

Inverter replacement kit

Multi Booster BF16-2, BF24-3 & BF32-4



Directions for use
Gebrauchsanweisung
Mode d'emploi
Instrucciones de uso



Declaration of Conformity

Multi Booster BF16/2, BF24-3 & BF32-4

EN Declaration of Conformity	DE Konformitätserklärung
FR Déclaration de Conformité	IT Dichiarazione di Conformità
ES Declaración de Conformidad	PT Declaração de Conformidade
EL Δήλωση Συμμόρφωσης	NL Overeenkomstigheidsverklaring
SV Försäkran om överensstämmelse	FI Vaatimustenmukaisuusvakuutus
DA Overensstemmelseserklæring	PL Deklaracja zgodności
RU Декларация о соответствии	HU Megfelelőségi nyilatkozat
SL Izjava o skladnosti	HR Izjava o usklađenosti
SR Deklaracija o konformitetu	RO Declarație de Conformitate
BG Декларация за съответствие	CS Prohlášení o shodě
SK Prehlásenie o konformite	TR Uygunluk Bildirgesi
ET Vastavusdeklaratsioon	LT Atitikties deklaracija
LV Paziņojums par atbilstību prasībām	UK Свідчення про відповідність вимогам

Nilfisk FOOD
Blytækkervej 2
9000 Aalborg
Danmark

EN Declaration of Conformity

We Nilfisk FOOD, declare under our sole responsibility that the products Multi Booster BF16-2, BF24-3 & BF32-4, to which this declaration relates, are in conformity with these Council directives on the approximation of the laws of the EC member states:

Machinery Directive (2006/42/EC).

- EN 60335-2-79 : 2012

EMC Directive (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

FR Déclaration de conformité

Nous, Nilfisk FOOD, déclarons sous notre seule responsabilité, que les produits Multi Booster BF16-2, BF24-3 & BF32-4, auxquels se réfère cette déclaration, sont conformes aux Directives du Conseil concernant le rapprochement des législations des Etats membres CE relatives aux normes énoncées ci-dessous :

Directive Machines (2006/42/CE).

- EN 60335-2-79 : 2012

Directive Compatibilité Electromagnétique CEM (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

ES Declaración de conformidad

Nosotros, Nilfisk FOOD, declaramos bajo nuestra entera responsabilidad que los productos Multi Booster BF16-2, BF24-3 & BF32-4, a los cuales se refiere esta declaración, están conformes con las Directivas del Consejo en la aproximación de las leyes de los Estados Miembros del EM:

Directiva de Maquinaria (2006/42/CE).

- EN 60335-2-79 : 2012

Directiva EMC (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

EL Δήλωση συμμόρφωσης

Εμείς, η Nilfisk FOOD, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα Multi Booster BF16-2, BF24-3 & BF32-4, στα οποία αναφέρεται η παρούσα δήλωση, συμμορφώνονται με τις εξής Οδηγίες του Συμβουλίου περί προσέγγισης των νομοθεσιών των κρατών μελών της ΕΕ:

Οδηγία για μηχανήματα (2006/42/ΕΚ).

- EN 60335-2-79 : 2012

Οδηγία Ηλεκτρομαγνητικής Συμβατότητας (EMC) (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

DE Konformitätserklärung

Wir, Nilfisk FOOD, erklären in alleiniger Verantwortung, dass die Produkte Multi Booster BF16-2, BF24-3 & BF32-4, auf die sich diese Erklärung bezieht, im Einklang mit diesen Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EG-Mitgliedstaaten stehen:

Maschinenrichtlinie (2006/42/EG).

- EN 60335-2-79 : 2012

EMV-Richtlinie (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

IT Dichiarazione di conformità

Nilfisk FOOD dichiara sotto la sua esclusiva responsabilità che i prodotti Multi Booster BF16-2, BF24-3 & BF32-4, ai quali si riferisce questa dichiarazione, sono conformi alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE:

Direttiva Macchine (2006/42/CE).

- EN 60335-2-79 : 2012

Direttiva EMC (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

PT Declaração de Conformidade

A Nilfisk FOOD declara sob sua única responsabilidade que os produtos Multi Booster BF16-2, BF24-3 & BF32-4, aos quais diz respeito esta declaração, estão em conformidade com as seguintes Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da CE:

Directiva Máquinas (2006/42/CE).

- EN 60335-2-79 : 2012

Directiva EMC (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013

NL Verklaring van overeenstemming

Wij, Nilfisk FOOD, verklaren geheel onder eigen verantwoordelijkheid dat de producten Multi Booster BF16-2, BF24-3 & BF32-4, waarop deze verklaring betrekking heeft, in overeenstemming zijn met de Richtlijnen van de Raad in zake de onderlinge aanpassing van de wetgeving van de EG Lidstaten betreffende:

Machine Richtlijn (2006/42/EG).

- EN 60335-2-79 : 2012

EMC Richtlijn (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

SV Försäkran om överensstämmelse

Vi, Nilfisk FOOD, försäkrar under ansvar att produkterna Multi Booster BF16-2, BF24-3 & BF32-4, som omfattas av denna försäkran, är i överensstämmelse med rådets direktiv om inbördes närmande till EU-medlemsstaternas lagstiftning, avseende:

Maskindirektivet (2006/42/EG).

- EN 60335-2-79 : 2012

EMC-direktivet (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

DA Overensstemmelseserklæring

Vi, Nilfisk FOOD, erklærer under ansvar at produkterne Multi Booster BF16-2, BF24-3 & BF32-4, som denne erklæring omhandler, er i overensstemmelse med disse af Rådets direktiver om indbyrdes tilnærmelse til EF-medlemsstaternes lovgivning:

Maskindirektivet (2006/42/EF).

- EN 60335-2-79 : 2012

EMC-direktivet (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

RU Декларация соответствия

Мы, компания Nilfisk FOOD, со всей ответственностью заявляем, что изделия Multi Booster BF16-2, BF24-3 & BF32-4, к которым относится настоящая декларация, соответствуют следующим Директивам Совета Евросоюза об унификации законодательных предписаний стран-членов ЕС:

Механические устройства (2006/42/EC).

- EN 60335-2-79 : 2012

Электромагнитная совместимость (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

SL Izjava o skladnosti

V Nilfisk FOODu s polno odgovornostjo izjavljamo, da so naši izdelki Multi Booster BF16-2, BF24-3 & BF32-4, na katere se ta izjava nanaša, v skladu z naslednjimi direktivami Sveta o približevanju zakonodaje za izenačevanje pravnih predpisov držav članic ES:

Direktiva o strojih (2006/42/ES).

- EN 60335-2-79 : 2012

Direktiva o elektromagnetni združljivosti (EMC) (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

FI Vaatimustenmukaisuusvakuutus

Me, Nilfisk FOOD, vakuutamme omalla vastuullamme, että tuotteet Multi Booster BF16-2, BF24-3 & BF32-4, joita tämä vakuutus koskee, ovat EY:n jäsenvaltioiden lainsäädännön yhdenmukaistamiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukaisia seuraavasti:

Konedirektiivi (2006/42/EY).

- EN 60335-2-79 : 2012

EMC-direktiivi (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

PL Deklaracja zgodności

My, Nilfisk FOOD, oświadczamy z pełną odpowiedzialnością, że nasze wyroby Multi Booster BF16-2, BF24-3 & BF32-4, których deklaracja niniejsza dotyczy, są zgodne z następującymi wytycznymi Rady d/s ujednolicenia przepisów prawnych krajów członkowskich WE:

Dyrektywa Maszynowa (2006/42/WE).

- EN 60335-2-79 : 2012

Dyrektywa EMC (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

HU Megfelelőségi nyilatkozat

Mi, Nilfisk FOOD, izjavljujemo pod vlastitom odgovornošću da je proizvod Multi Booster BF16-2, BF24-3 & BF32-4, na koji se ova izjava odnosi, u skladu s direktivama ovog Vijeća o usklađivanju zakona država članica EU:

Direktiva za strojeve (2006/42/EK).

- EN 60335-2-79 : 2012

Direktiva za elektromagnetsku kompatibilnost (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

HR Izjava o usklađenosti

Mi, Nilfisk FOOD, izjavljujemo pod vlastitom odgovornošću da je proizvod Multi Booster BF16-2, BF24-3 & BF32-4, na koji se ova izjava odnosi, u skladu s direktivama ovog Vijeća o usklađivanju zakona država članica EU:

Direktiva za strojeve (2006/42/EZ).

- EN 60335-2-79 : 2012

Direktiva za elektromagnetsku kompatibilnost (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

SR Deklaracija o konformitetu

Mi, Nilfisk FOOD, izjavljujemo pod vlastitom odgovornošću da je proizvod Multi Booster BF16-2, BF24-3 & BF32-4, na koji se ova izjava odnosi, u skladu sa direktivama, Saveta za usklađivanje zakona država članica EU:

Direktiva za mašine (2006/42/EC).

- EN 60335-2-79 : 2012

EMC direktiva (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

BG Декларация за съответствие

Ние, фирма Nilfisk FOOD, заявяваме с пълна отговорност, че продуктите Multi Booster BF16-2, BF24-3 & BF32-4, за които се отнася настоящата декларация, отговарят на следните указания на Съвета за уеднаквяване на правните разпоредби на държавите членки на ЕС:

Директива за машините (2006/42/EO).

- EN 60335-2-79 : 2012

Директива за електромагнитна съвместимост (2014/30/ EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

SK Prehlásenie o zhode

My firma Nilfisk FOOD prehlasujeme na svoju plnú zodpovednosť, že výrobky Multi Booster BF16-2, BF24-3 & BF32-4, na ktoré sa toto prehlásenie vzťahuje, sú v súlade s ustanovením smernice Rady pre zblíženie právnych predpisov členských štátov Európskeho spoločenstva v oblastiach:

Smernica pre strojové zariadenie (2006/42/ES).

- EN 60335-2-79 : 2012

Smernica pre elektromagnetickú kompatibilitu (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

ET Vastavusdeklaratsioon

Meie, Nilfisk FOOD, deklareerime enda ainuvastutusel, et tooted Multi Booster BF16-2, BF24-3 & BF32-4, mille kohta käesolev juhend käib, on vastavuses EÜ Nõukogu direktiividega EMÜ liikmesriikide seaduste ühitamise kohta, mis käsitlevad:

Masinate ohutus (2006/42/EÜ).

- EN 60335-2-79 : 2012

Elektromagnetilise ühilduvus (EMC direktiiv) (2014/30/ EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

RO Declarație de conformitate

Noi, Nilfisk FOOD, declarăm pe propria răspundere că produsele Multi Booster BF16-2, BF24-3 & BF32-4, la care se referă această declarație, sunt în conformitate cu aceste Directive de Consiliu asupra armonizării legilor Statelor Membre CE:

Directiva Utilaje (2006/42/CE).

- EN 60335-2-79 : 2012

Directiva EMC (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

CS Prohlášení o shodě

My firma Nilfisk FOOD prohlašujeme na svou plnou odpovědnost, že výrobky Multi Booster BF16-2, BF24-3 & BF32-4, na něž se toto prohlášení vztahuje, jsou v souladu s ustanoveními směrnice Rady pro sblížení právních předpisů členských států Evropského společenství v oblastech:

Směrnice pro strojní zařízení (2006/42/ES).

- EN 60335-2-79 : 2012

Směrnice pro elektromagnetickou kompatibilitu (EMC) (2014/30/EU)

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

TR Uygunluk Beyanı

Nilfisk FOOD olarak bu beyannameye konu olan Multi Booster BF16-2, BF24-3 & BF32-4, ürünlerinin, AB Üyesi Ülkelerin kanunlarını birbirine yaklaştırma üzerine Konsey Direktifleriyle uyumlu olduğunu yalnızca bizim sorumluluğumuz altında olduğunu beyan ederiz:

Makineler Yönetmeliği (2006/42/EB).

- EN 60335-2-79 : 2012

EMC Direktifi (2014/30/ EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

LT Atitikties deklaracija

Компанія Nilfisk FOOD заявляє про свою виключну відповідальність за те, що продукти Multi Booster BF16-2, BF24-3 & BF32-4, на які поширюється дана декларація, відповідають таким рекомендаціям Ради з уніфікації правових норм країн-членів ЕС:

Механічні прилади (2006/42/EB).

- EN 60335-2-79 : 2012

Електромагнітна сумісність (2014/30/ EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.



Atbilstības deklarācija

Sabiedrība Nilfisk FOOD ar pilnu atbildību dara zināmu, ka produkti Multi Booster BF16-2, BF24-3 & BF32-4, uz kuriem attiecas šis paziņojums, atbilst šādām Padomes direktīvām par tuvināšanos EK dalībvalstu likumdošanas normām:

Mašīnbūves direktīva (2006/42/EK).

- EN 60335-2-79 : 2012

Elektromagnētiskās saderības direktīva (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.



Свідчення про відповідність

ВИМОГАМ

Компанія Nilfisk FOOD заявляє про свою виключну відповідальність за те, що продукти Multi Booster BF16-2, BF24-3 & BF32-4, на які поширюється дана декларація, відповідають таким рекомендаціям Ради з уніфікації правових норм країн -членів ЕС:

Механічні прилади (2006/42/ЕС).

- EN 60335-2-79 : 2012

Електромагнітна сумісність (2014/30/EU).

- EN 55014-1 : 2017

- EN 55014-2 : 2015

- EN 61000-3-2 : 2014

- EN 61000-3-3 : 2013.

Technical file responsible:

Flemming Asp

Nilfisk FOOD

Blytaekkervej 2

9000 Aalborg, Denmark

Signature:

Flemming Asp










R & D Manager

Aalborg d. 01-02-2023

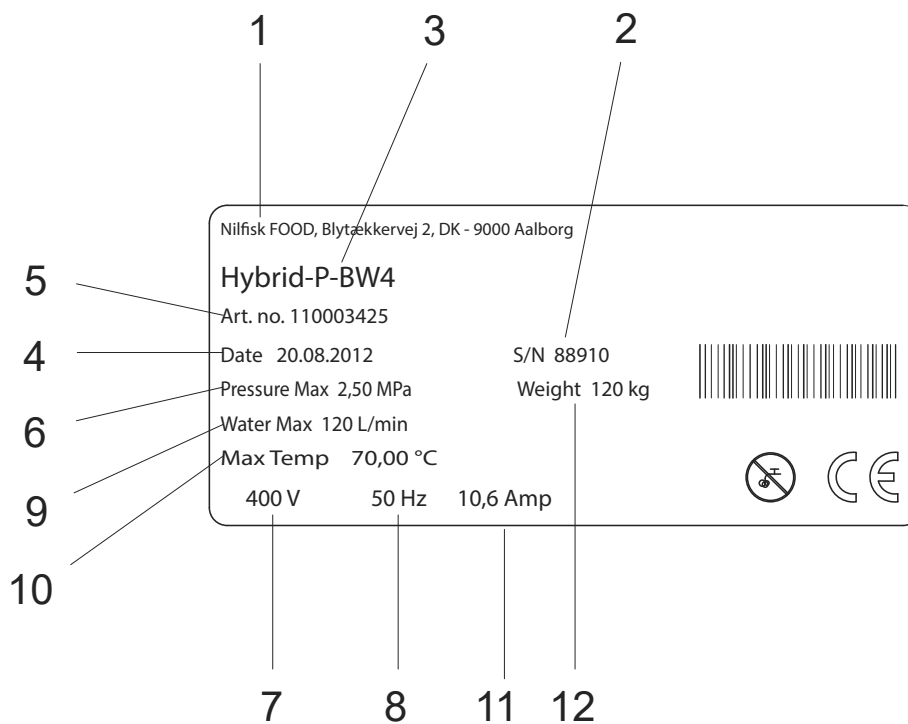
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2. Symbols used in this document

	<p>Read before Use</p>
	<p>Wear glasses when using the unit.</p>
	<p>Wear gloves and suitable clothing when using the unit.</p>
	<p>Note: A potentially damaging situation. Possible consequences: The product or something in its vicinity could be damaged prevention.</p>
	<p>Caution: A dangerous situation. Possible consequences: light or minor injuries. Can also be used in warn against damage to property or other goods prevention.</p>
	<p>Warning: A Potentially dangerous situation. Possible consequences: Death or severe injury prevention.</p>
	<p>Danger: A dangerous situation. Possible consequences: Death or severe injury prevention.</p>
	<p>Danger: Risc of electric shock! Possible consequences: Death or severe injury prevention</p>
	<p>Hot Surfaces Risc of burns! Possible consequences: Severe injuries prevention</p>

2.1. Identification Plate



1. Producer
2. Serial no
3. Type
4. Date of production
5. Article no
6. Maximum pressure
7. Supply voltage
8. Frequency
9. Maximum water consumption
10. Maximum temperature
11. Current
12. Weight

2.2. Supplier

Nilfisk FOOD
 Blytækkervej 2
 DK-9000 Aalborg, Denmark
 Tel.: +45 7218 2000
 CVR no. 6257 2213
www.nilfiskfood.com

3. Service & Tools required

Service may only be carried out by authorized and qualified personnel and in accordance with local legislation.

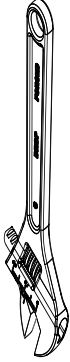
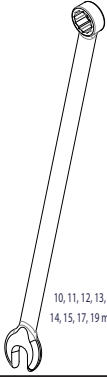
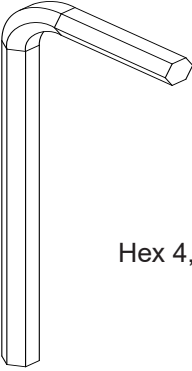

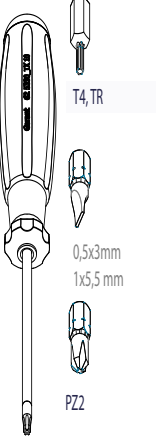
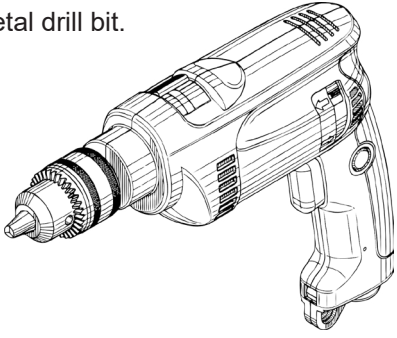


CAUTION

The system must only be serviced when there is no voltage or pressure on the system.

1. Open a water outlet to depressurise the system.
2. Turn off the main switch at the control box.




Tools required

	 <p>9, 22, 29 mm</p> <p>10, 11, 12, 13, 14, 15, 17, 19 mm</p>
 <p>Hex 4,12</p>	
 <p>T4, TR</p> <p>0,5x3mm</p> <p>1x5,5 mm</p> <p>PZ2</p>	<p>Ø5 metal drill bit.</p> 

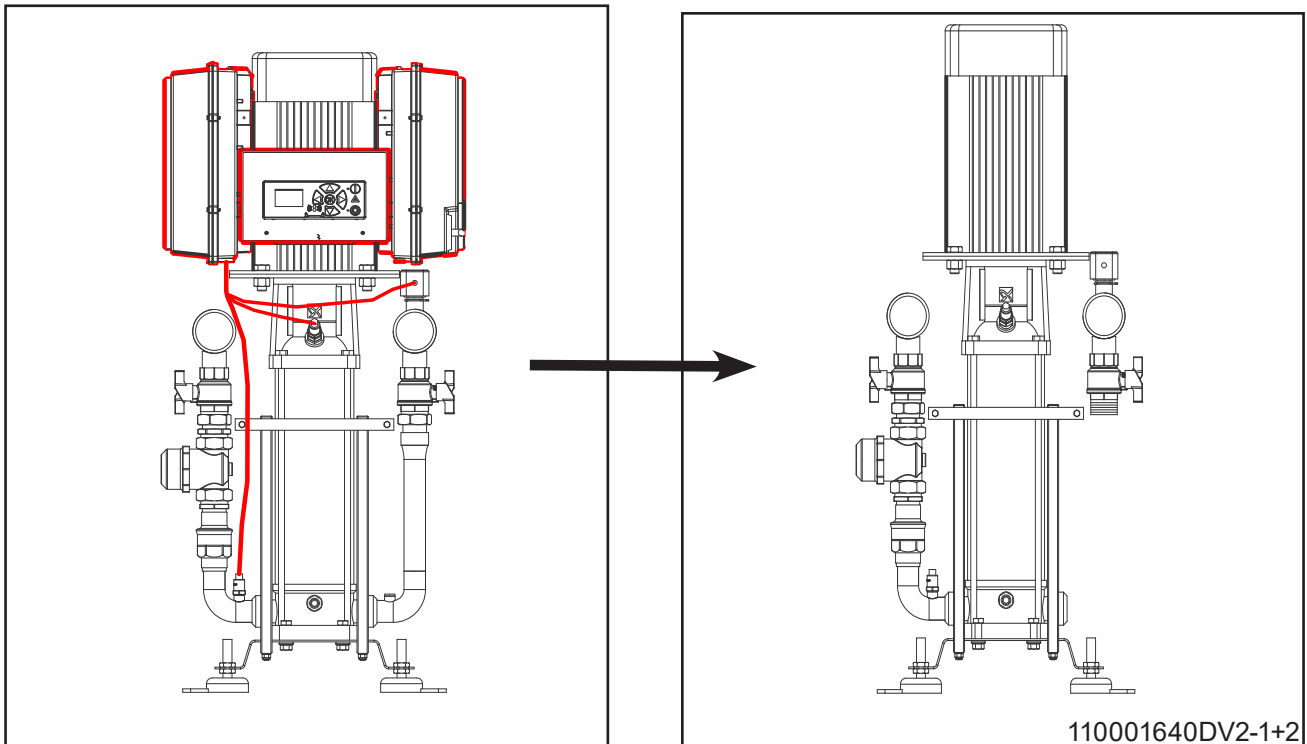
Note: the new display comes with factory settings. If you want to maintain individual pump-settings, please retrieve them from the display, and note them elsewhere, before disassembly.

4. BF16-2/BF24-3/BF32-4

4.1. BF16-2/BF24-3/BF32-4 disassembly

	Danger: A dangerous situation. Possible consequences: Death or severe injury prevention.
	Danger: Risc of electric shock! Possible consequences: Death or severe injury prevention.
	Hot Surfaces Risc of burns! Possible consequences: Severe injuries prevention.

In this section, all components that need to be exchanged to use the new inverter are removed.
Do not forget to keep the display box and pressure sensor to be used in the installation section.



1. Switch off the electricity supply.
 - Turn off the main switch.
 - Turn off the inverter.
 - Remove the power cable from the main switch.
2. Turn off the water supply.
3. Open an outlet to depressurize the system.

Wait 180 seconds from turning off the inverter before continuing.

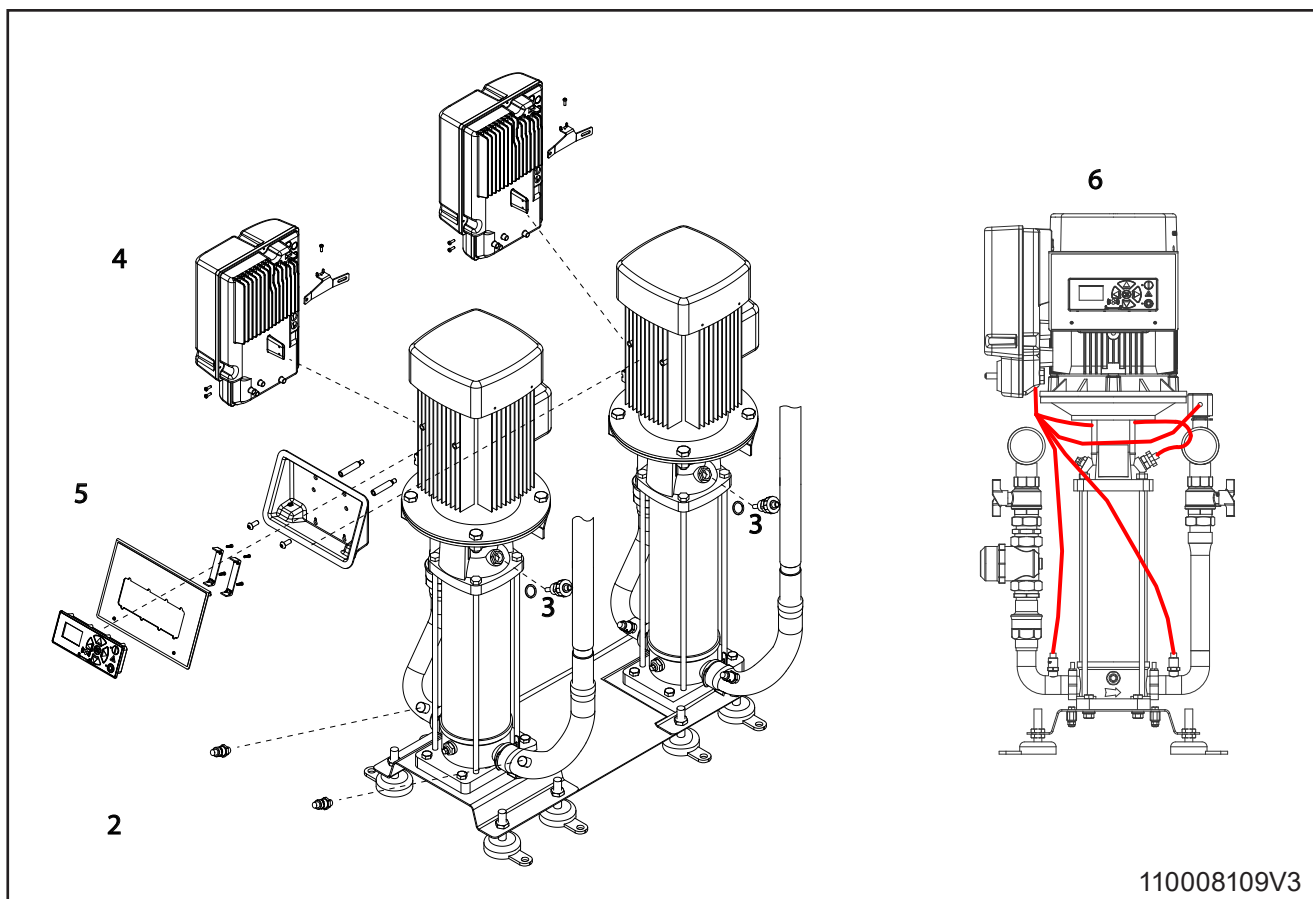
4. Remove the motor cables and motor temperature cables on each pump.
5. Remove 3x sensor cables from the pump top, flow switch and pump outlet on each pump.
6. Remove the inverter cap.
7. Remove the display plug from the inverter.
8. Remove the display box.
 - Remove the old display from the display box.
 - Keep the display box for later installation.
9. Remove the inverter and inverter fitting on each pump.
10. Remove the plug from the outlet pipe.
11. Remove the pressure sensor from the pump top on each pump - keep the pressure sensor for later installation.

4.2. BF16-2/BF24-3/BF32-4 assembly

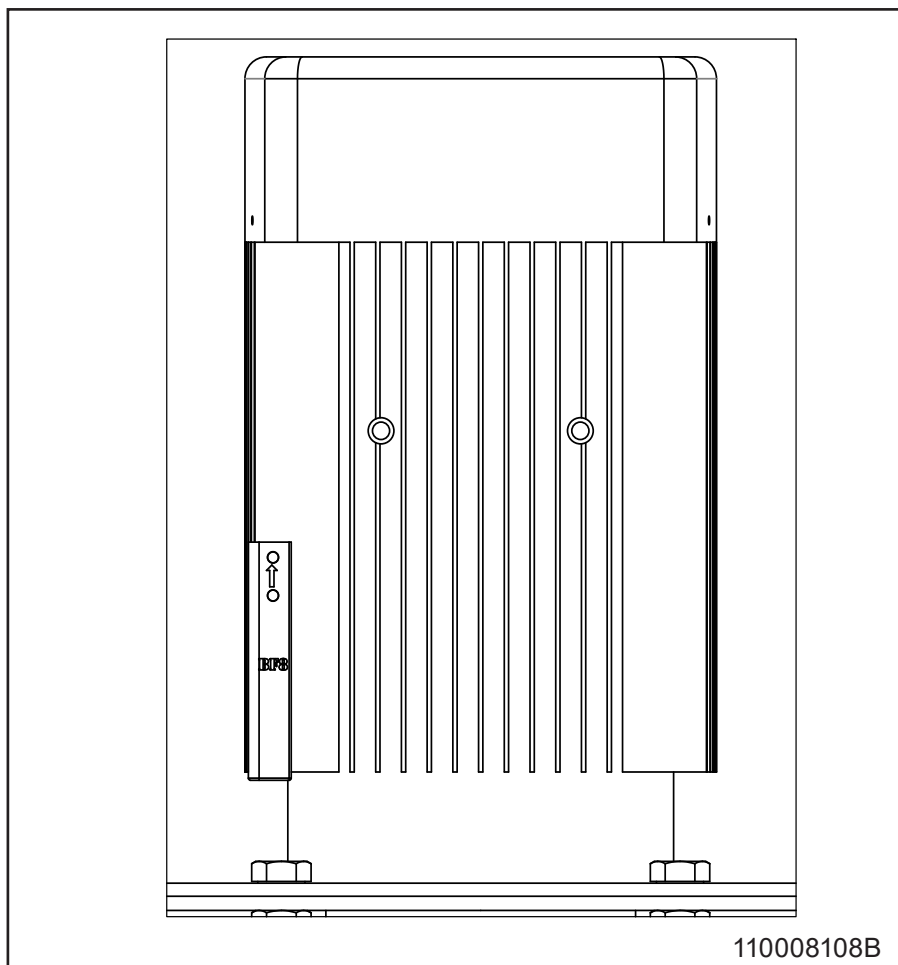
This section describes all steps to install the new inverter and display.
For instructions on cable installation, see the cable installation section.

If the booster unit is leaning against a wall, it may be necessary to remove and rotate the top of the pump to be able to exchange motor cables.

See below instructions on how to rotate the pump.

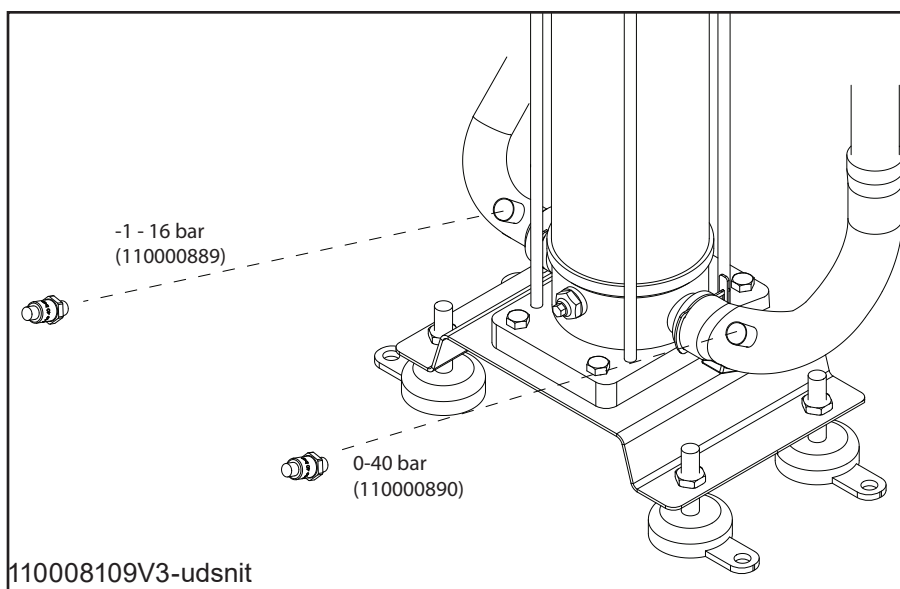


1)



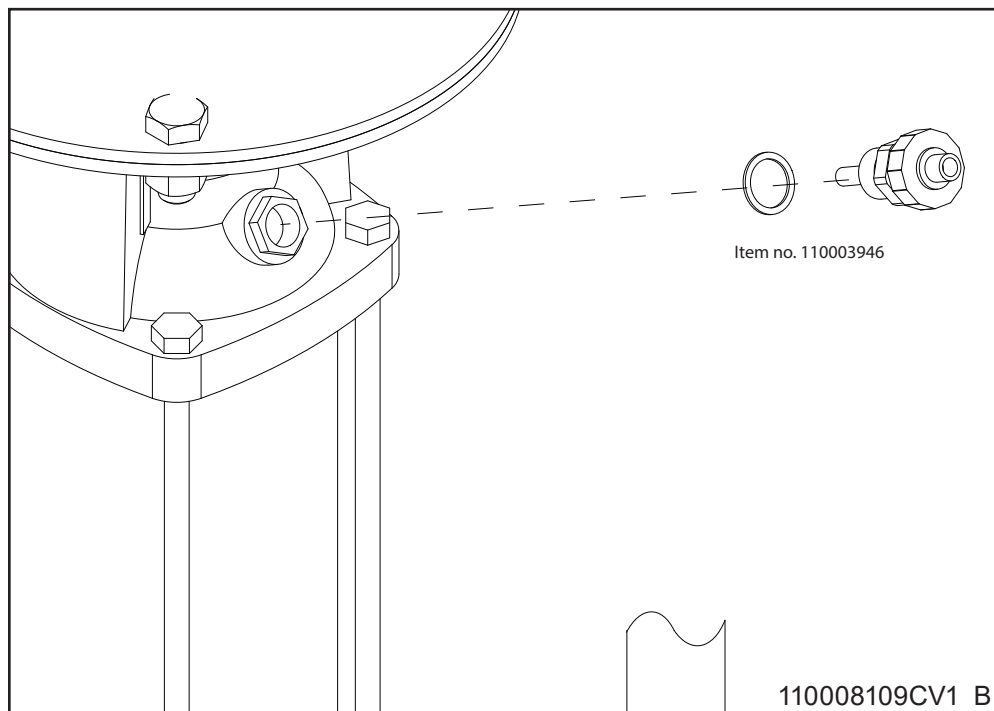
Place the drilling template as shown. Drill the cooling rib through the template using a $\text{Ø}5$ drill.

2)



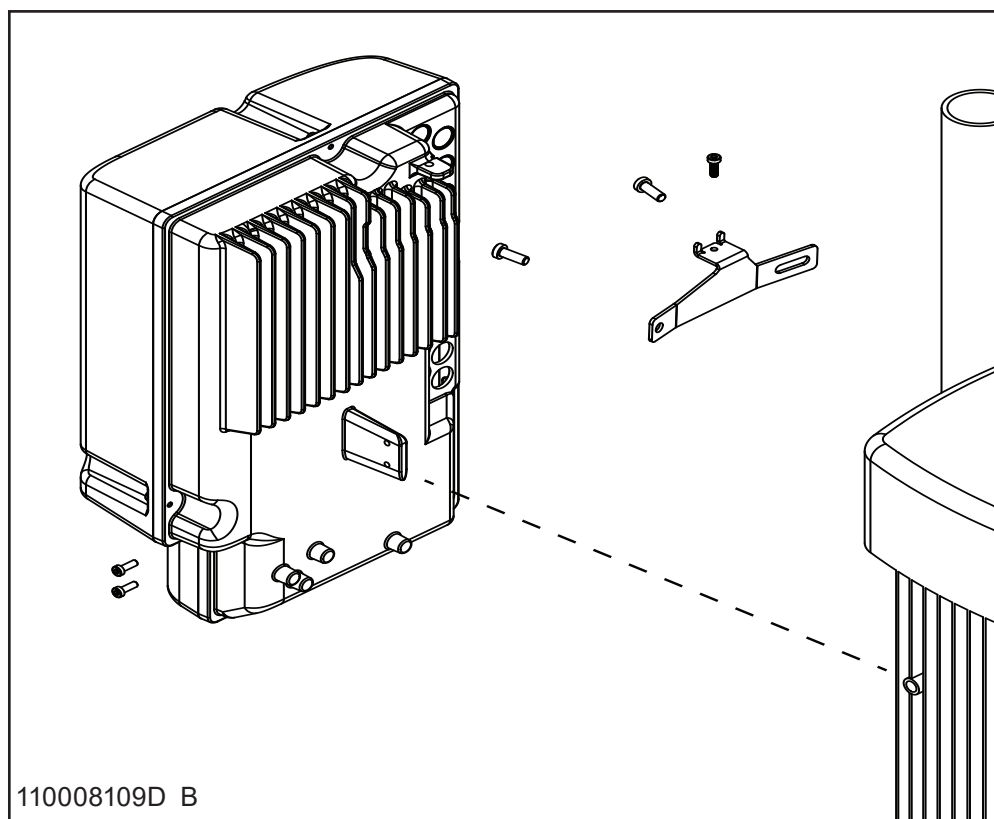
Install the pressure sensor.

3)



Install the PT1000 sensor and gasket in the pump top.

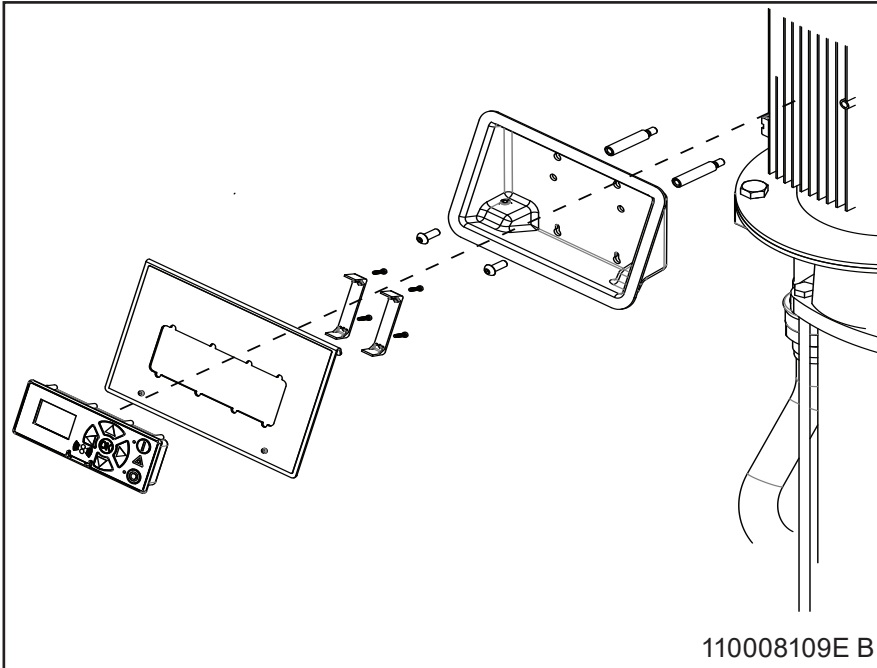
4)



Install the inverter.

- Install the top fitting using 2 x M5 x 16 BH.
- Place the inverter on the top fitting, fix with 3 x M4 x 16 self-tapping screws.
- Remove the inverter cap.

5)

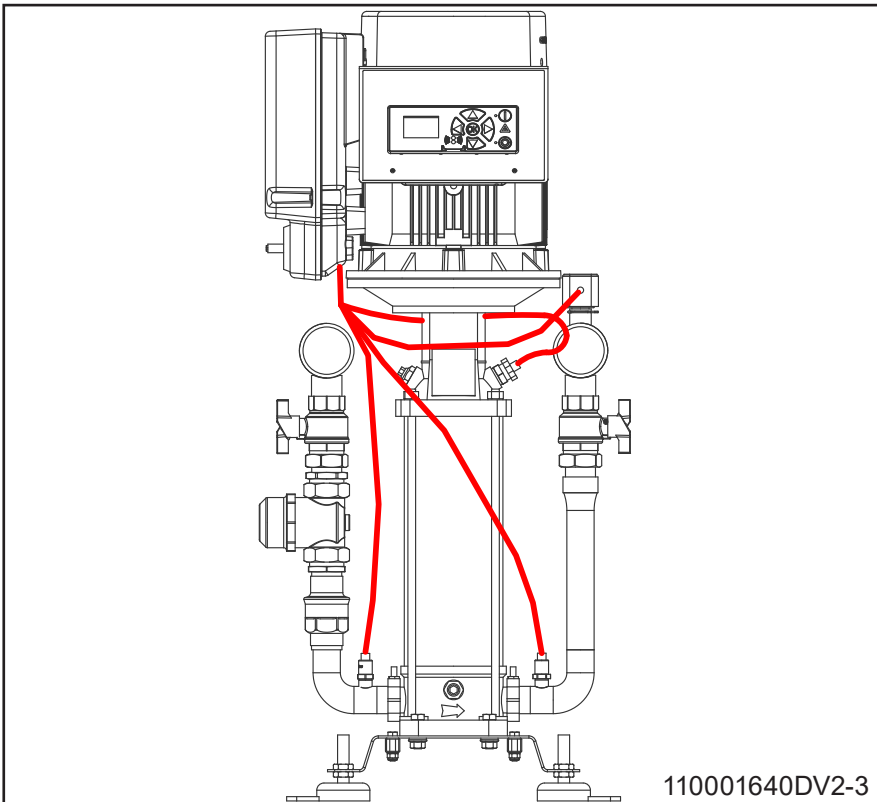


Install the display.

- Install 2 x poles onto the pump.
- Install the new display in the display box.

Install the display box on poles.

6)

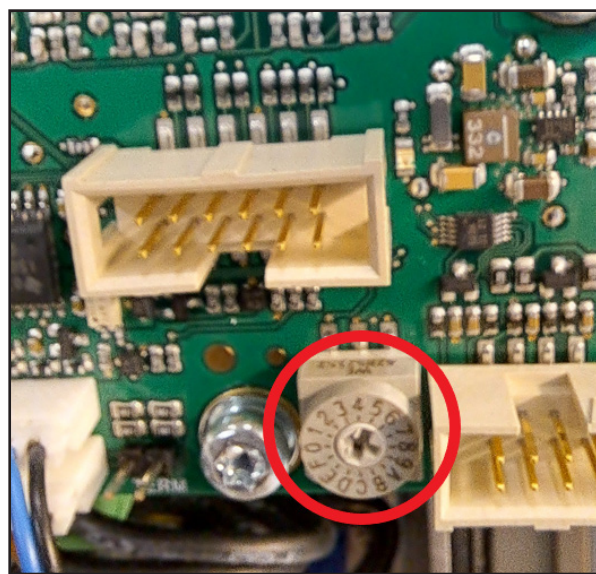
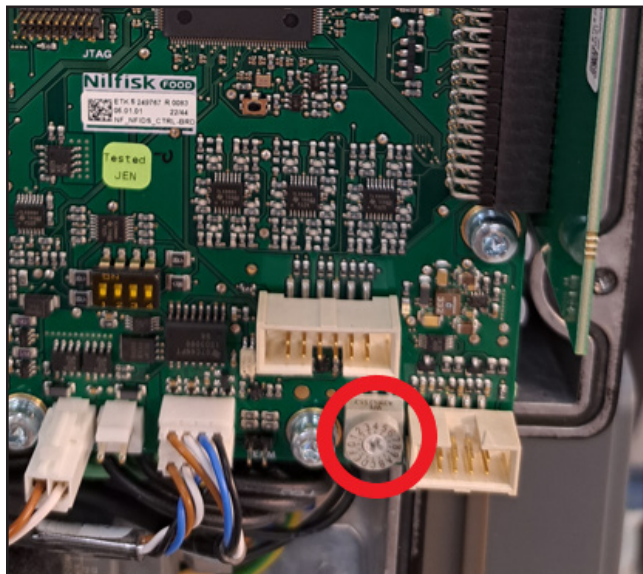


Install cables and plugs

(see the section on cable installation).

- Install the display plug on the inverter terminal "modbus".
- Install 4 sensor cables on the sensors.
- Use strips to collect the cables.

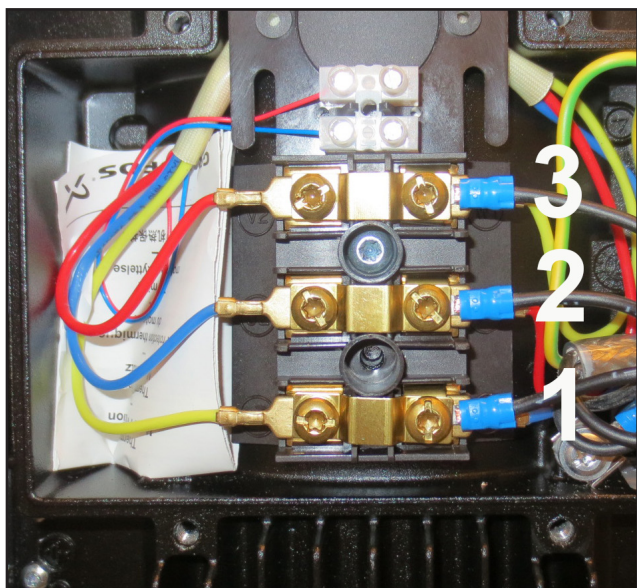
7)



Setting the switch.

4.3. Multi booster Start-up and test

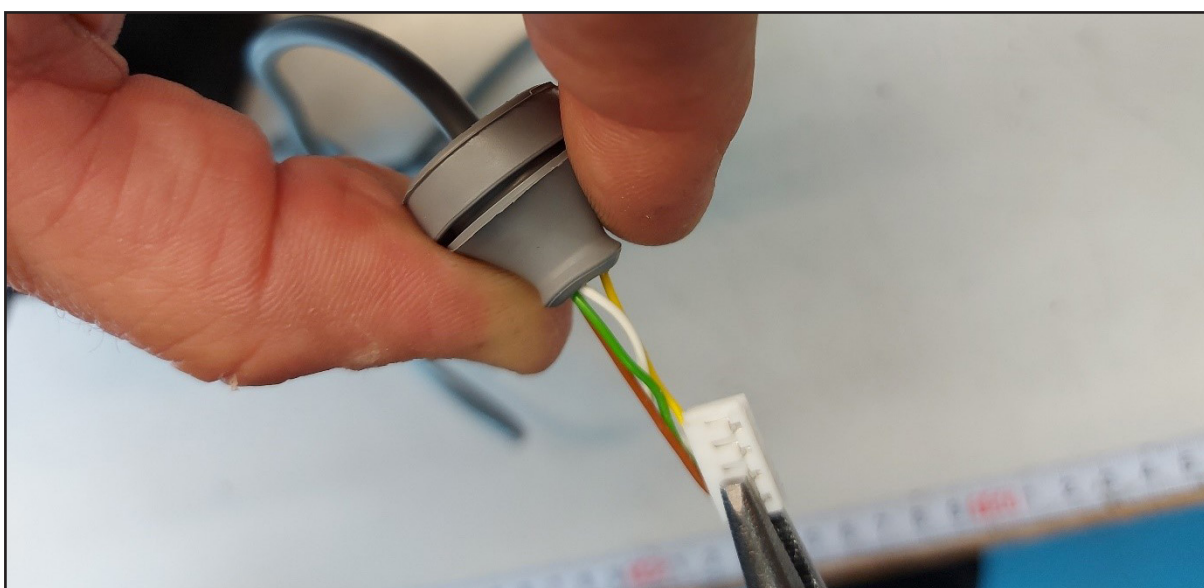
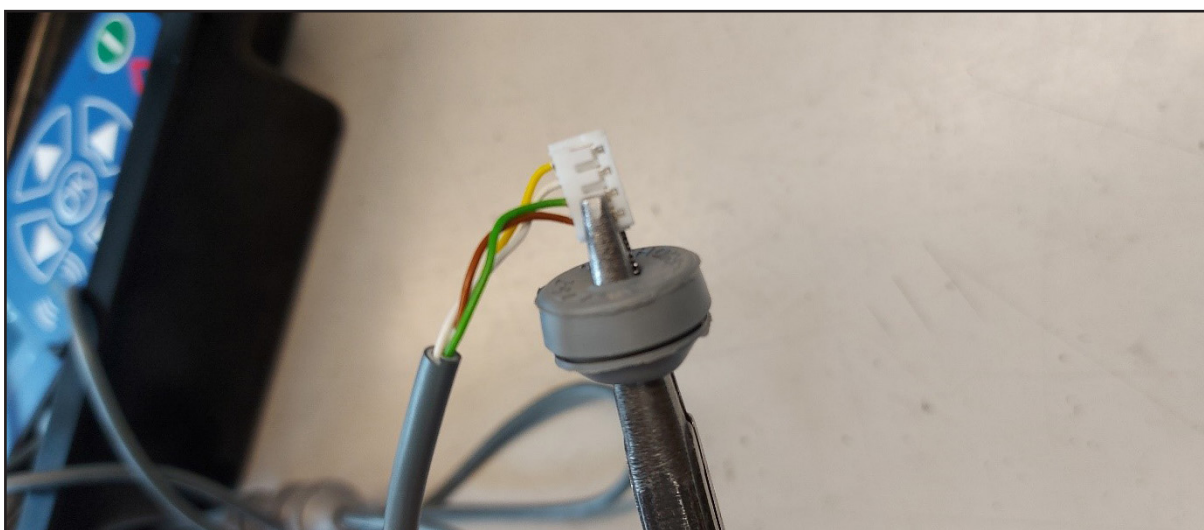
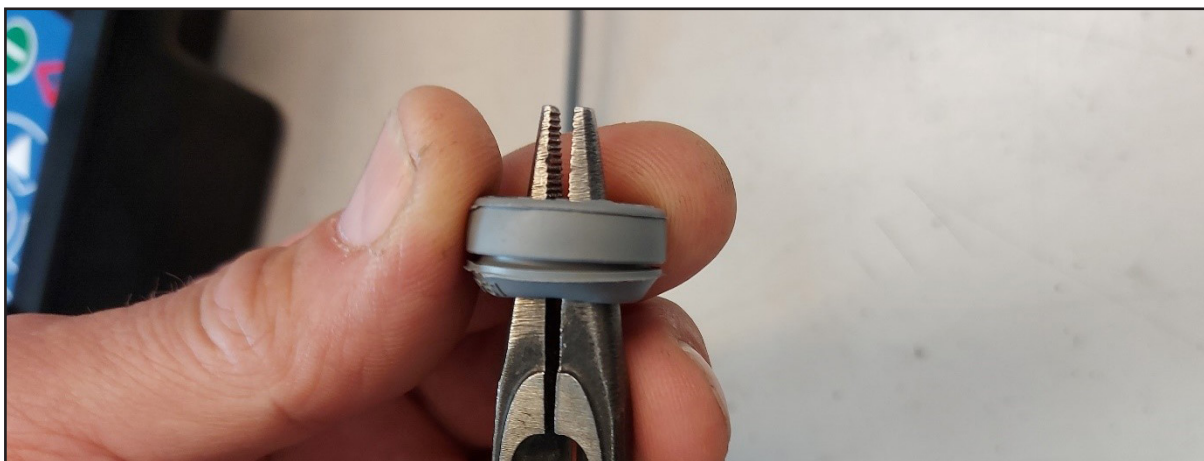
- 1) Set switch to 1, 2 or 3 depending on which number in the row the pump is (counting from the controller).
- 2) Install new communication cables for flow and modbus data from pump 1 to 2 to 3.



