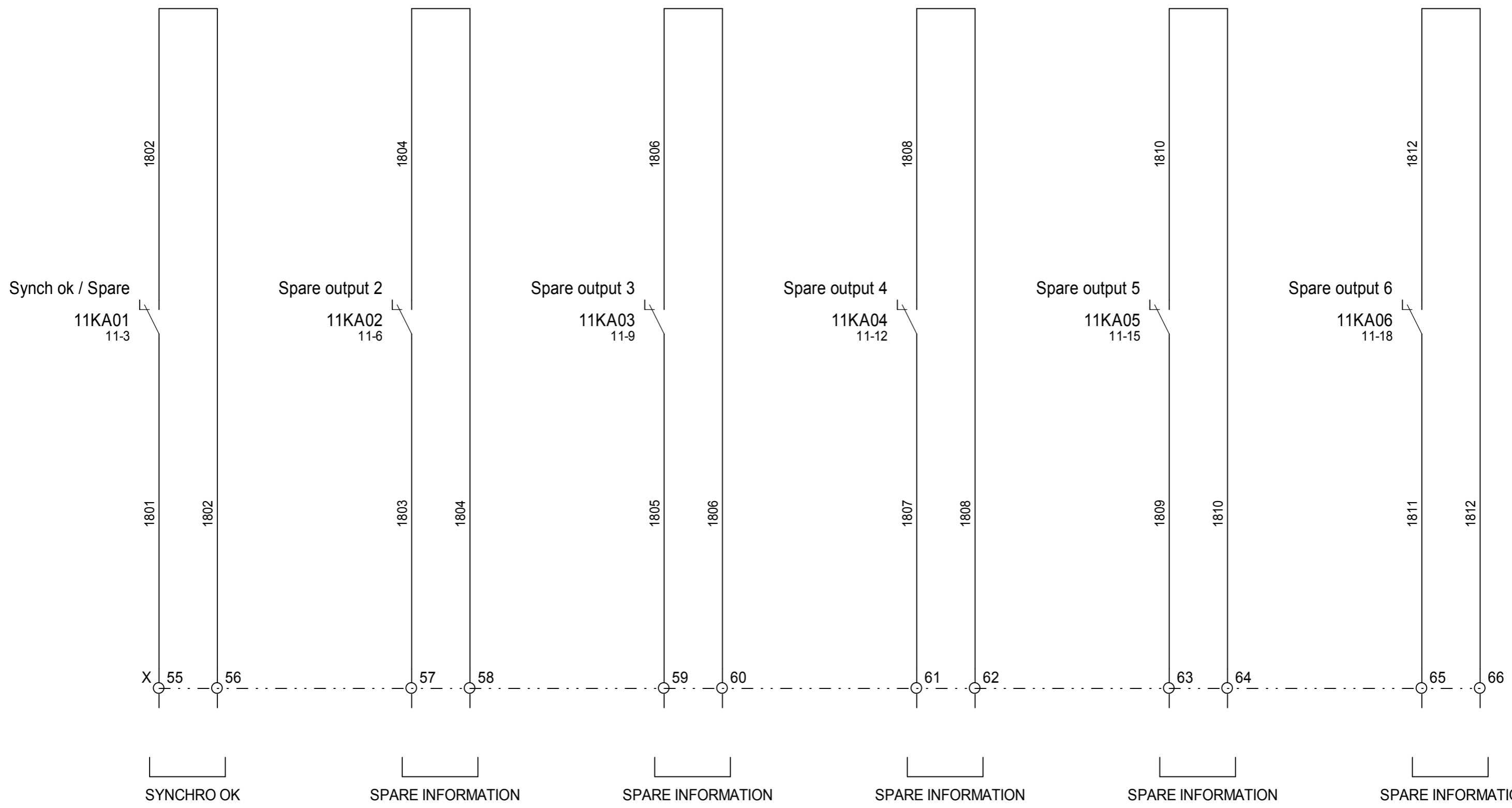
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**SYNCHRO COMPACT HMI / CORE  
STANDARD WIRING SCHEMATICS**

**Engine control**



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**SYNCHRO COMPACT HMI / CORE  
 STANDARD WIRING SCHEMATICS**

**Digital output terminals**