Install the motor cable and the motor temperature cable.

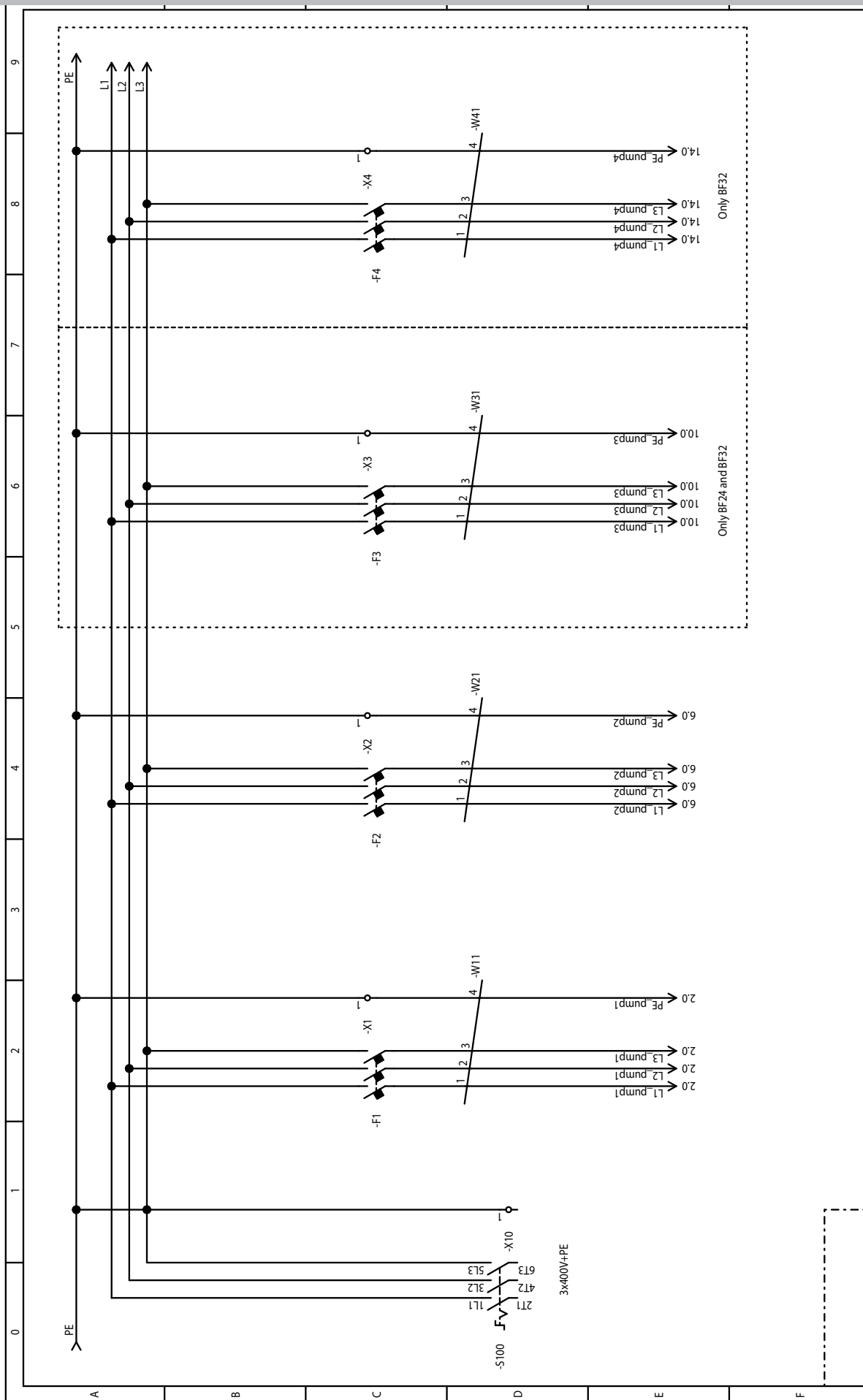
- 3) Start the water supply to the pump. Check for any leakages.
- 4) Bleed the pump.
- 5) Install the power cable wires marked with the numbers 1-3, and turn on the system. Please also see illustration above.
- 6) Wait for the OFF LED to emit constant light (20-30 seconds).
- 7) Installation on display
 - Set the display for the correct machine type in settings. The type of machine is stated on the identification plate.
 - Set the time and date in settings
 - Set user-specific settings
- 8) Test the unit.

5. Cable installation



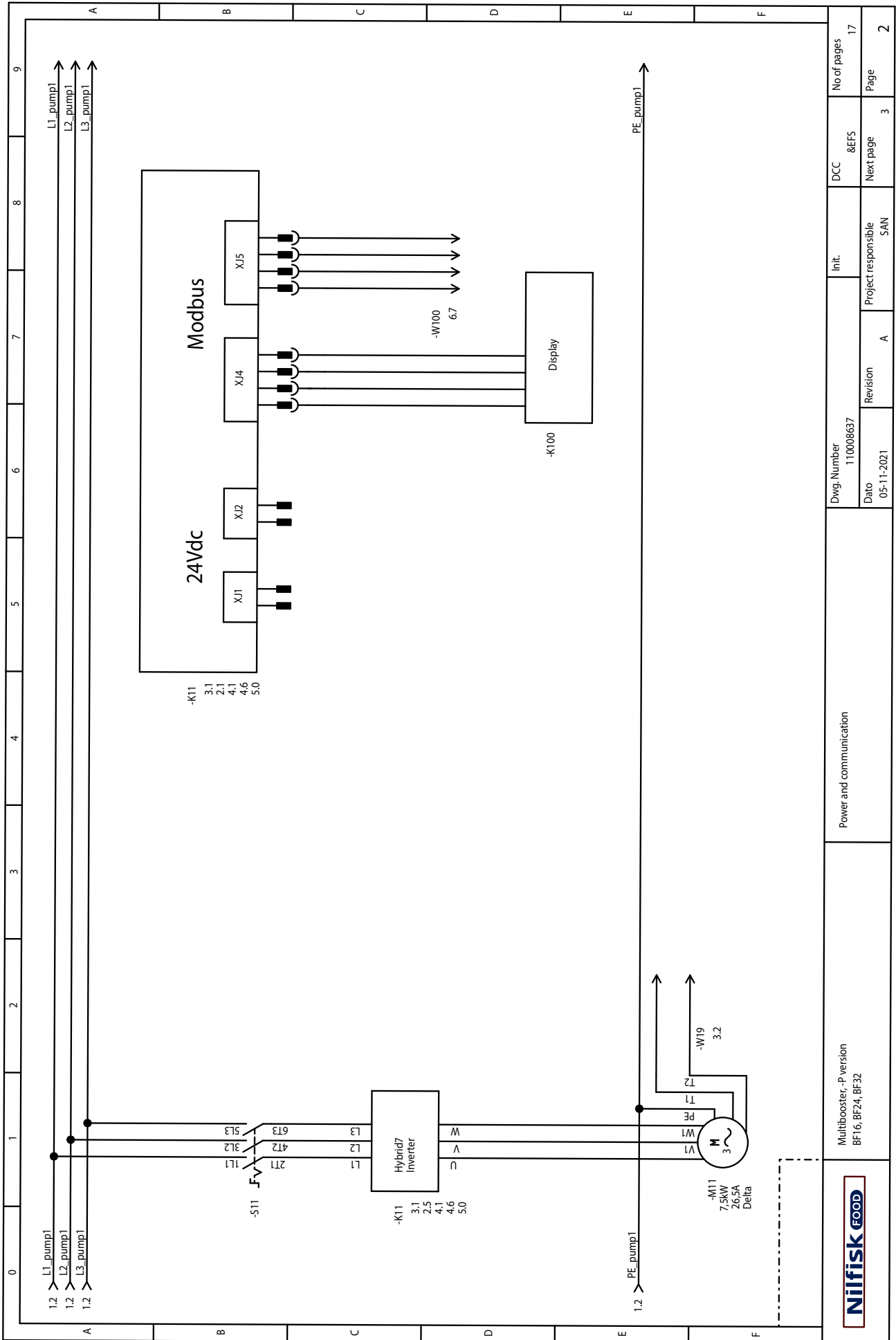
NB. The colours of the cables may vary from time to time

6. Diagrams

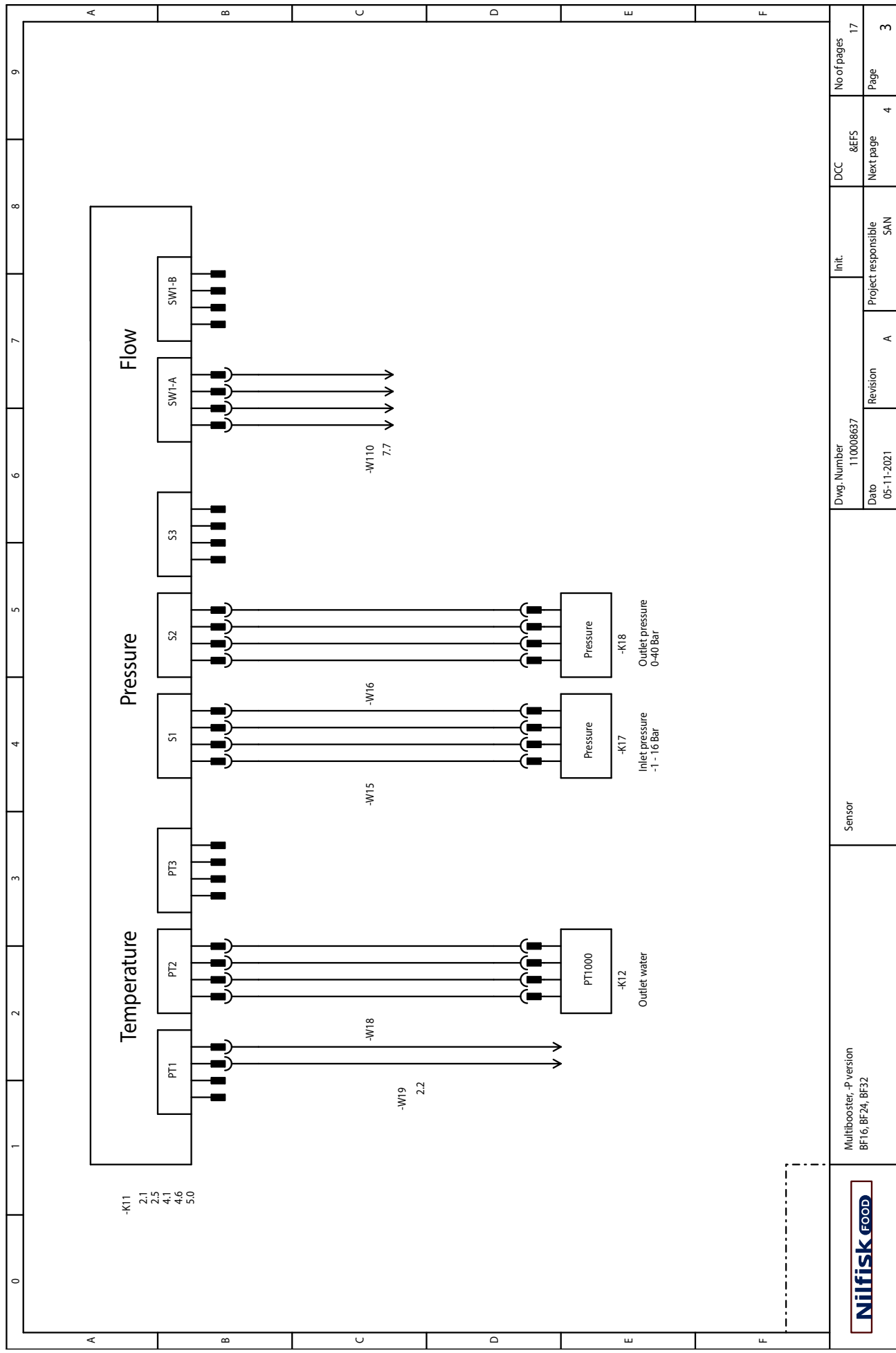


	Multibooster, -P version BF16, BF24, BF32		Control cabinet		Dwg. Number 110008637		Init.		DCC		No of pages	
					Revision A		Project responsible SAN		Next page 2		Page 1	

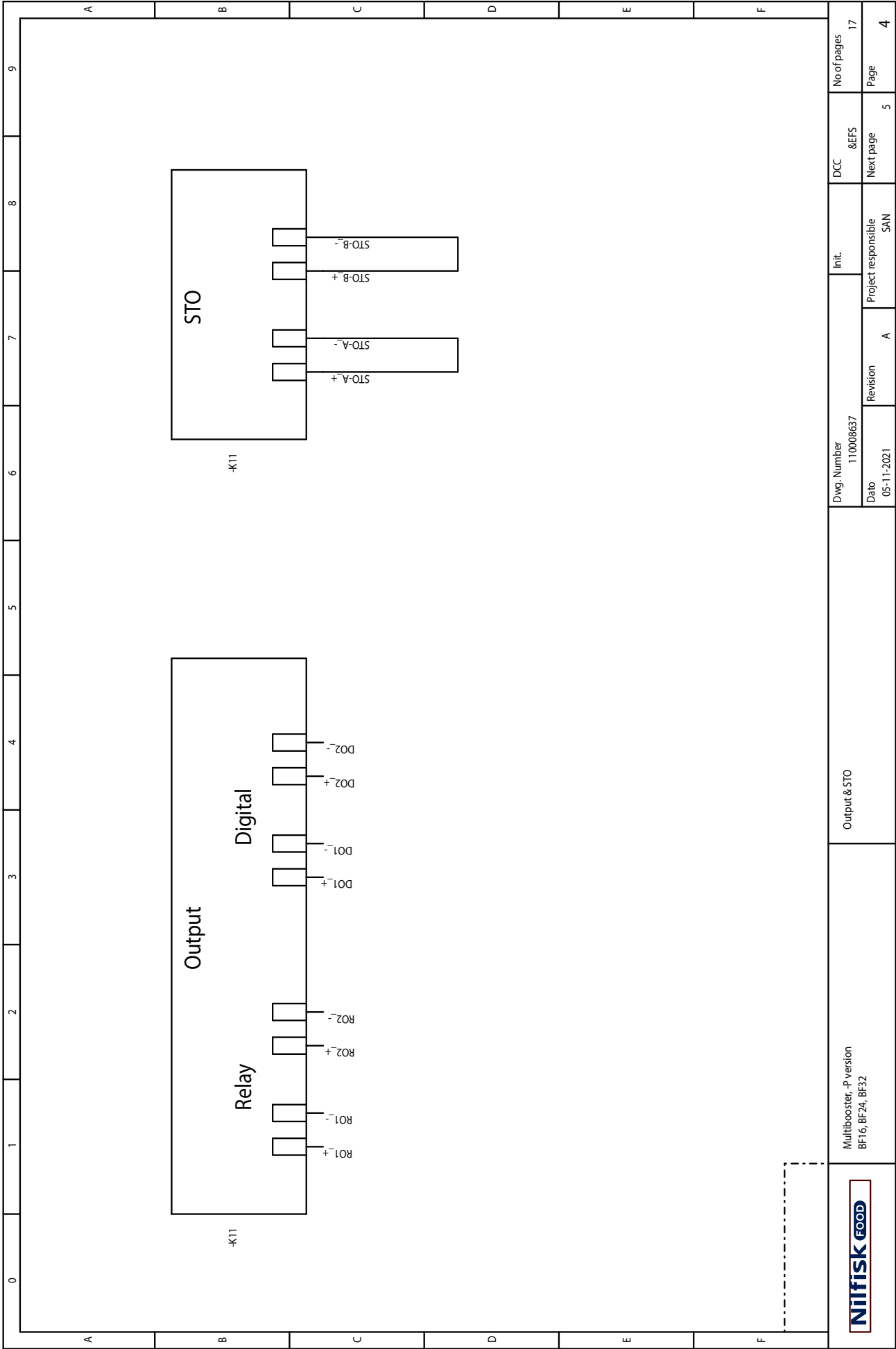
1100086371-17

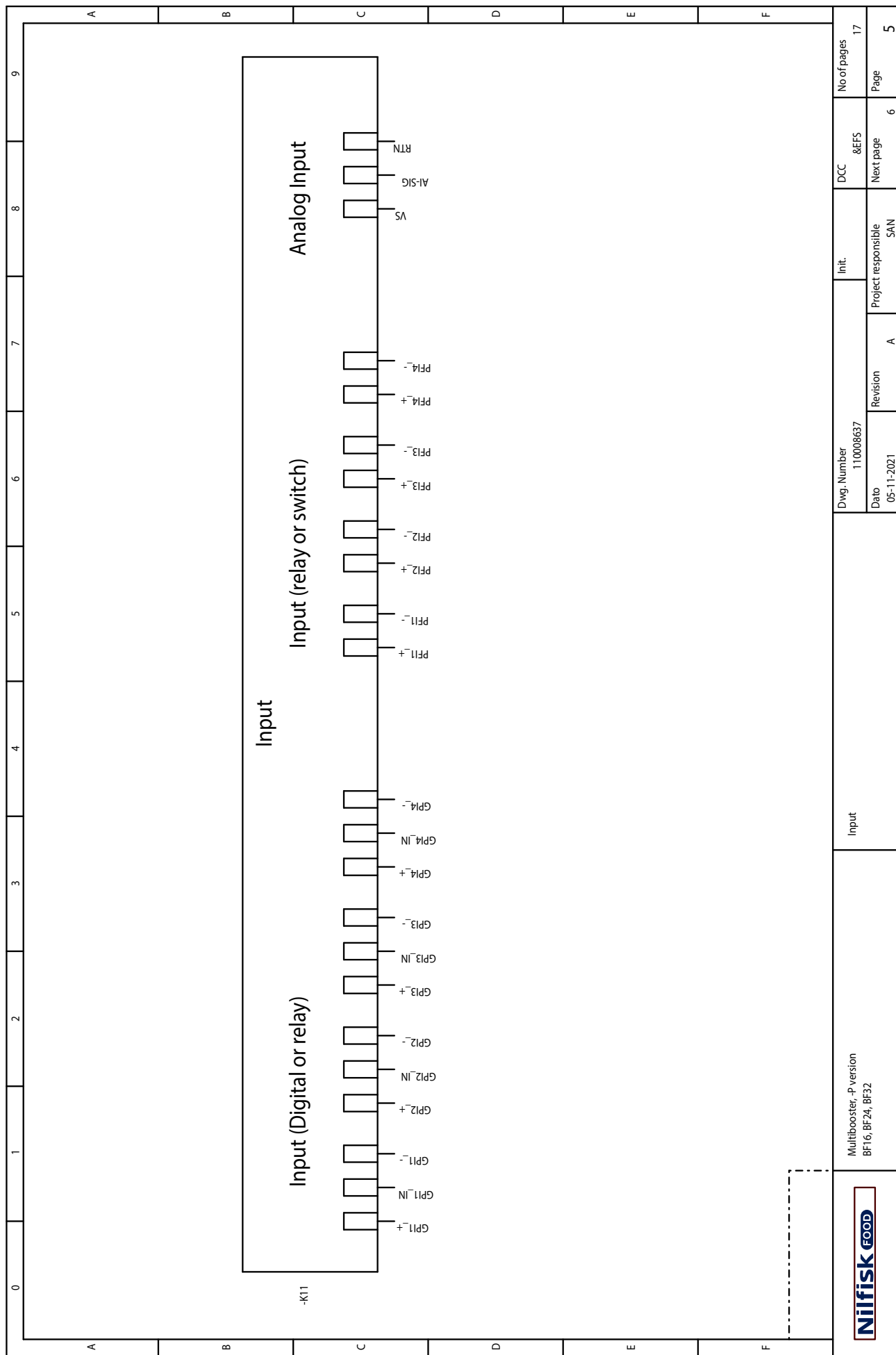


Nifisk FOOD		Multibooster - P version BF16, BF24, BF32		Power and communication		Dwg. Number 110008637		Init.		DCC &EFS		No of pages 17	
						Date 05-11-2021		Revision A		Project responsible SAN		Next page 3	
												Page 2	

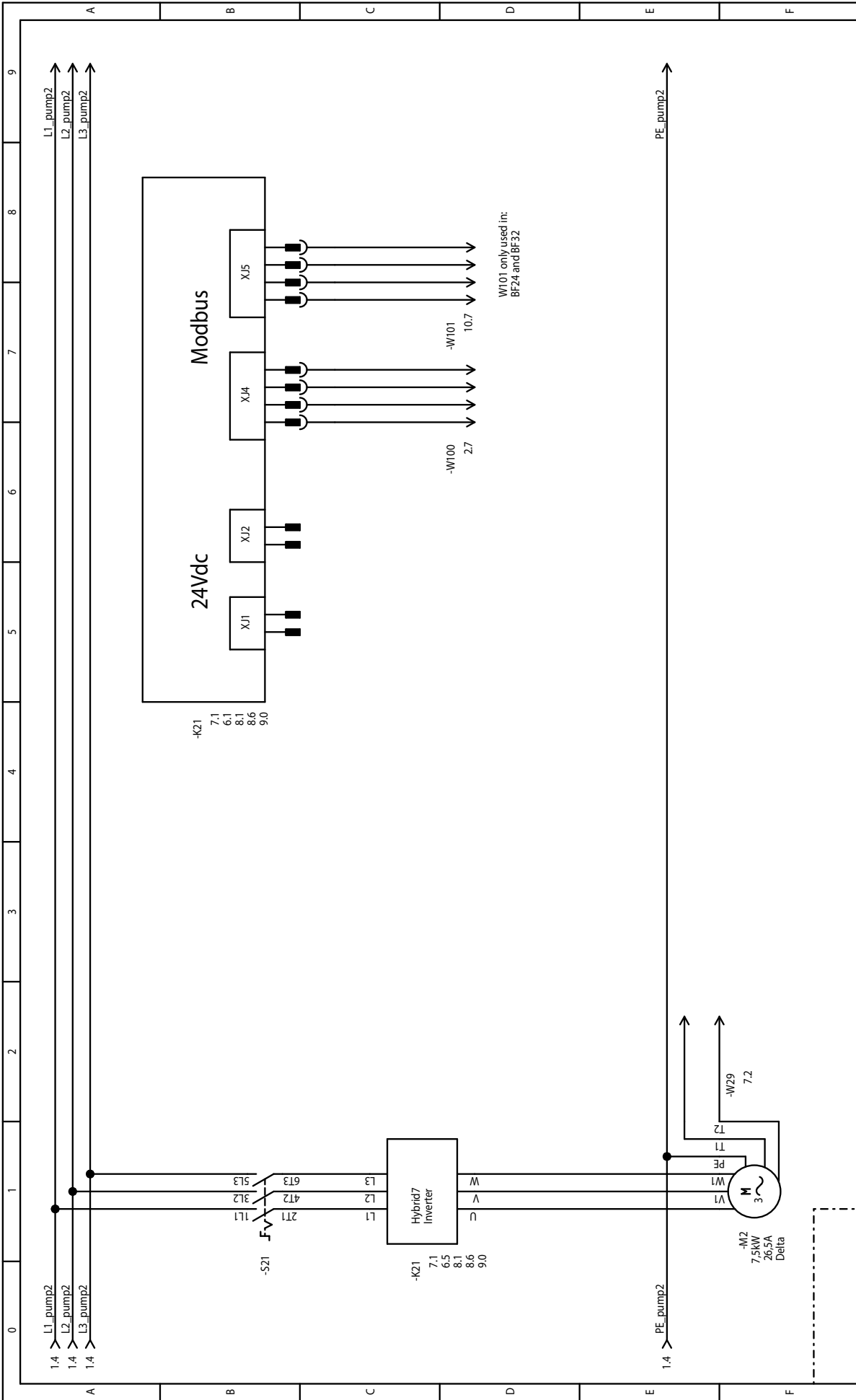


		Multibooster, P version BF16, BF24, BF32		Sensor		Dwg. Number 110008637		Init. Project responsible SAN		DCC &EFS Next page 4		No of pages 17	
						Date 05-11-2021		Revision A		Page 4		Page 3	



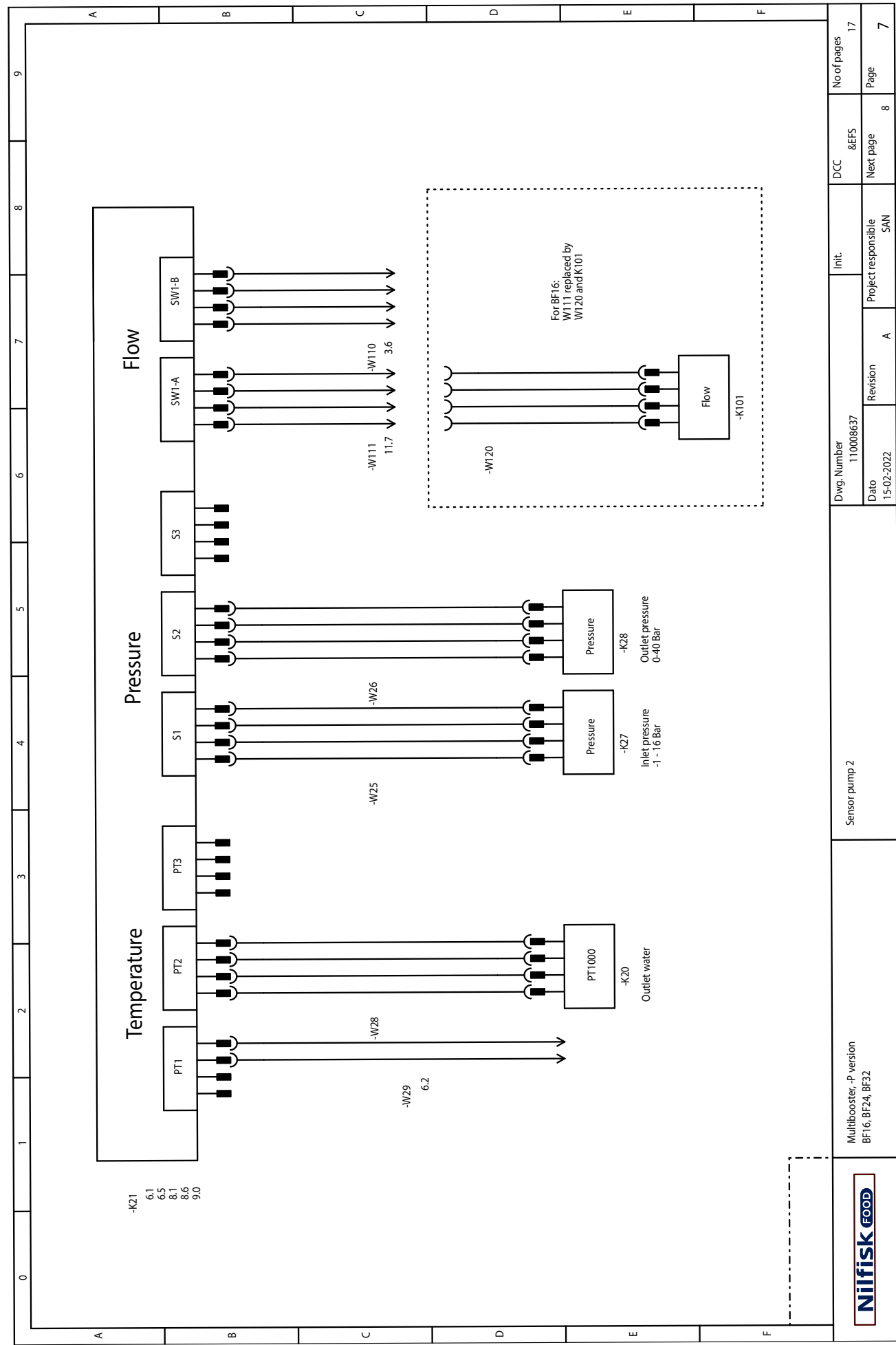


		Multibooster, P-version BF16, BF24, BF32		Input		Dwg. Number 110008637		Init.		DCC & EFS Next page		No of pages 17	
						Date 05-11-2021		Revision A		Project responsible SAN		Page 6	
												Page 5	

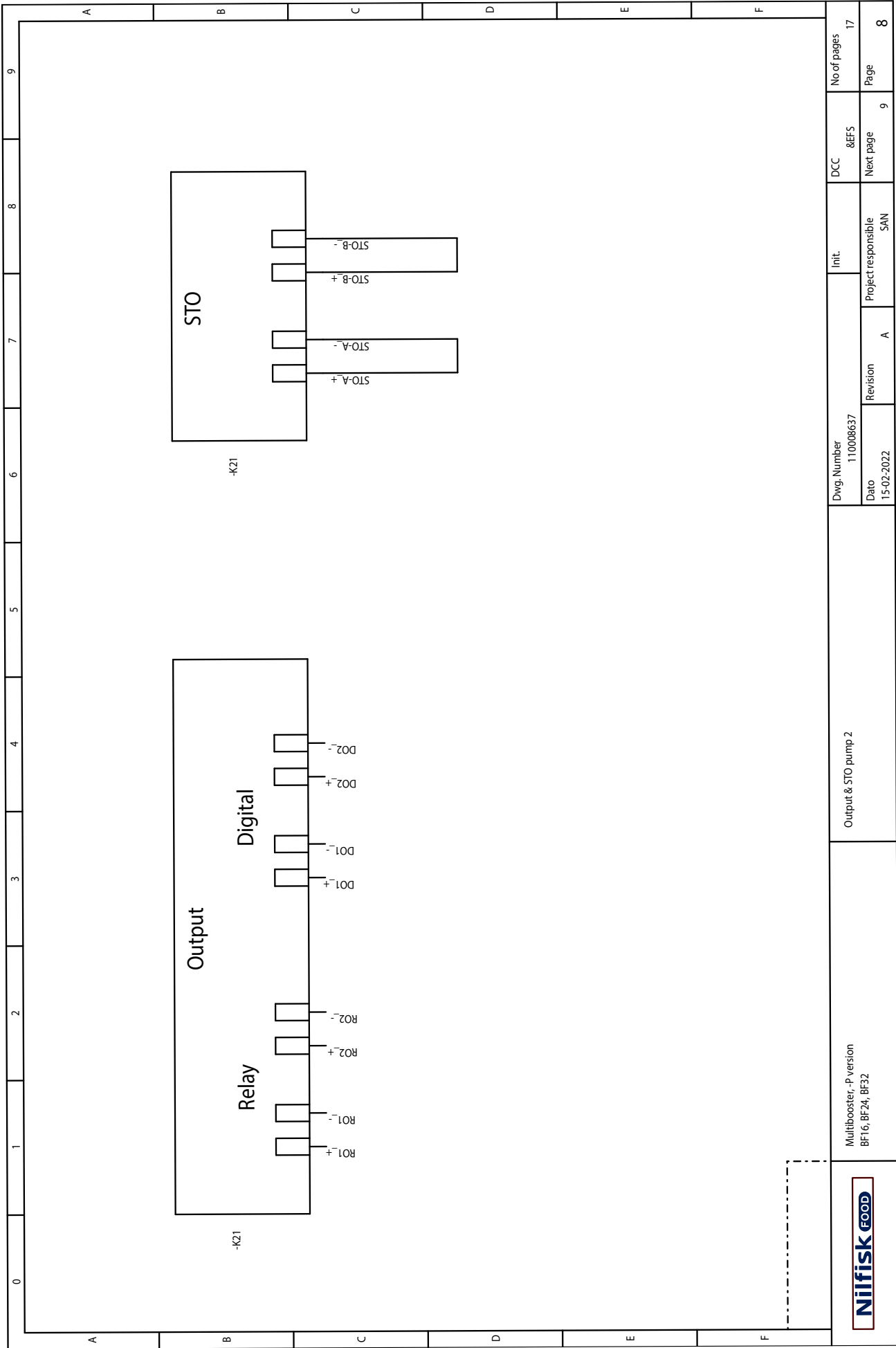


Dwg. Number 110008637		Init.	DCC &EFS	No of pages 17
Date 15-02-2022	Revision A	Project responsible SAN	Next page 7	Page 6
Power and communication pump 2		Multibooster - P version BF16, BF24, BF32		

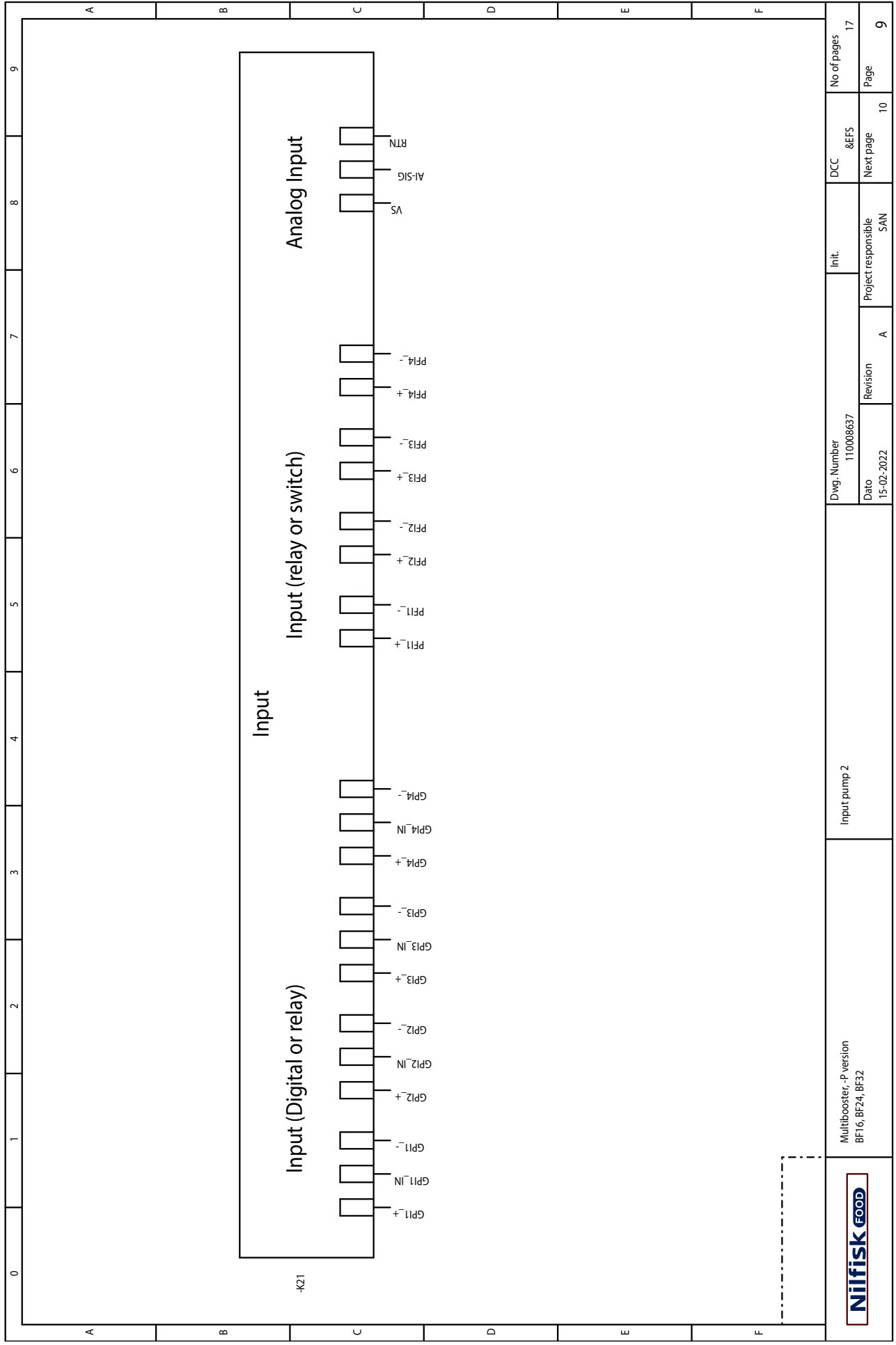




		Multibooster - P version BF16, BF24, BF32		Sensor pump 2		Dwg. Number 110008637		Init.		DCC &EFS		No of pages 17	
						Date 15-02-2022		Revision A		Project responsible SAN		Next page 8	
												Page 7	



Dwg. Number 110008637		Init.	DCC	No. of pages
Date 15-02-2022		Project responsible SAN	Next page 9	Page 8
Revision A				
Output & STO pump.2				
Multibooster,-P version BF16, BF24, BF32				
				



Multibooster -P version
 BF16, BF24, BF32

Input pump 2

Dwg. Number
 110008637

Init.

No of pages
 17

Page
 9

Project responsible
 SAN

Revision
 A

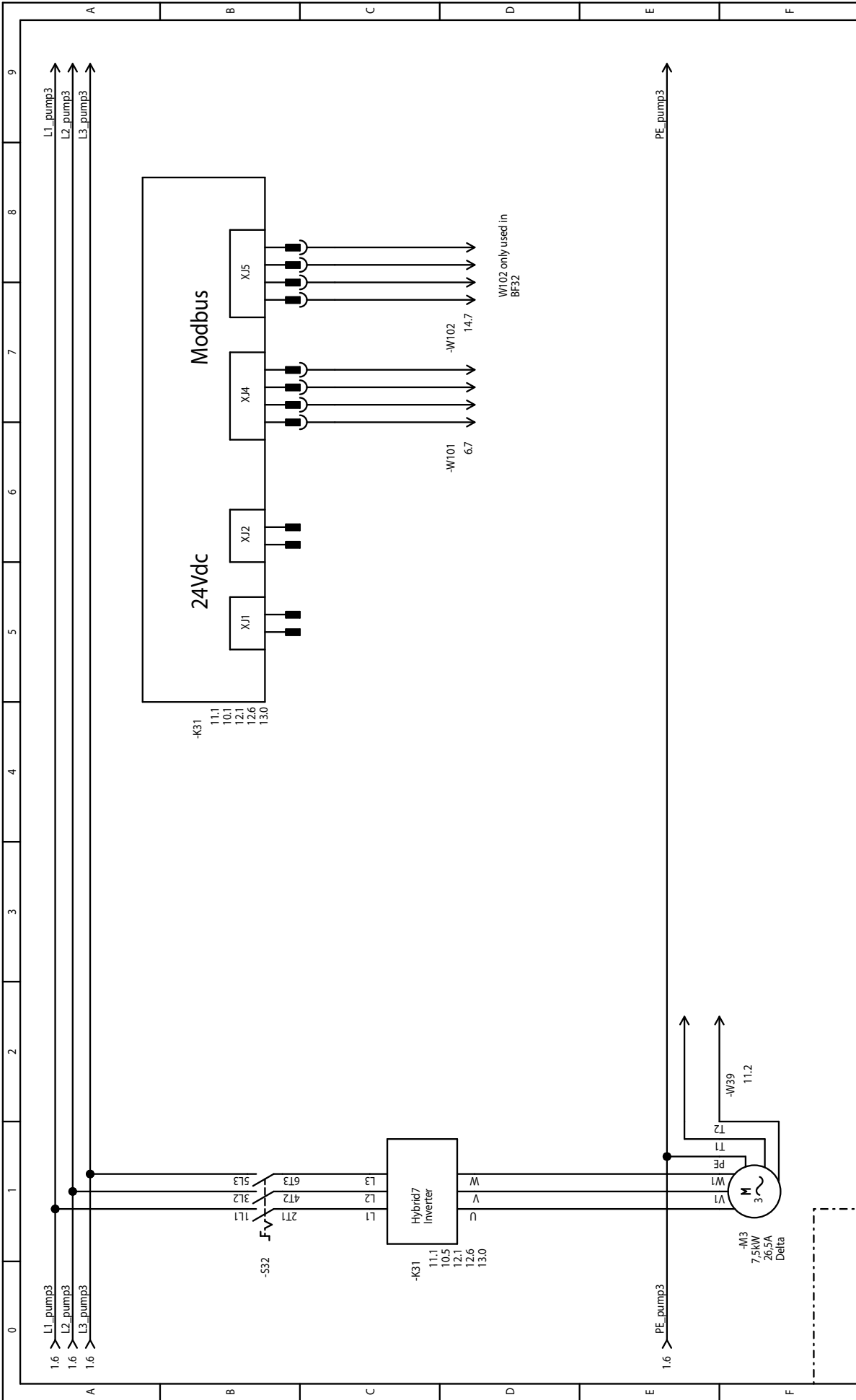
Dato
 15-02-2022

Next page
 10

DCC &EFS

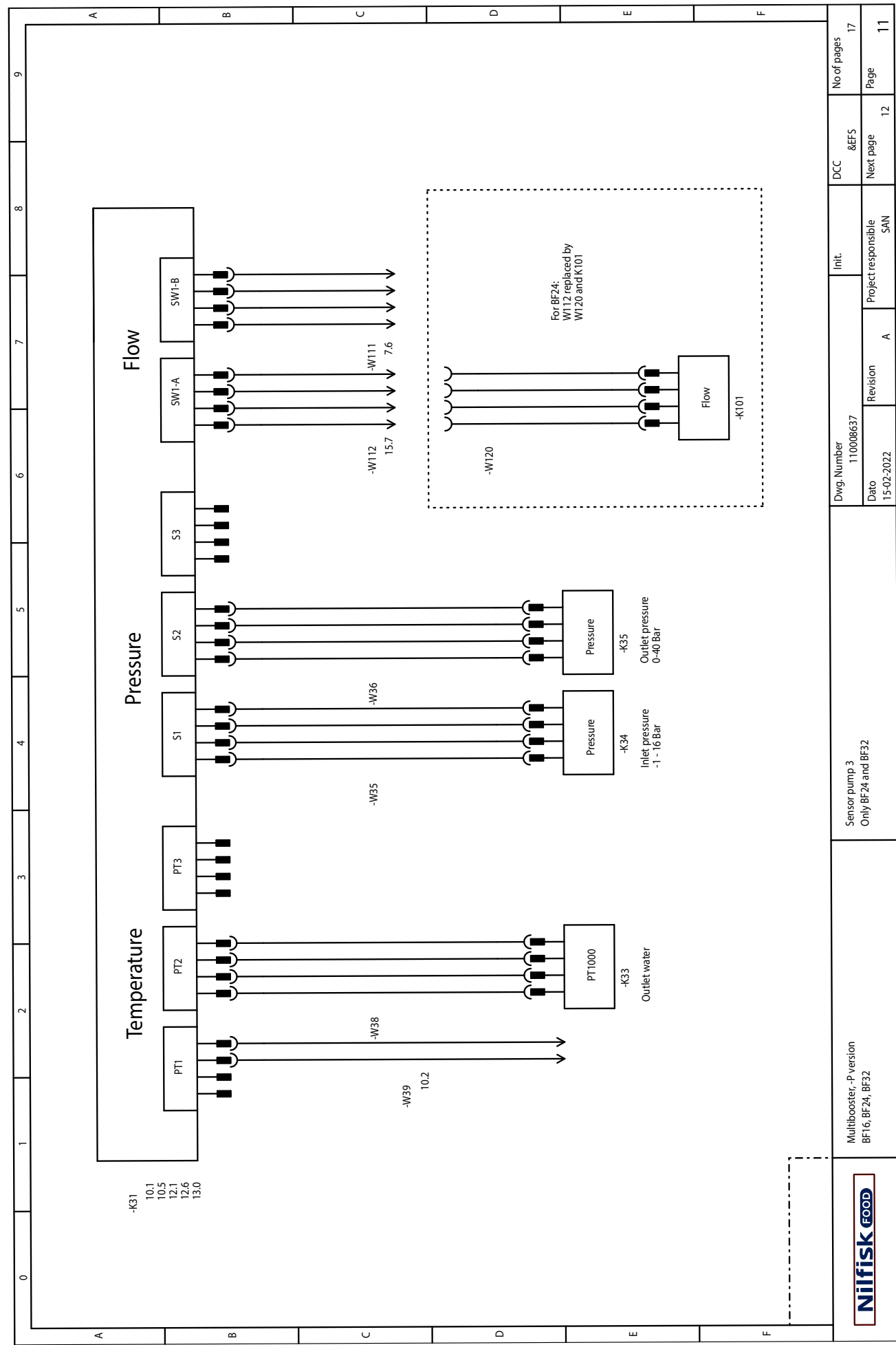
Page
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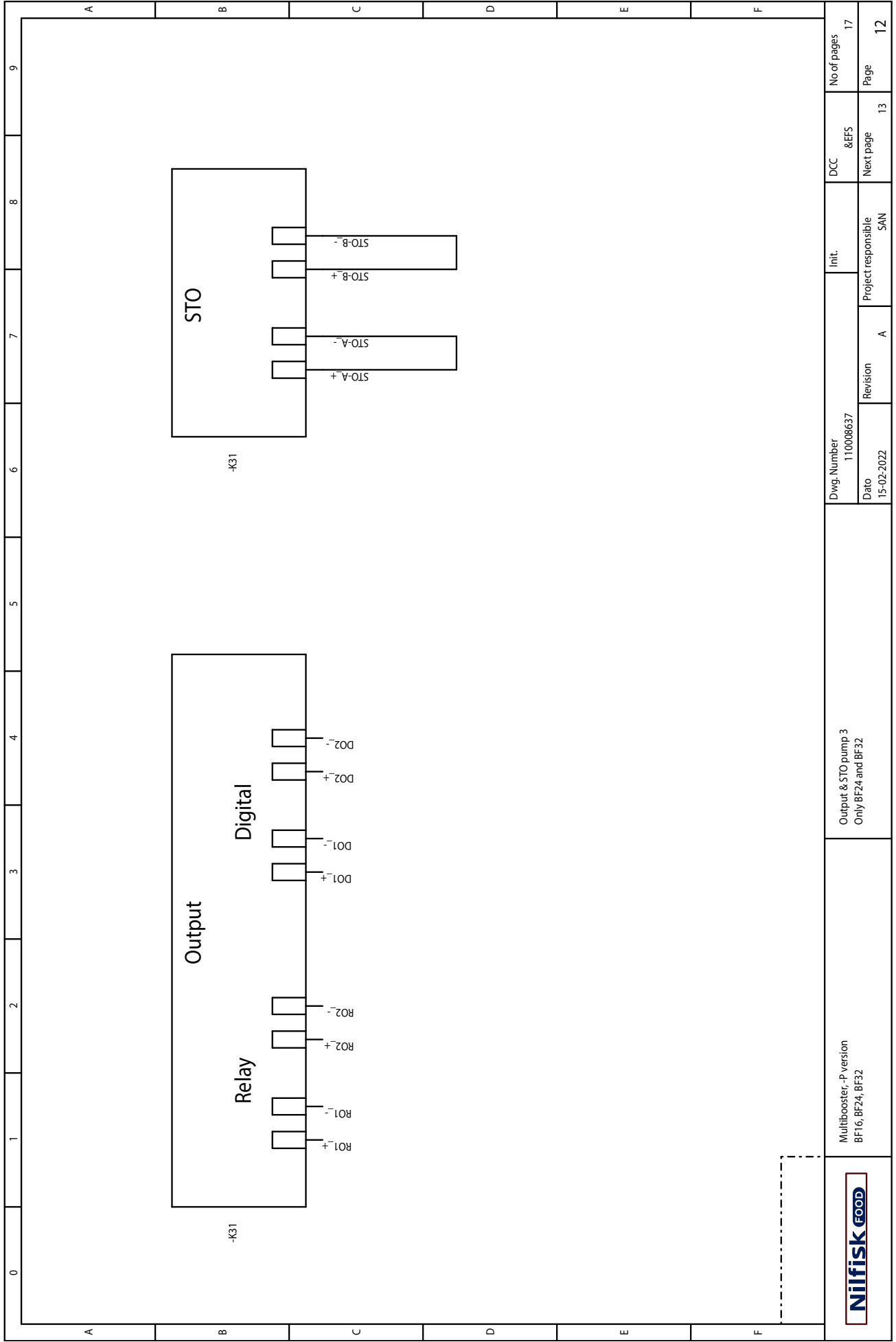
Page
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Dwg. Number 110006637		Init.		DCC &EFS		No of pages 17	
Date 15-02-2022		Revision A		Project responsible SAN		Page 10	
Power and communication pump 3 Only BF24 and BF32				Multibooster - P version BF16, BF24, BF32			







Multibooster - P version
BF16, BF24, BF32

Output & STO pump 3
Only BF24 and BF32

Dwg. Number
110008637

Date
15-02-2022

Revision
A

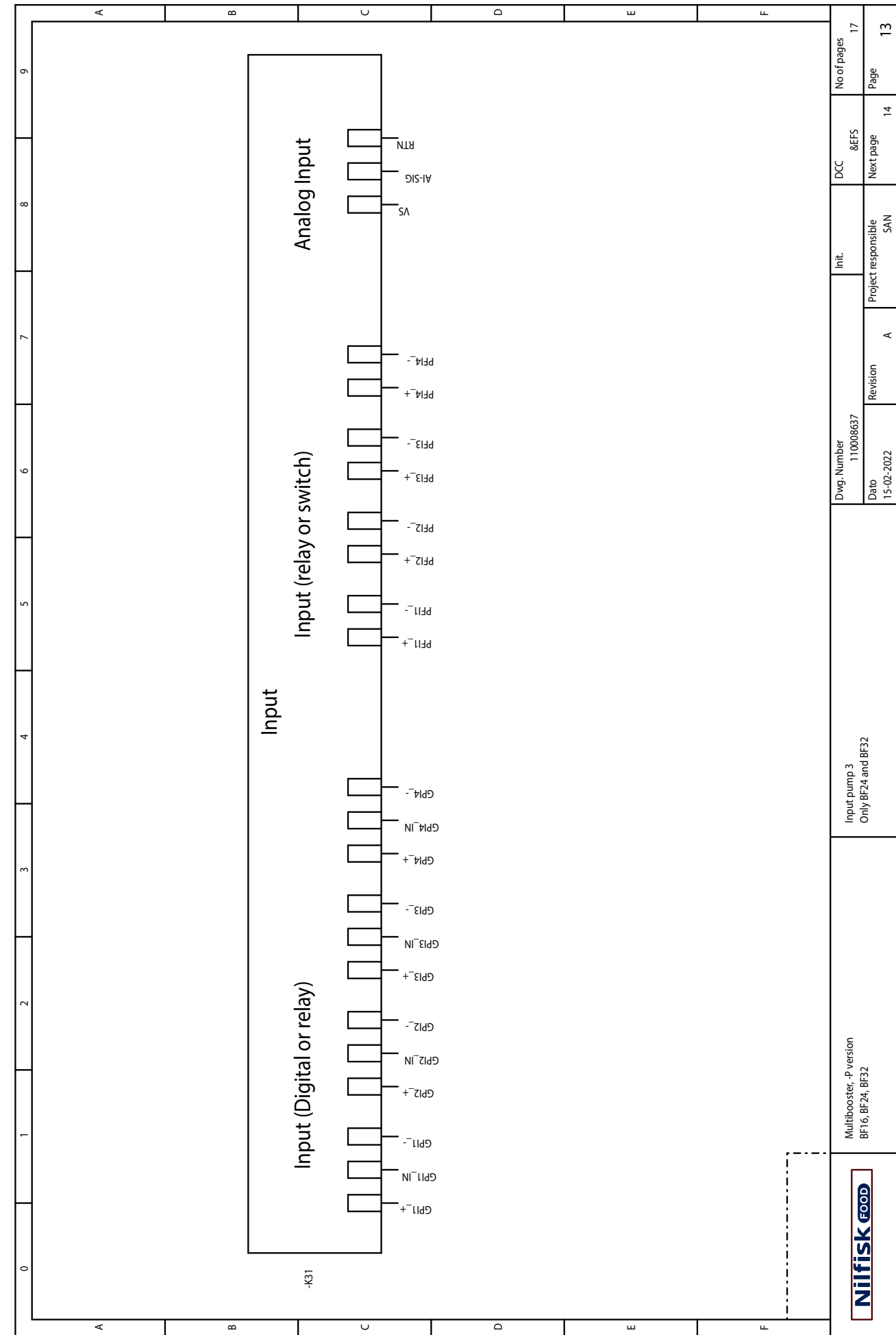
Init.
Project responsible
SAN

DCC &EFS

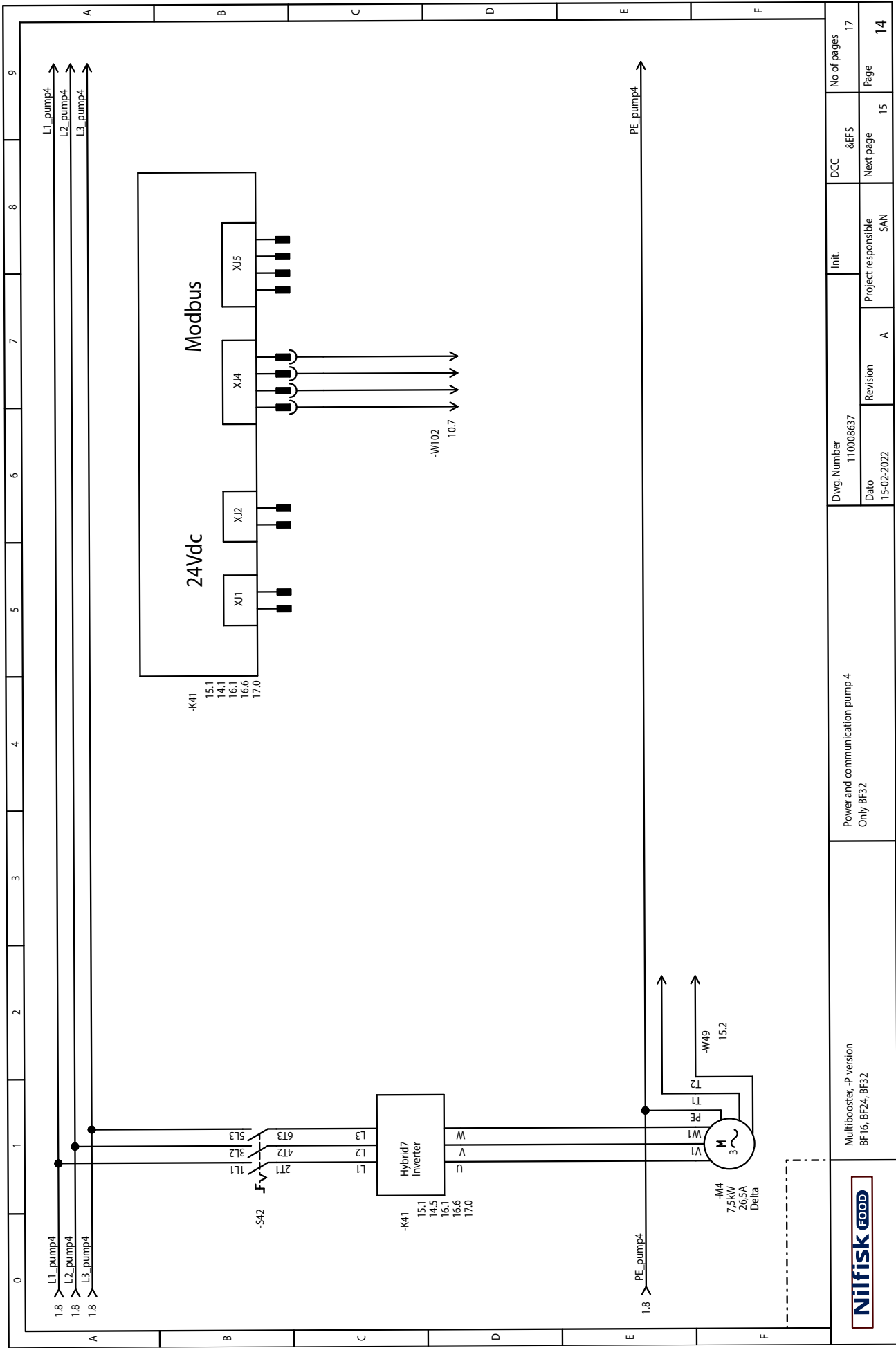
Next page

No of pages
17

Page
12



		Multibooster - P version BF16, BF24, BF32		Input pump 3 Only BF24 and BF32		Dwg. Number 110008637		Init.		DCC & EFS Next page		No of pages 17	
						Date 15-02-2022		Revision A		Project responsible SAN		Page 14	
												Page 13	

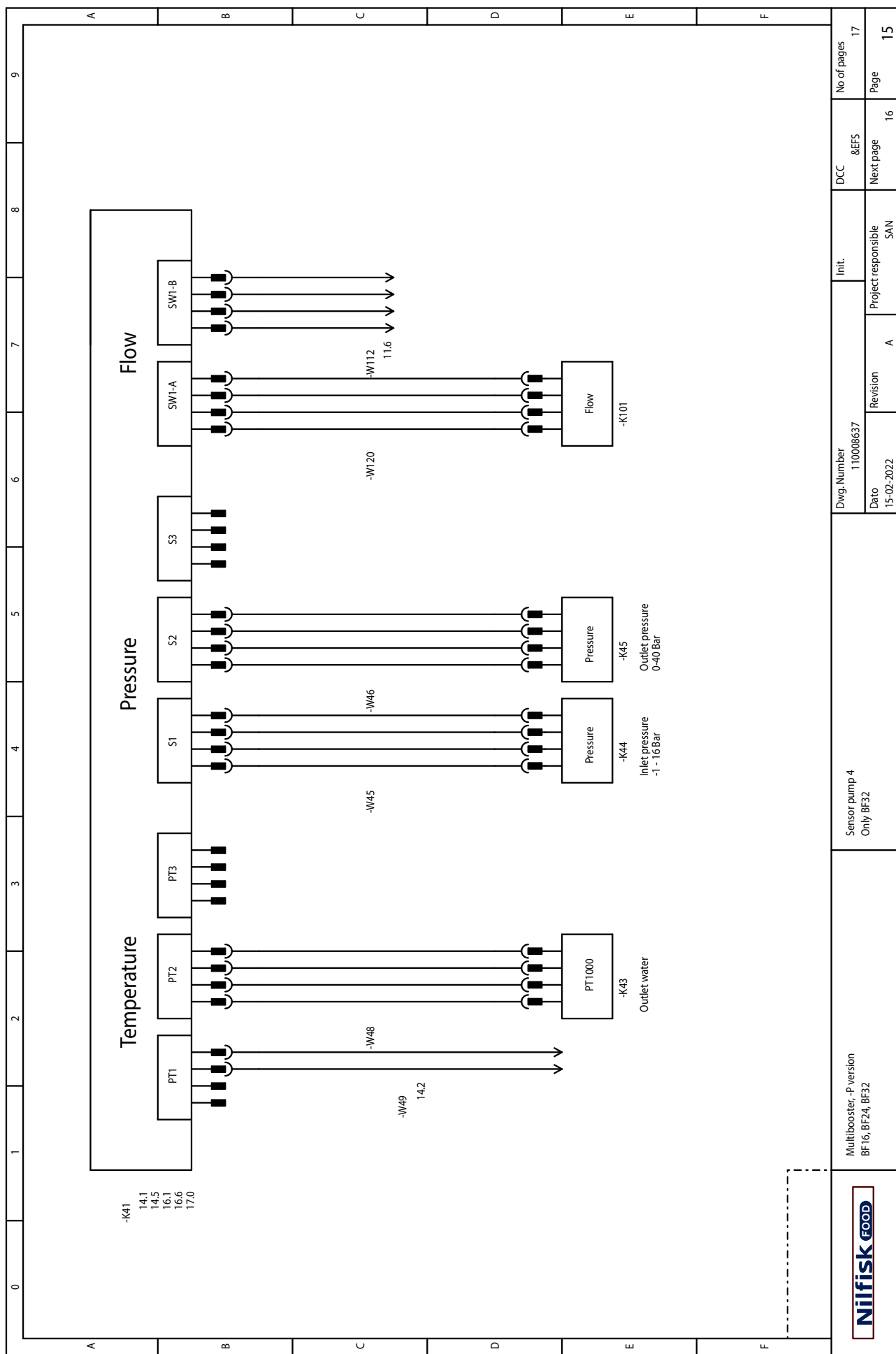


Dwg. Number 110008637		Init.	DCC	No of pages
Date 15-02-2022		Project responsible SAN	&EFS	17
Revision A		Next page		Page
		15		14

Power and communication pump 4
Only BF32

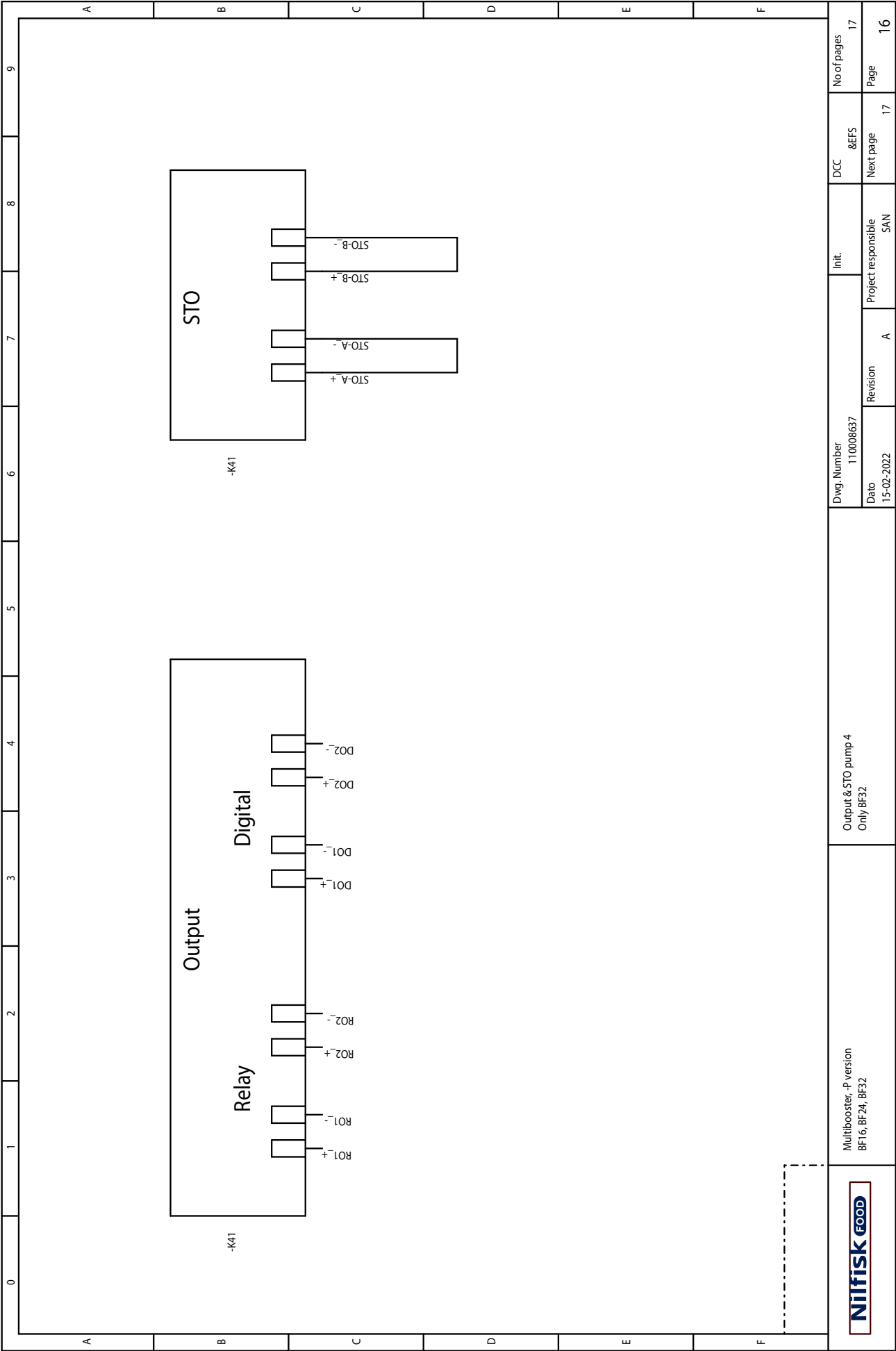
Multibooster - P version
BF16, BF24, BF32



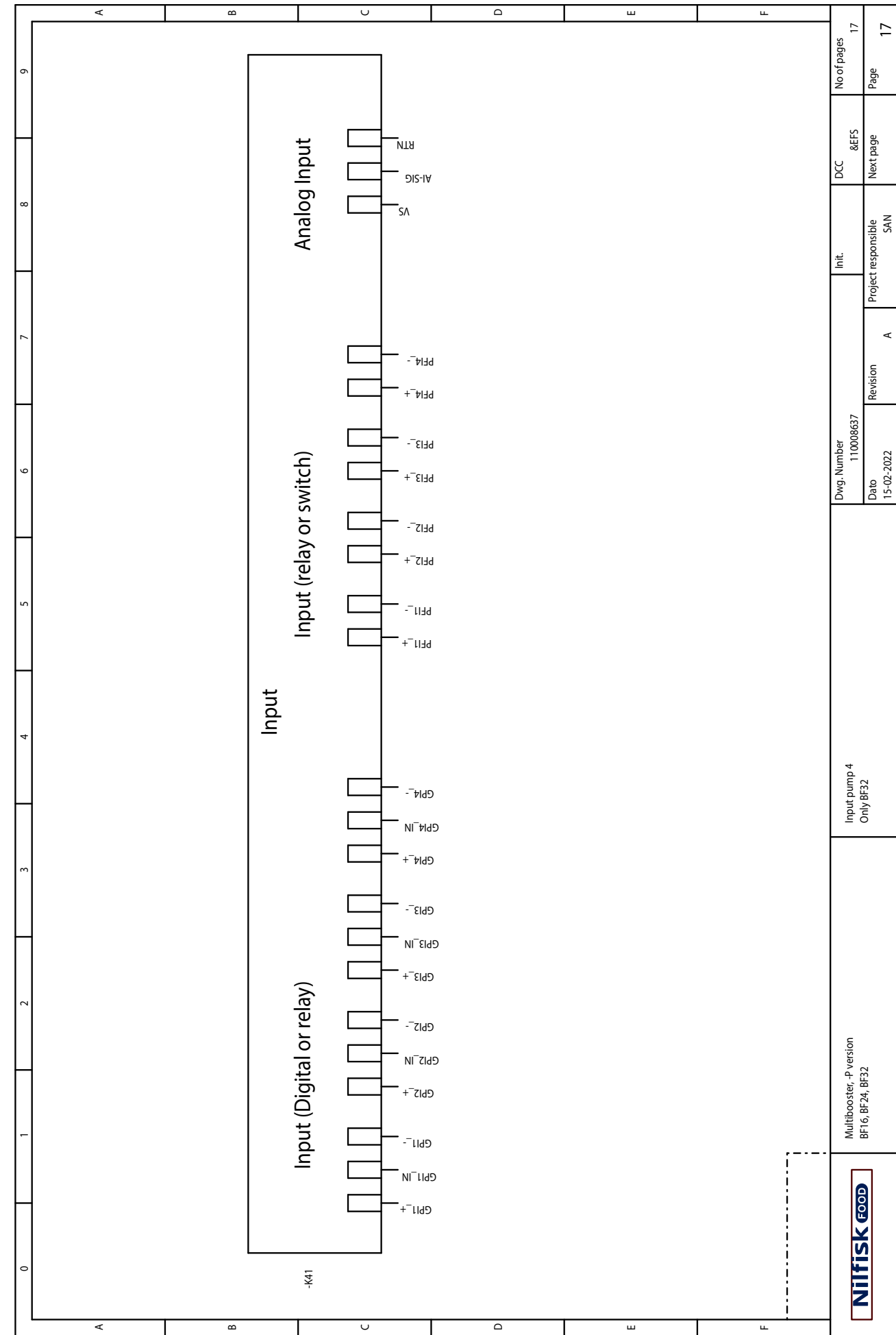


Dwg. Number 110008637		DCC &EFS		No. of pages 17	
Date 15-02-2022		Revision A		Page 15	
Init.		Project responsible SAN		Next page 16	
Sensor pump 4 Only BF32			Multibooster, -P version BF16, BF24, BF32		





		Multibooster -P version BF16, BF24, BF32		Output & STO pump 4 Only BF32		Dwg. Number 110008637		Init.		DCC &EFS Next page		No of pages 17	
				Revision A		Date 15-02-2022		Project responsible SAN		Next page 17		Page 16	







		Multibooster - P version BF16, BF24, BF32		Input pump 4 Only BF32		Dwg. Number 110008637		Init.		DCC & EFS Next page		No of pages 17	
						Date 15-02-2022		Revision A		Project responsible SAN		Page 17	

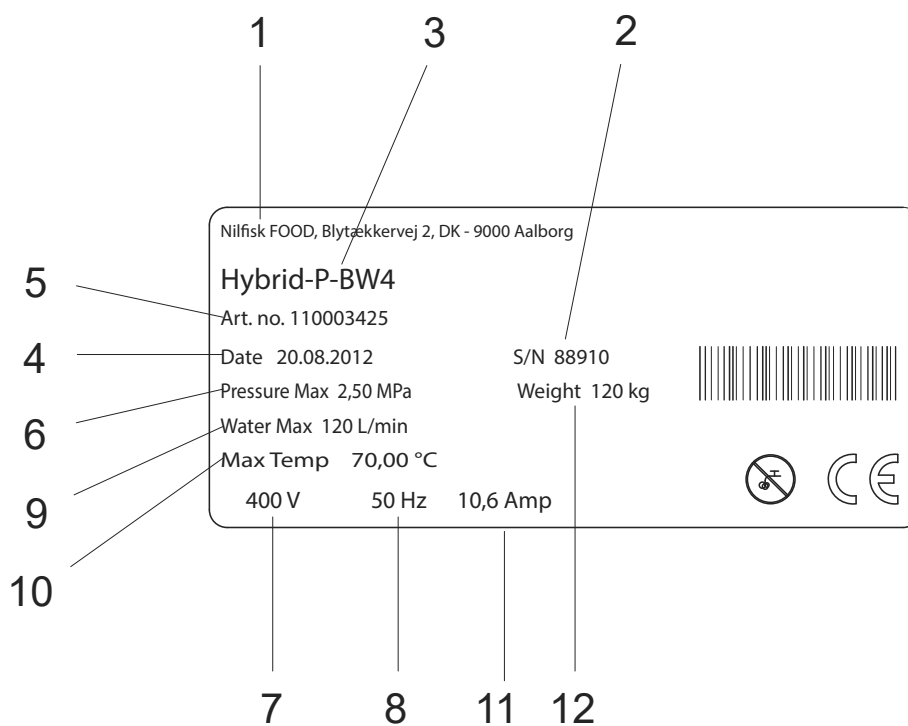
1. Inhalt

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2. In diesem Dokument verwendete Symbole

	<p>Vor Inbetriebnahme lesen.</p>
	<p>Bitte tragen Sie bei der Benutzung der Anlage eine Brille.</p>
	<p>Bitte tragen Sie bei der Benutzung der Anlage Handschuhe und passende Kleidung.</p>
	<p>Anmerkung: Eine potenziell gefährliche Situation. Mögliche Konsequenzen: Das Produkt oder ein Gegenstand in seiner Nähe könnte beschädigt sein. Prävention.</p>
	<p>Vorsicht: Eine gefährliche Situation. Mögliche Konsequenzen: Leichte oder geringfügige Verletzungen. Kann auch genutzt werden, um vor Sachbeschädigung oder vor Beschädigung anderer Güter zu warnen. Prävention.</p>
	<p>Warnung: Eine potenziell gefährliche Situation. Mögliche Konsequenzen: Tod oder schwere Verletzungen. Prävention.</p>
	<p>Gefahr: Eine gefährliche Situation. Mögliche Konsequenzen: Tod oder schwere Verletzungen. Prävention.</p>
	<p>Gefahr: Gefährdung durch elektrische Schläge! Mögliche Konsequenzen: Tod oder schwere Verletzungen. Prävention.</p>
	<p>Heiße Oberflächen Verbrennungsgefahr! Mögliche Konsequenzen: Schwere Verletzungen. Prävention.</p>

2.1. Typenschild



1. Hersteller
2. Seriennr.
3. Typ
4. Herstellungsdatum
5. Artikelnr.
6. Maximaler Druck
7. Versorgungsspannung
8. Frequenz
9. Maximaler Wasserverbrauch
10. Maximaltemperatur
11. Strom
12. Gewicht

2.2. Lieferant

Nilfisk FOOD
 Blytækkervej 2
 DK-9000 Aalborg, Dänemark
 Tel.: +45 7218 2000
 CVR-Nr. 6257 2213

3. Bedienung & Werkzeuge

Die Wartung darf nur von autorisiertem und qualifiziertem Personal durchgeführt werden und immer in Übereinstimmung mit der lokalen Gesetzgebung.

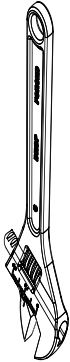
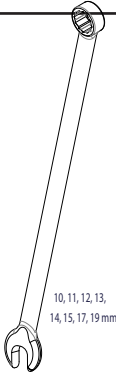
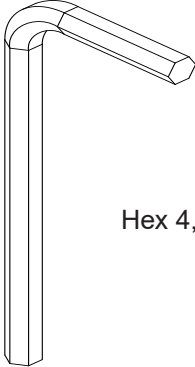

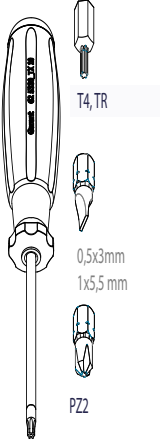
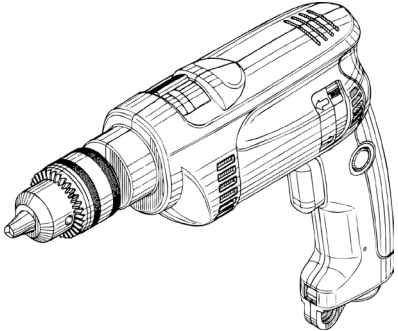


VORSICHT

Das System darf nur gewartet werden, wenn weder Spannung noch Druck am System anliegen.

1. Öffnen Sie den Wasserauslass, um das System von Druck zu entlasten.
2. Schalten Sie den Hauptschalter am Schaltkasten aus.




Erforderliche Werkzeuge

	 <p>9, 22, 29 mm</p> <p>10, 11, 12, 13, 14, 15, 17, 19 mm</p>
 <p>Hex 4,12</p>	
 <p>T4, TR</p> <p>0,5x3mm 1x5,5 mm</p> <p>PZZ</p>	<p>Ø5 metal drill bit.</p> 

Hinweis: Das neue Display wird mit Werkseinstellungen geliefert. Wenn Sie individuelle Pumpeneinstellungen beibehalten wollen, entnehmen Sie diese bitte vor der Demontage aus dem Display und notieren Sie sie an anderer Stelle.

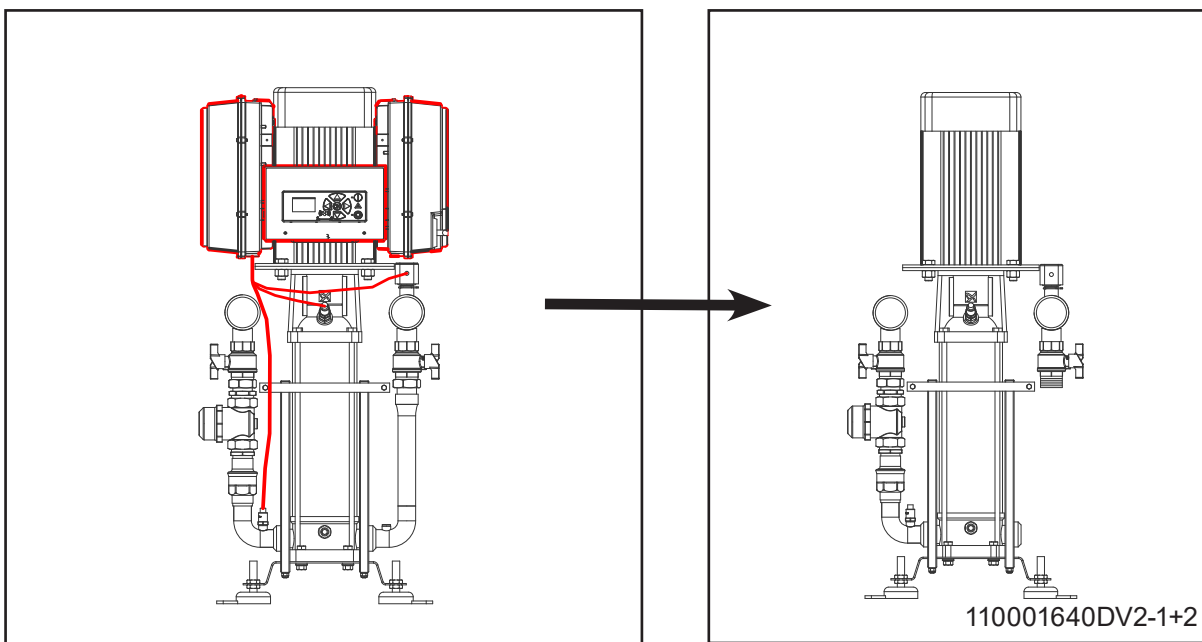
4. BF16-2/BF24-3/BF32-4

4.1. Demontage BF16-2/BF24-3/BF32-4

	Gefahr: Eine gefährliche Situation. Mögliche Konsequenzen: Tod oder schwere Verletzungen. Prävention.
	Gefahr: Gefährdung durch elektrische Schläge! Mögliche Konsequenzen: Tod oder schwere Verletzungen. Prävention.
	Heiße Oberflächen Verbrennungsgefahr! Mögliche Konsequenzen: Schwere Verletzungen. Prävention.

In diesem Abschnitt werden alle Komponenten, die für den Einsatz des neuen Wechselrichters ausgetauscht werden müssen, entfernt.

Immer die Displaybox und den Drucksensor auf eine spätere Installation bewahren.



1. Schalten Sie die Stromzufuhr aus.
 - Schalten Sie den Hauptschalter aus.
 - Schalten Sie den Wechselrichter aus.
 - Ziehen Sie das Netzkabel vom Hauptschalter ab.
2. Schließen Sie die Wasserversorgung.
3. Öffnen Sie den Auslass, um das System von Druck zu entlasten.

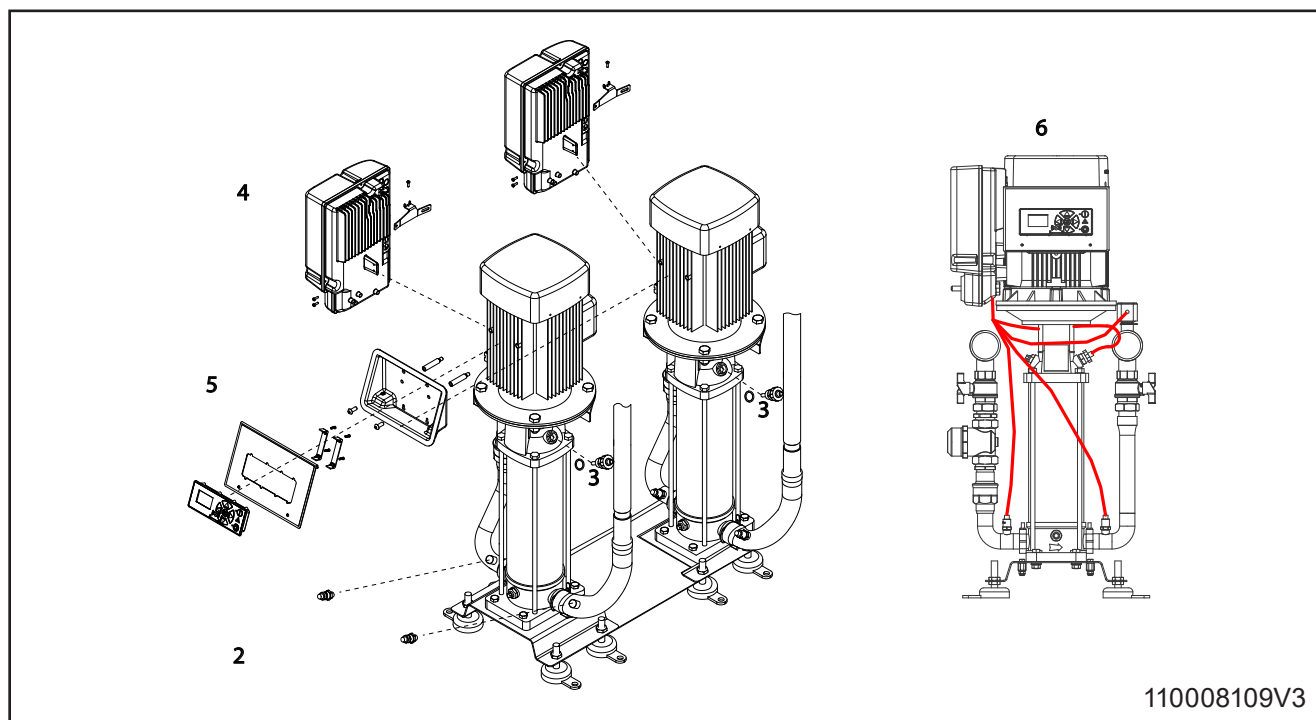
Warten Sie nach dem Ausschalten des Wechselrichters 180 Sekunden, bis Sie mit diesem Punkt fortfahren.

4. Entfernen Sie das Motorkabel und das Motortemperaturkabel an jeder Pumpe.
5. Entfernen Sie 3 Sensorkabel vom Pumpenoberteil, Strömungsschalter und Pumpenausgang an jeder Pumpe.
6. Entfernen Sie die Kappe des Wechselrichters.
7. Ziehen Sie den Displaystecker aus dem Wechselrichter.
8. Entfernen Sie die Displaybox.
 - Entfernen Sie das alte Display aus der Displaybox.
 - Bewahren Sie die Displaybox für eine spätere Installation auf.
9. Entfernen Sie den Wechselrichter und die Wechselrichterverschraubung auf jeder Pumpe.
10. Entfernen Sie den Stecker vom Auslassrohr.
11. Entfernen Sie den Drucksensor vom Pumpenoberteil an jeder Pump - bewahren Sie den Drucksensor für spätere Installation auf.

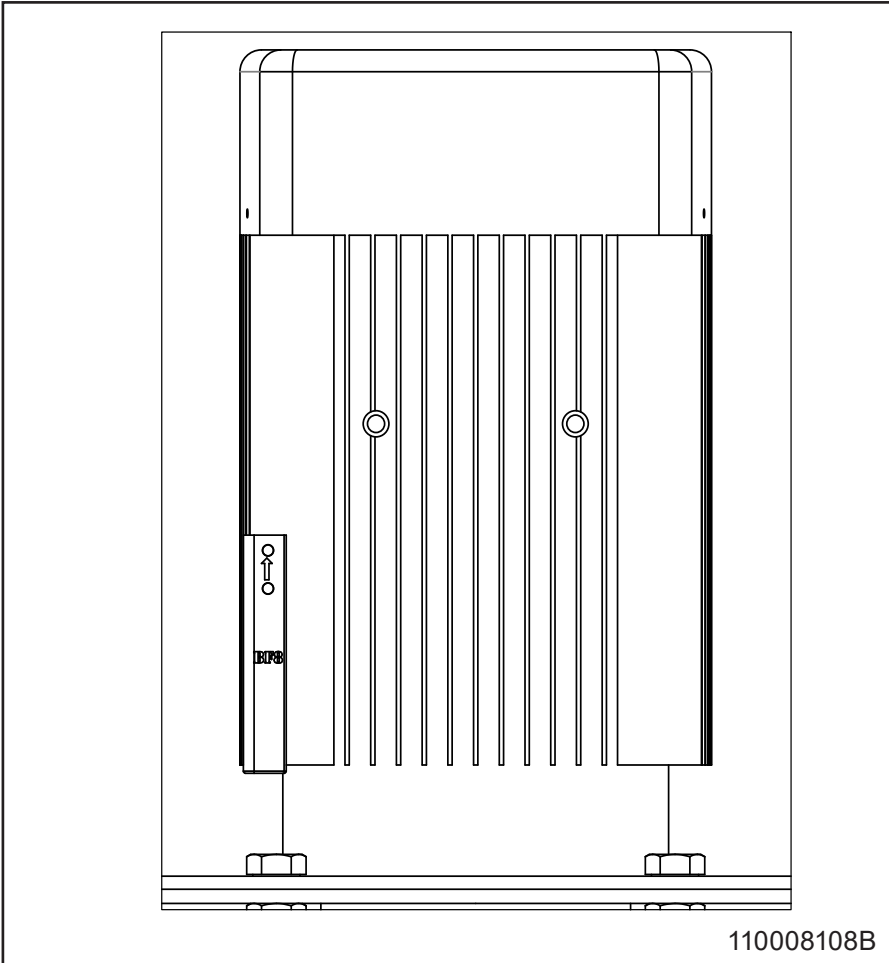
4.2. BF16-2/BF24-3/BF32-4 Montage

Dieser Abschnitt beschreibt alle Schritte zur Installation des neuen Wechselrichters und des Displays.
Falls Sie Zweifel haben, wie die Kabel zu installieren sind, lesen Sie den Abschnitt über die Kabelinstallation.

Wenn die Druckerhöhungsanlage an eine Wand gelehnt ist, kann es erforderlich sein, das Pumpenoberteil zu entfernen und zu drehen, um die Motorkabel austauschen zu können. Siehe unten wie die Pumpe zu drehen ist.

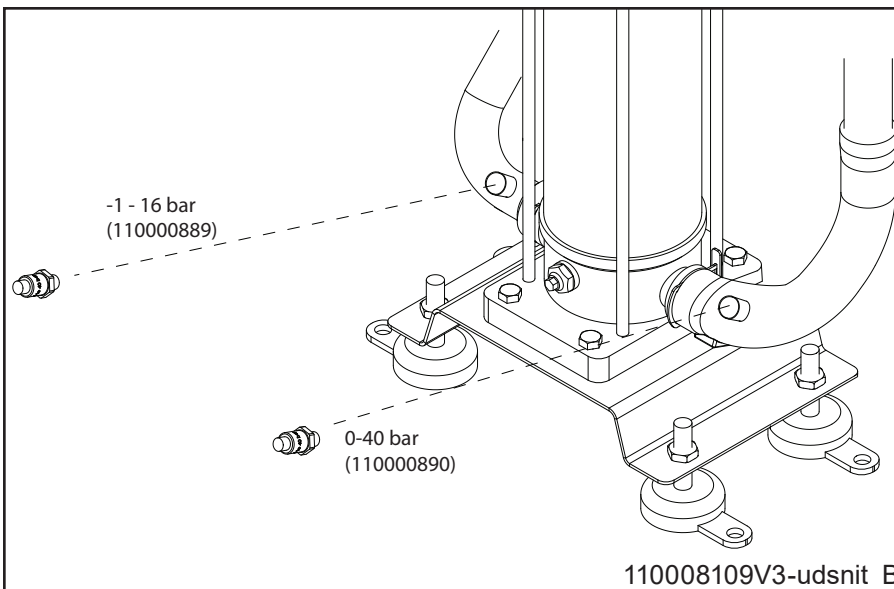


1)



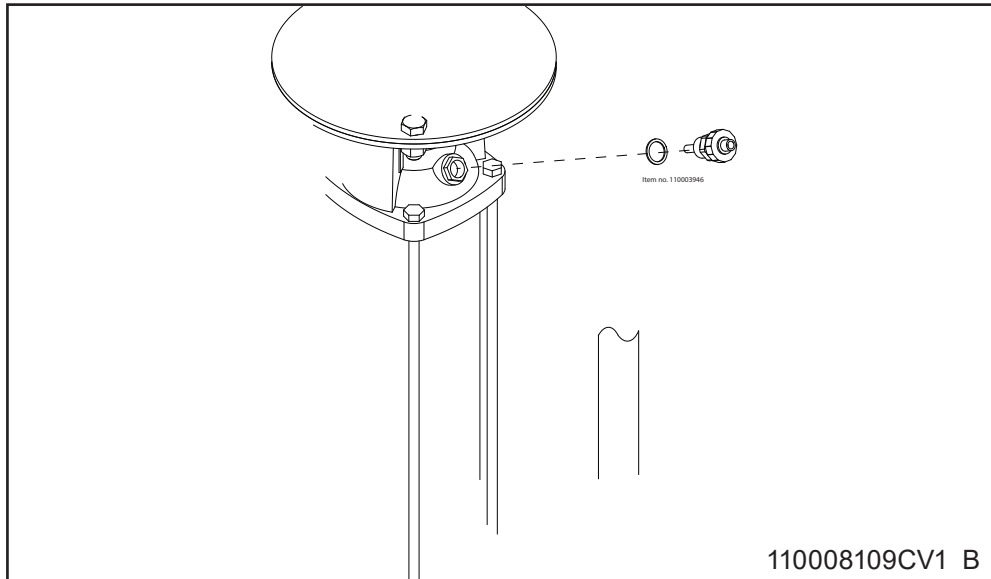
Platzieren Sie die Bohrschablone wie abgebildet. Bohren Sie die Kühlrippe mit einem Ø5-Bohrer durch die Schablone.

2)



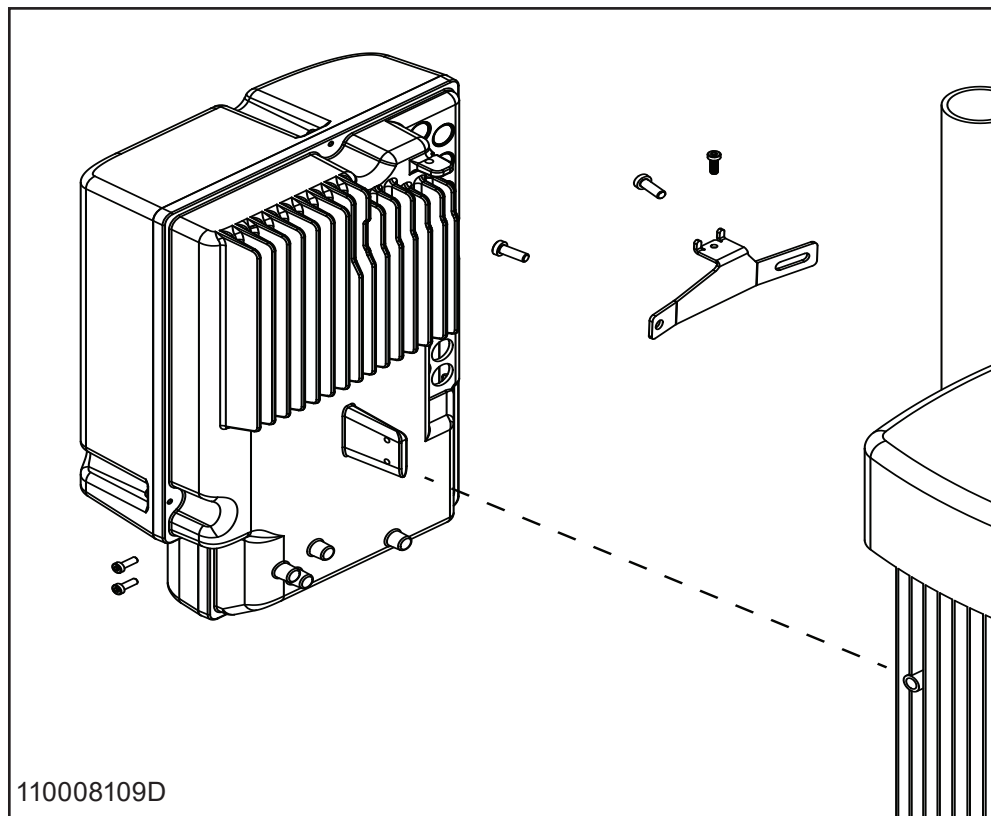
Installieren Sie den Drucksensor.

3)



Installieren Sie den PT1000-Sensor und die Dichtung im Pumpenoberteil.

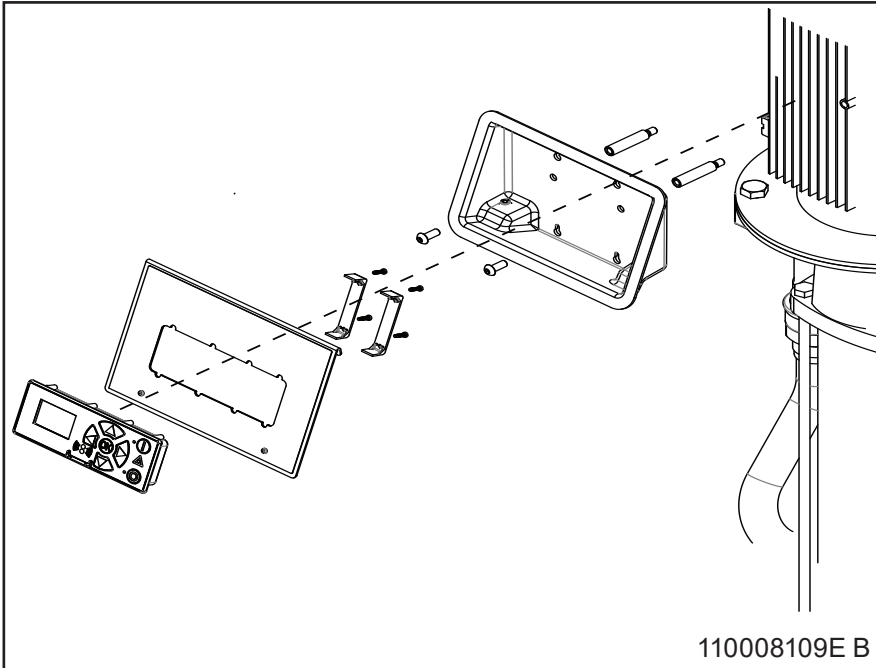
4)



Installieren Sie den Wechselrichter.

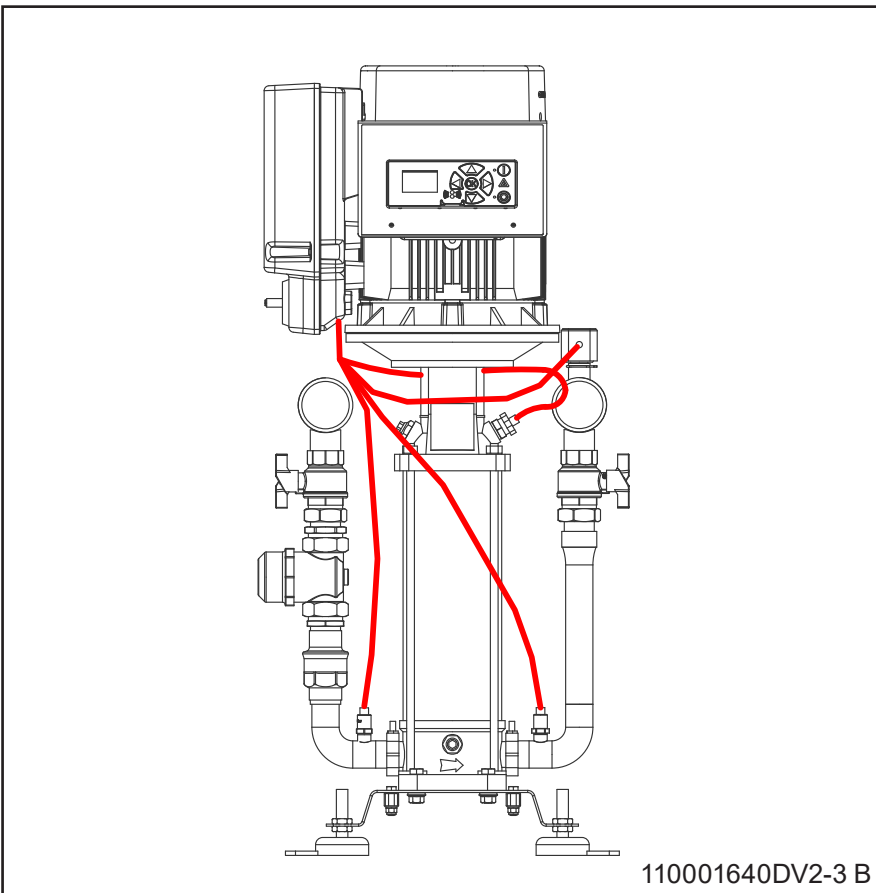
- Installieren Sie die obere Verschraubung mit 2 x M5 x 16 BH Schrauben.
- Setzen Sie den Wechselrichter auf die obere Verschraubung, Befestigen Sie ihn mit 3 x M4 x16 gewindeschneidenden Schrauben.
- Entfernen Sie die Kappe des Wechselrichters.

5)



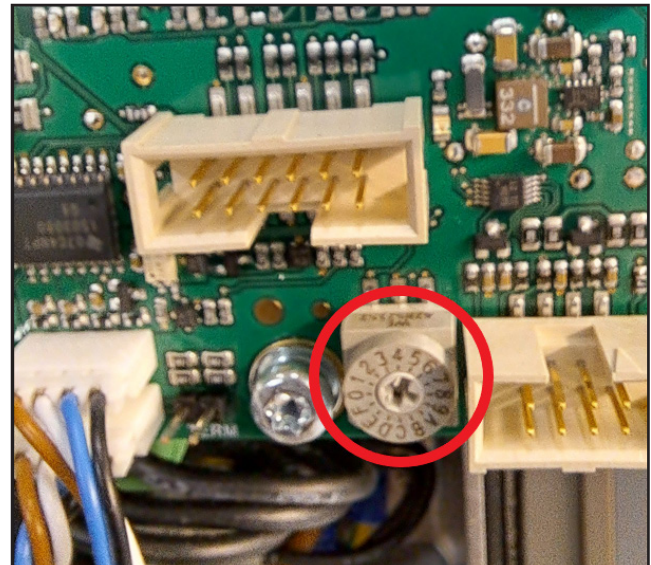
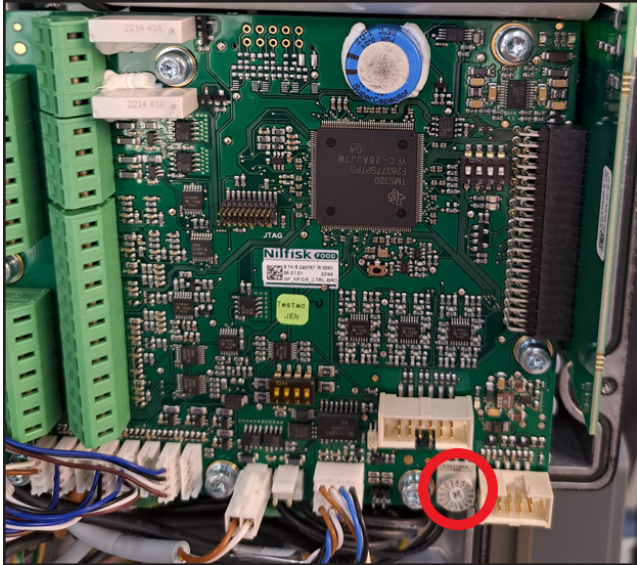
Installieren Sie das Display.
 - Montieren Sie 2 Stangen an der Pumpe.
 - Bauen Sie das neue Display in die Displaybox ein.
 Montieren Sie die Displaybox auf den Beschlag.

6)



Installieren Sie Kabel und Stecker (siehe Abschnitt zur Kabelinstallation).
 - Installieren Sie den Displaystecker an der Wechselrichterklemme „Modbus“.
 - Installieren Sie 4 Sensorkabel an den Sensoren.
 - Verwenden Sie Kabelbinder, um die Kabel zu sammeln.

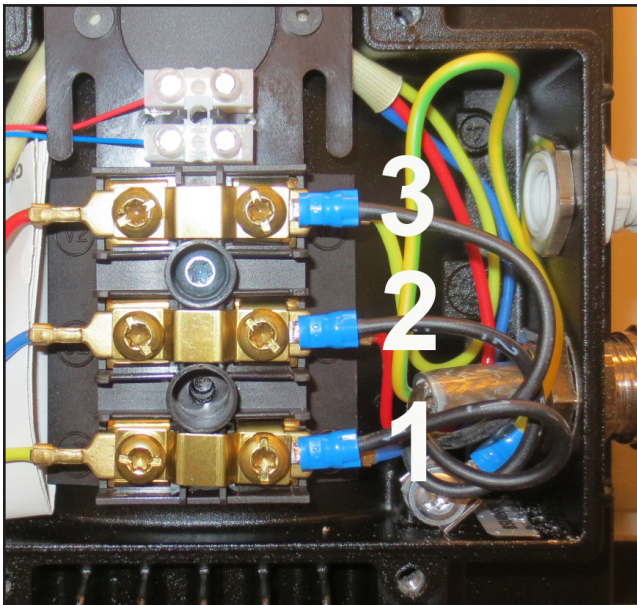
7)



Einstellung des Schalters.

4.3. Multi Booster Inbetriebnahme und Test

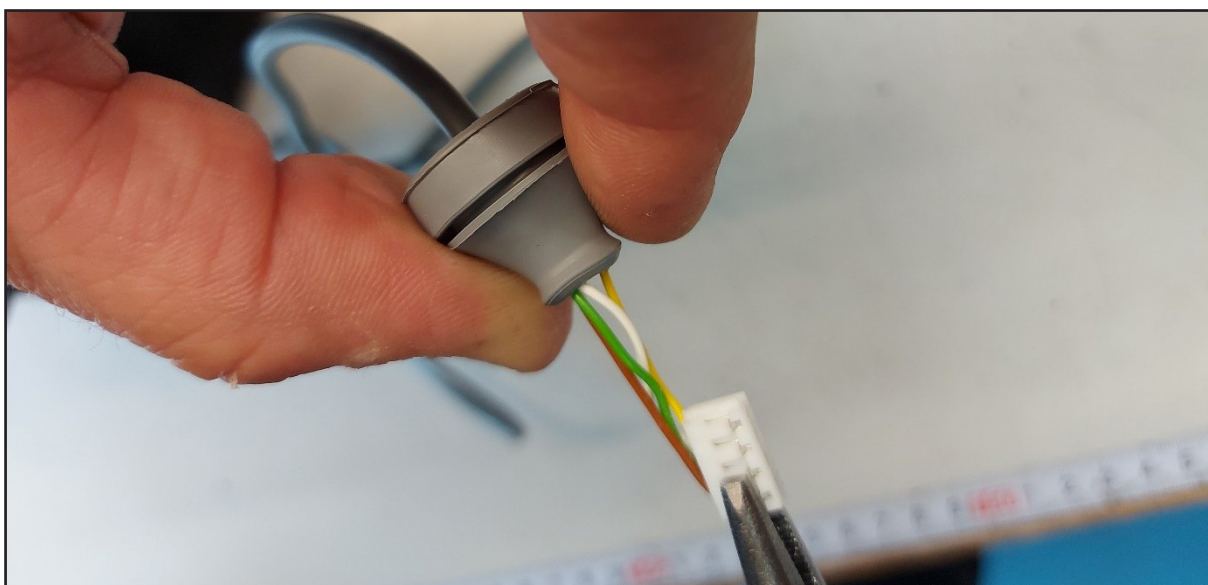
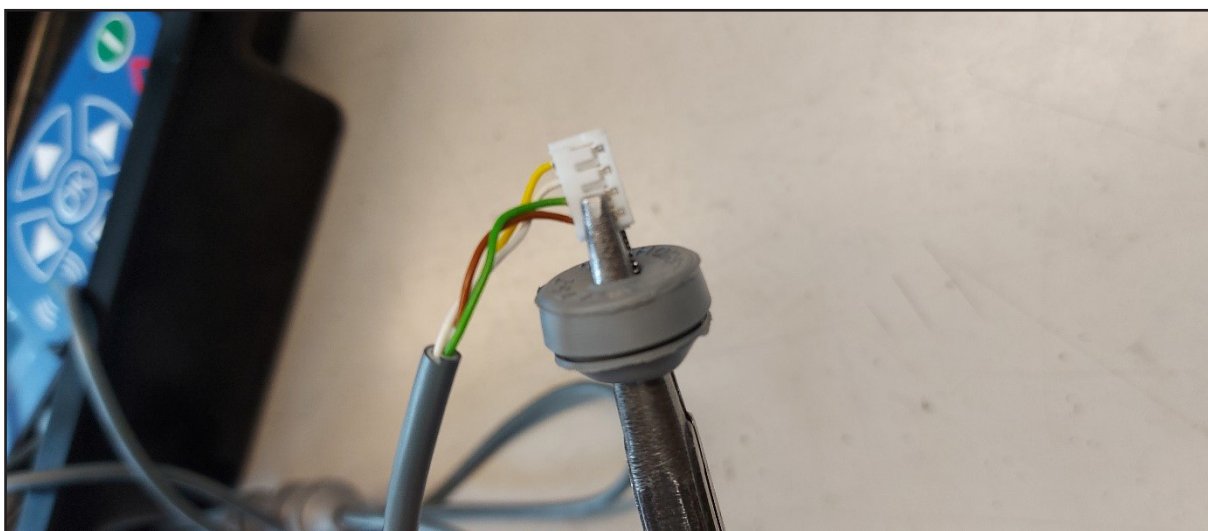
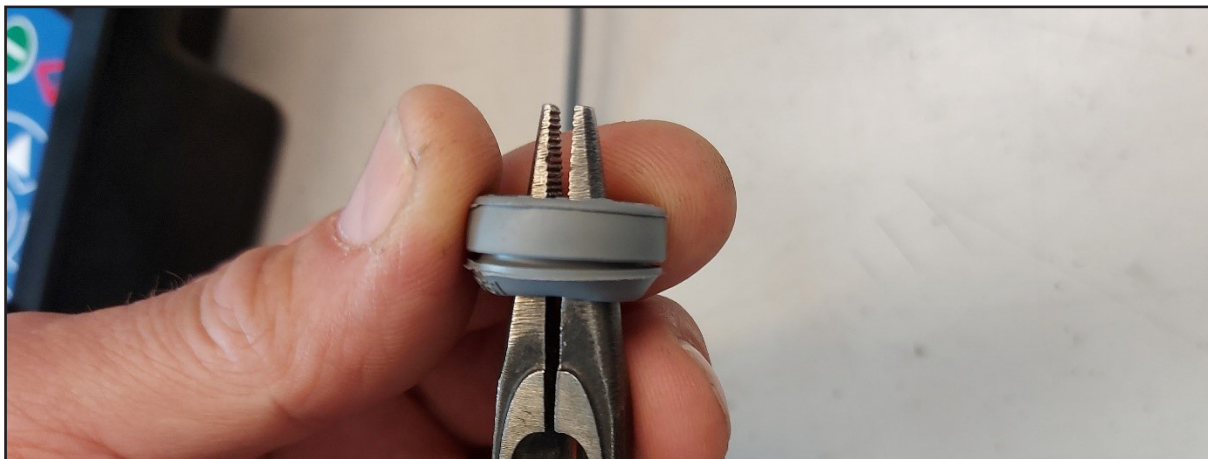
- 1) Stellen Sie den Schalter auf 1, 2 oder 3, je nachdem, welche Nummer in der Reihe die Pumpe ist (gezählt von der Steuerung).
- 2) Installieren Sie neue Kommunikationskabel für Durchfluss- und Modbus-Daten von Pumpe 1 zu 2 zu 3.



Installieren Sie das Motorkabel und das Motortemperaturkabel.

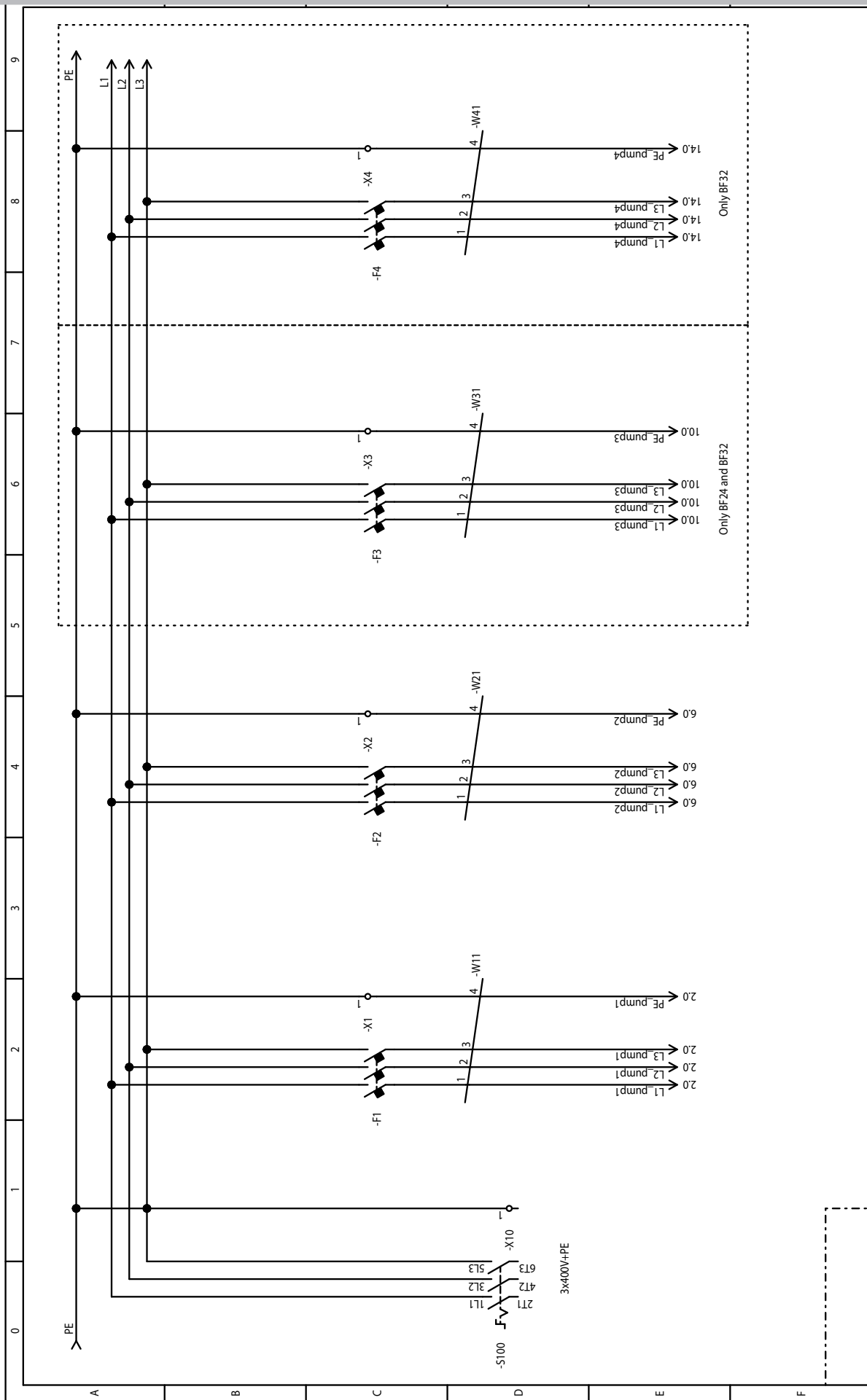
- 3) Starten Sie die Wasserversorgung zur Pumpe. Prüfen Sie auf eventuelle Undichtigkeiten.
- 4) Belüften Sie die Pumpe.
- 5) Installieren Sie die mit den Nummern 1-3 gekennzeichneten Netzkabeldrähte und schalten Sie das System ein. Siehe auch Abbildung oben.
- 6) Warten Sie, bis die AUS-LED konstantes Licht ausstrahlt (20–30 Sekunden).
- 7) Installation am Display
 - Stellen Sie das Display in den Einstellungen auf den richtigen Maschinentyp ein.
Der Maschinentyp ist auf dem Hinweisschild angegeben.
 - Stellen Sie Uhrzeit und Datum in den Einstellungen ein
 - Nehmen Sie benutzerspezifische Einstellungen vor
- 8) Testen Sie die Anlage.

5. Kabel installation

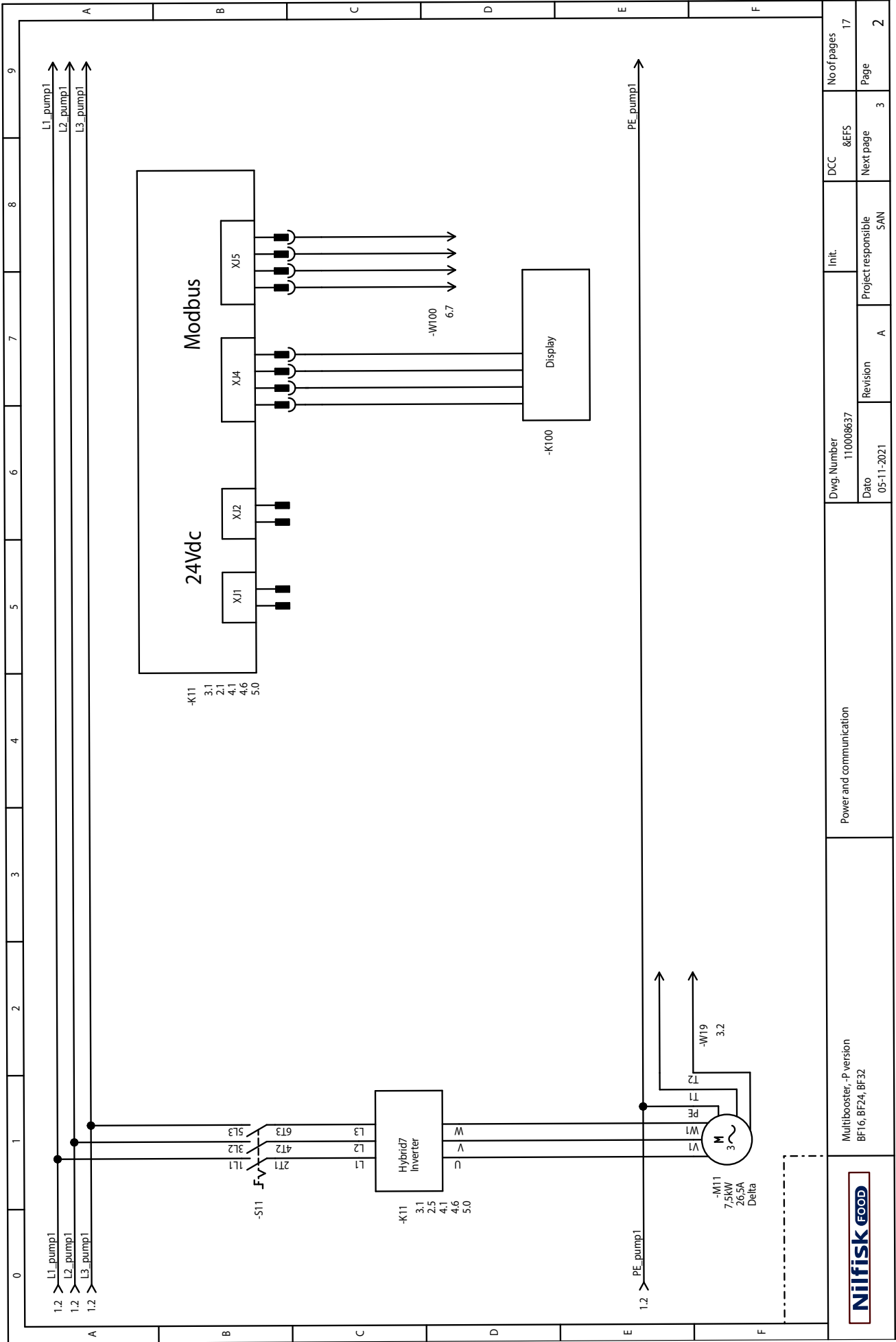


NB.: Die Farben der Kabel können von Zeit zu Zeit variieren.

6. Diagramm

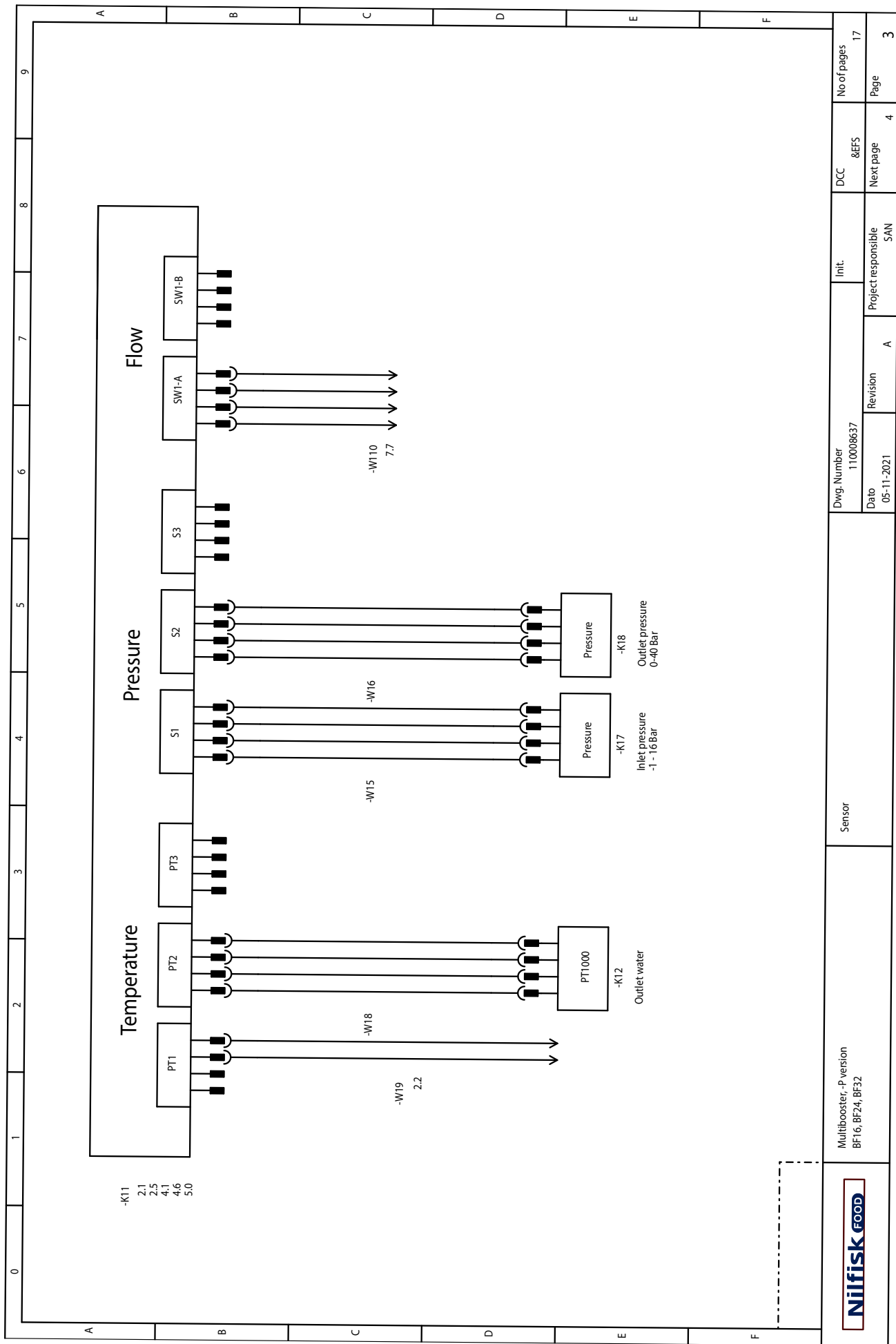


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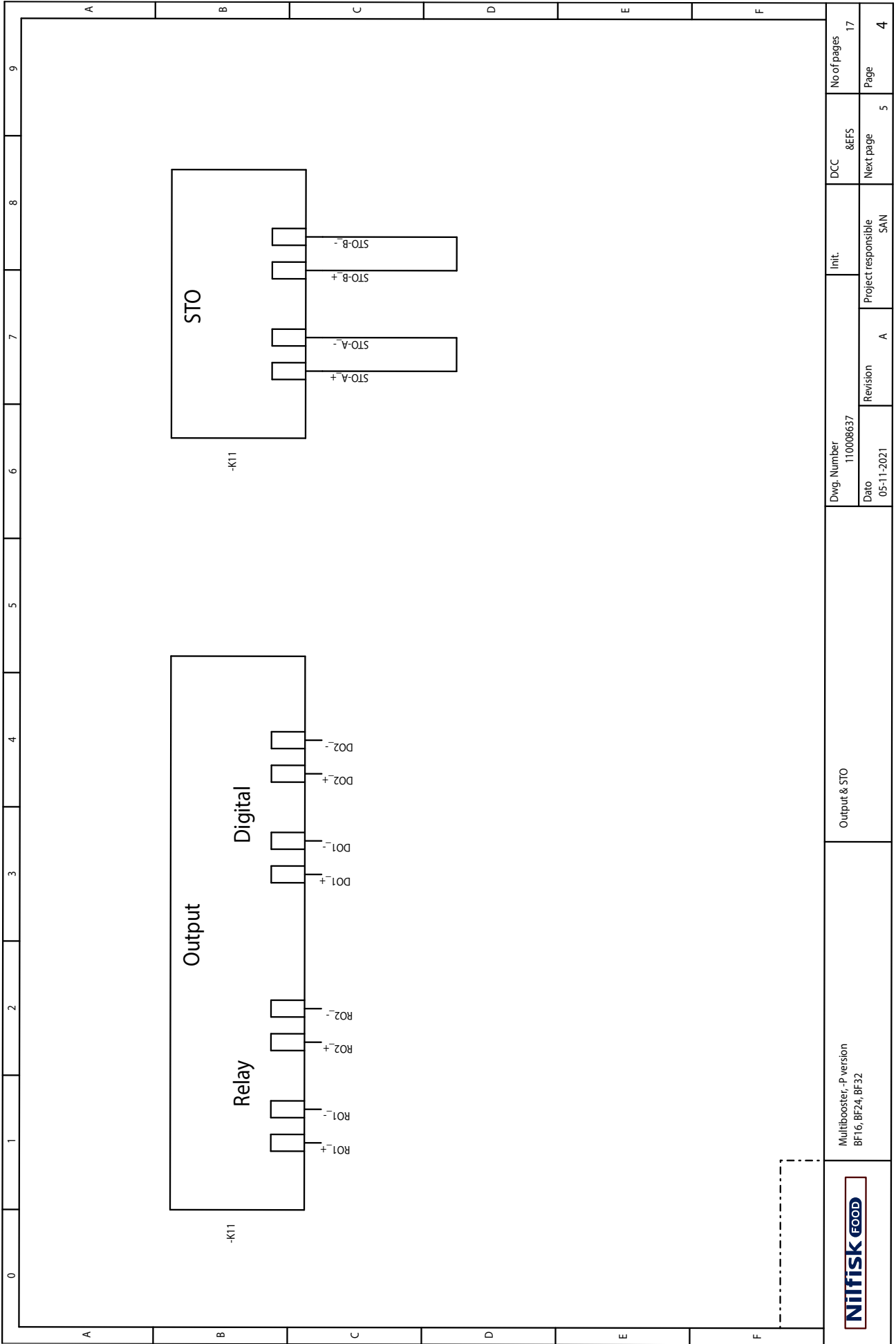


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Power and communication			Multibooster, -P version BF16, BF24, BF32		





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Multibooster - P version
BF16, BF24, BF32

Output & STO

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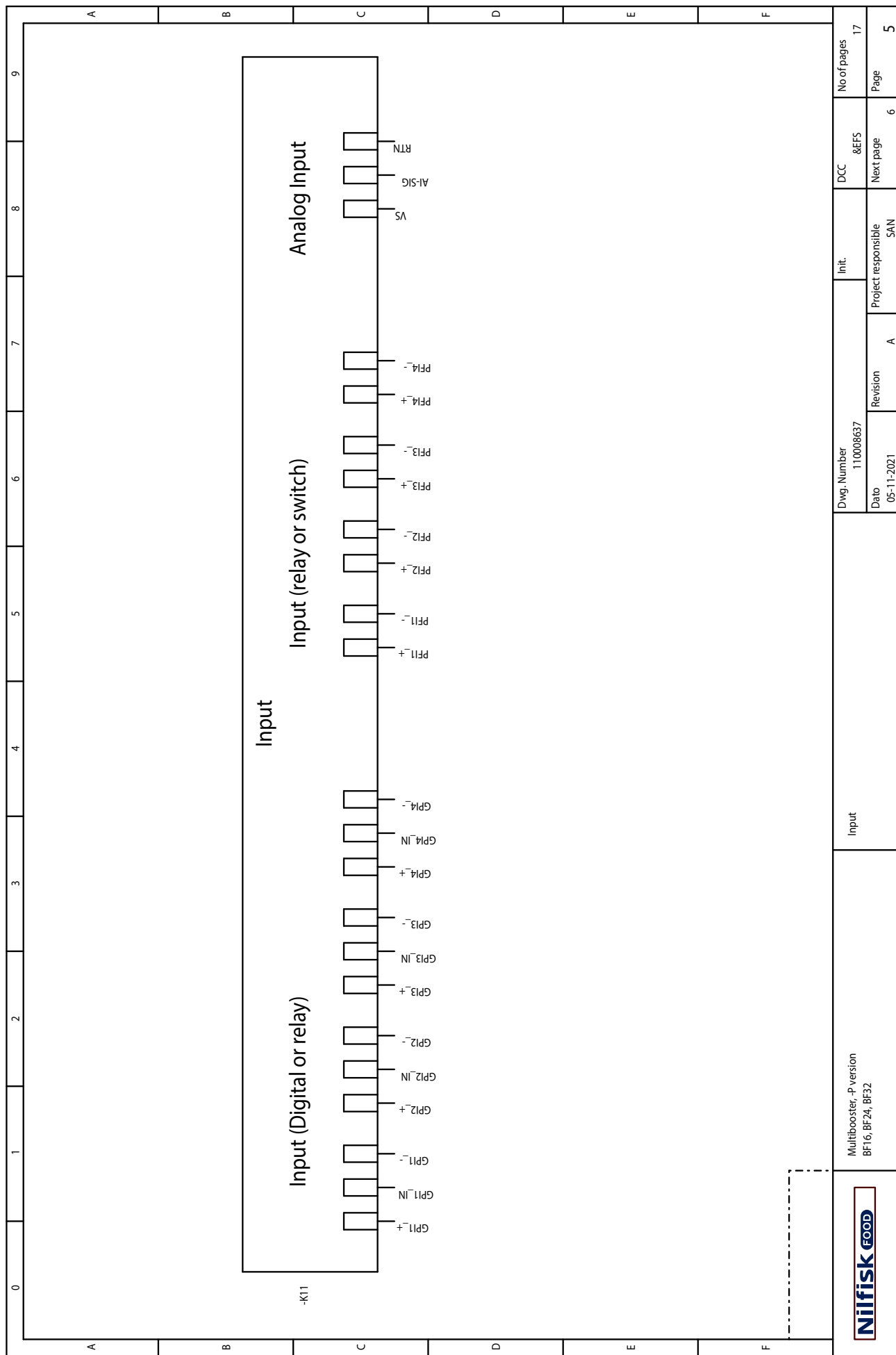
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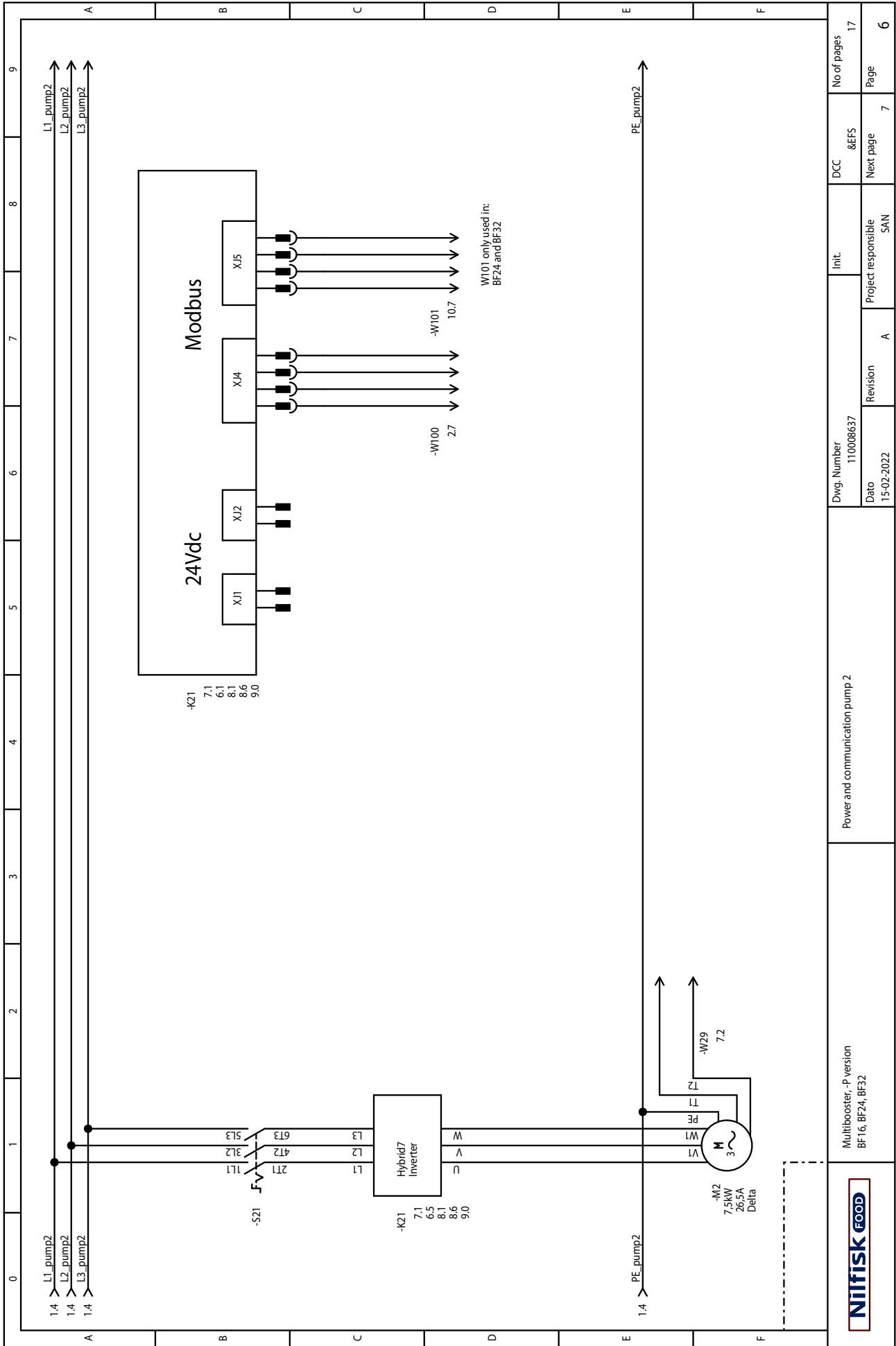
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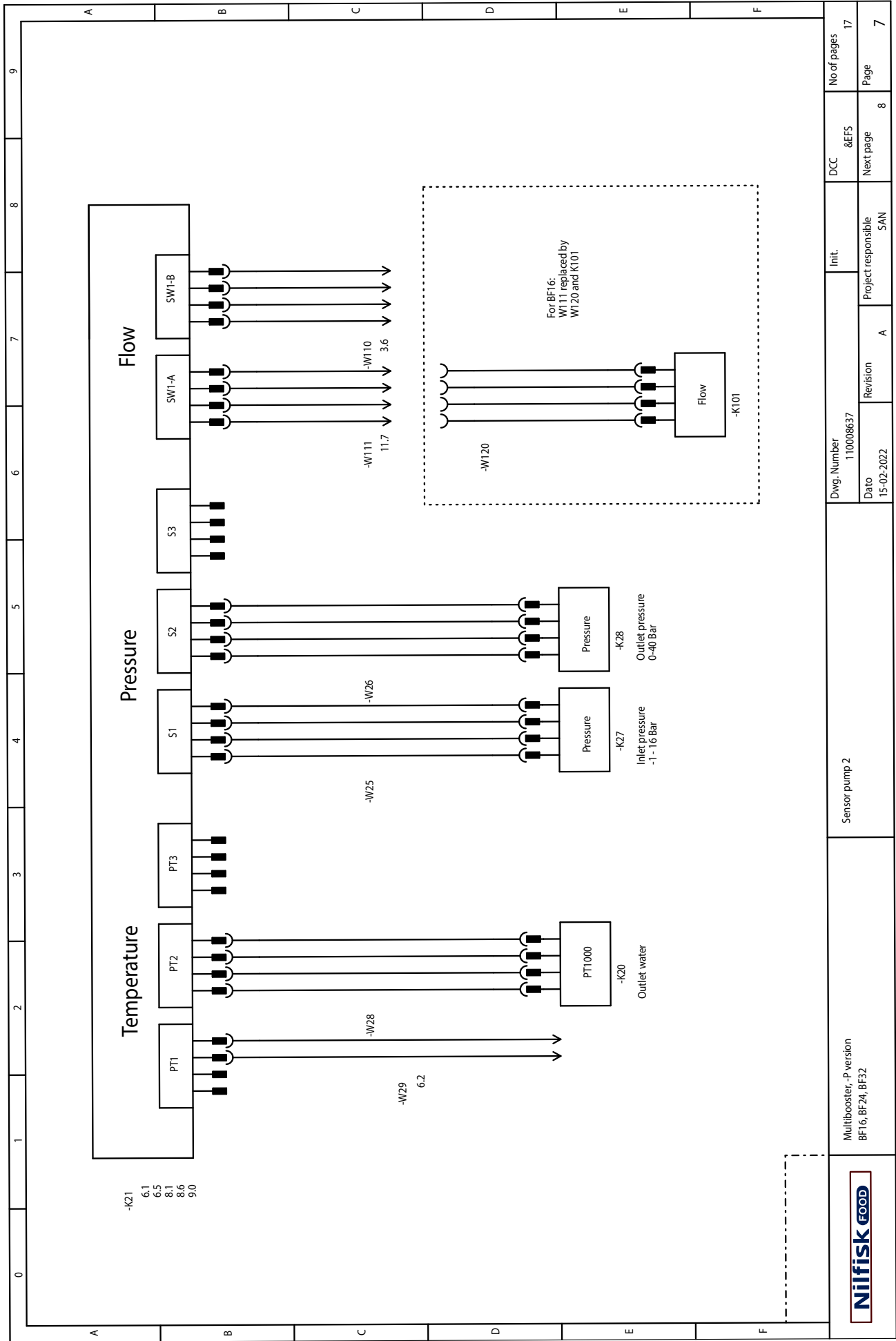


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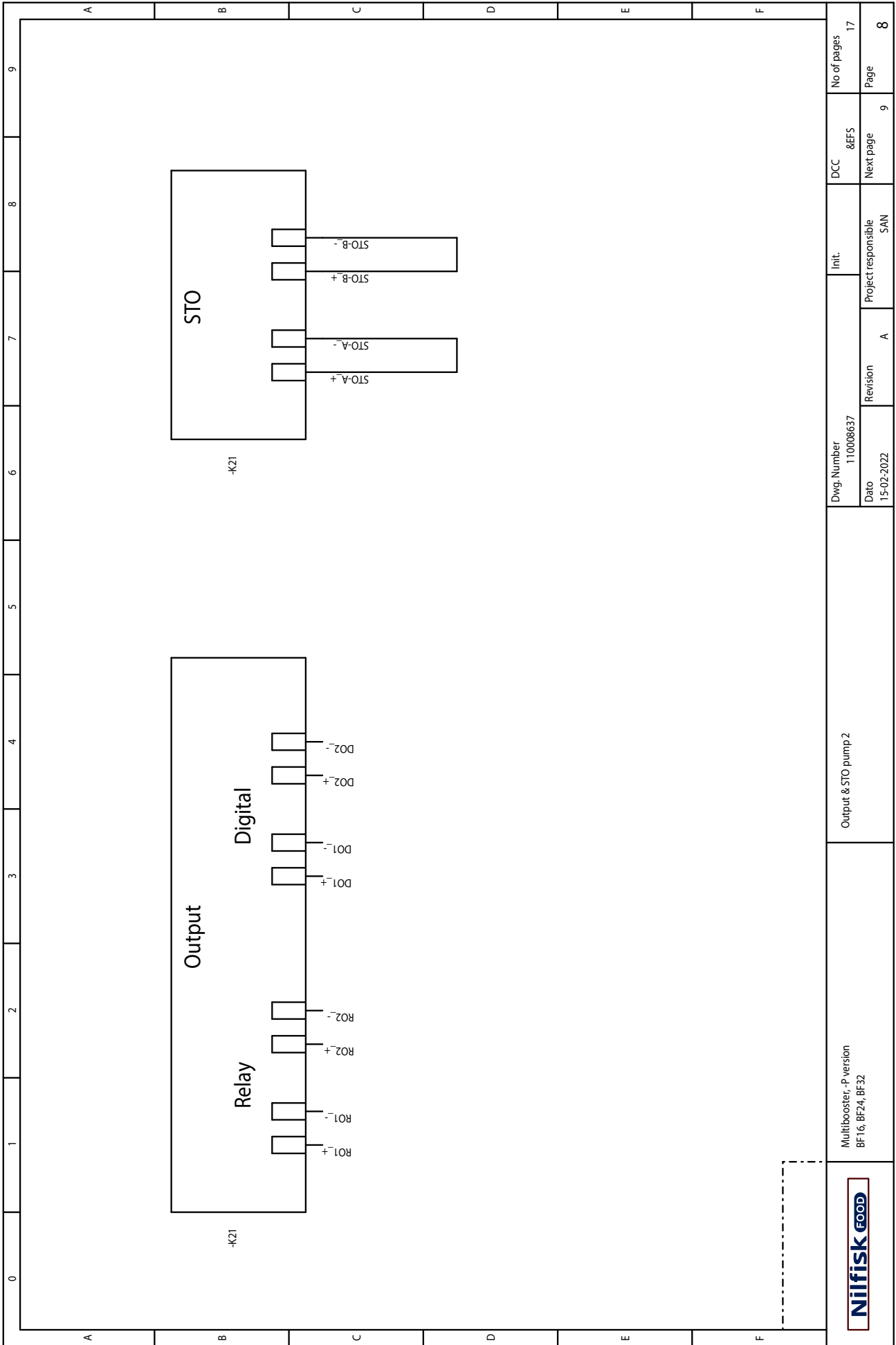


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Power and communication pump 2		Multibooster - P version BF16, BF24, BF32		





Sensor pump 2		Dwg. Number 110008637		Init.		DCC		No of pages	
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Multibooster-P version
BF16, BF24, BF32

Output & STO pump 2

Dwg. Number
110008637

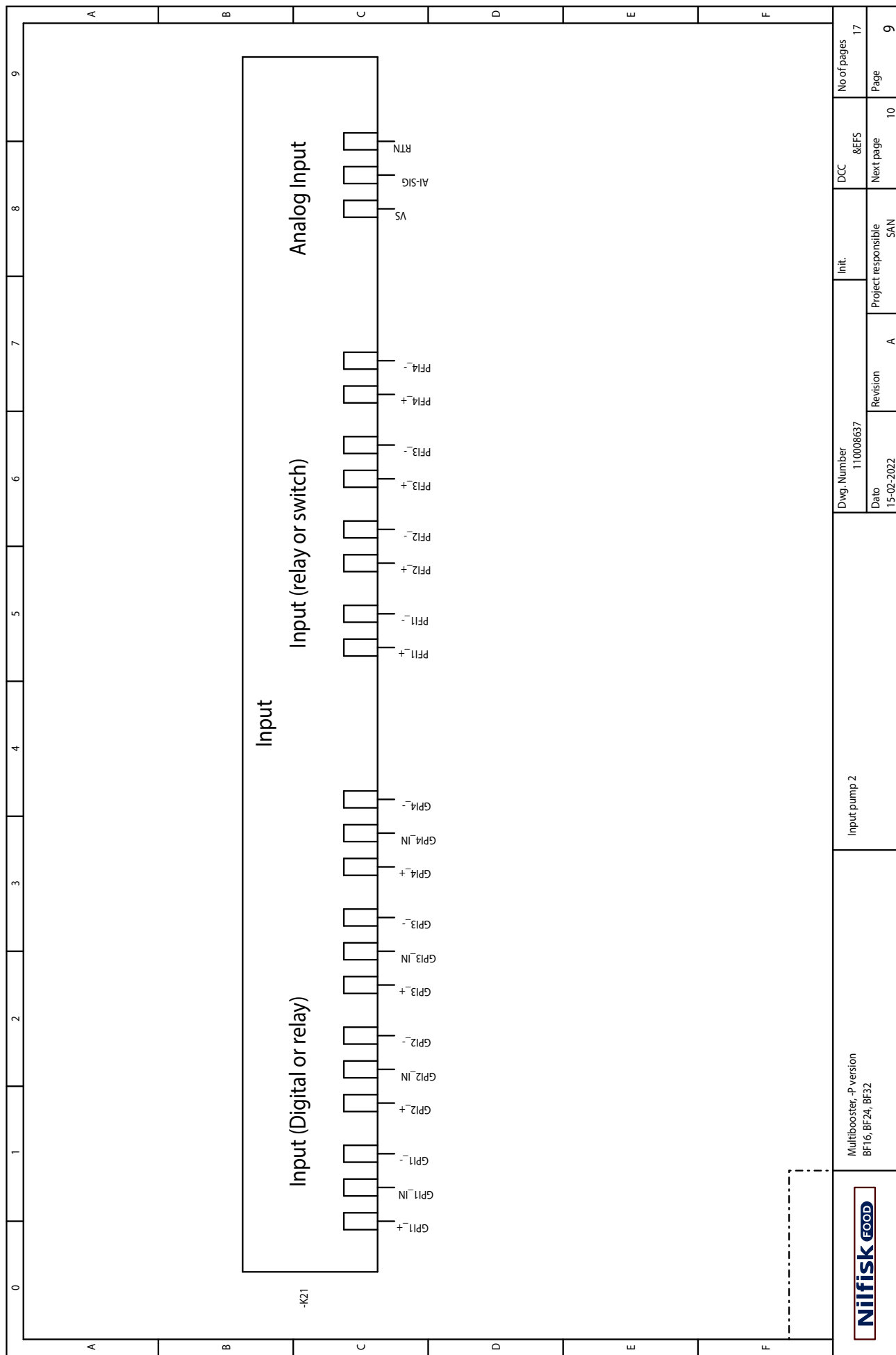
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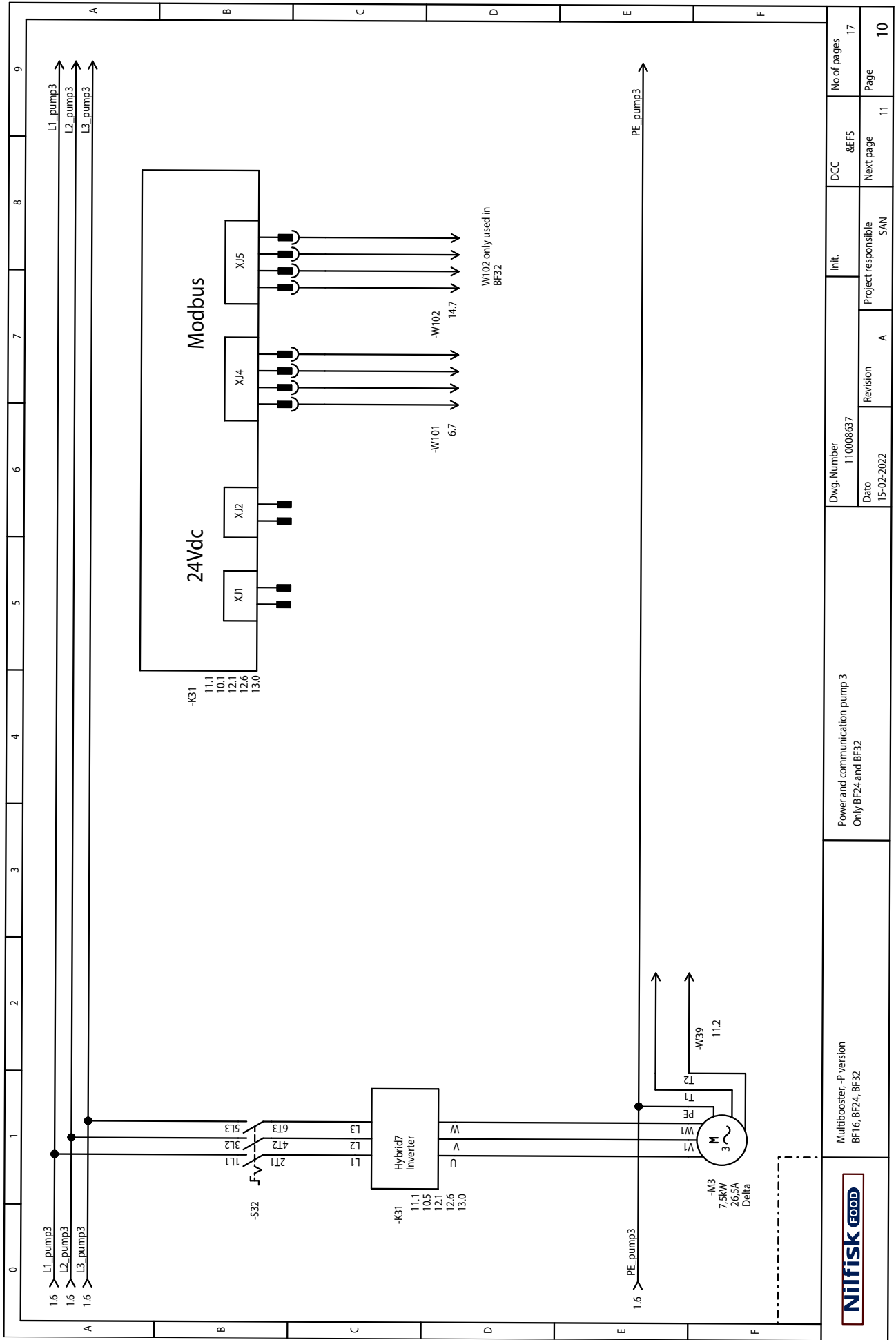
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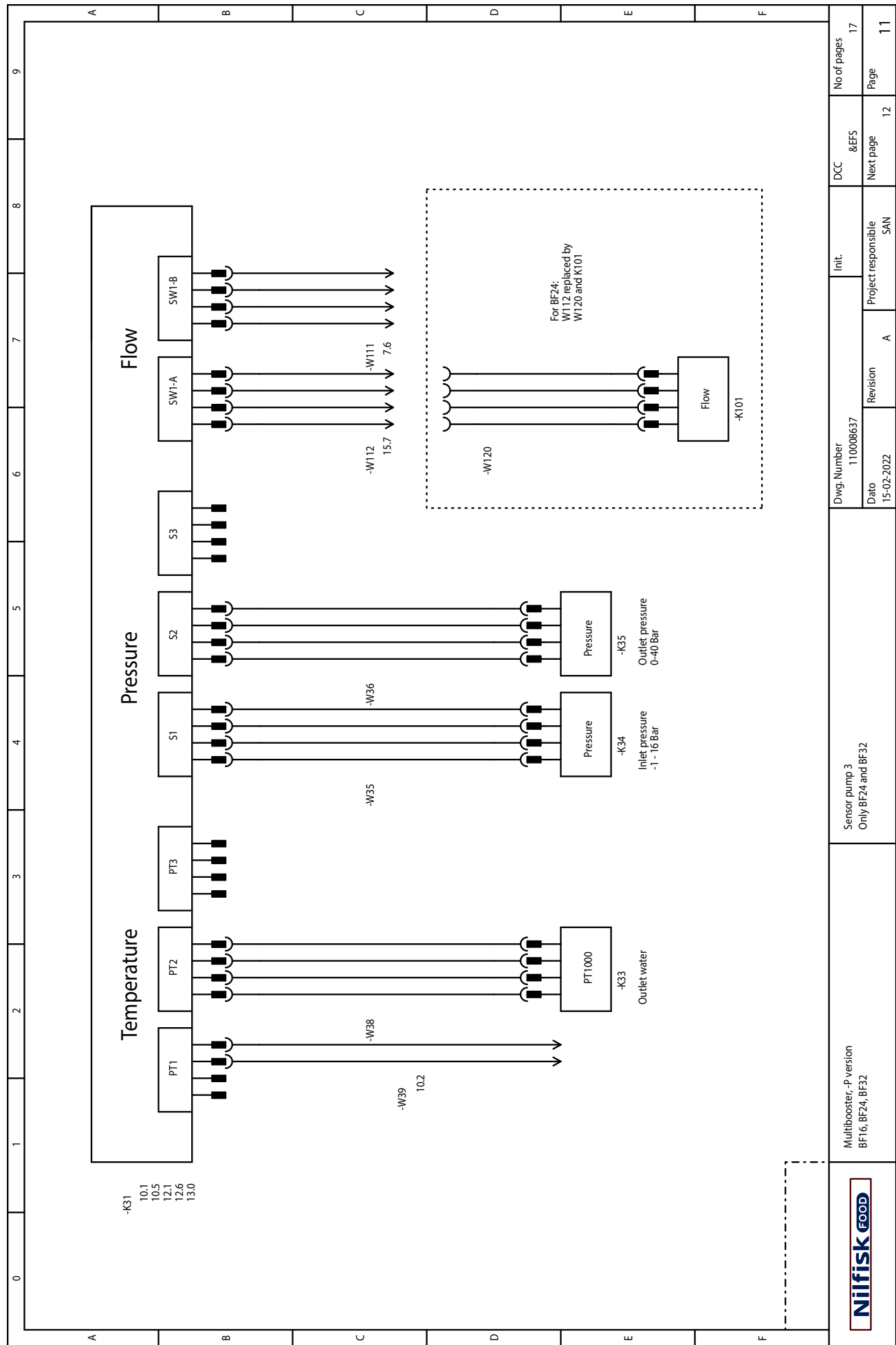
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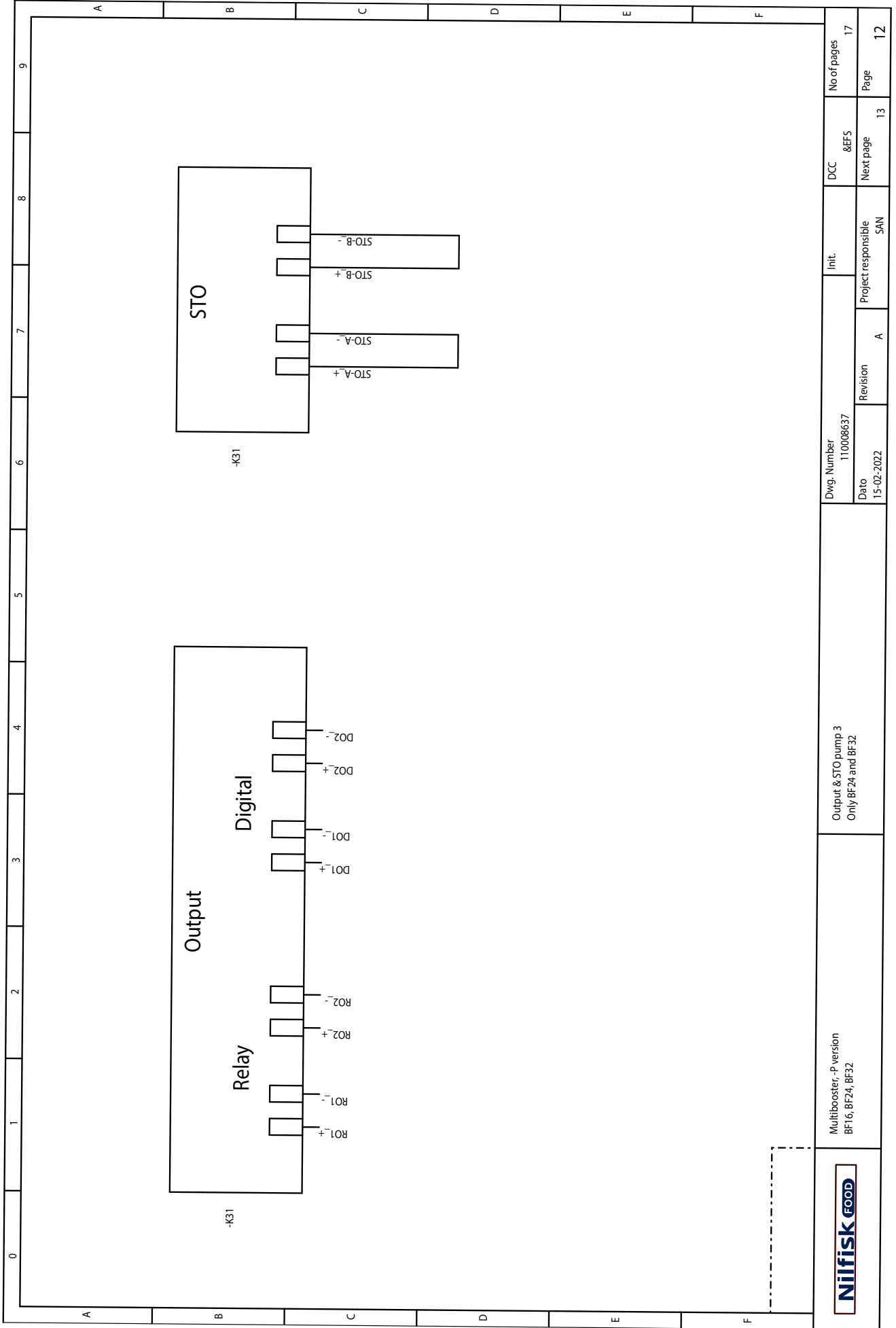
Multibooster-P version
BF16, BF24, BF32

Power and communication pump 3
Only BF24 and BF32

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Multibooster, -P version
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Output & STO pump 3
Only BF24 and BF32

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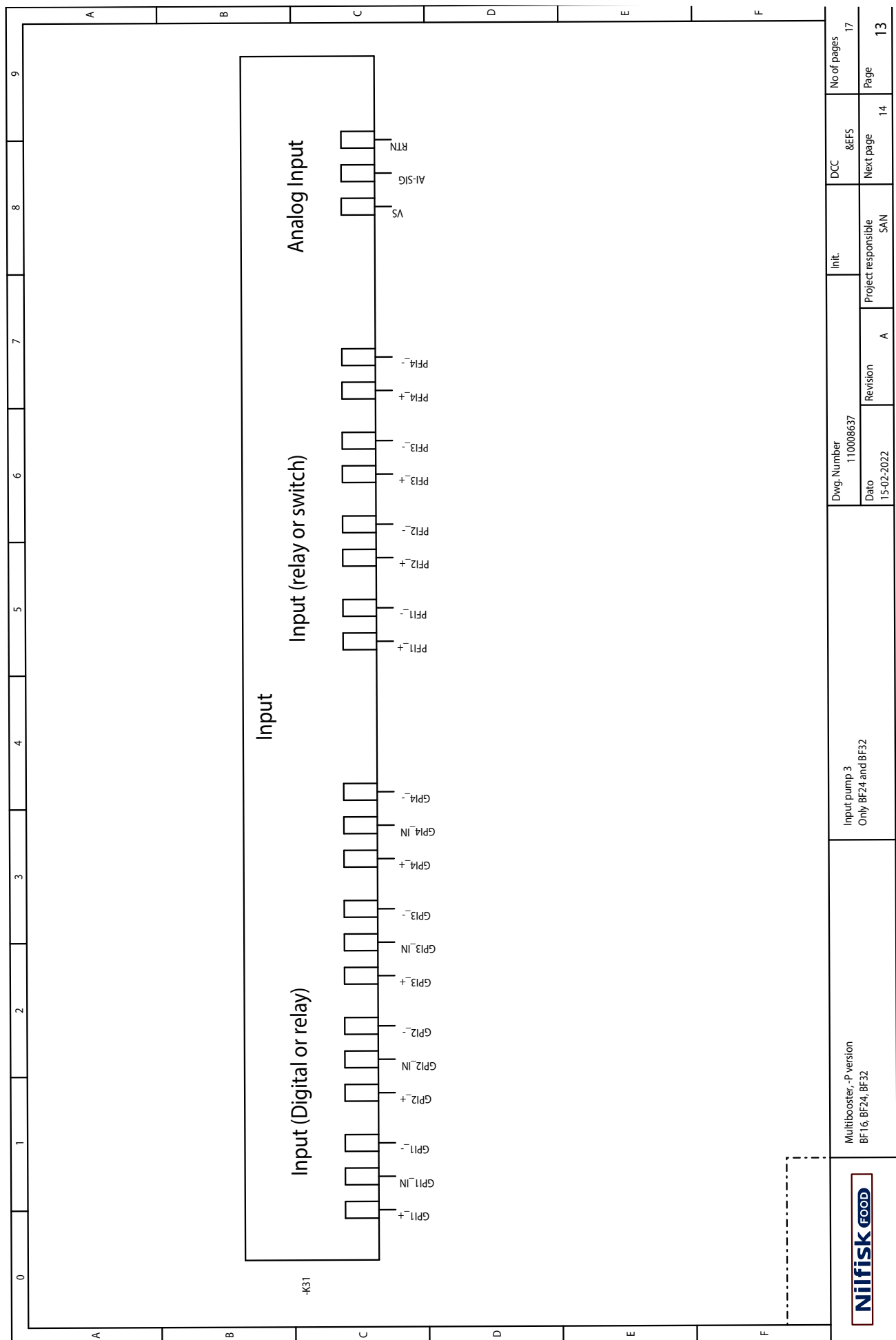
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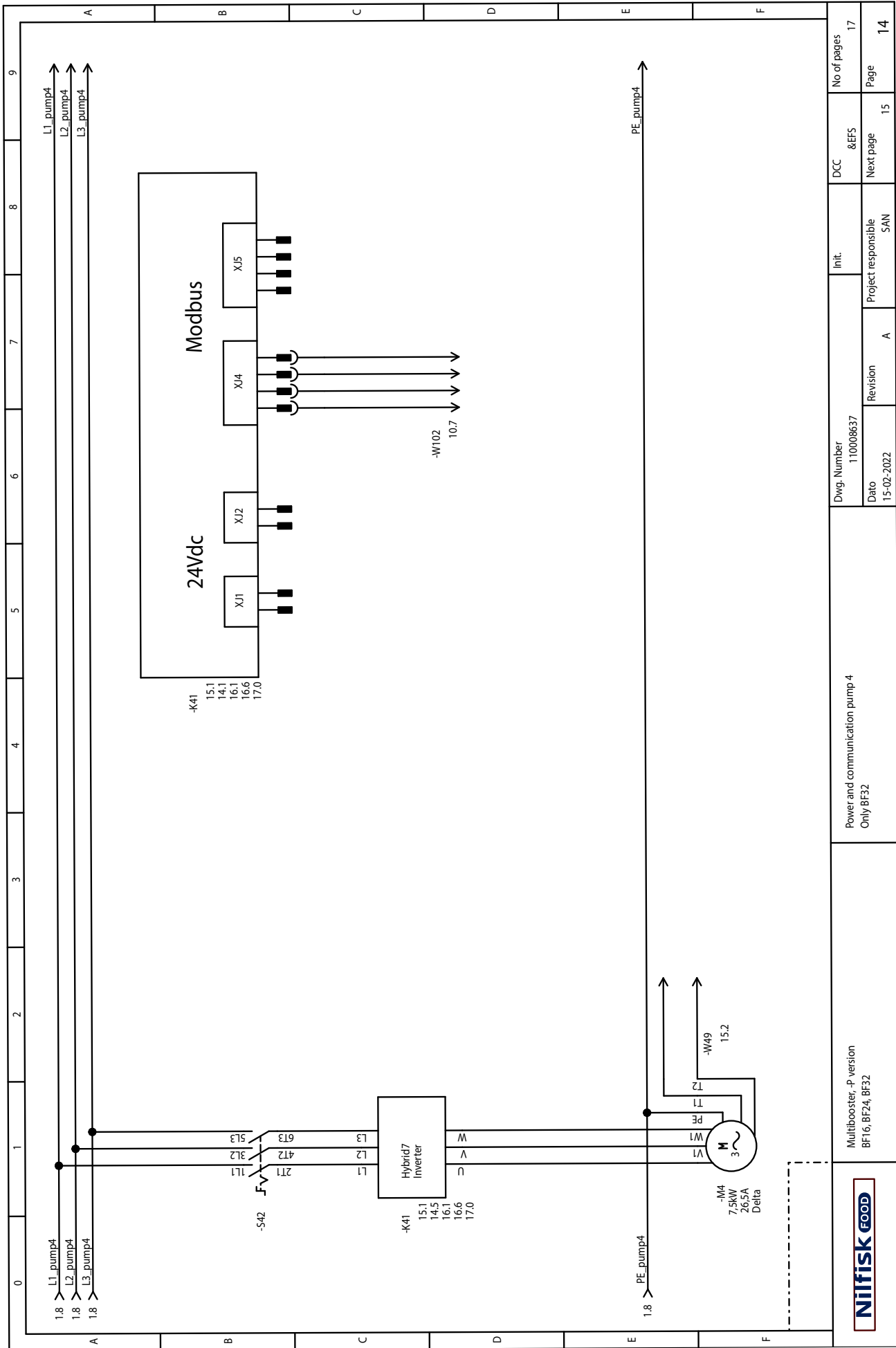
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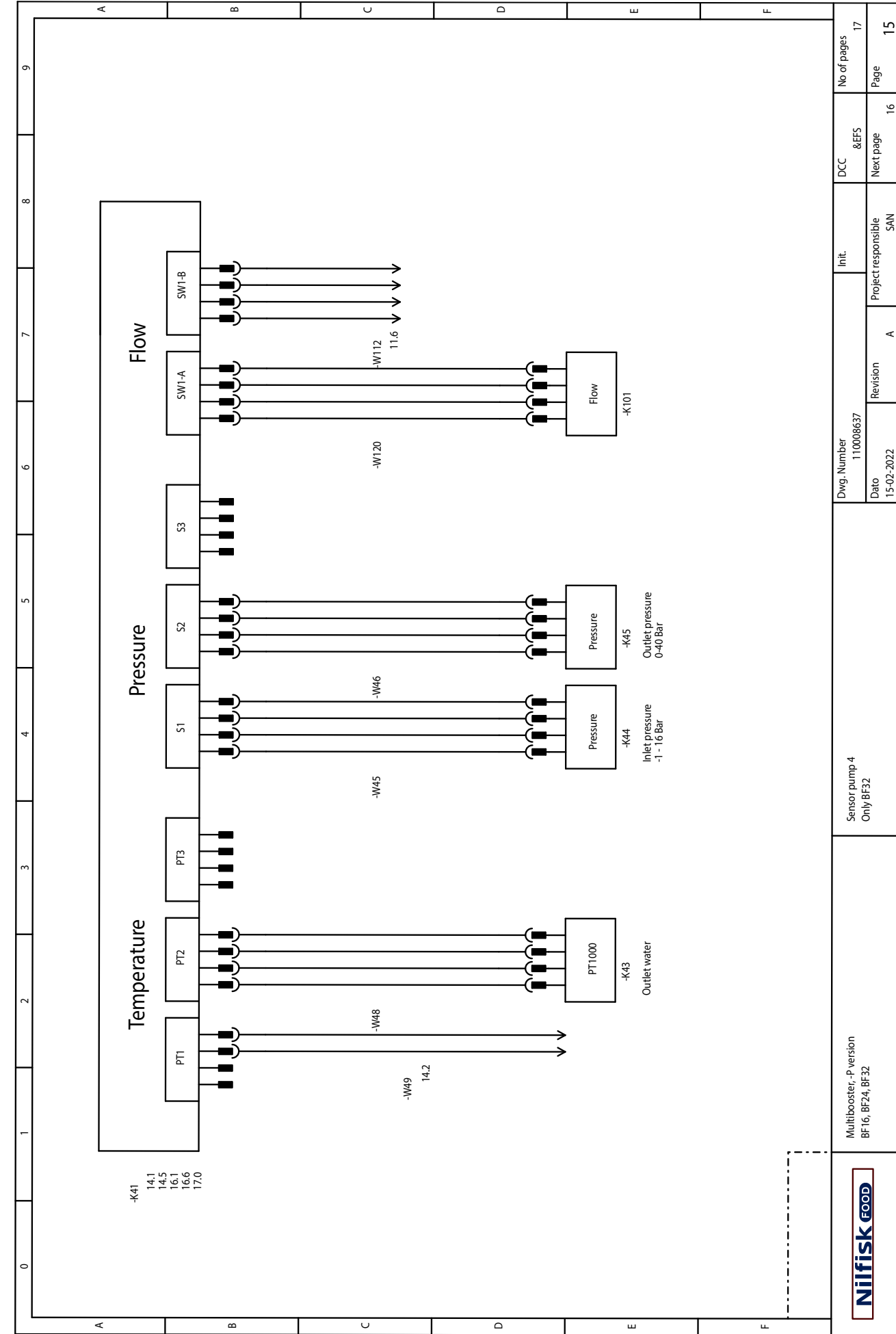


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14.1
14.5
16.1
16.6
17.0

Temperature

Pressure

Flow

Multi-booster, -P version
BF16, BF24, BF32

Sensor pump 4
Only BF32

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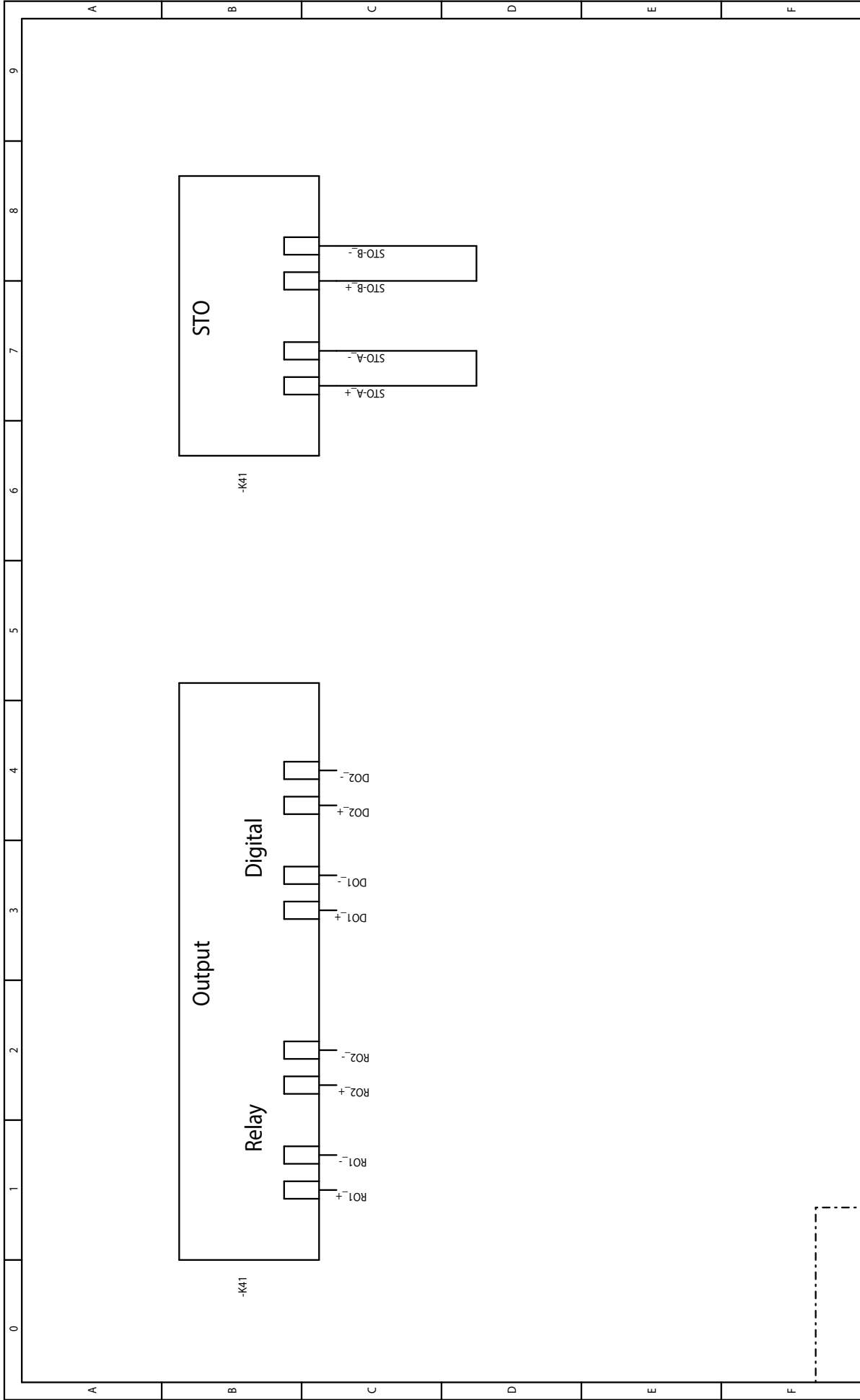
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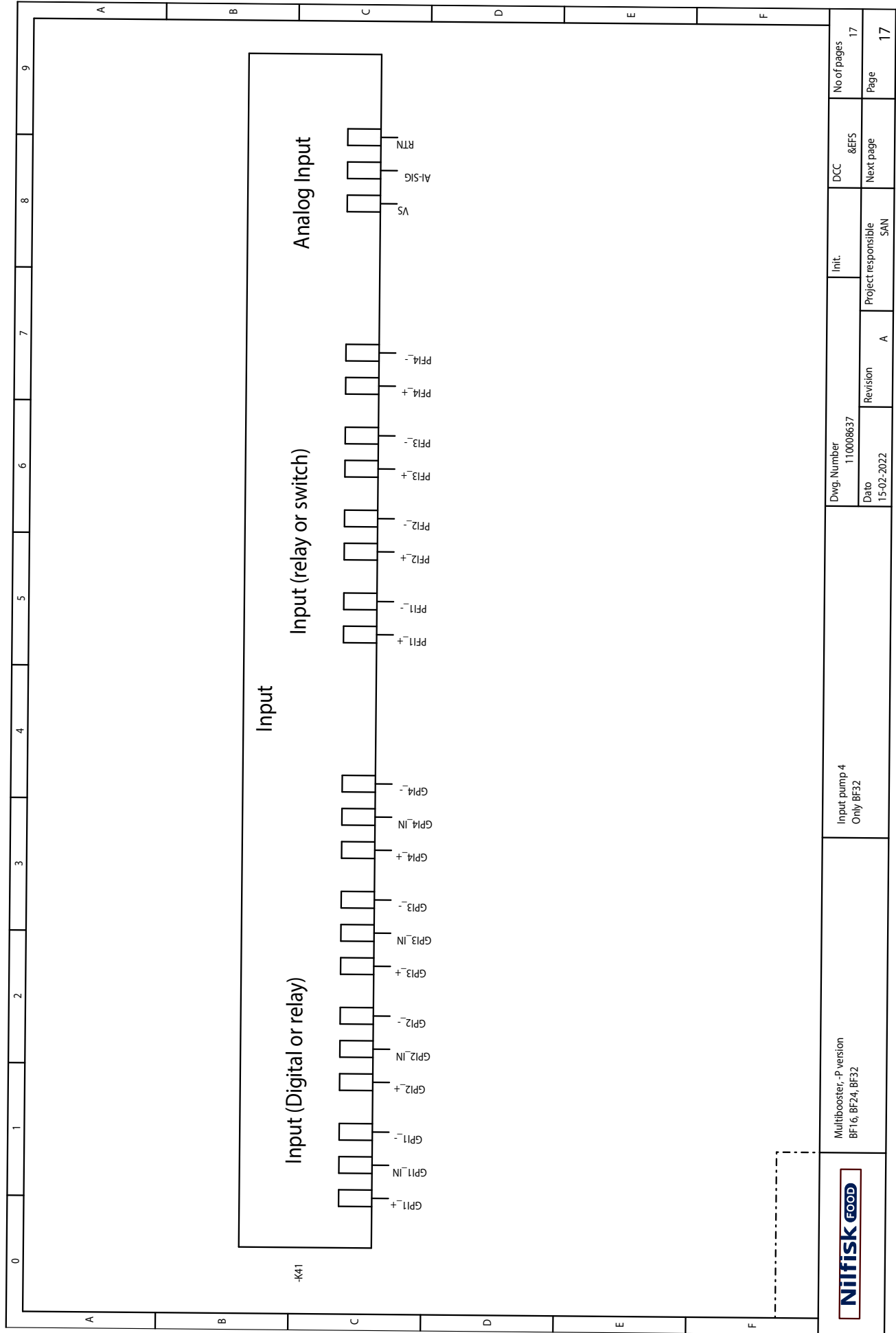
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BF16, BF24, BF32

Input pump 4
Only BF32

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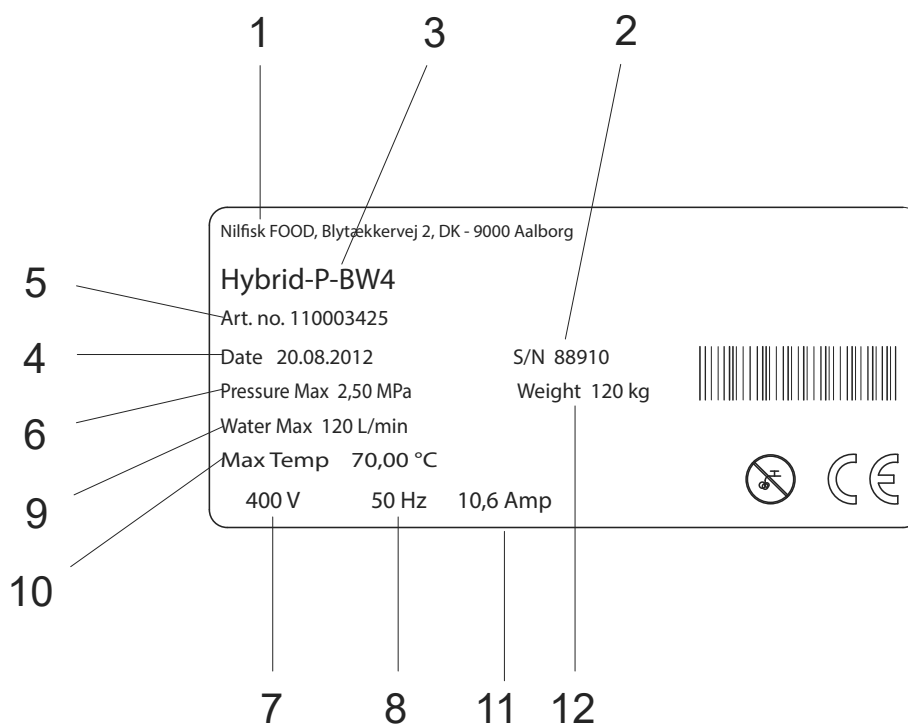
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2. Symboles utilisés dans ce document

	<p>Lire avant utilisation.</p>
	<p>Veillez porter des lunettes lors de l'utilisation de l'appareil.</p>
	<p>Veillez porter des gants et des vêtements appropriés lors de l'utilisation de l'appareil.</p>
	<p>Remarque : Situation potentiellement dommageable. Conséquences possibles : Le produit ou des éléments l'environnement pourraient être endommagés.</p>
	<p>Attention : Situation dangereuse. Conséquences possibles : blessures légères ou mineures. Peut également être utilisé pour prévenir les dommages contre les biens ou d'autres produits.</p>
	<p>Avertissement : Situation potentiellement dangereuse. Conséquences possibles : Prévention d'accidents mortels ou de blessures graves.</p>
	<p>Danger Situation dangereuse. Conséquences possibles : Prévention d'accidents mortels ou de blessures graves.</p>
	<p>Danger Risque d'électrocution ! Conséquences possibles : Prévention d'accidents mortels ou de blessures graves.</p>
	<p>Surfaces chaudes Risque de brûlures ! Conséquences possibles : Prévention de blessures graves.</p>

2.1. Identification Plate



1. Fabricant
2. N° de série
3. Type
4. Date de fabrication
5. N° de l'article
6. Pression maximale
7. Tension d'alimentation
8. Fréquence
9. Consommation d'eau maximale
10. Température maximale
11. Courant
12. Poids

2.2. Fournisseur

Nilfisk-FOOD
 Blytækkervej 2
 DK-9000 Aalborg, Danemark
 Tél. : +45 7218 2000
 N° CVR 6257 2213
www.nilfiskfood.com

3. Service & Tools required

La révision ne doit être effectuée que par du personnel agréé et qualifié et conformément à la législation locale.



ATTENTION

La révision du système ne doit être effectuée qu'une fois le système hors tension et dépressurisé.

1. Ouvrez une sortie d'eau pour dépressuriser le système.
2. Appuyez sur l'interrupteur principal du boîtier de commande.




Outils requis

	<p>9, 22, 29 mm</p> <p>10, 11, 12, 13, 14, 15, 17, 19 mm</p>
<p>Hex 4,12</p>	
<p>T4, TR</p> <p>0,5x3mm</p> <p>1x5,5 mm</p> <p>PZ2</p>	<p>Ø5 metal drill bit.</p>

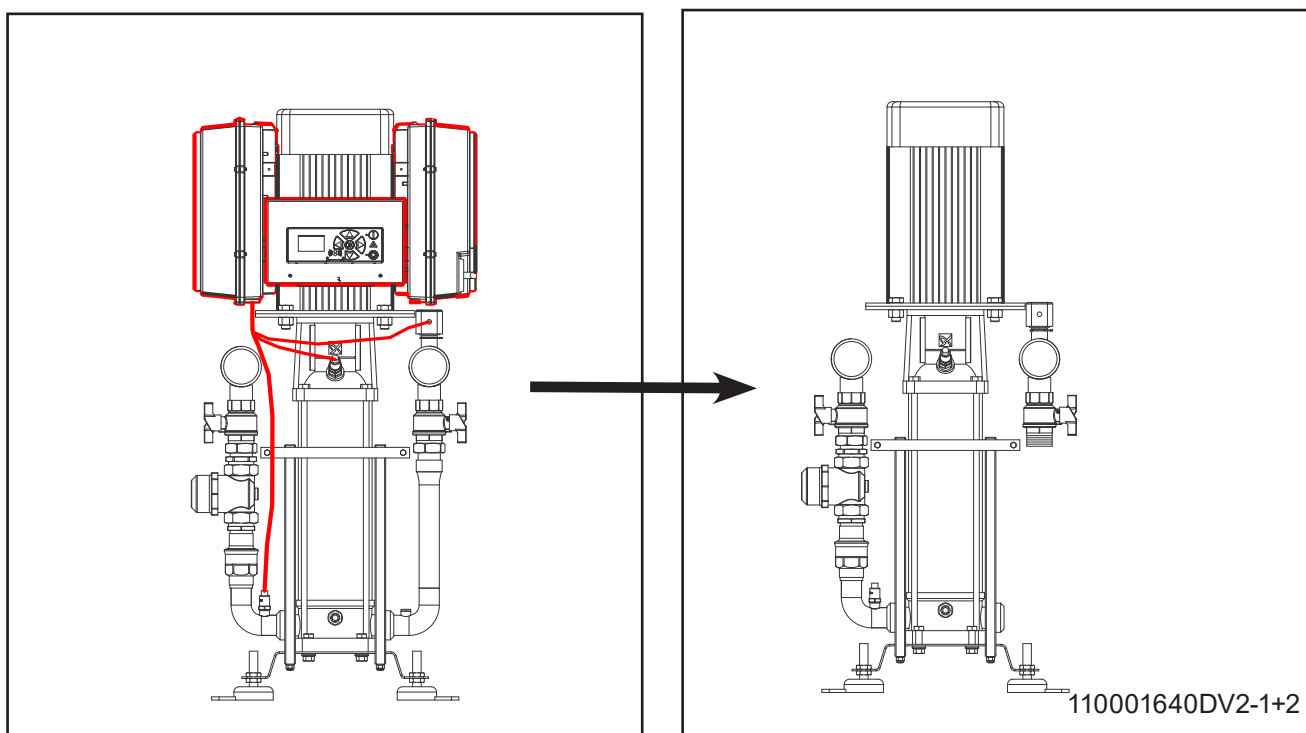
Remarque : le nouvel affichage fourni les réglages d'usine. Si vous souhaitez conserver les réglages spécifiques de la pompe, veuillez les récupérer de l'écran et les noter ailleurs, avant le démontage.

4. BF16-2/BF24-3/BF32-4

4.1. Démontage

	Danger Situation dangereuse. Conséquences possibles. Prévention d'accidents mortels ou de blessures graves.
	Danger Risque d'électrocution ! Conséquences possibles. Prévention d'accidents mortels ou de blessures graves.
	Surfaces chaudes Risque de brûlures ! Conséquences possibles. Prévention blessures graves.

Dans cette section, tous les composants qui doivent être échangés pour utiliser le nouveau convertisseur sont déposés. Ne pas oublier de conserver le boîtier d'affichage et le capteur de pression à utiliser dans la section d'installation.



1. Fermer l'alimentation électrique.
 - Coupez l'interrupteur principal.
 - Éteindre le convertisseur.
 - Retirer le câble d'alimentation électrique de l'interrupteur principal.
2. Fermer l'alimentation en eau.
3. Ouvrez une sortie d'eau pour dépressuriser le système.

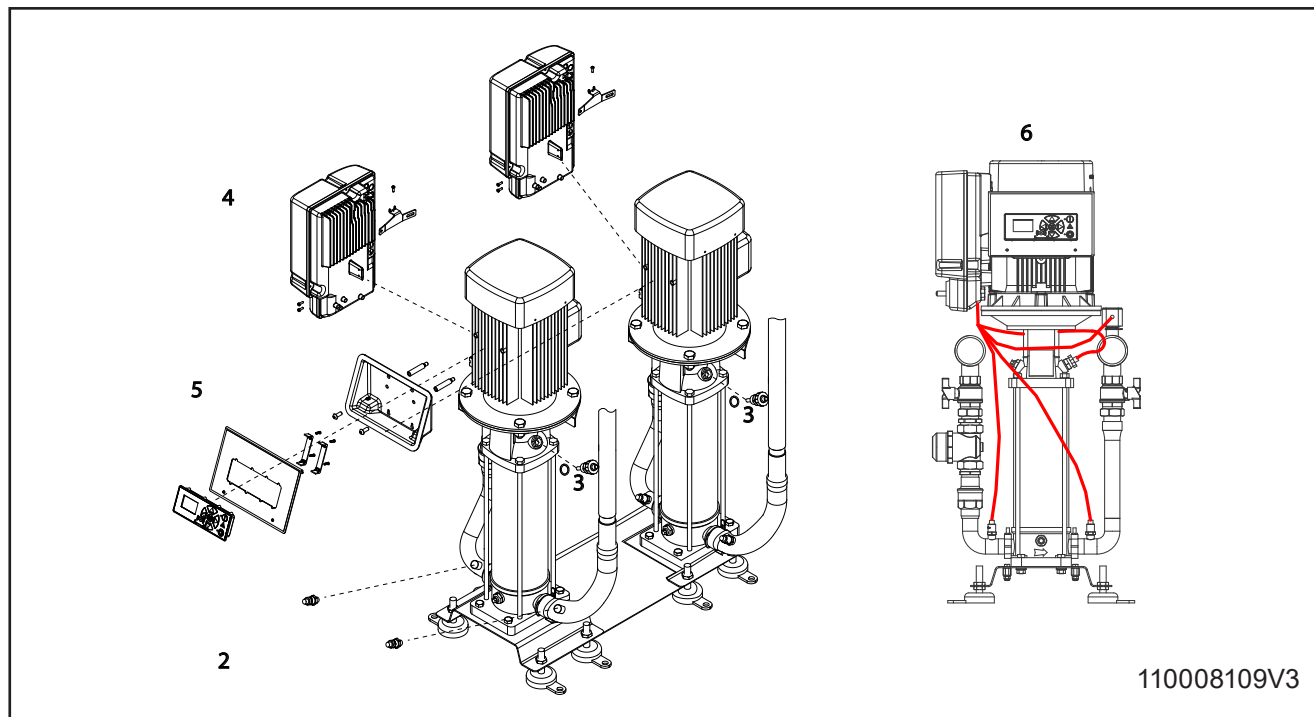
Attendez 180 secondes après avoir éteint le convertisseur jusqu'à ce que vous continuiez à ce point.

4. Retirez le câble du moteur et le câble de température du moteur sur chaque pompe.
5. Retirez les 3 câbles de capteur du haut de la pompe, du commutateur de débit et de la sortie de la pompe sur chaque pompe.
6. Retirez le capuchon du convertisseur.
7. Retirez la fiche de l'écran du convertisseur.
8. Déposez le boîtier d'affichage.
 - Retirer l'ancien écran du boîtier d'affichage.
 - Conservez le boîtier d'affichage pour une installation ultérieure.
9. Retirez le convertisseur et le raccord du convertisseur sur chaque pompe.
10. Retirer le bouchon du tuyau de sortie.
11. Déposez le capteur de pression du haut de la pompe sur chaque pompe - conservez le capteur de pression pour une installation ultérieure.

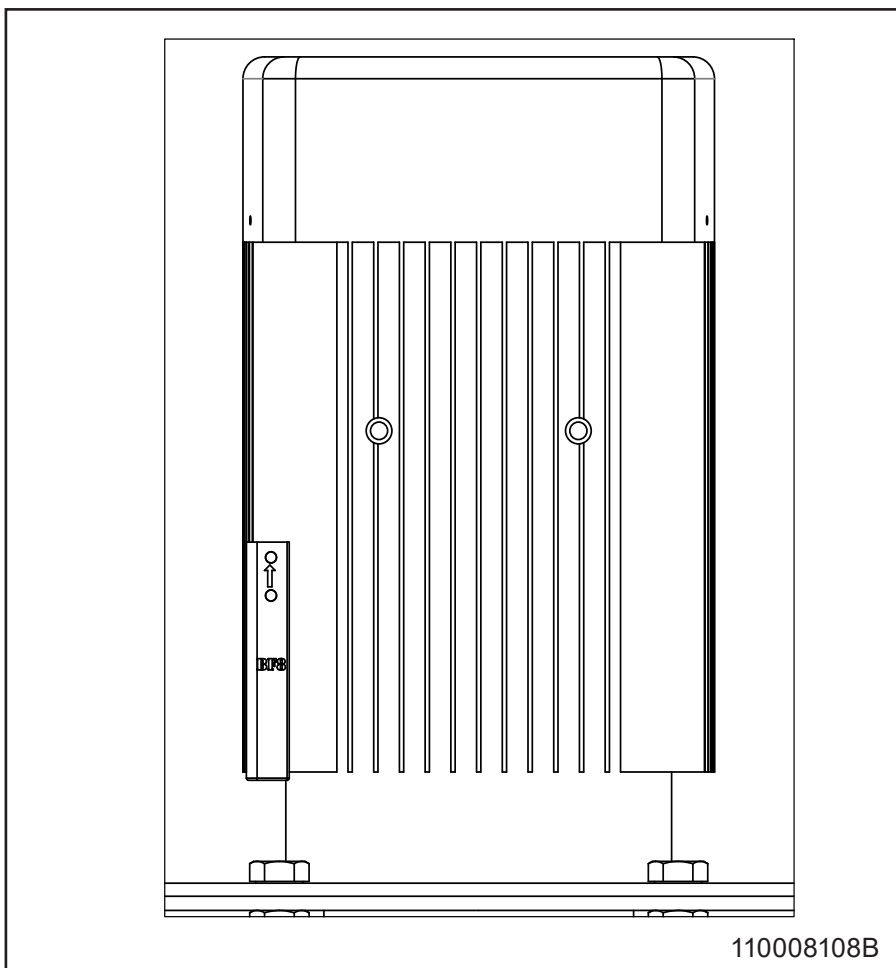
4.2. Assemblage

Cette section décrit toutes les étapes d'installation du nouveau convertisseur et du nouvel écran. En cas de doute sur l'installation des câbles, voir la section sur l'installation des câbles.

Si l'unité de surpression est inclinée vers un mur, il faut peut être la retirer et tourner le haut de la pompe pour pouvoir changer les câbles du moteur. Voir la section BW7 pour la rotation d'une pompe.

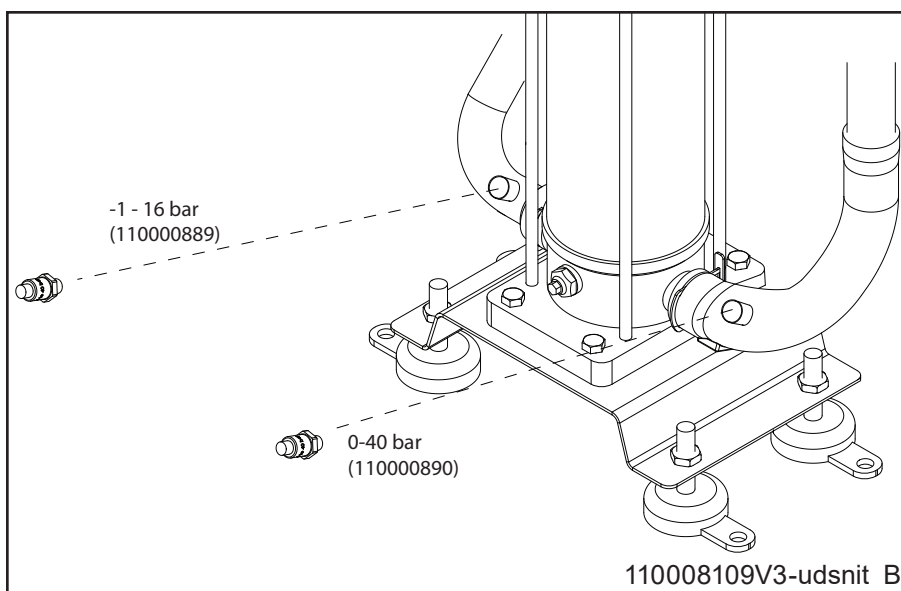


1)



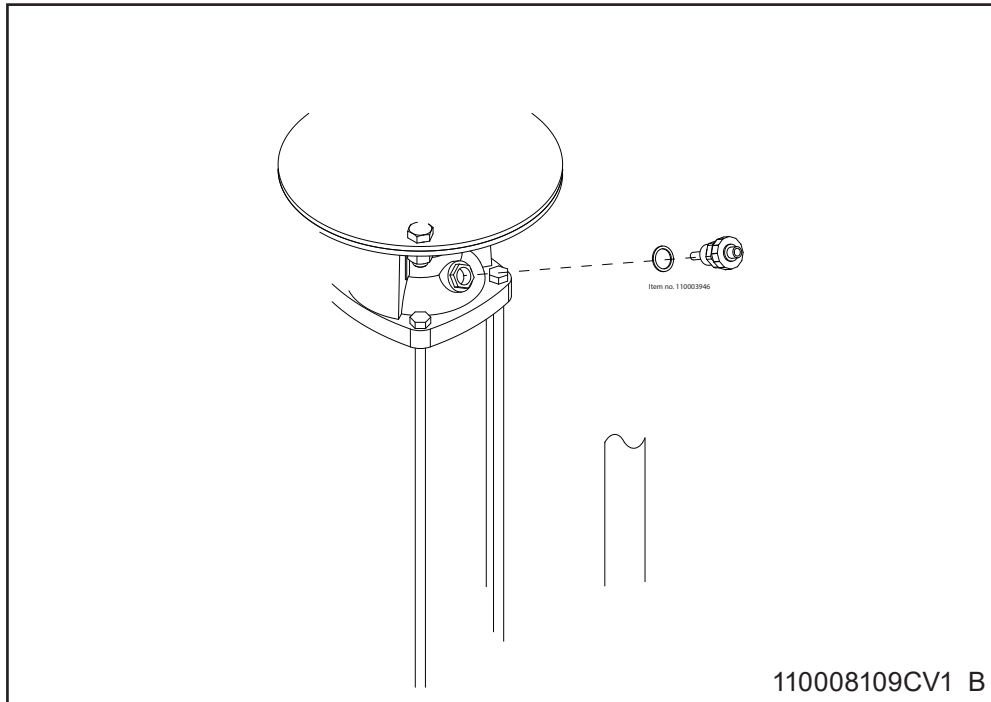
Placez le gabarit de perçage comme indiqué. Percer la nervure de refroidissement par le gabarit à l'aide d'un foret de Ø5.

2)



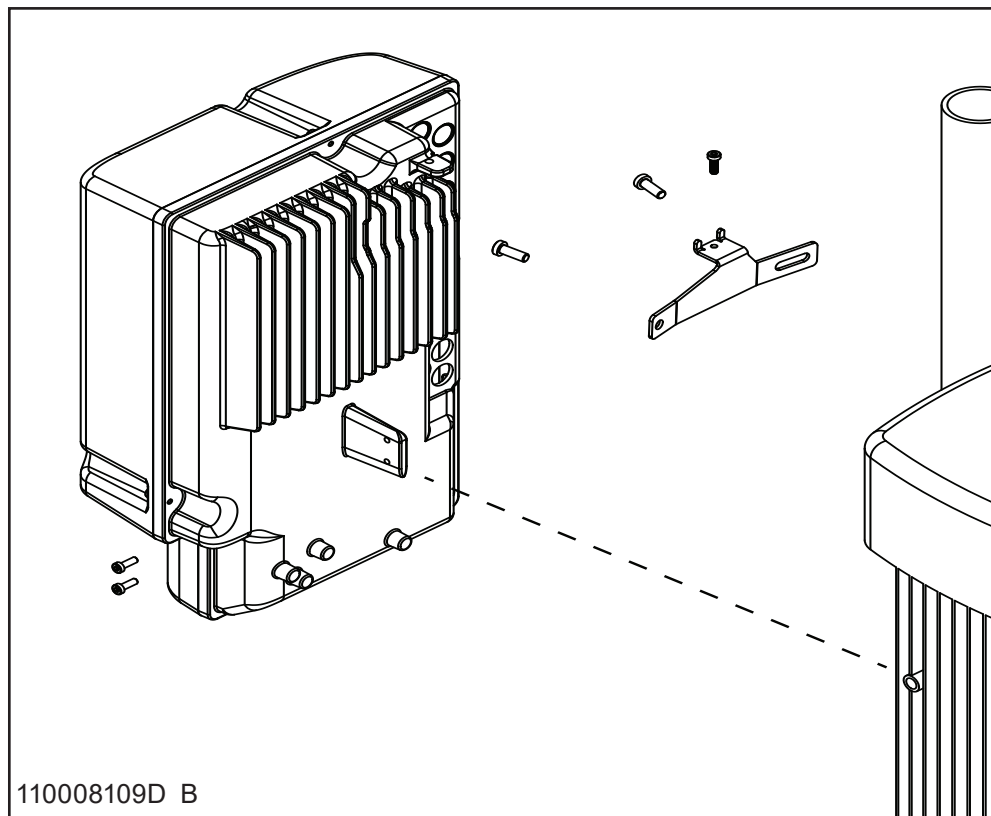
Installez le capteur de pression.

3)



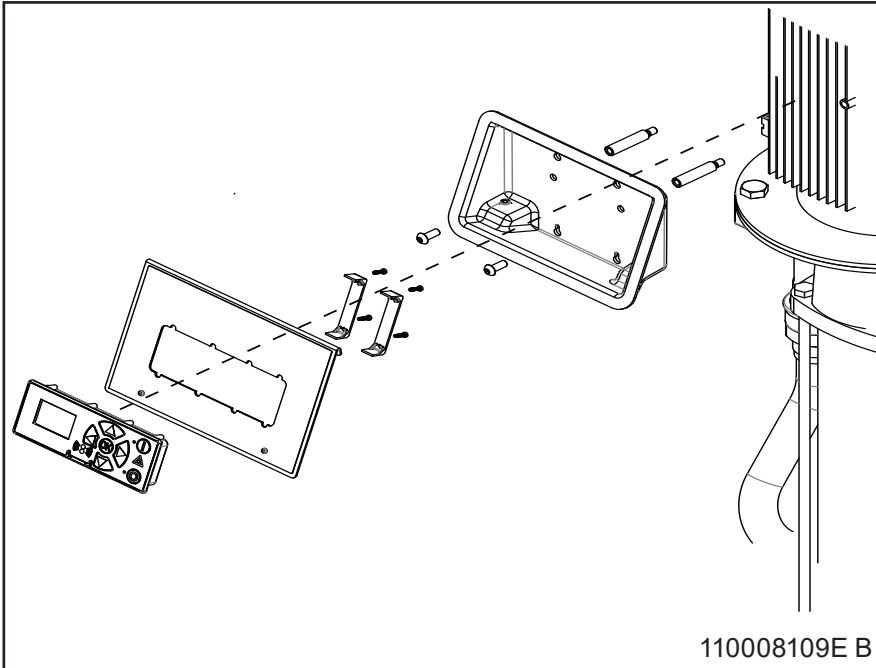
Posez le capteur PT1000 et le joint dans le haut de la pompe.

4)



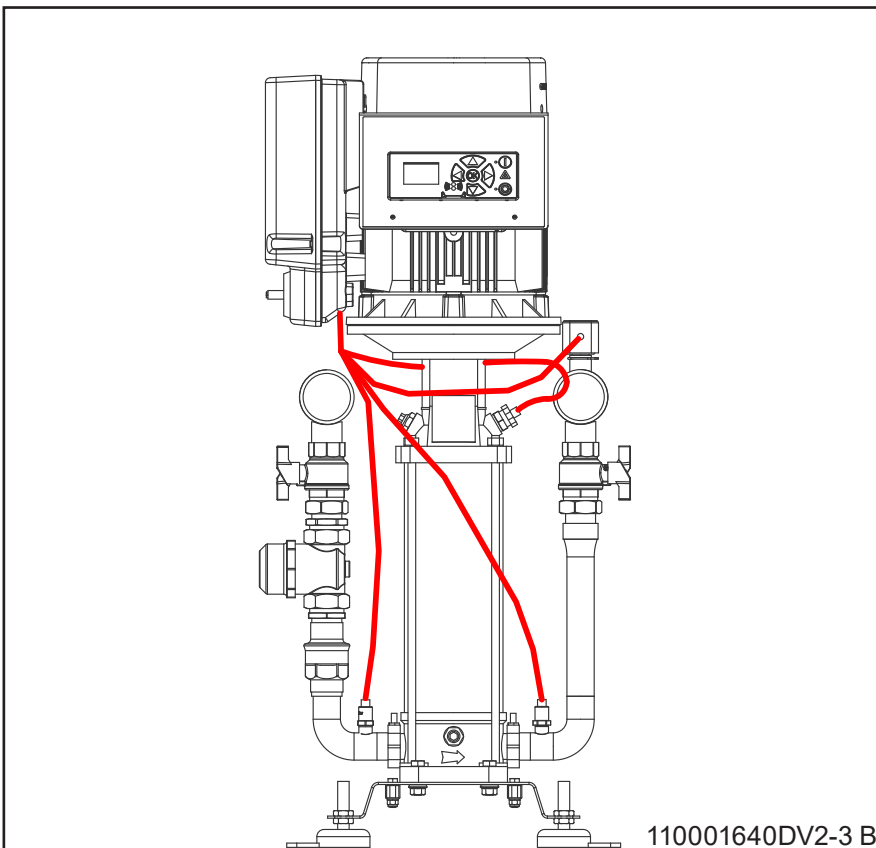
Installez le convertisseur.
 - Installez le raccord supérieur à l'aide de 2 vis M5 x 16 BH.
 - Placez le convertisseur sur le raccord supérieur, fixez-le avec 3 vis M4 x 16 de filetage.
 - Retirez le capuchon du convertisseur.

5)



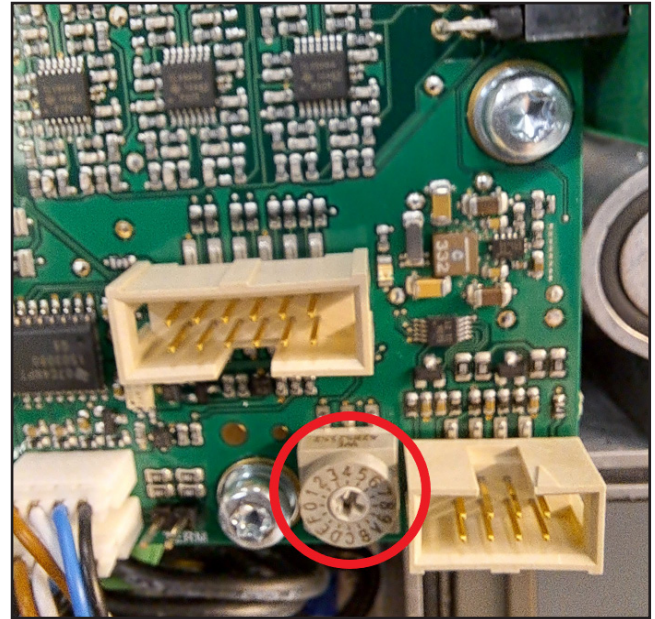
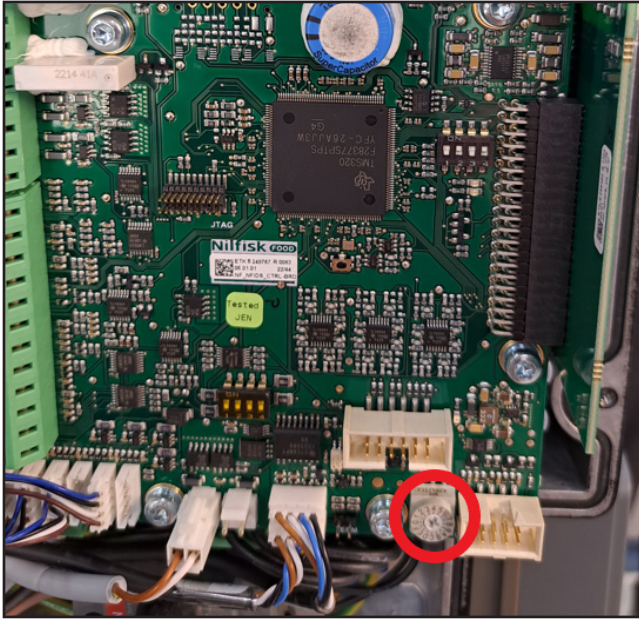
- Installez l'écran.
- Installez les 2 pôles sur la pompe.
 - Installez le nouvel écran dans le boîtier d'affichage.
- Installez le boîtier d'affichage sur les pôles.

6)



- Posez les câbles et les prises (voir la section sur l'installation des câbles.)
- Branchez la fiche d'écran sur la borne "modbus" du convertisseur.
 - Installez les 4 câbles de capteur sur les capteurs.
 - Utilisez des bandes pour rassembler les câbles.

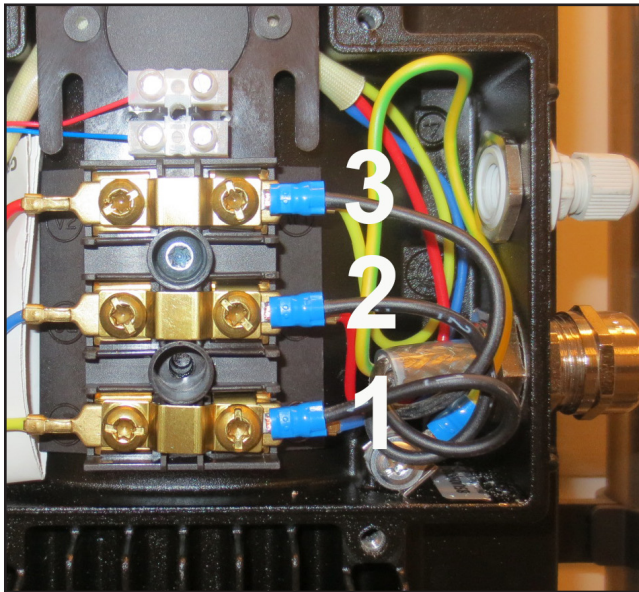
7)



Réglage de l'interrupteur.

4.3. Démarrage et test

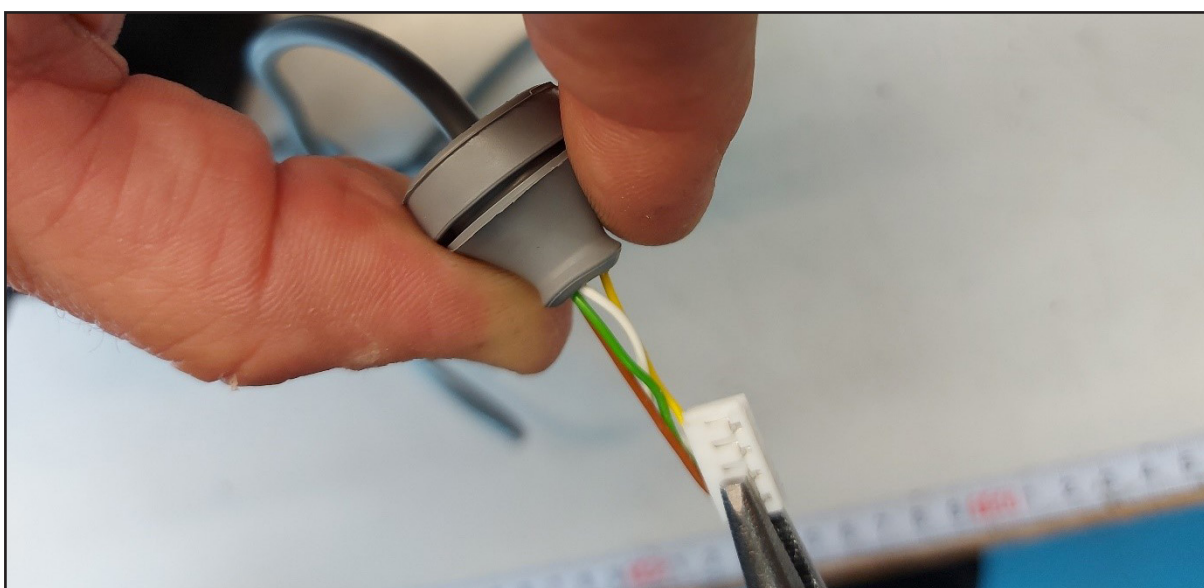
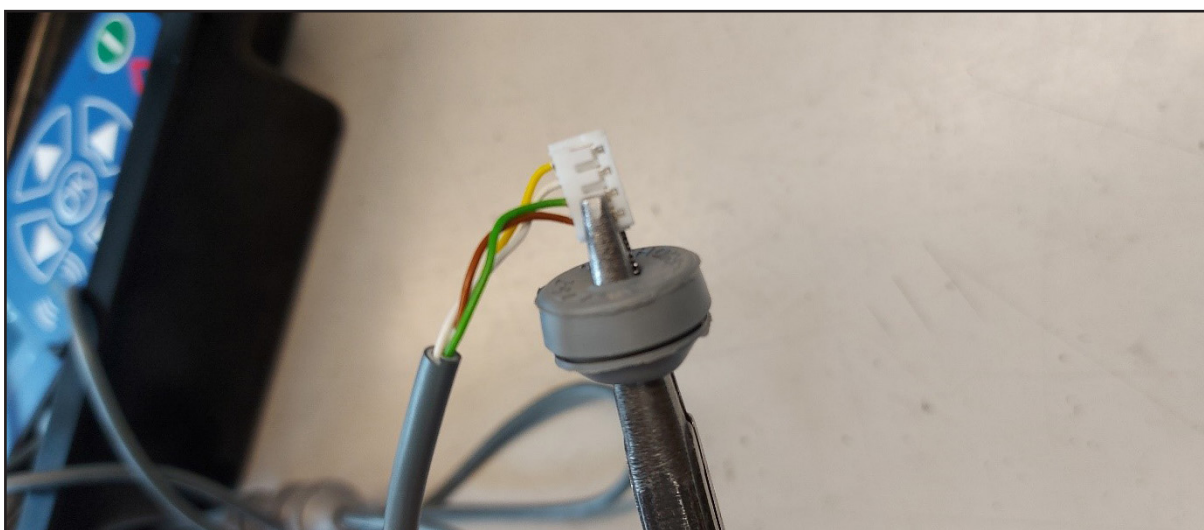
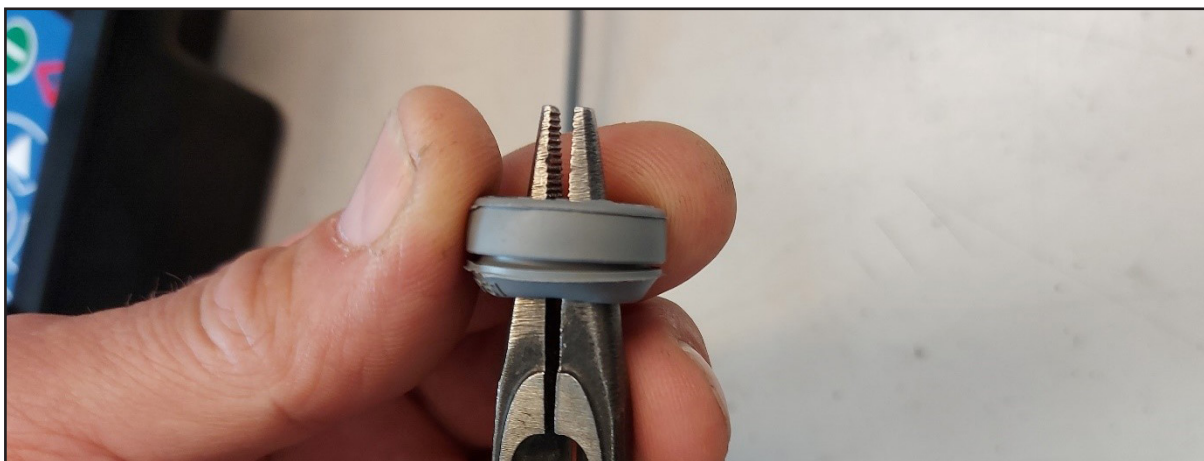
- 1) Réglez le commutateur sur 1, 2 ou 3 en fonction du numéro de la rangée où se trouve la pompe (en comptant à partir du contrôleur).
- 2) Installez de nouveaux câbles de communication pour le débit et les données modbus de la pompe 1 à 2 à 3.



Installez le câble du moteur et le câble de température du moteur.

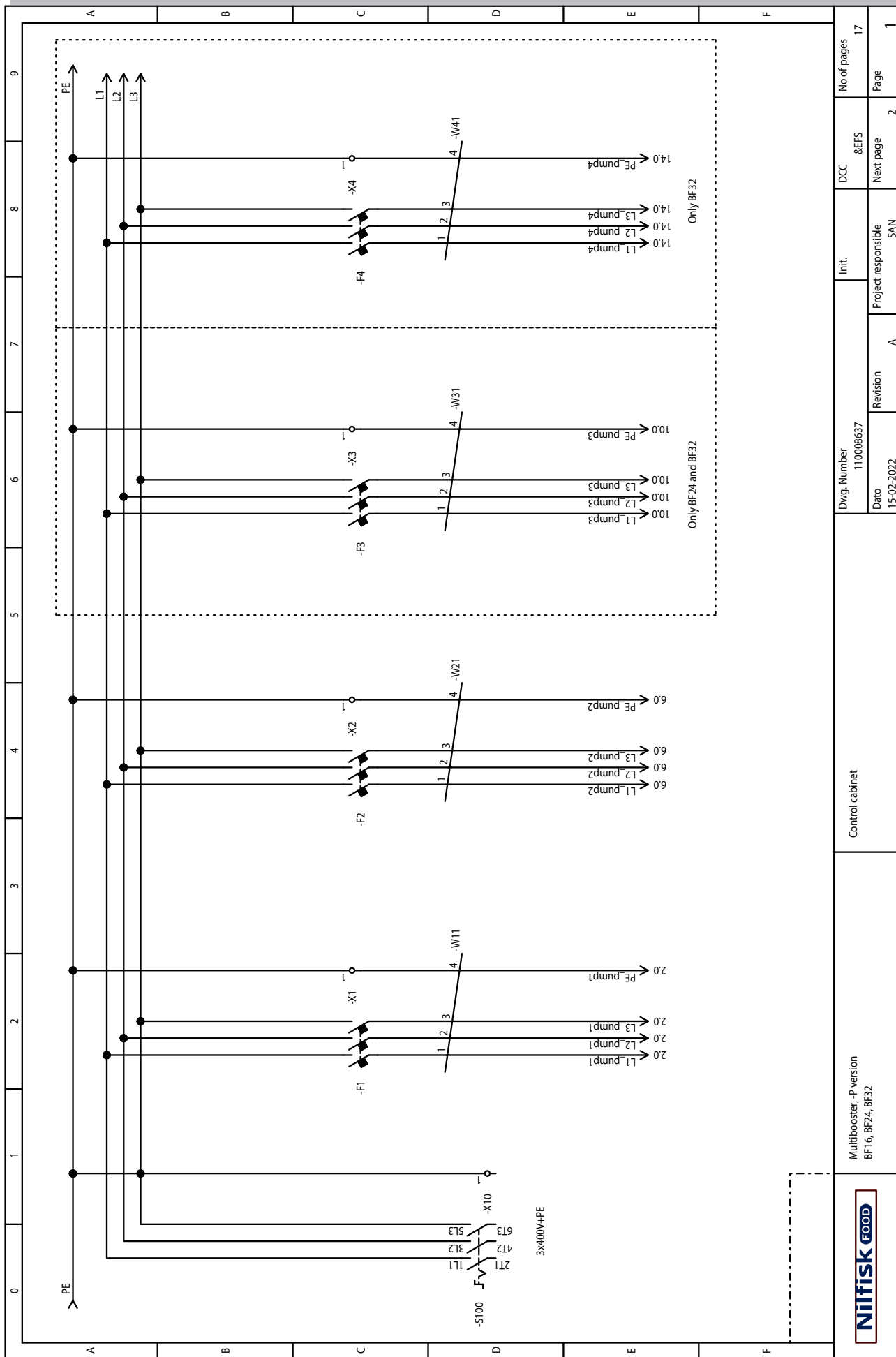
- 3) Ouvrez l'arrivée d'eau vers la pompe. Vérifier l'absence de fuites.
- 4) Désaérage de la pompe.
- 6) Installez le câble d'alimentation électrique marqués des numéros 1-3 et mettez le système sous tension. Veuillez également consulter l'illustratio au-dessus de.
- 7) Attendez que la LED OFF émette une lumière constante (20-30 secondes).
- 8) Installation sur l'écran
 - Réglez l'affichage pour le type de machine concerné par les paramètres. Le type de machine est indiqué sur la plaque signalétique.
 - Réglez l'heure et la date dans les paramètres
 - Réglez les paramètres spécifiques à l'utilisateur
- 8) Testez l'unité.

5. Pose de câbles

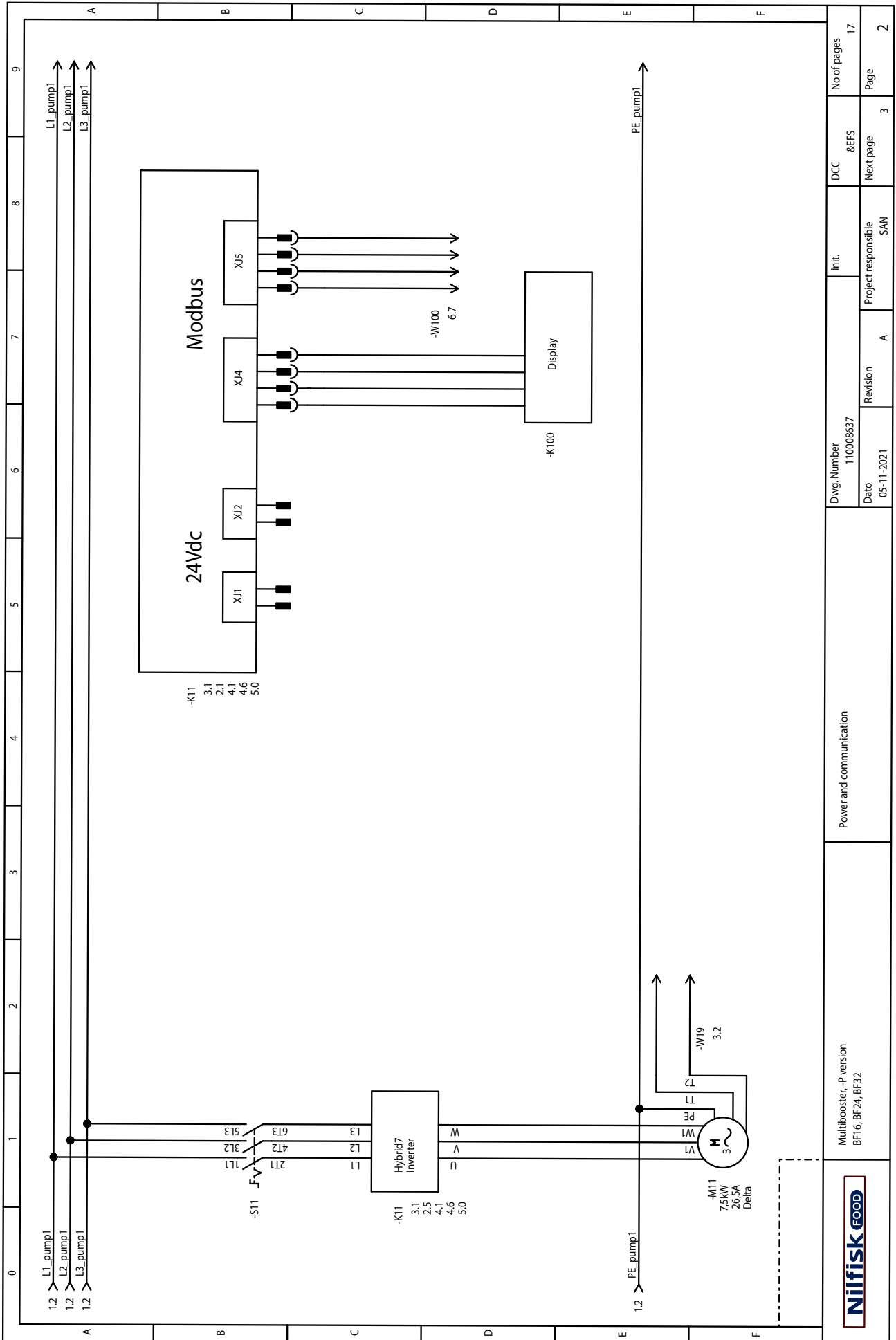


NB! Les couleurs des câbles peuvent varier de temps en temps.

6. Diagramme



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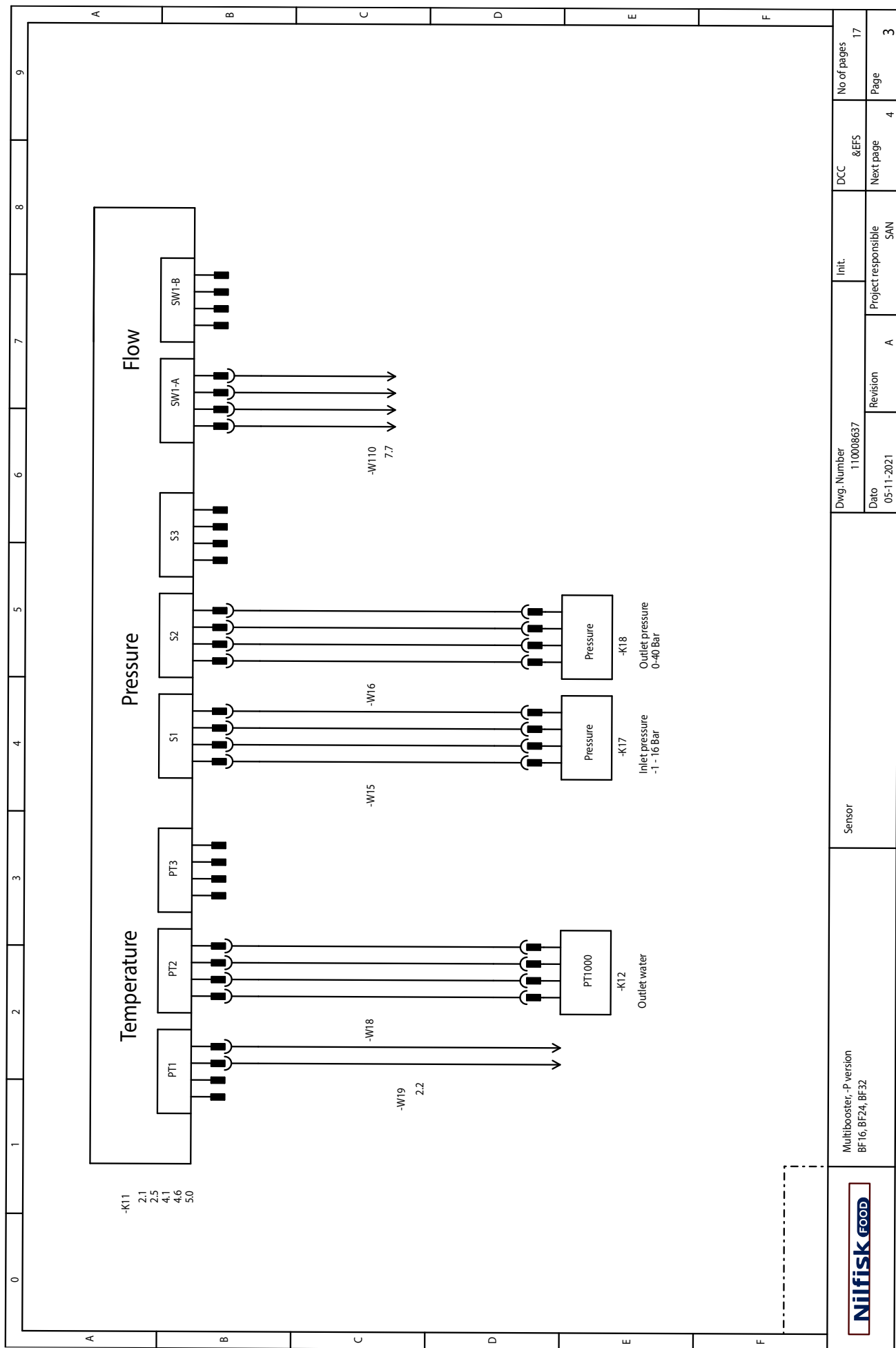


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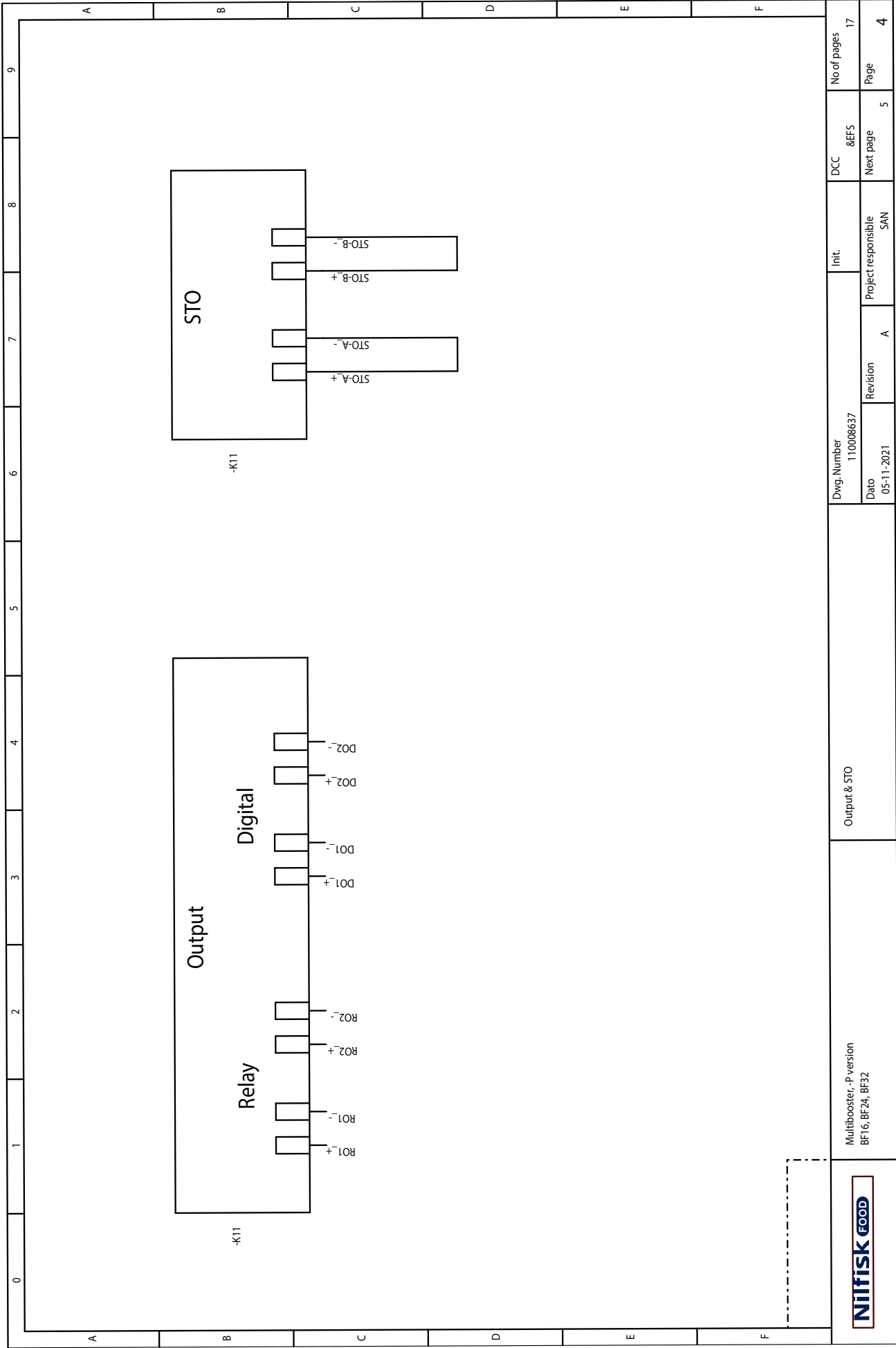
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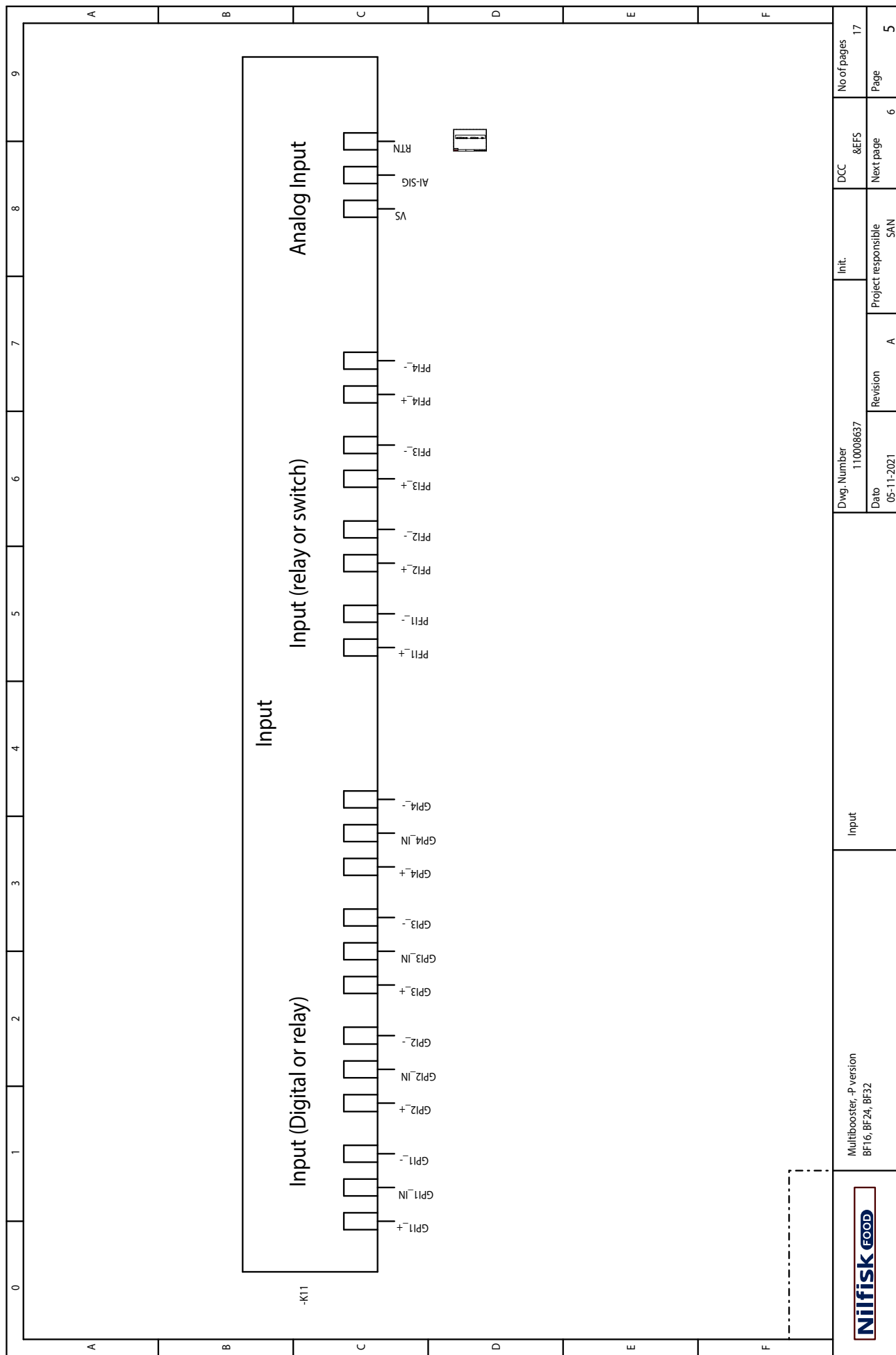


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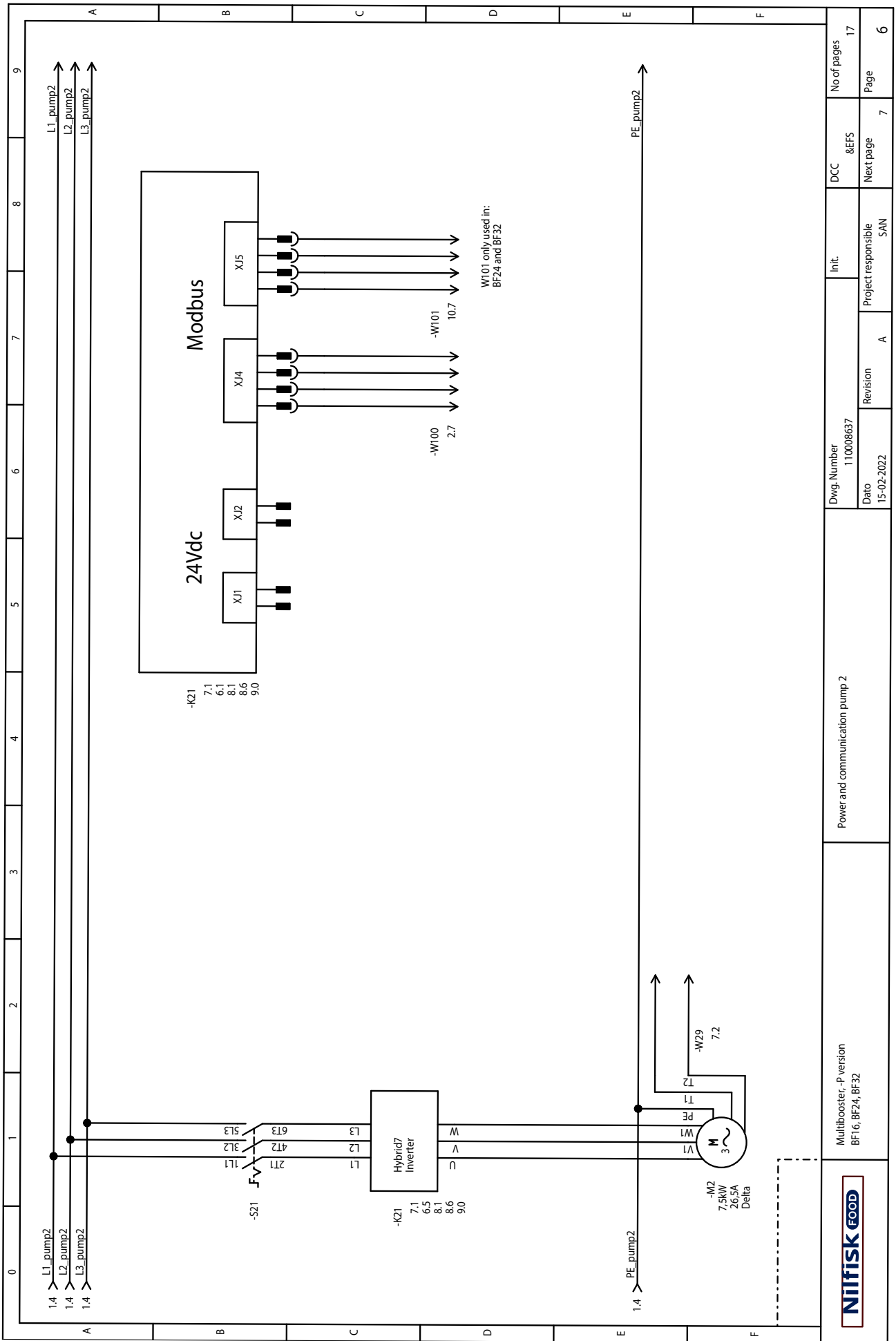


Nilfisk FOOD

Multibooster -P version
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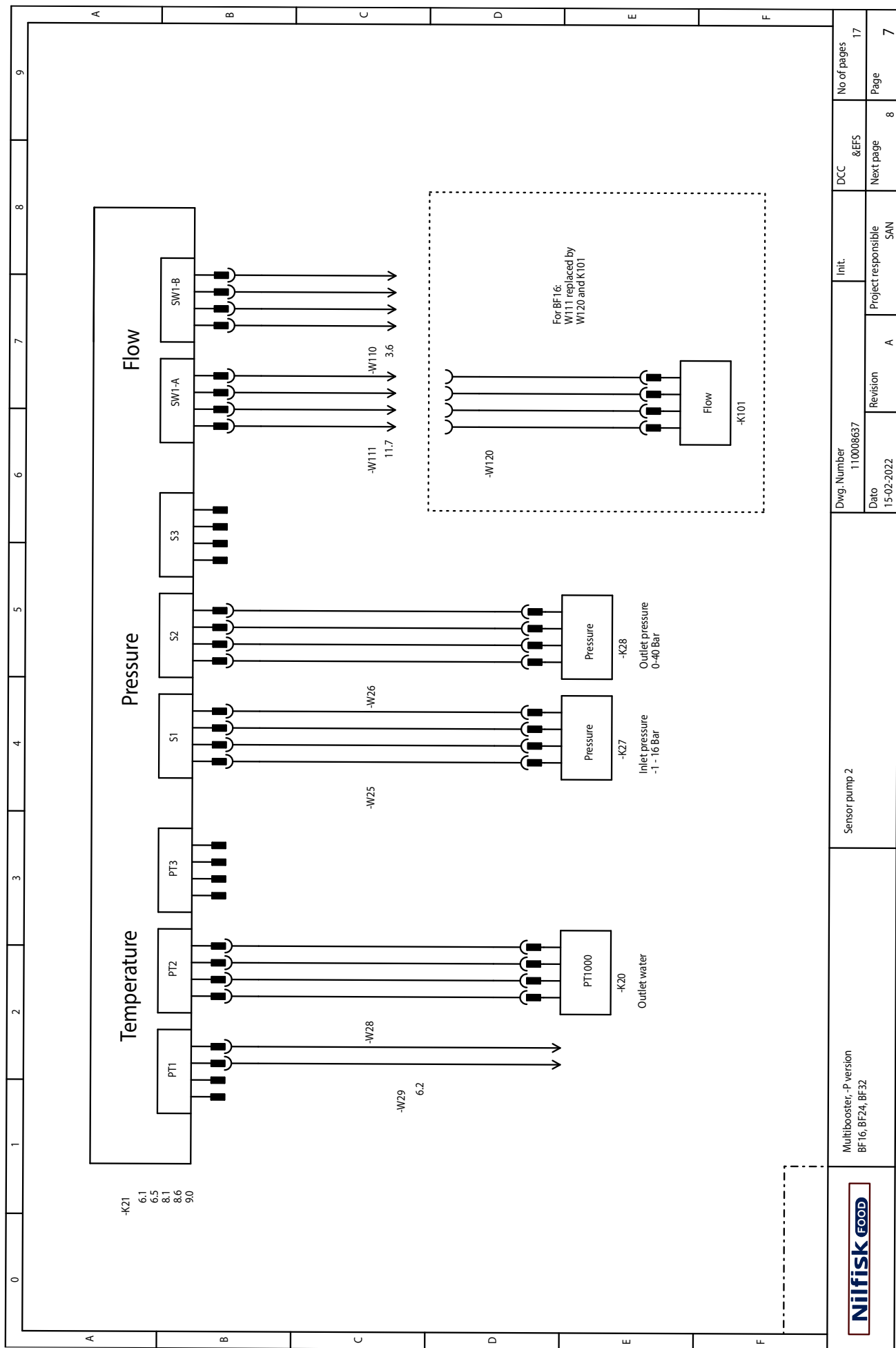
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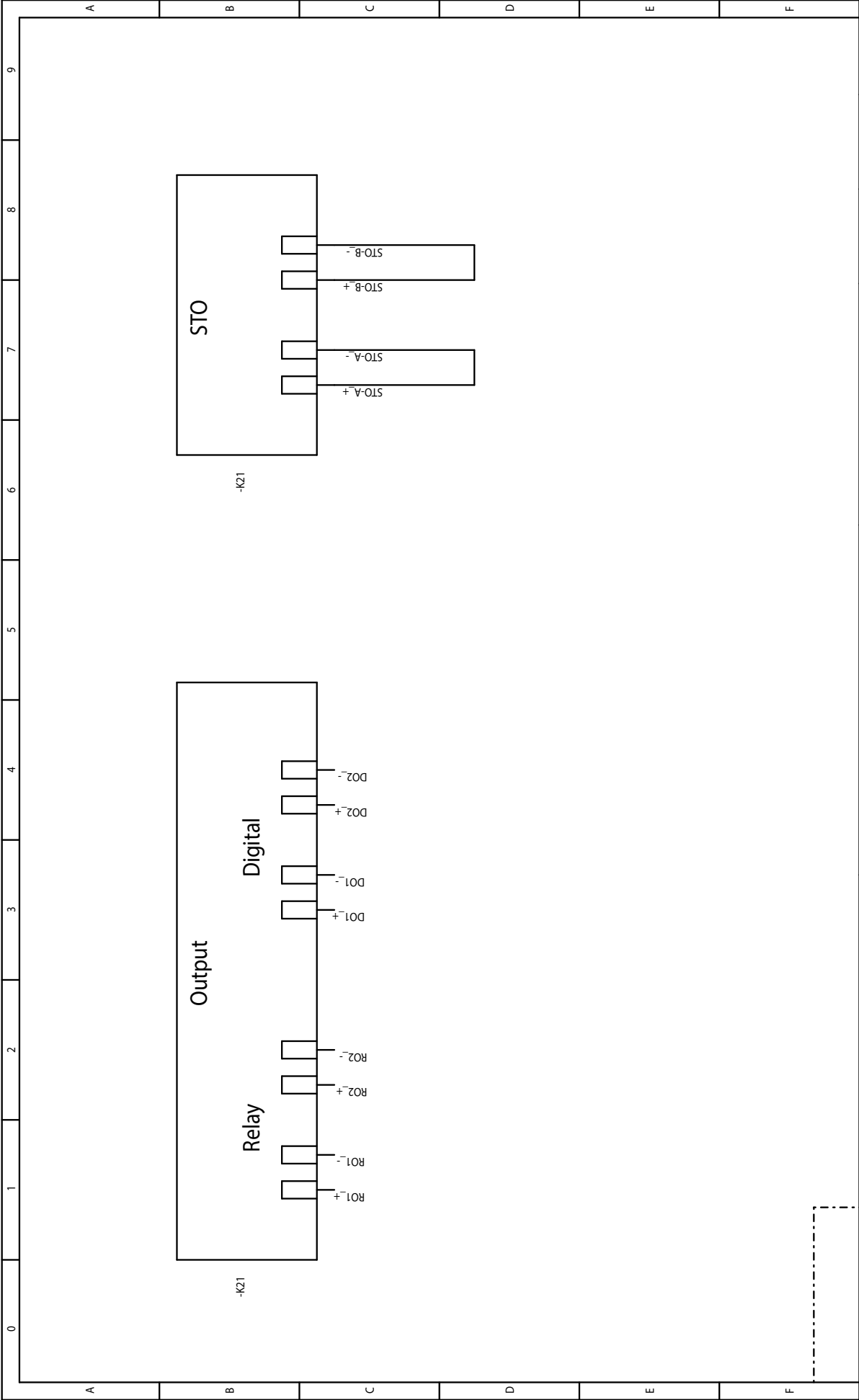
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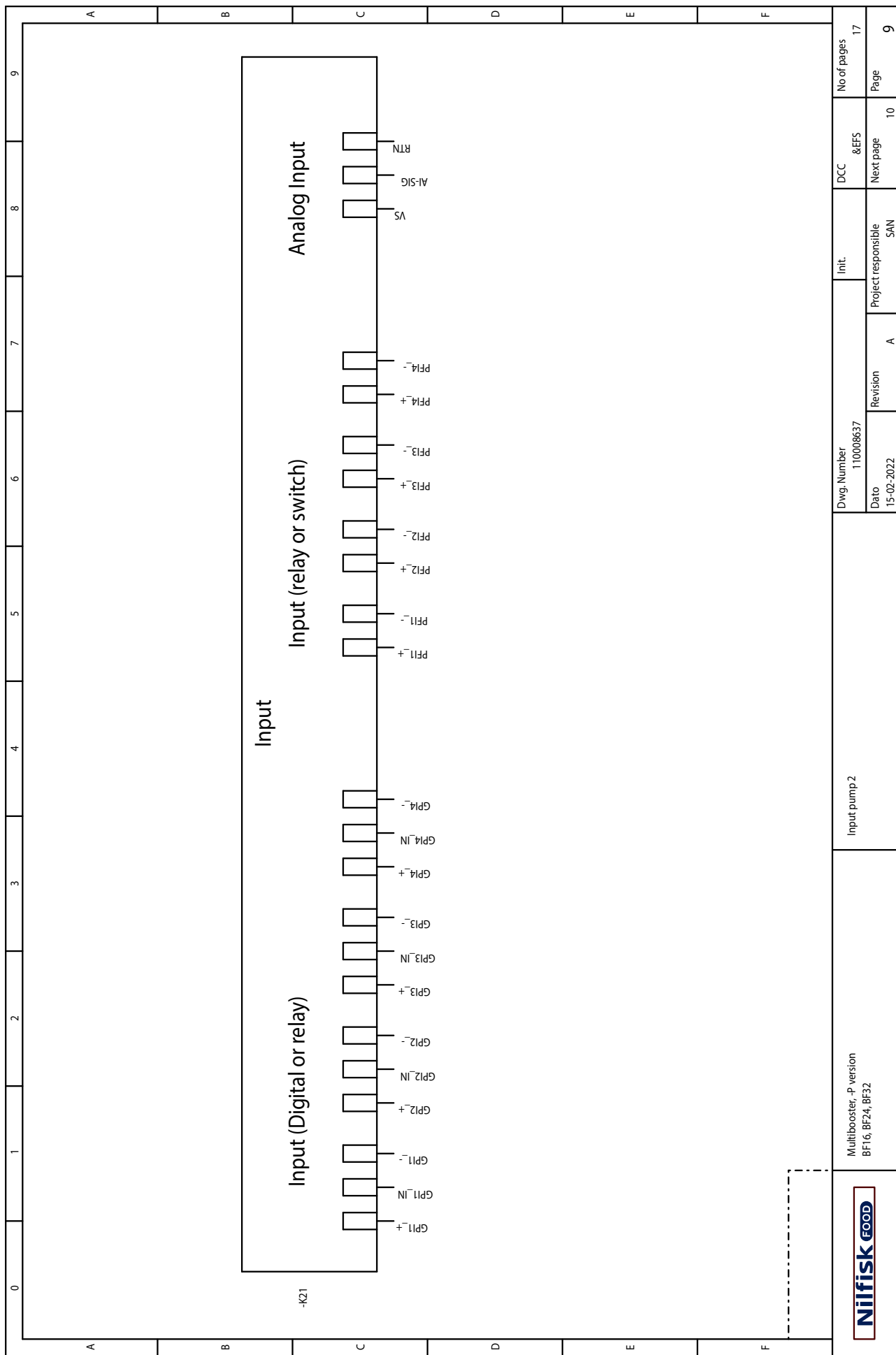
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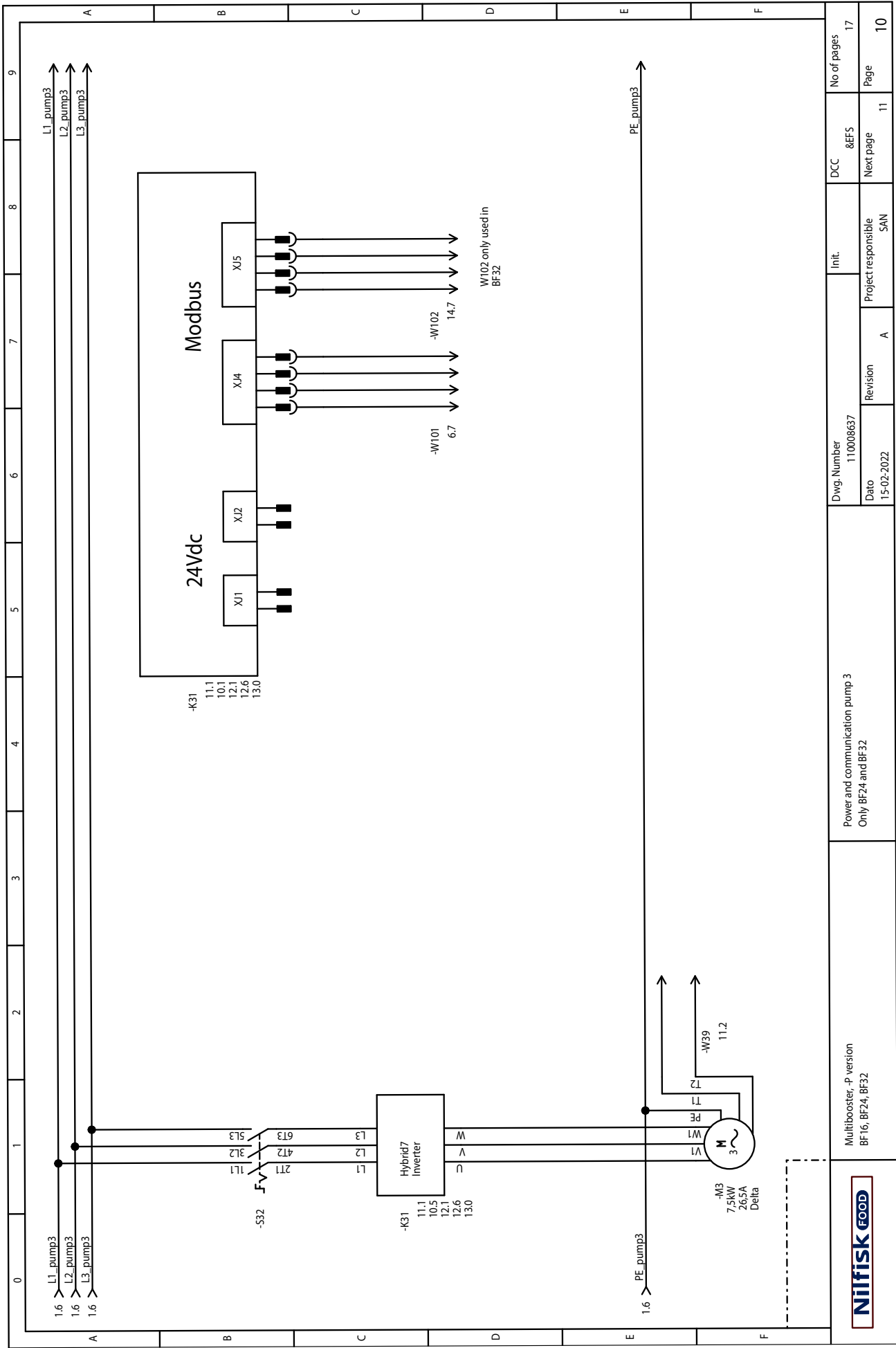


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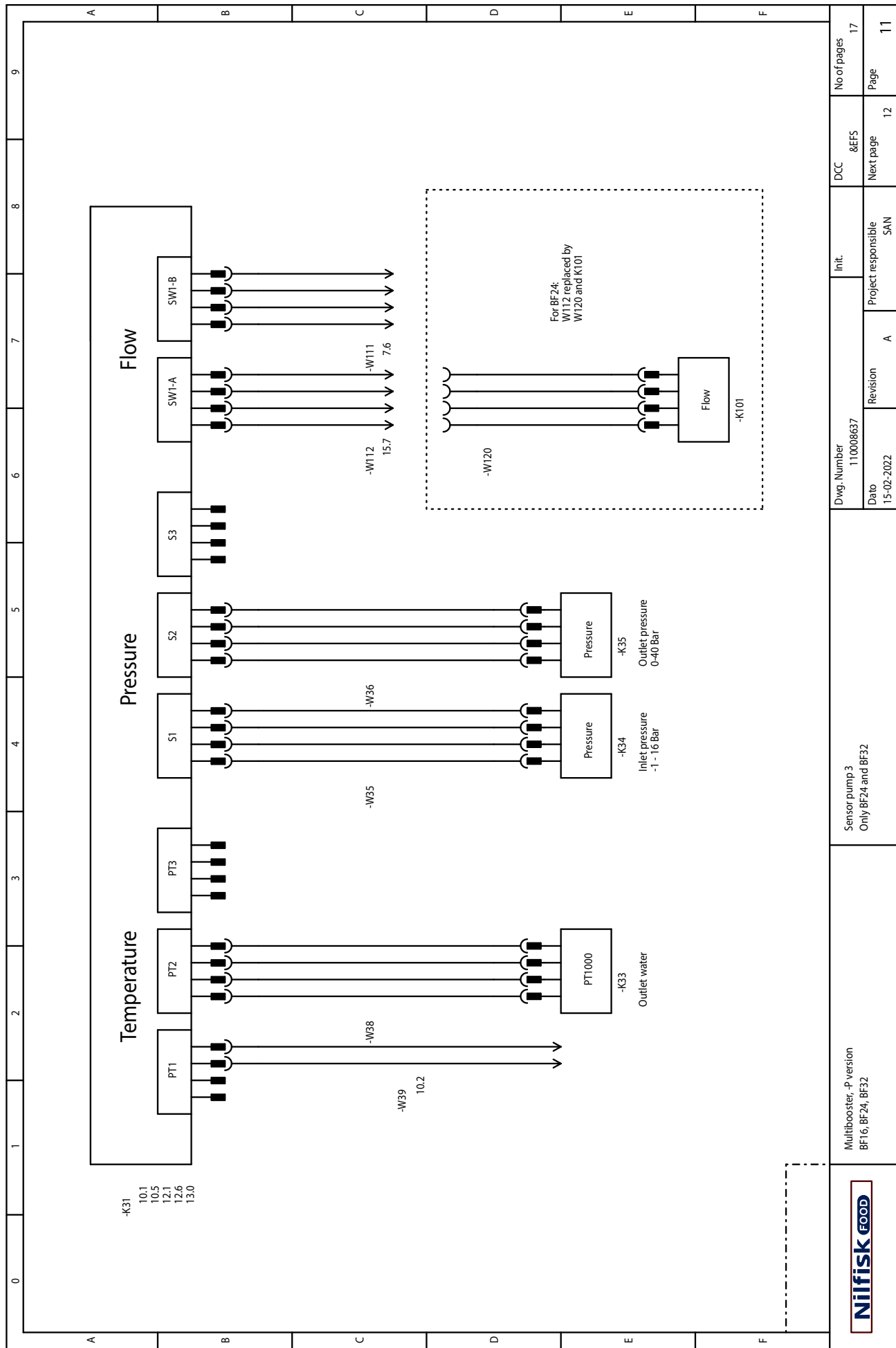
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-K31
10.1
10.5
12.1
12.6
13.0

Temperature

Pressure

Flow

For BF24:
W112 replaced by
W120 and K101

Multibooster, P version
BF16, BF24, BF32

Sensor pump 3
Only BF24 and BF32

Dwg. Number
110008637

Init.

DCC &EFS

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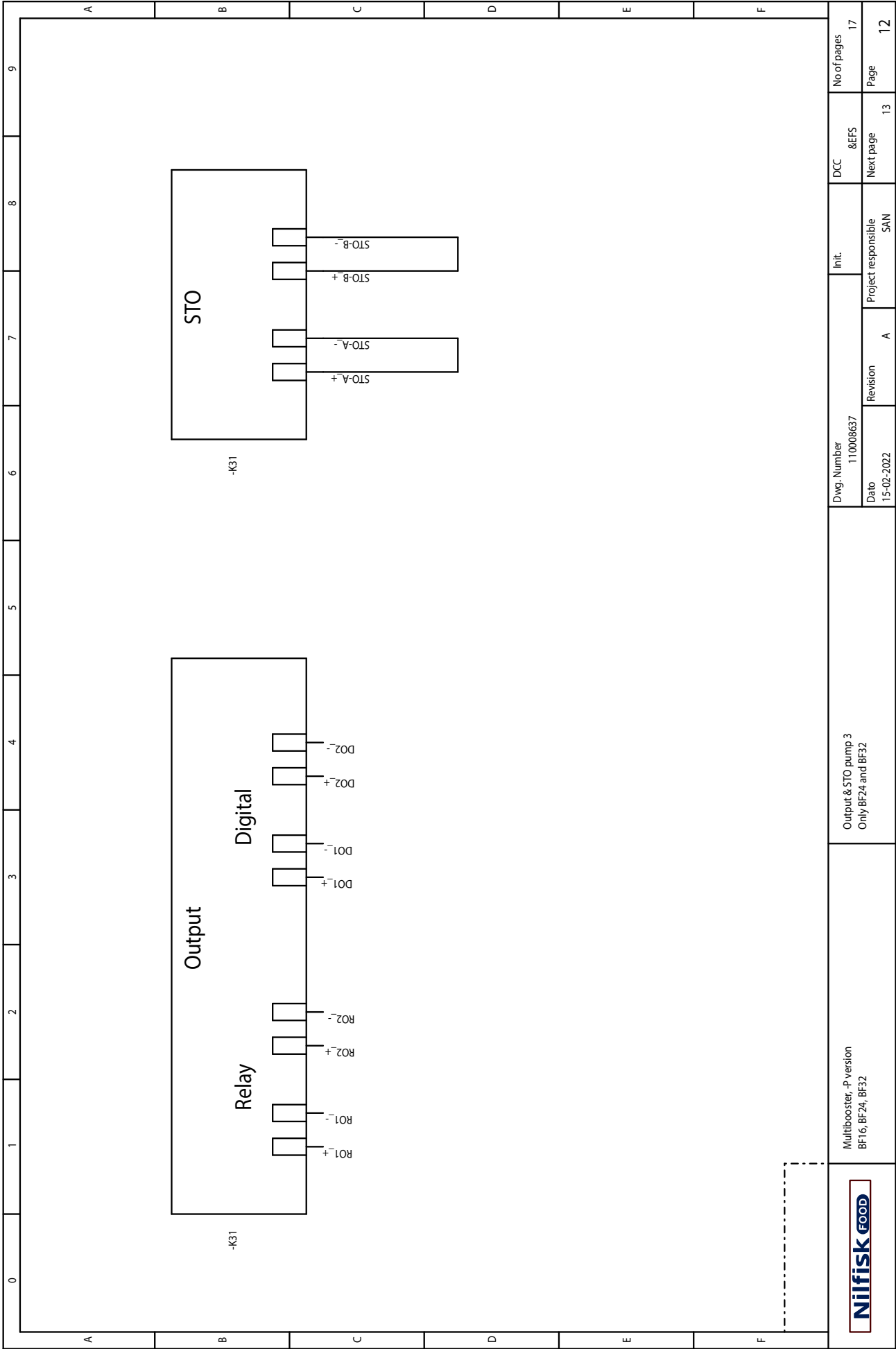
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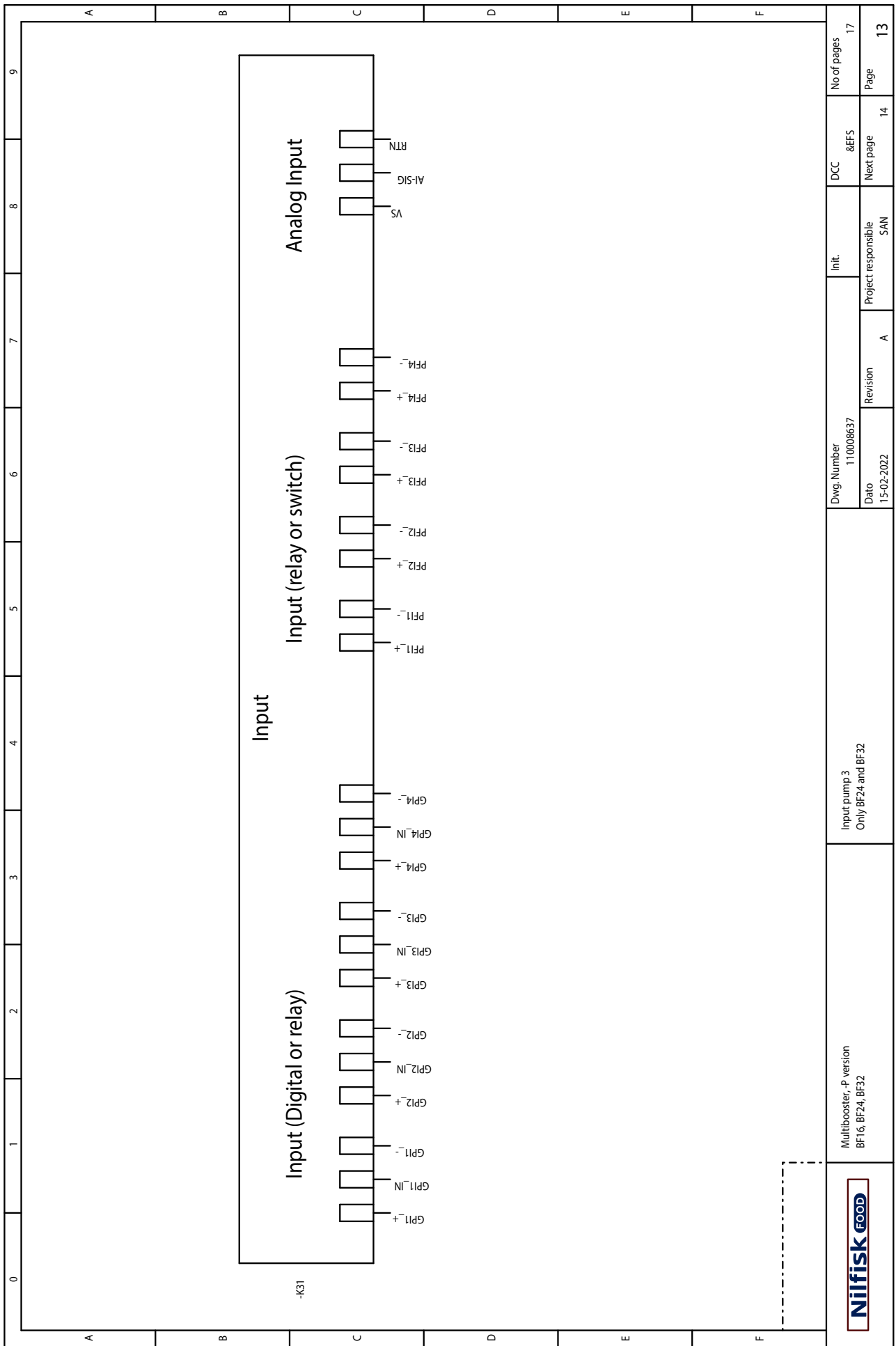
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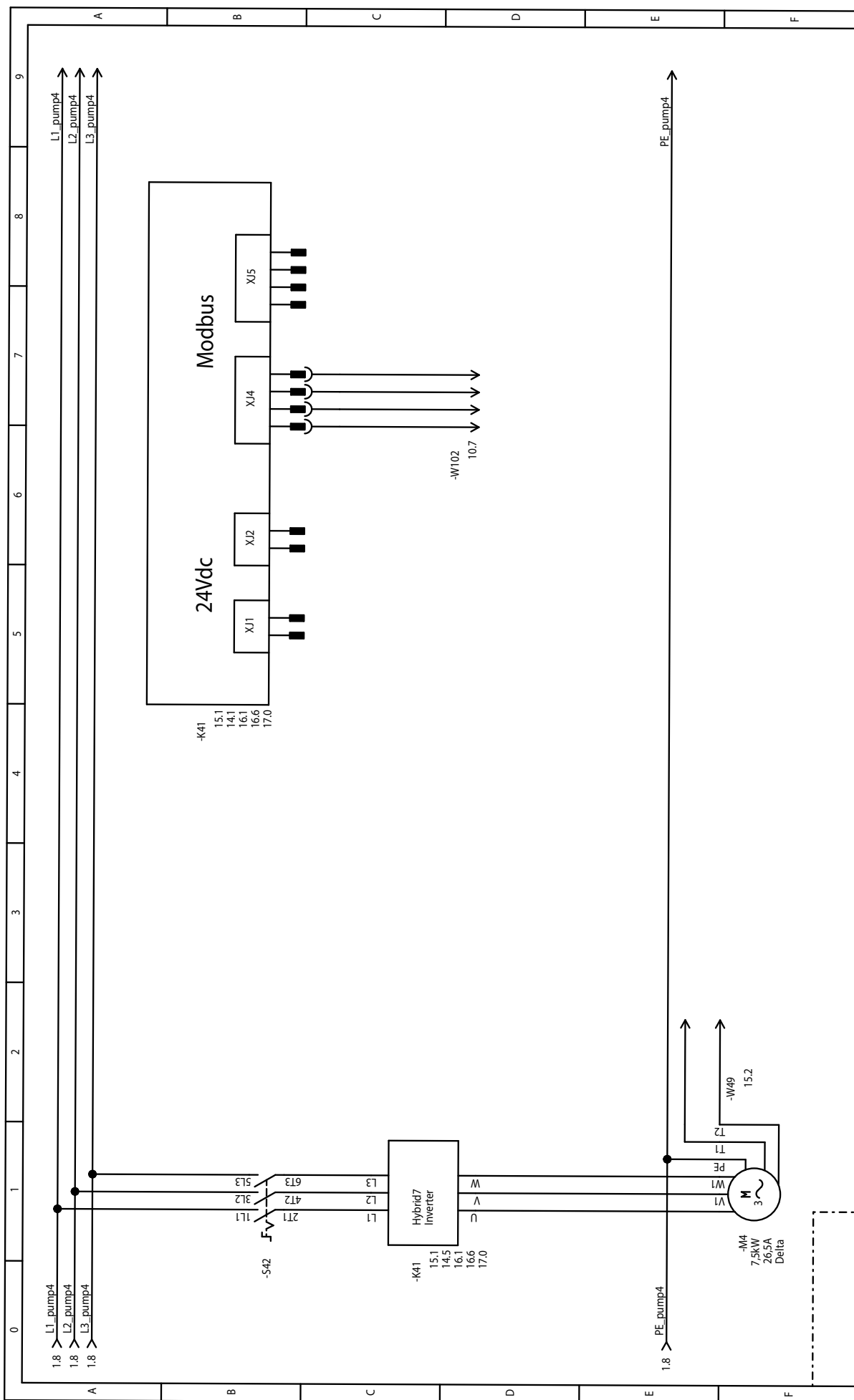
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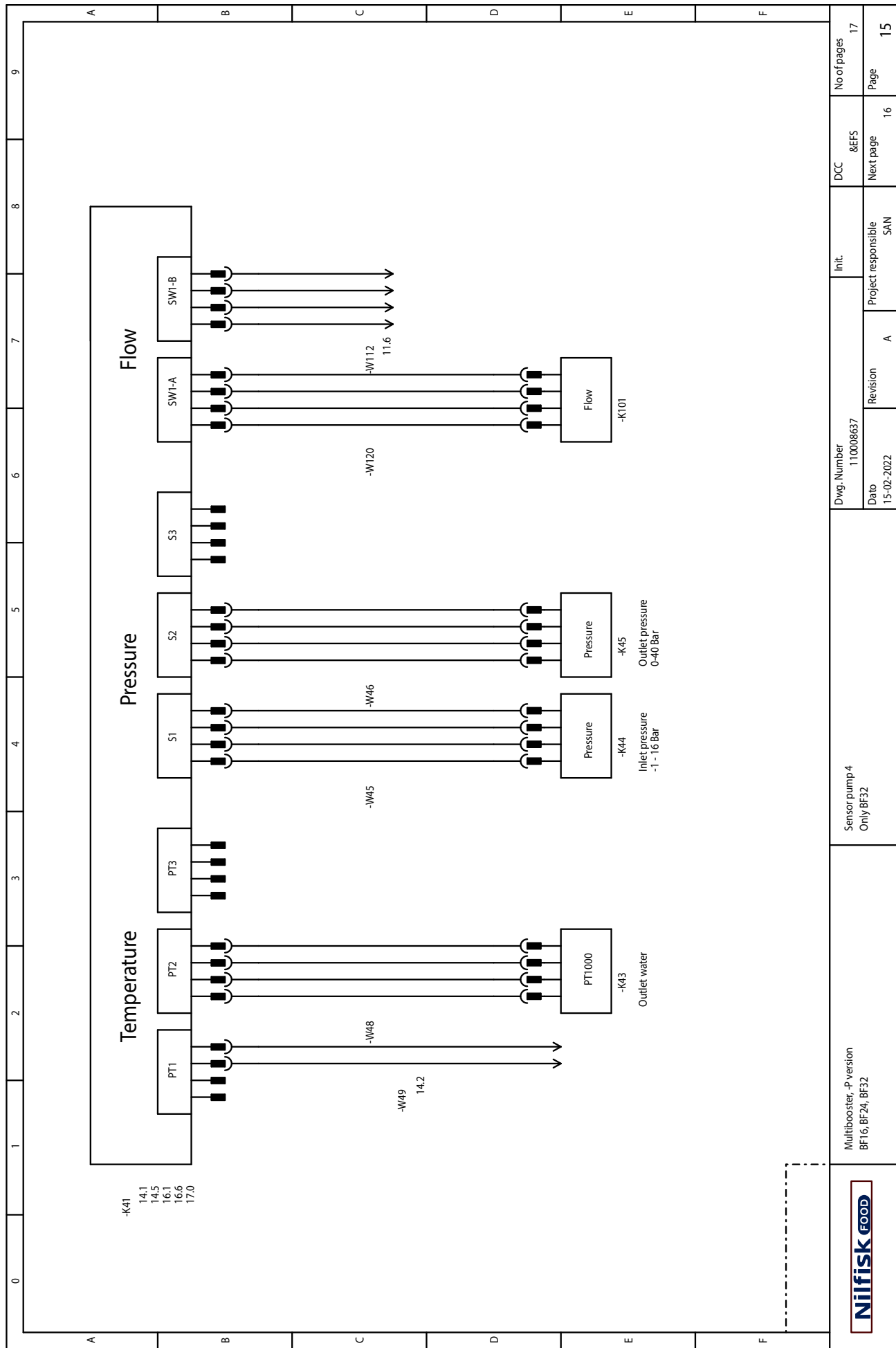




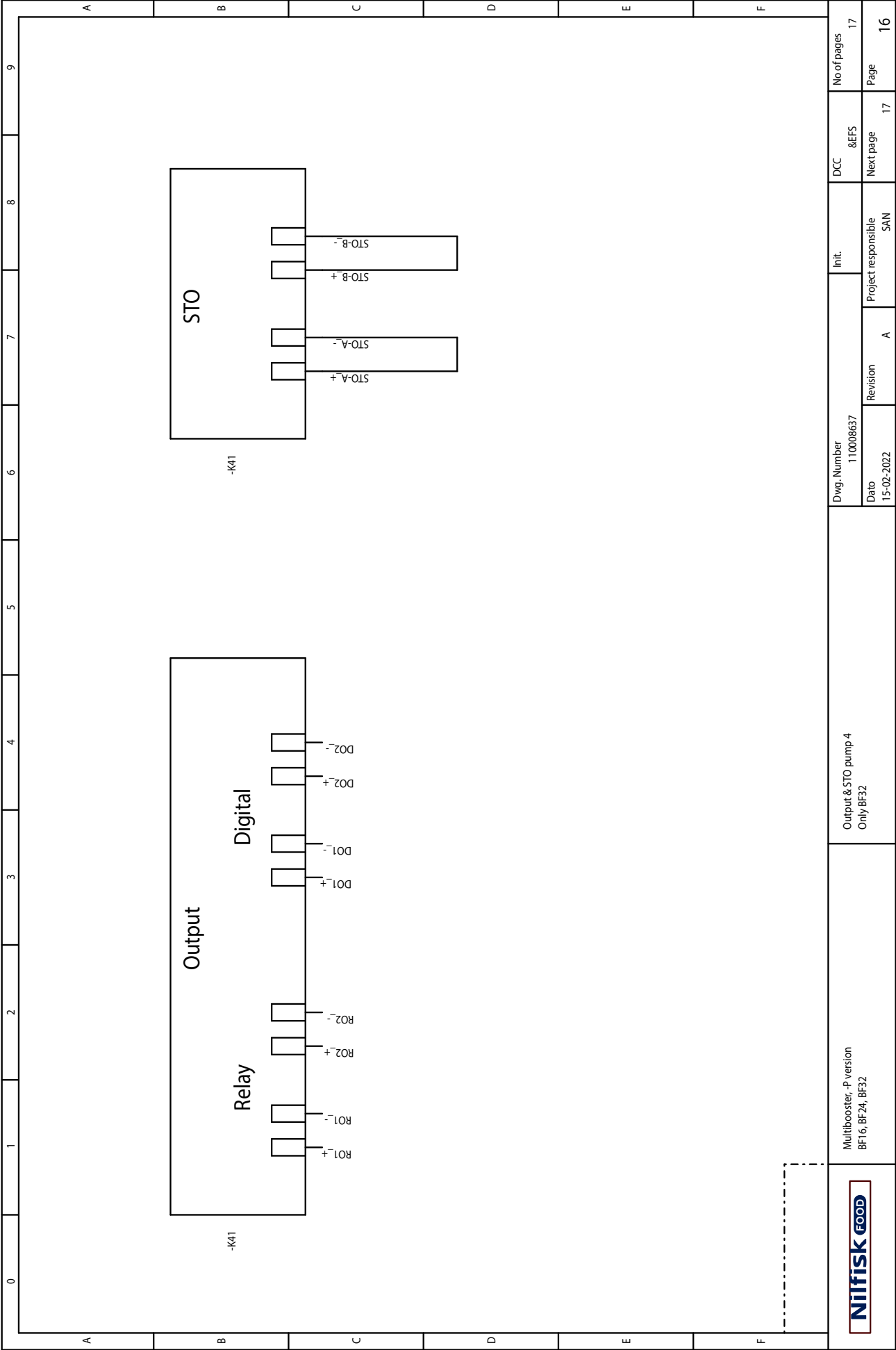
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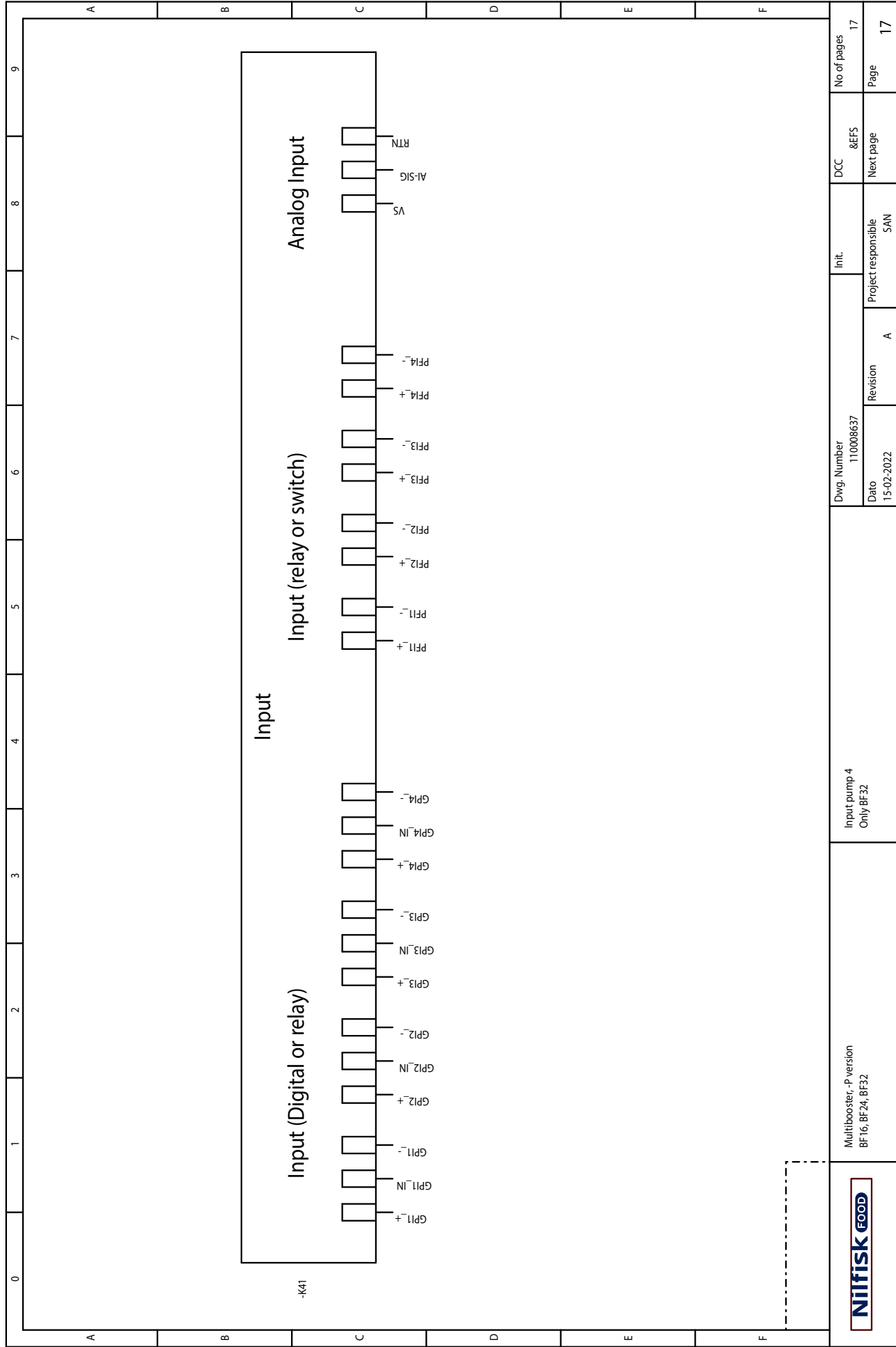
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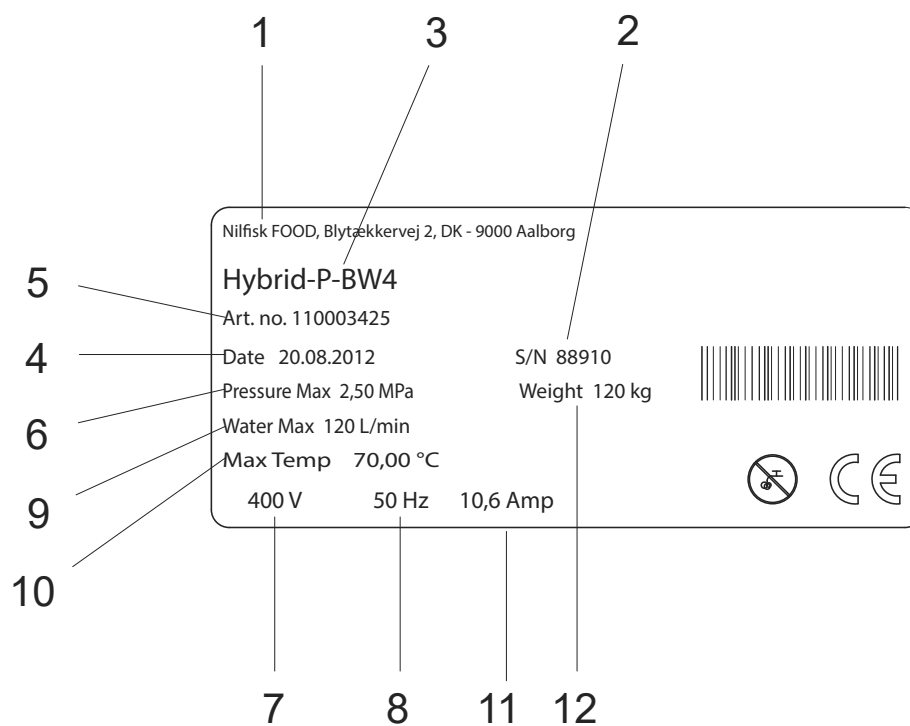
1. Tabla de contenido

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2. Símbolos utilizados en este documento

	<p>Lea antes de usar.</p>
	<p>Lleve gafas siempre que use la unidad.</p>
	<p>Lleve guantes y ropa adecuada cuando use la unidad.</p>
	<p>Nota: Situación potencialmente peligrosa. Posibles consecuencias: El producto o cualquier objeto que se encuentre cerca podría dañarse.</p>
	<p>Precaución: Situación peligrosa. Posibles consecuencias: lesiones leves o menores. También puede usarse como advertencia por daños a la propiedad u otros bienes.</p>
	<p>Advertencia: Situación potencialmente peligrosa. Posibles consecuencias: Prevención de muertes o lesiones graves.</p>
	<p>Peligro Situación peligrosa. Posibles consecuencias. Prevención de muertes o lesiones graves.</p>
	<p>Peligro Riesgo de descarga eléctrica. Posibles consecuencias. Prevención de muertes o lesiones graves.</p>
	<p>Superficies calientes ¡Riesgo de quemaduras! Posibles consecuencias. Prevención de lesiones graves.</p>

2.1. Placa de identificación



1. Fabricante
2. Núm. de serie
3. Tipo
4. Fecha de fabricación
5. N° de artículo
6. Presión máxima
7. Tensión de suministro
8. Frecuencia
9. Consumo máximo de agua
10. Temperatura máxima
11. Corriente
12. Peso

2.2. Proveedor

Nilfisk FOOD
 Blytækkervej 2
 DK-9000 Aalborg, Dinamarca
 Tel.: +45 7218 2000
 CVR núm. 6257 2213
 www.nilfiskfood.com

3. Reparaciones y herramientas

El servicio solo podrá llevarlo a cabo personal cualificado y autorizado y de acuerdo con la legislación local.

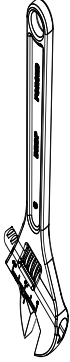

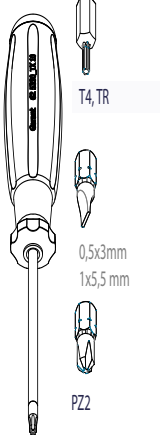
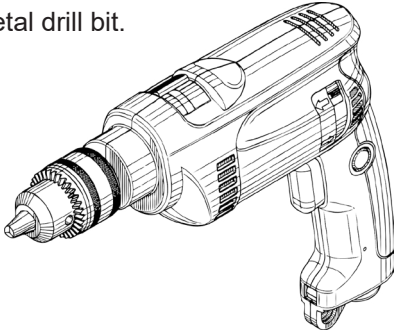


PRECAUCIÓN

El servicio solo debe llevarse a cabo cuando no haya tensión ni presión en el sistema.

1. Abra una salida de agua para despresurizar el sistema.
2. Apague el interruptor principal en el cuadro de controles.




Herramientas necesarias

	 <p>9, 22, 29 mm</p> <p>10, 11, 12, 13, 14, 15, 17, 19 mm</p>
 <p>Hex 4,12</p>	
 <p>T4, TR</p> <p>0,5x3mm</p> <p>1x5,5 mm</p> <p>PZ2</p>	 <p>Ø5 metal drill bit.</p>

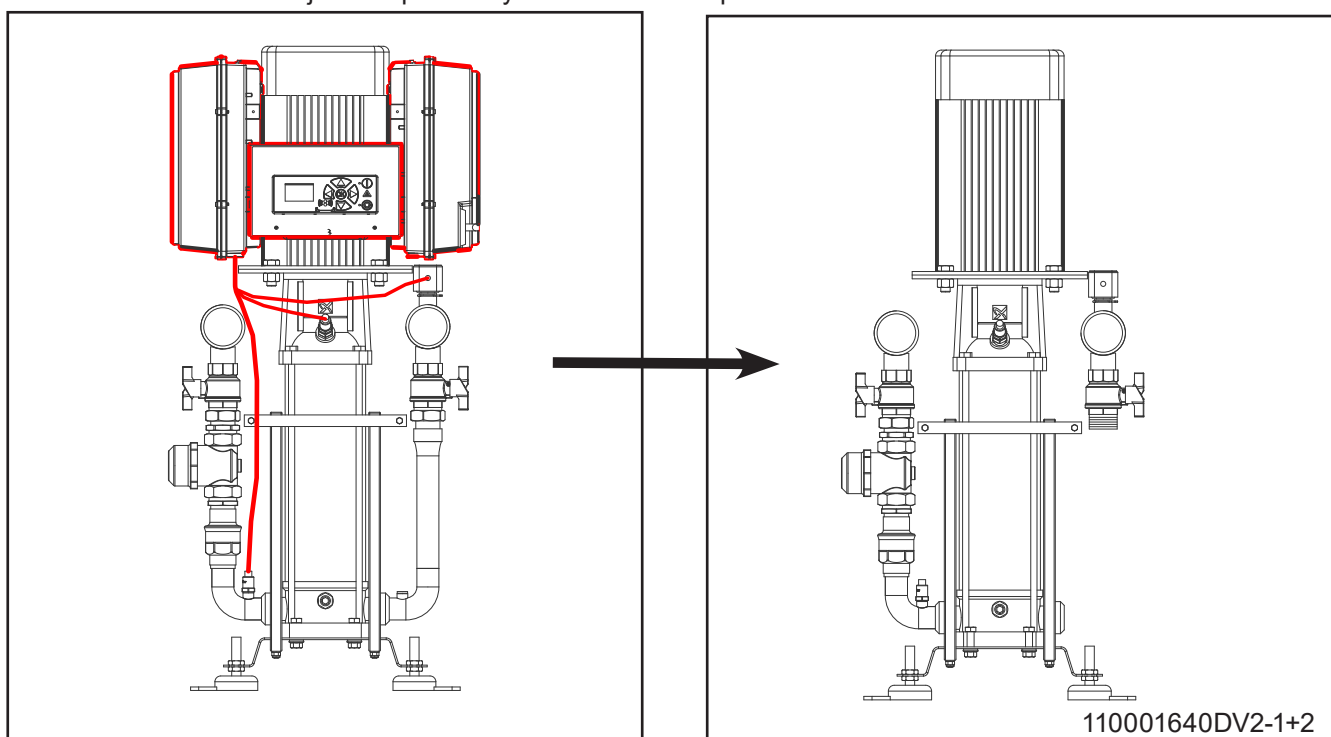
Nota: la nueva pantalla viene configurada de fábrica. Si desea mantener los ajustes de la bomba, antes de desmontarla anote en otro lugar los que se muestran en la pantalla.

4. BF16-2/BF24-3/BF32-4

4.1. Desmontaje BF16-2/BF24-3/BF32-4

	Peligro Situación peligrosa. Posibles consecuencias. Prevención de muertes o lesiones graves.
	Peligro Riesgo de descarga eléctrica. Posibles consecuencias. Prevención de muertes o lesiones graves.
	Superficies calientes ¡Riesgo de quemaduras! Posibles consecuencias. Prevención de lesiones graves.

En esta sección, se eliminan todos los componentes que deben cambiarse para utilizar el nuevo inversor. No olvide conservar la caja de la pantalla y el sensor de temperatura a utilizar en la sección de instalación.



1. Apague el suministro eléctrico.
 - Encienda el interruptor principal.
 - Apague el inversor.
 - Retire el cable de alimentación del interruptor principal.
2. Cierre el suministro de agua.
3. Abra una salida de agua para despresurizar el sistema.

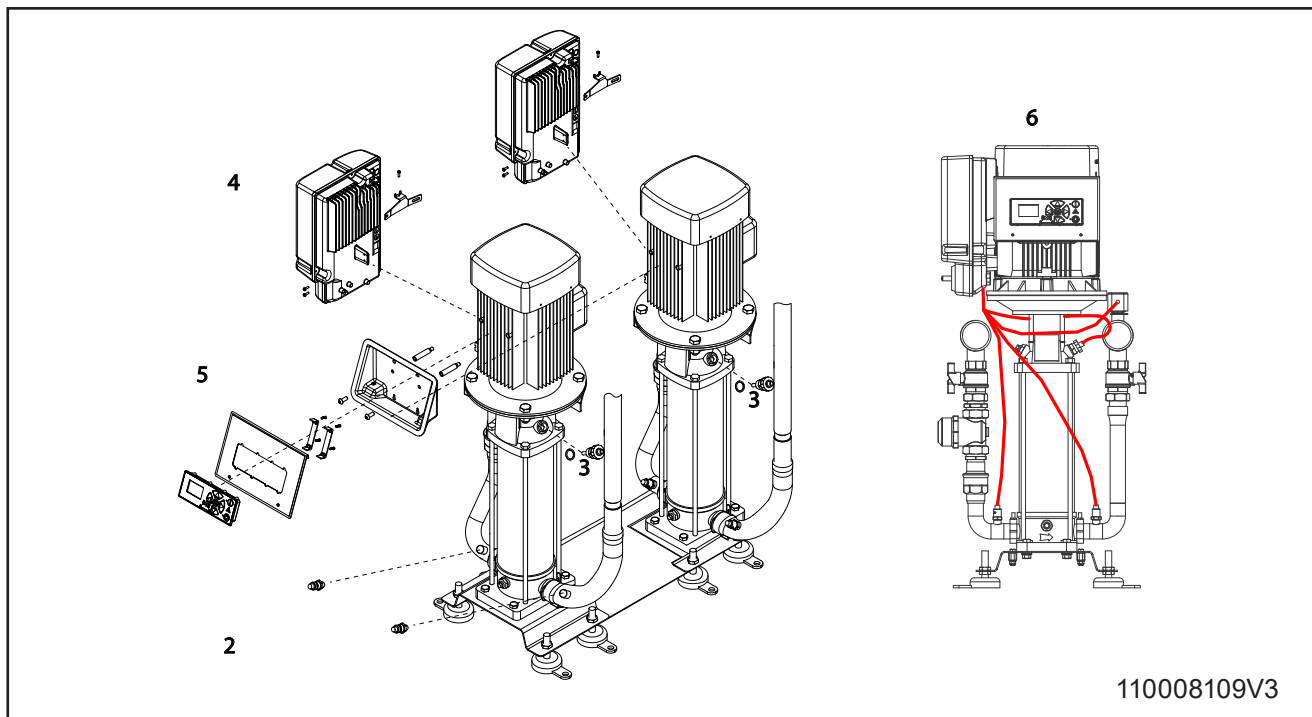
Espere 180 segundos desde que apague el inversor hasta continuar con este punto.

4. Retire el cable del motor y el cable de temperatura del motor en cada bomba.
5. Retire los 3 cables de los sensores de la parte superior de la bomba, del interruptor de caudal y de la salida de la bomba en cada bomba.
6. Retire la tapa del inversor.
7. Retire el enchufe de la pantalla del inversor.
8. Retire la caja de la pantalla.
 - Retire la pantalla vieja de la caja de la pantalla.
 - Conserve la caja de la pantalla para su posterior instalación.
9. Retire el inversor y el soporte del inversor en cada bomba.
10. Retire el tapón del tubo de salida.
11. Retire el sensor de presión de la parte superior de la bomba en cada bomba; conserve el sensor de presión para una instalación posterior.

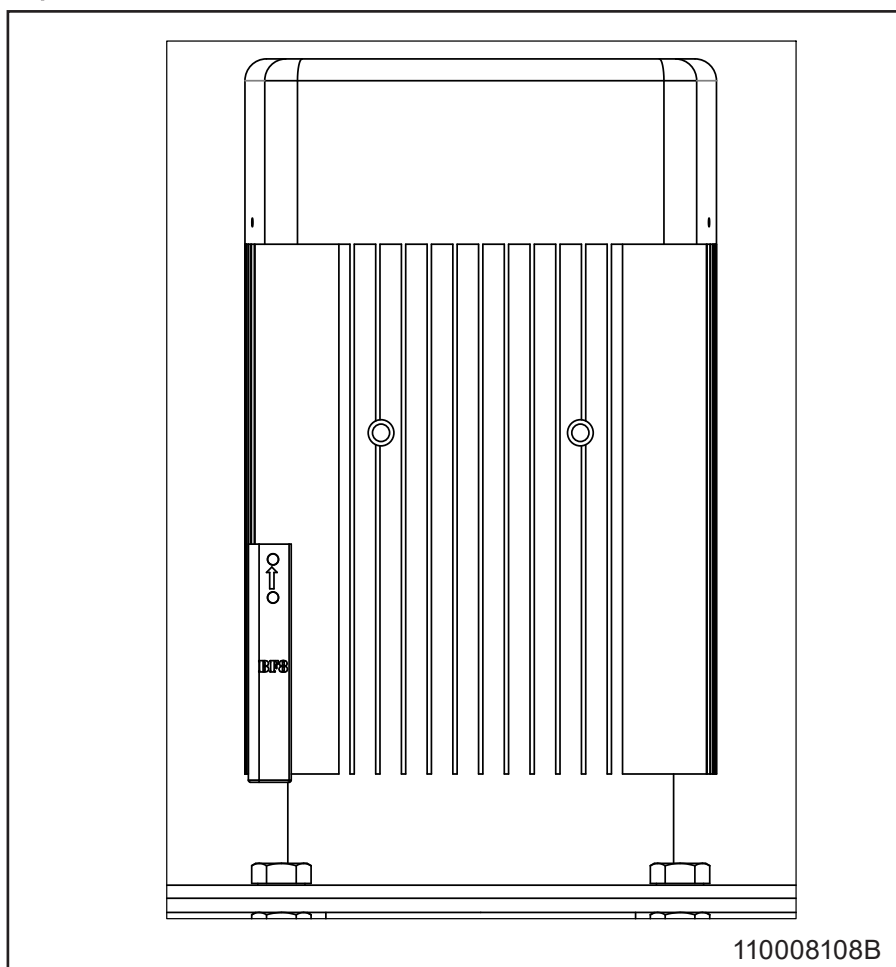
4.2. Montaje BF16-2/BF24-3/BF32-4

Esta sección describe todos los pasos para instalar el nuevo inversor y la pantalla. En caso de cualquier duda sobre cómo instalar los cables, consulte la sección de instalación de cables.

Si la unidad de refuerzo se apoya contra una pared, puede ser necesario quitar y girar la parte superior de la bomba para poder intercambiar los cables del motor. Consulte la sección de BW7 para obtener información sobre la rotación de bomba.

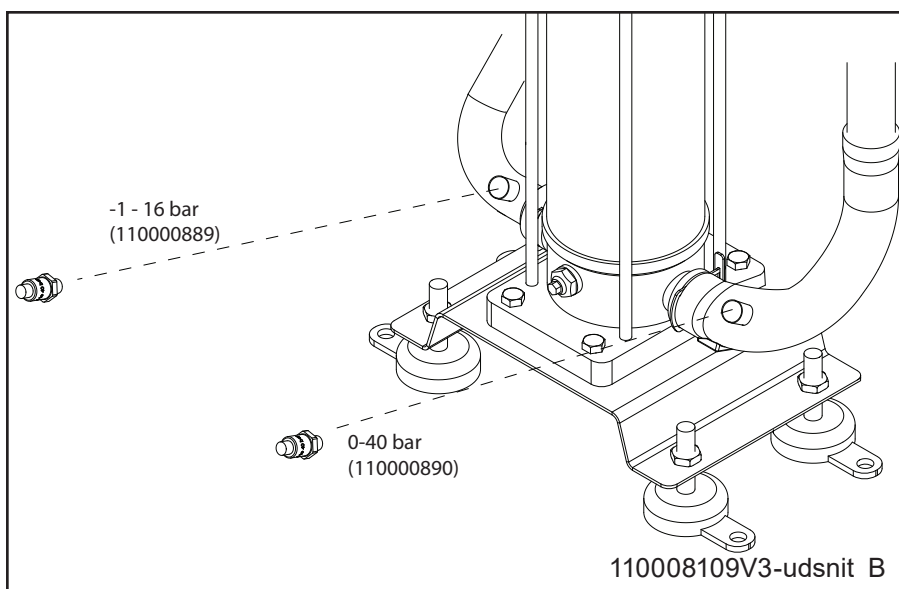


1)



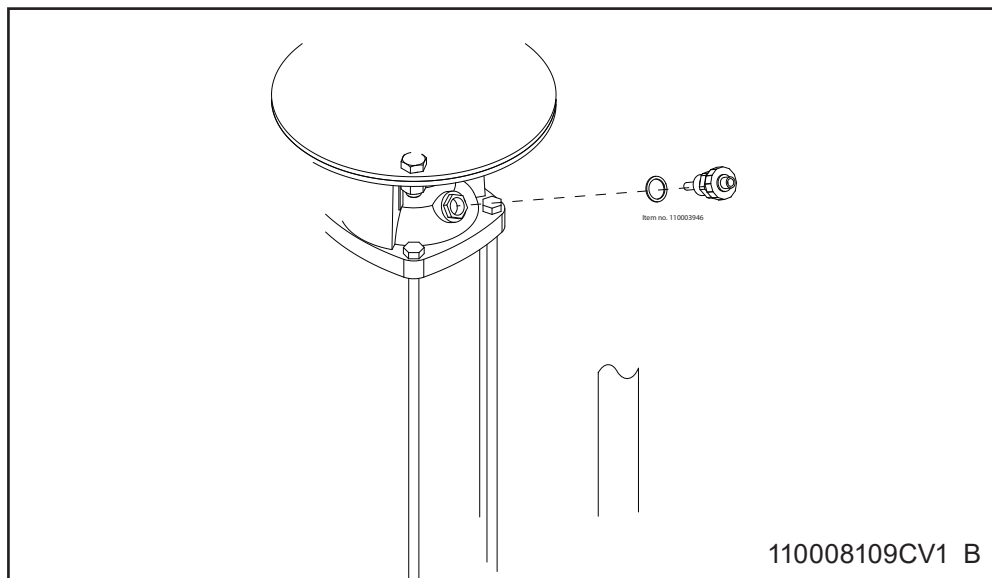
Coloque la plantilla de perforación tal como se muestra. Tala-dre la nervadura de refrigeración a través de la plantilla con un taladro de Ø5.

2)



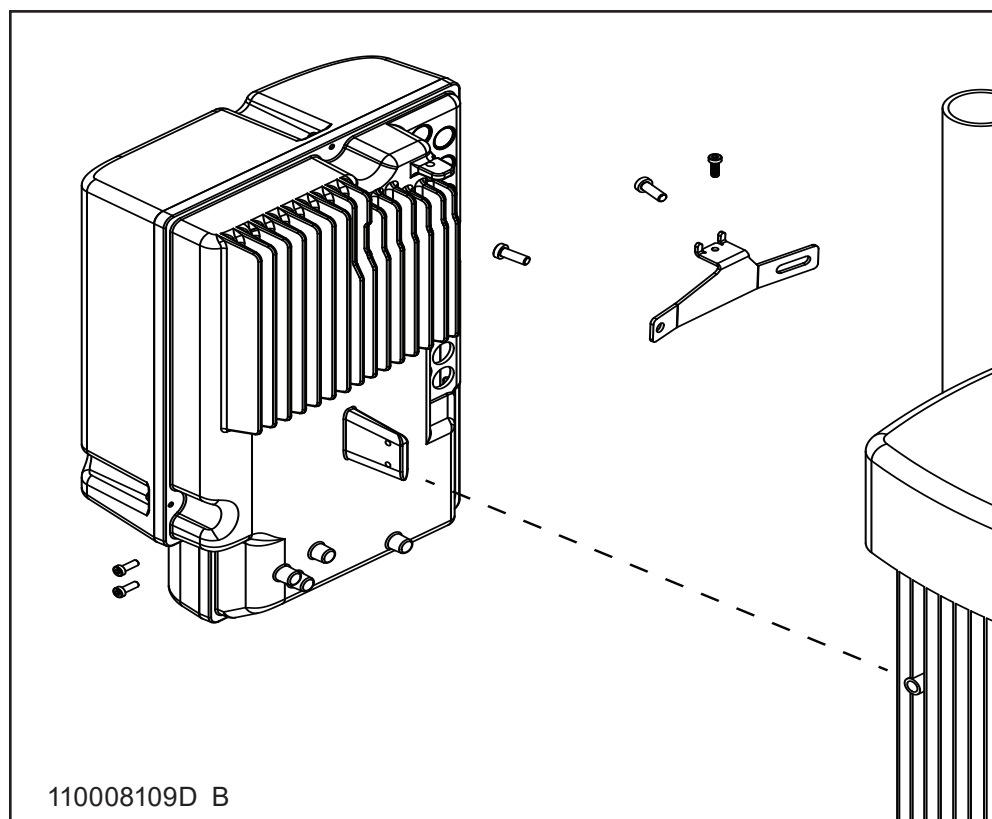
Instale el sensor de presión.

3)



Instale el sensor PT1000 y la junta en la parte superior de la bomba.

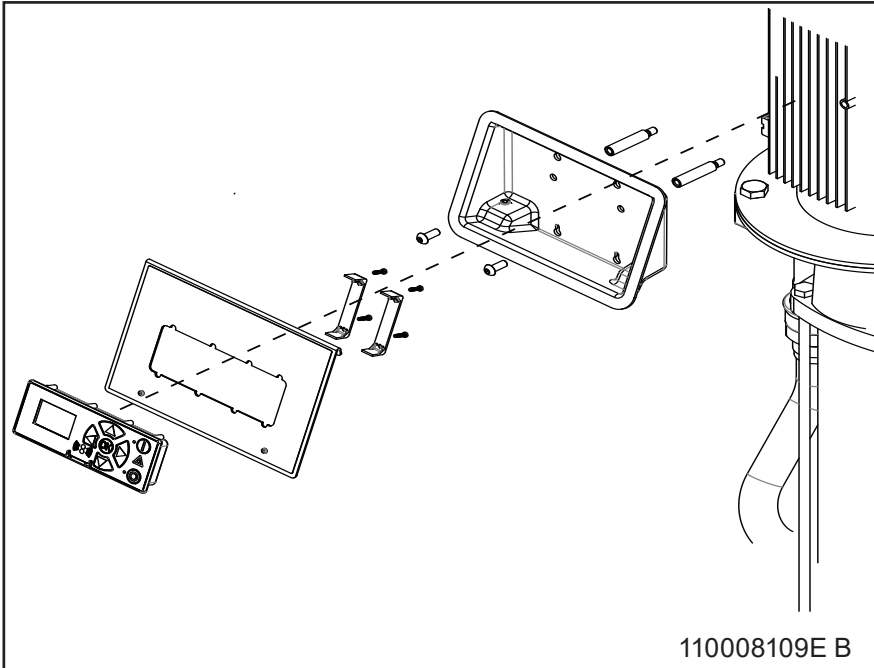
4)



Instale el inversor.

- Instale el herraje superior con 2 x M5 x 16 BH.
- Coloque el inversor en la fijación superior y fíjelo con 3 tornillos en forma de rosca M4 x 16.
- Retire la tapa del inversor.

5)

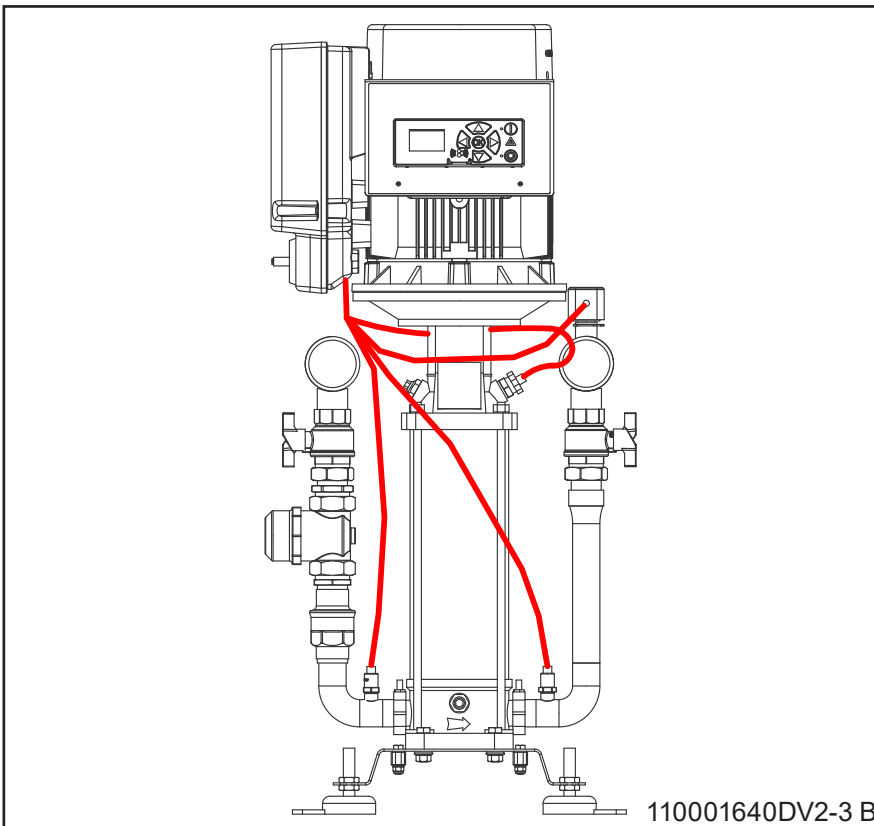


Instale la pantalla.

- Coloque 2 x soportes en la bomba.
- Instale la nueva pantalla en la caja de la pantalla.

Instale la caja de la pantalla en los soportes.

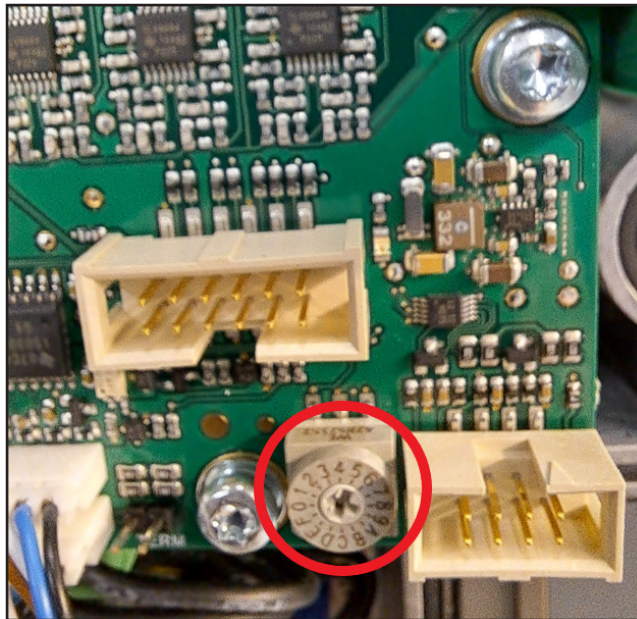
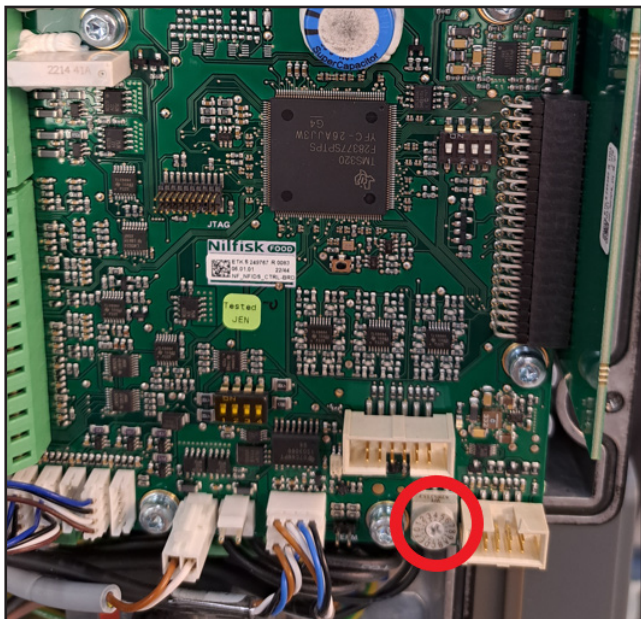
6)



Instale los cables y los enchufes (consulte la sección sobre instalación de cables).

- Instale el enchufe de la pantalla en el terminal "modbus" del inversor.
- Instale 4 cables de sensor en los sensores.
- Utilice tiras para recoger los cables.

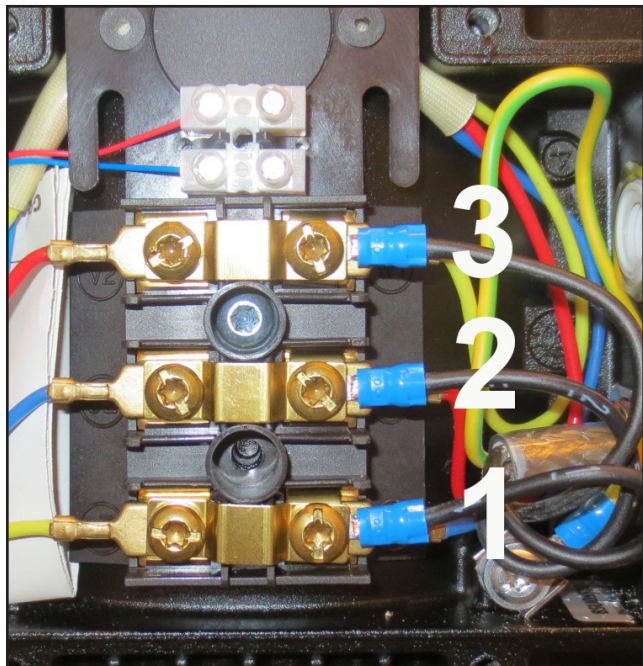
7)



Configuración del interruptor.

4.3. Puesta en marcha y comprobación

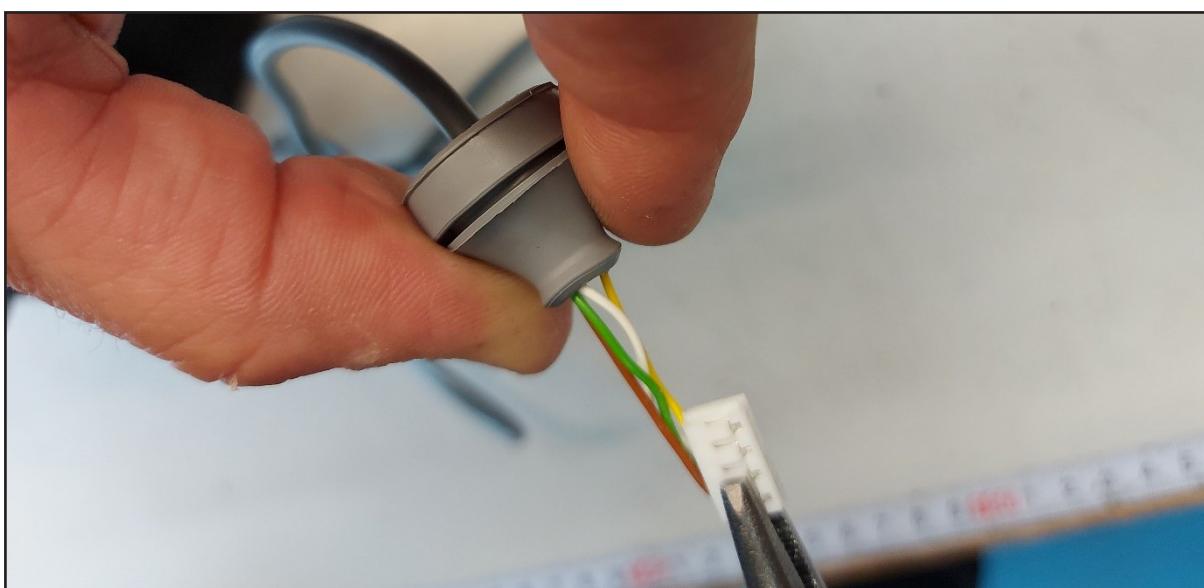
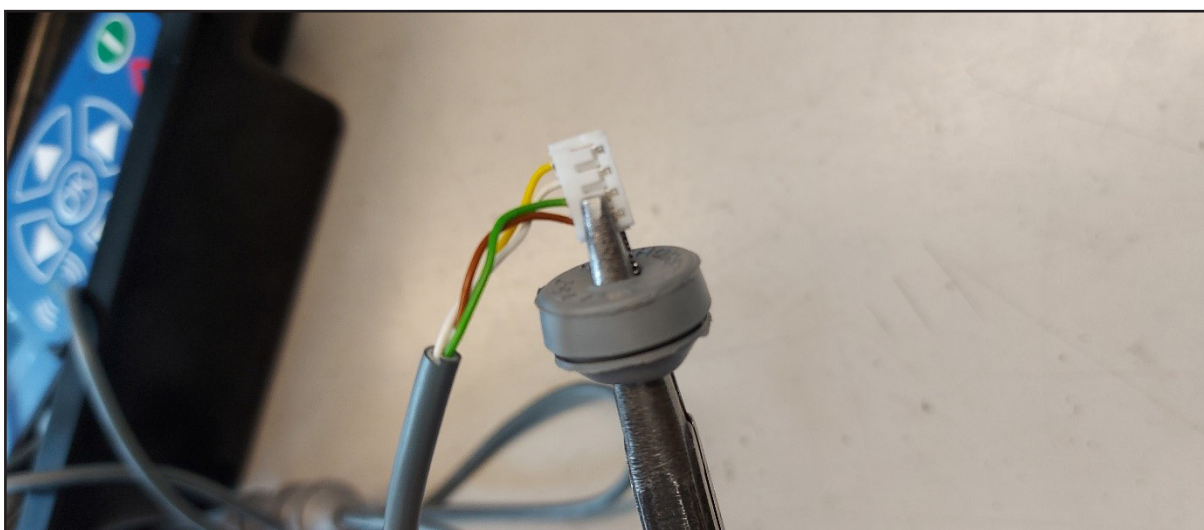
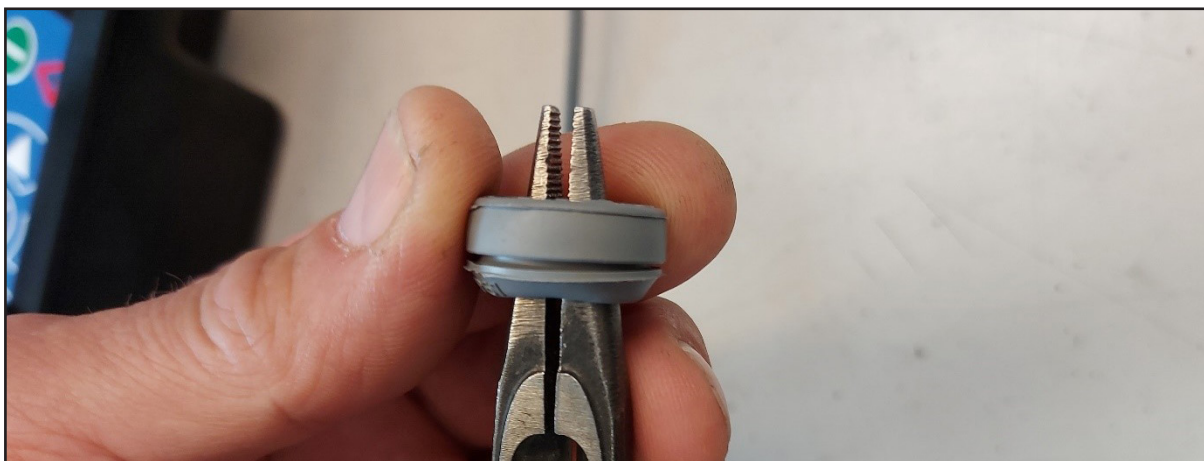
1. Coloque el interruptor en 1, 2 o 3 según el número de la fila en que se encuentre la bomba (contando desde el controlador).
2. Instale nuevos cables de comunicación para datos de flujo y modbus desde la bomba 1 a la 2 a la 3.



Instale el cable del motor y el cable de temperatura del motor.

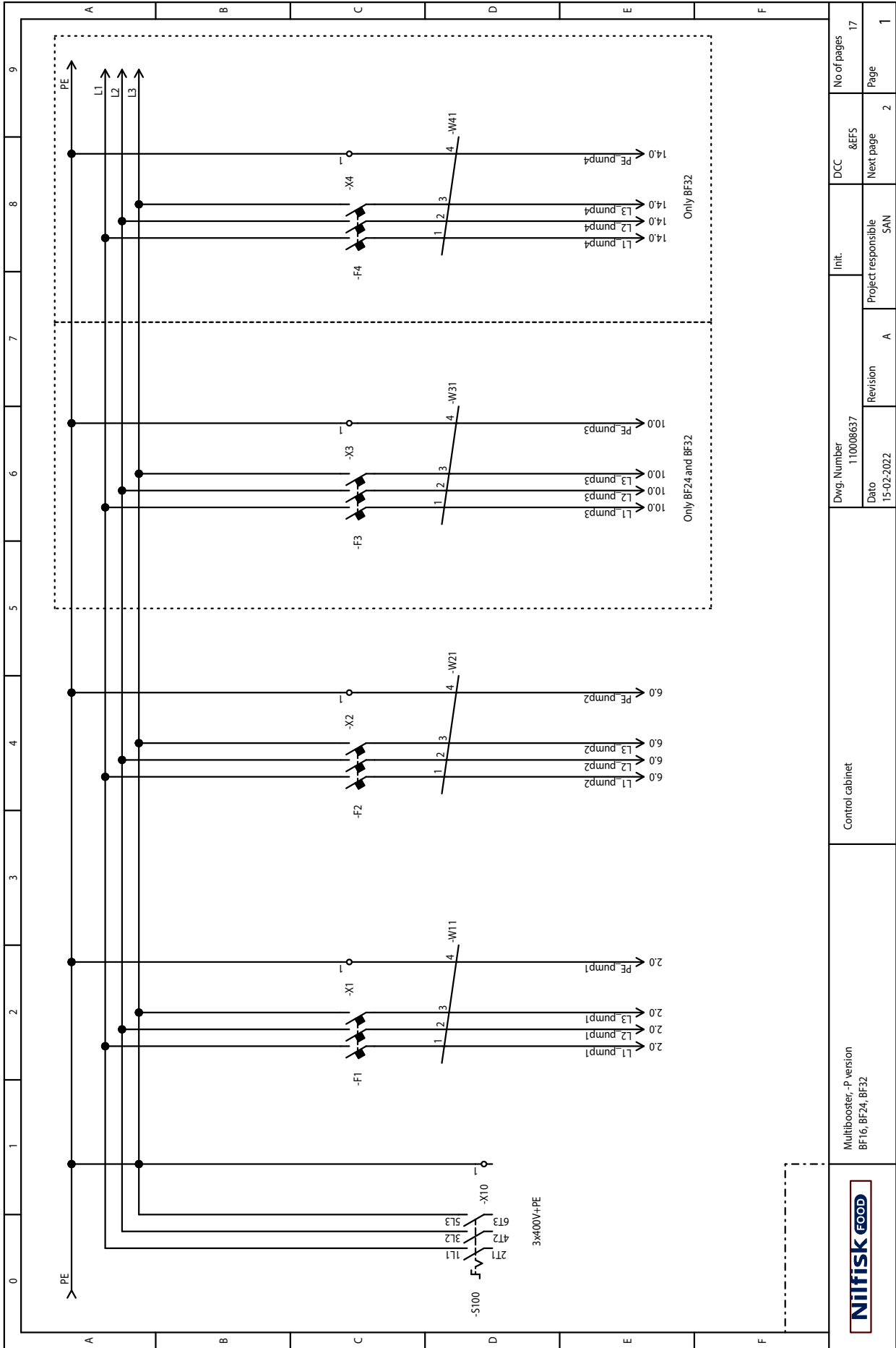
3. Active el suministro de agua a la bomba. Compruebe si hay fugas.
4. Ventile la bomba
5. Instale el cable de alimentación marcados con los números 1-3 y encienda el sistema. Consulte también la ilustración arriba.
6. Espere a que el LED APAGADO permanezca encendido (20-30 segundos).
7. En la configuración, configure la pantalla para el tipo de máquina correcto.
 - El tipo de máquina se indica en la placa de información.
 - Establezca la fecha y la hora en la configuración
 - Establezca la configuración específica del usuario
8. Compruebe la unidad.

5. Montaje de cable

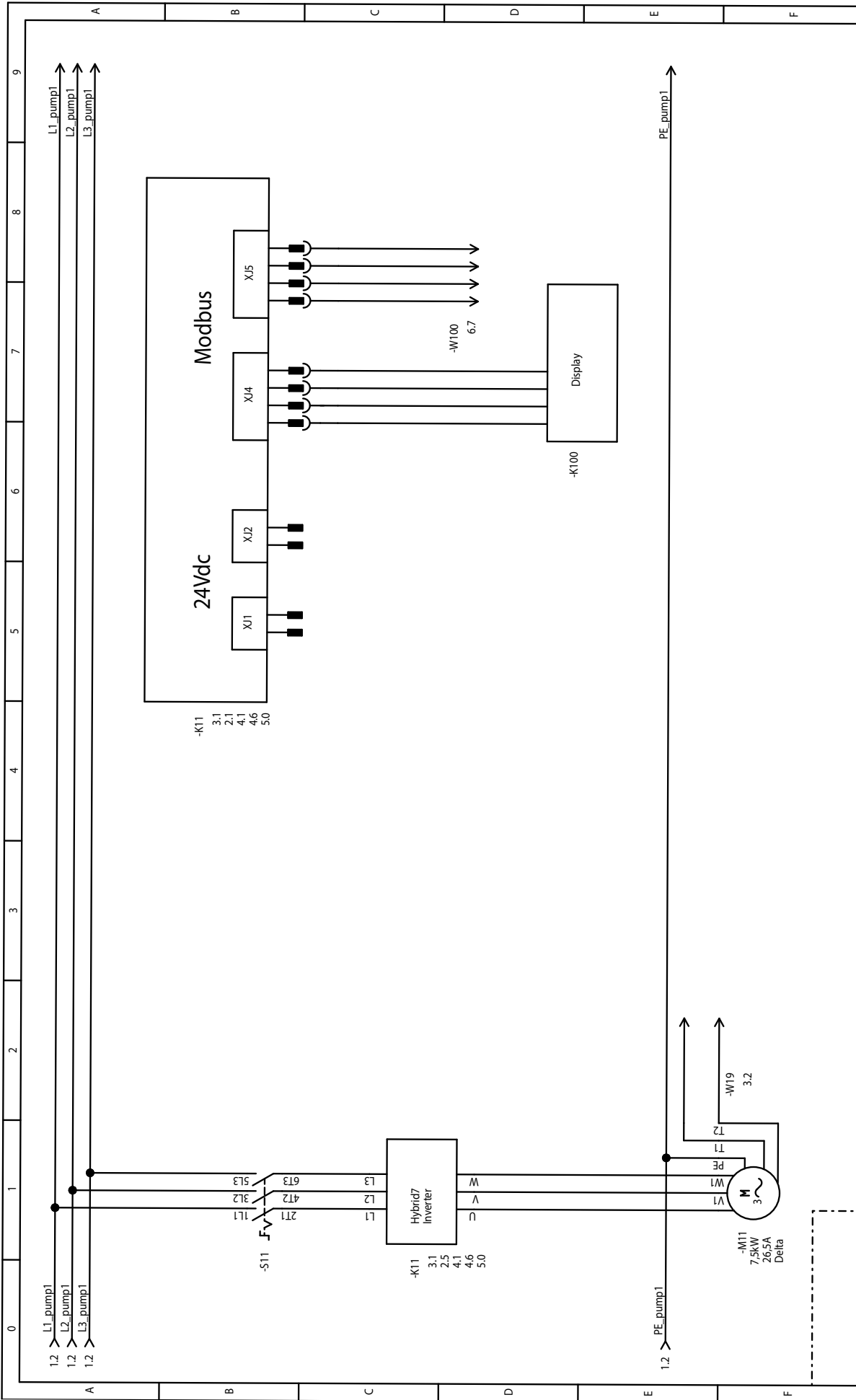


NB! Los colores de los cables pueden variar de vez en cuando.

6. Diagrama



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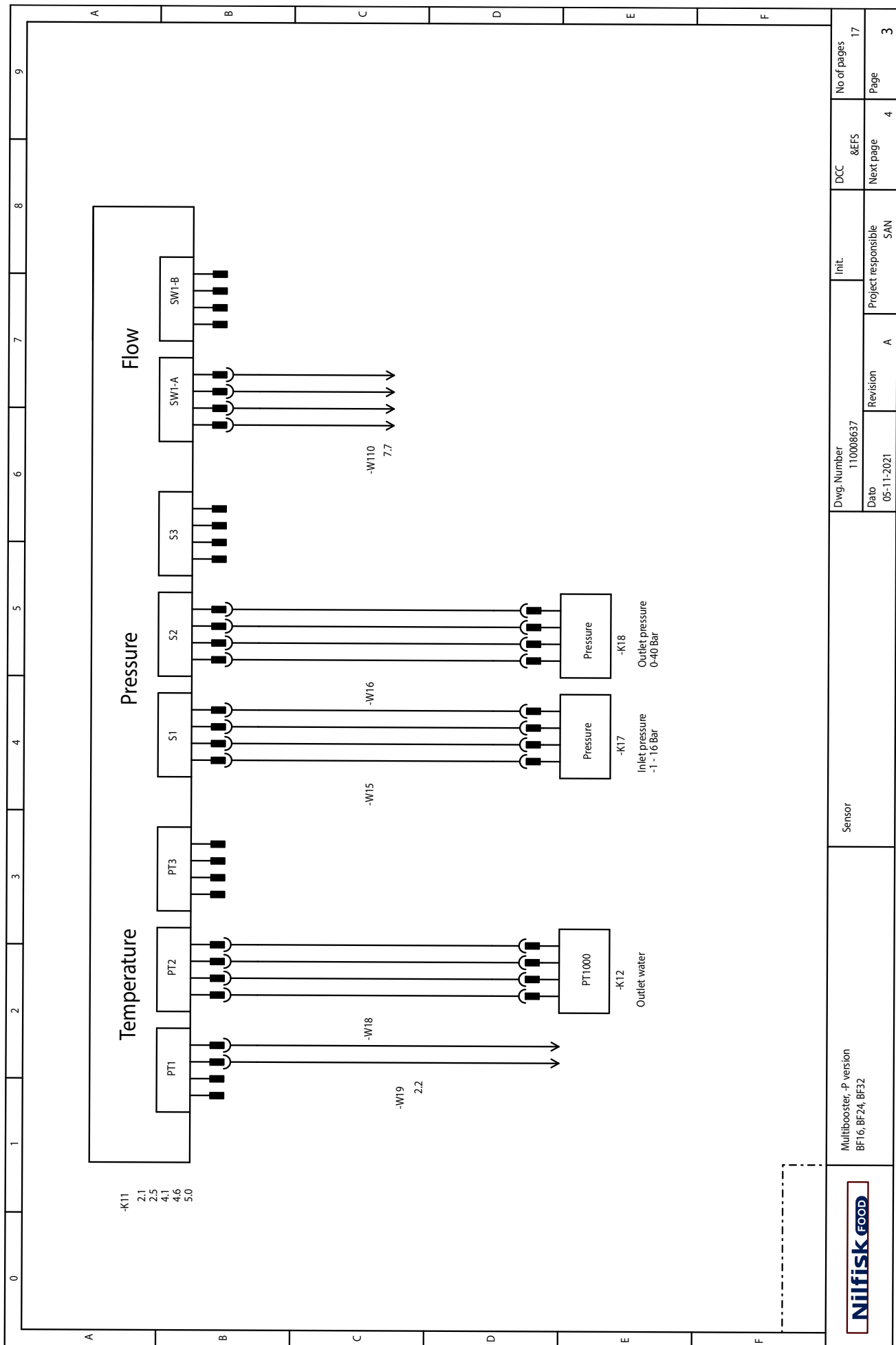


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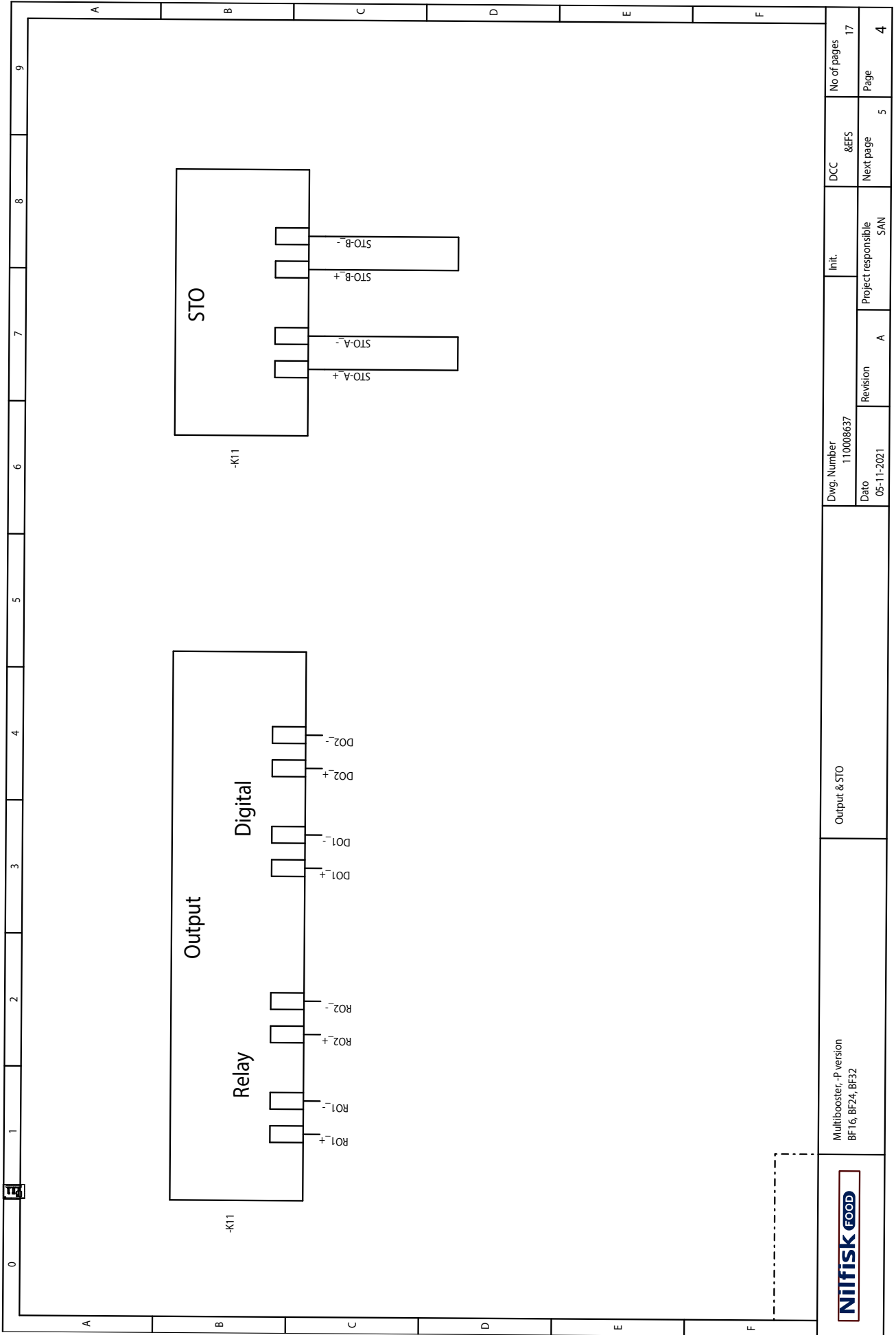


Multibooster-P version
BF16, BF24, BF32

Power and communication



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Multibooster, P version
BF16, BF24, BF32

Output & STO

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110006637

Date
05-11-2021

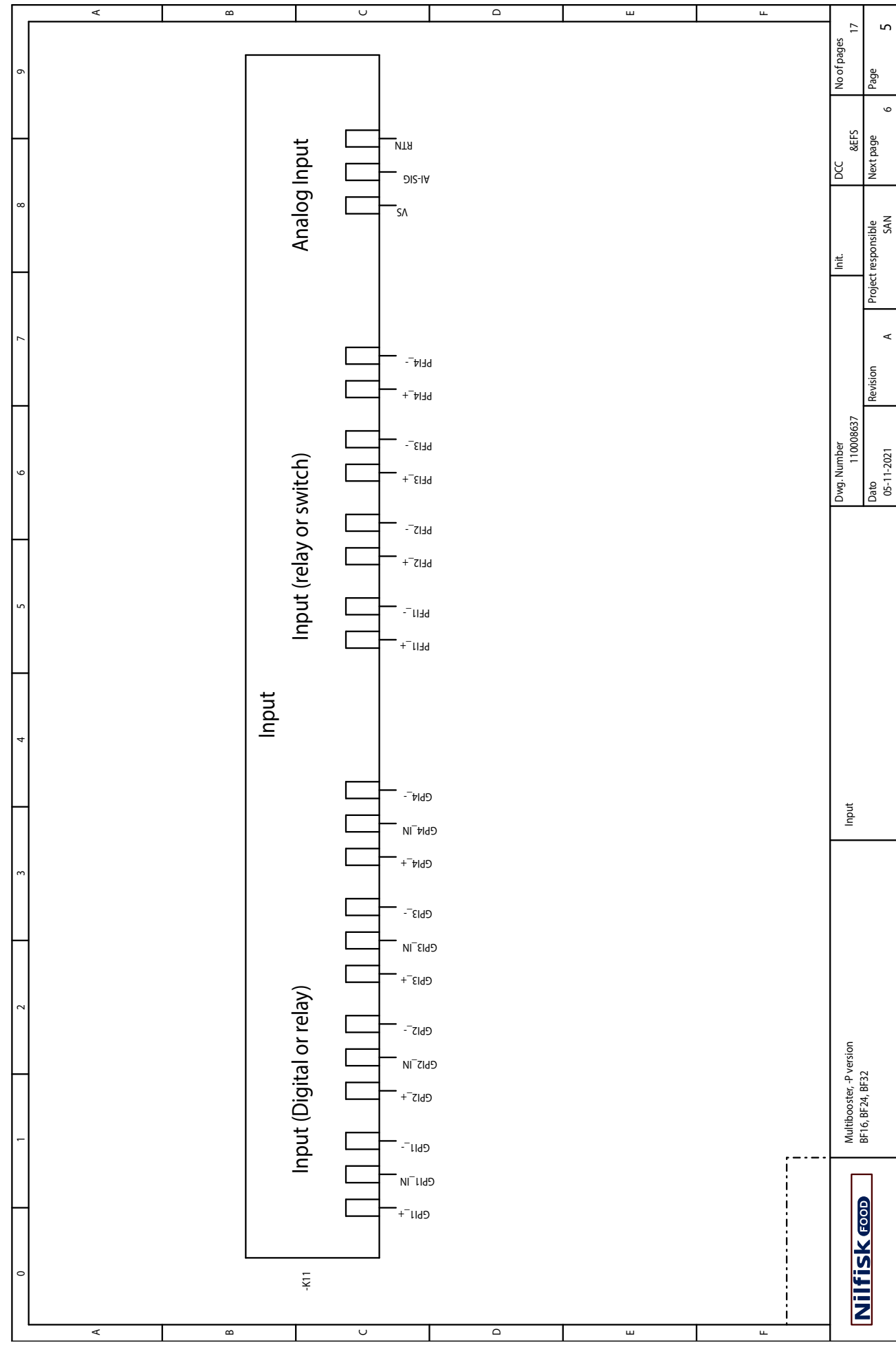
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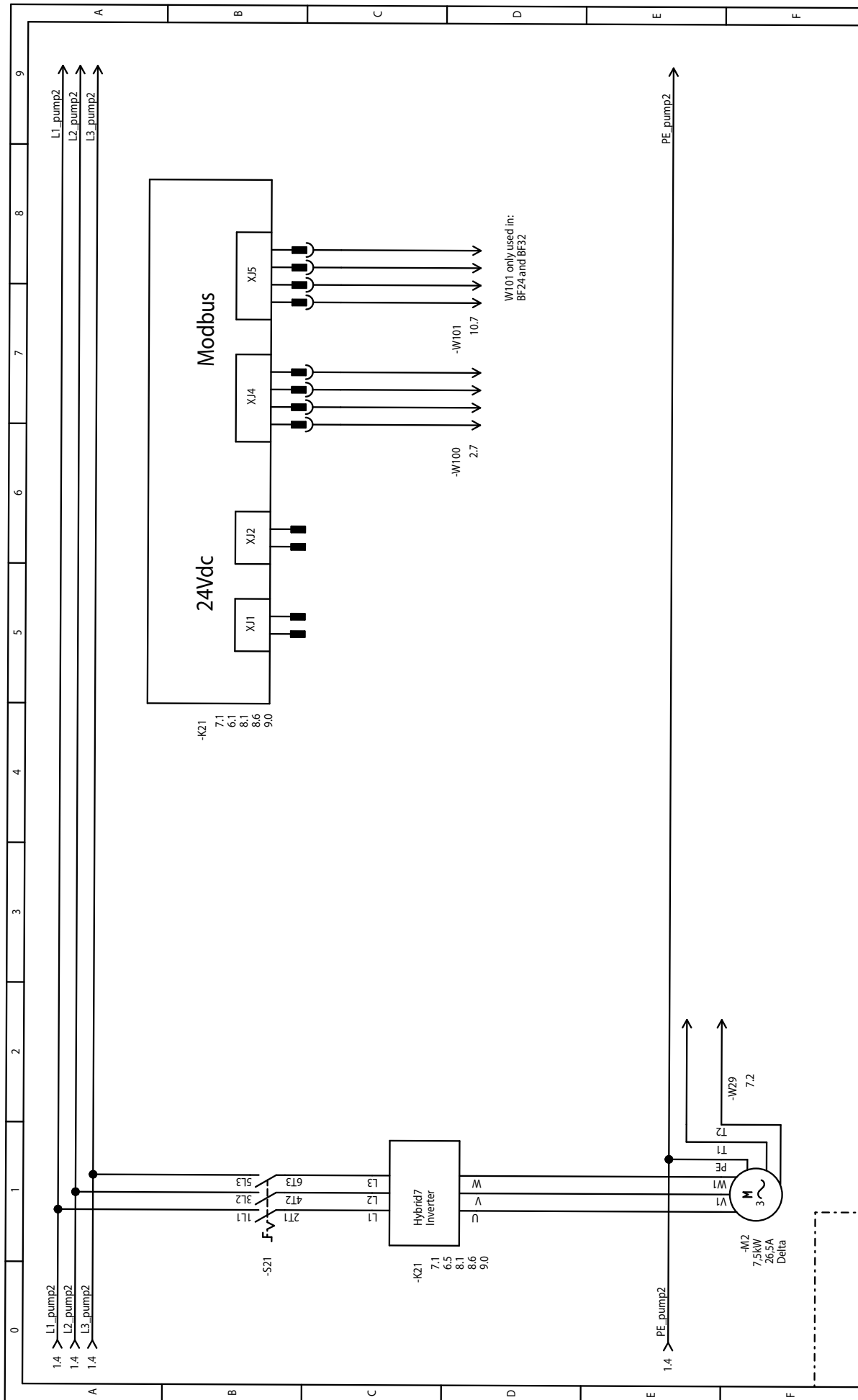
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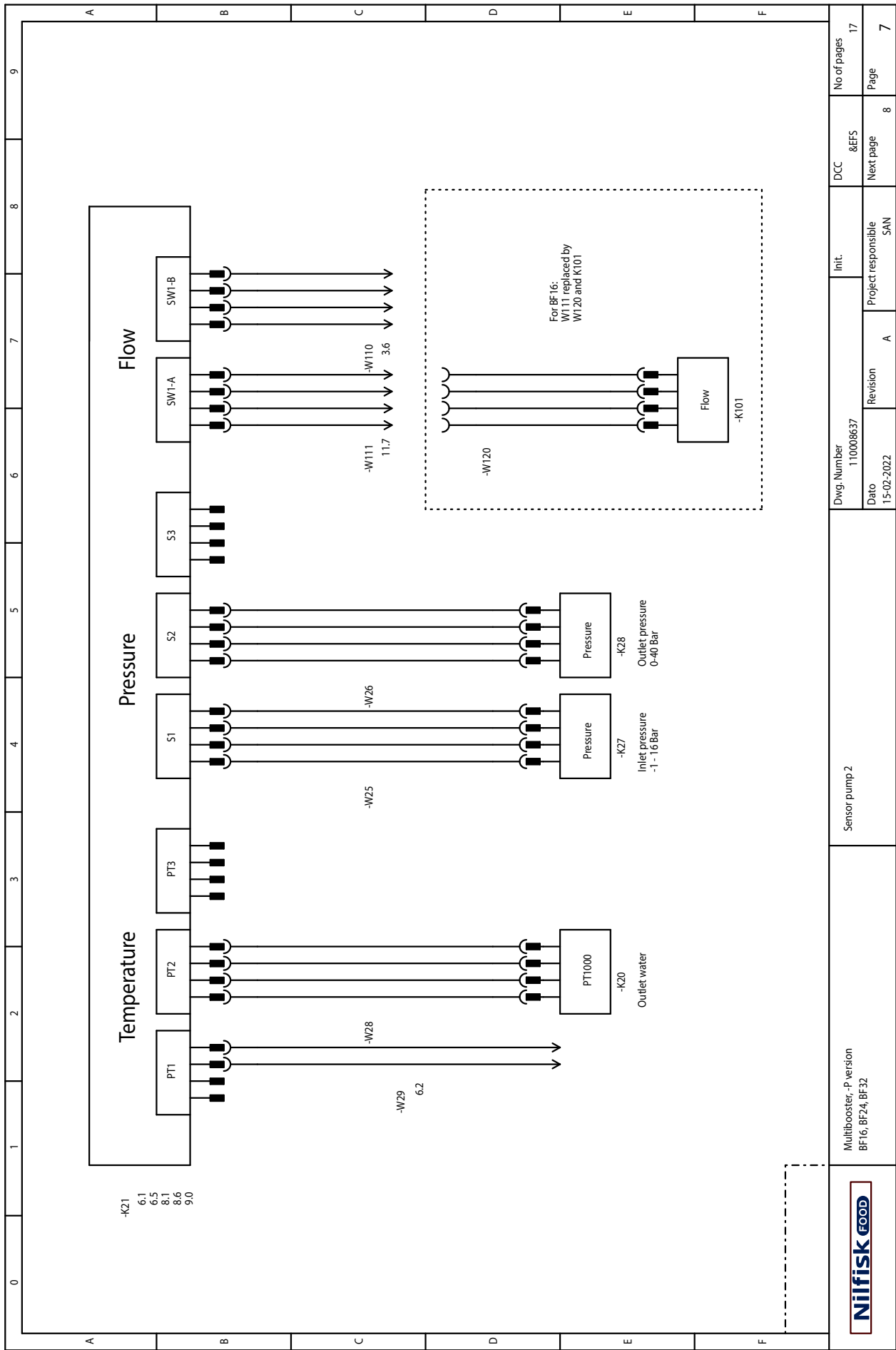
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Multibooster, -P version
BF16, BF24, BF32

Sensor pump 2

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Dato
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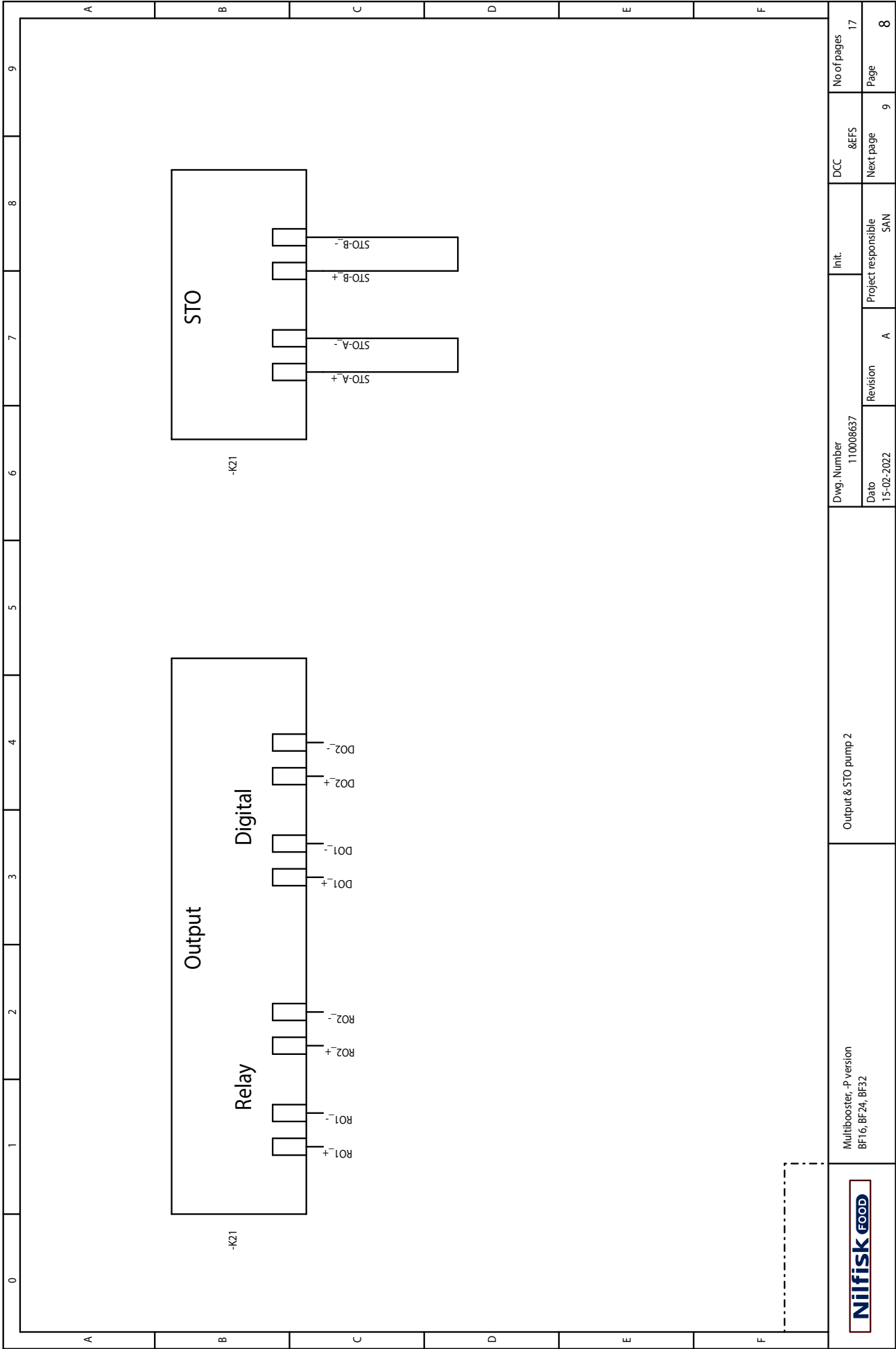
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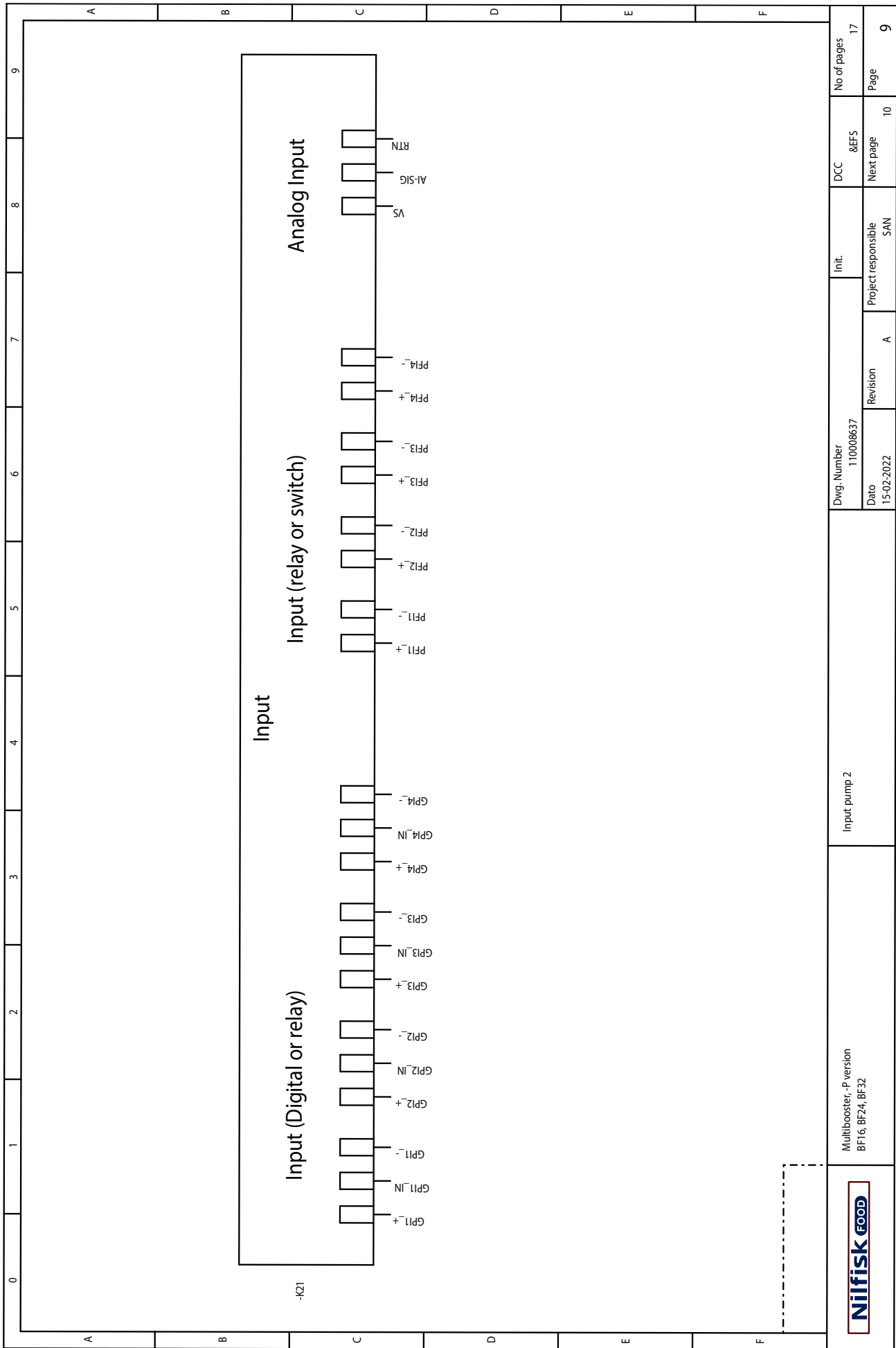
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Multibooster - P version
BF16, BF24, BF32

Input pump 2

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Dato
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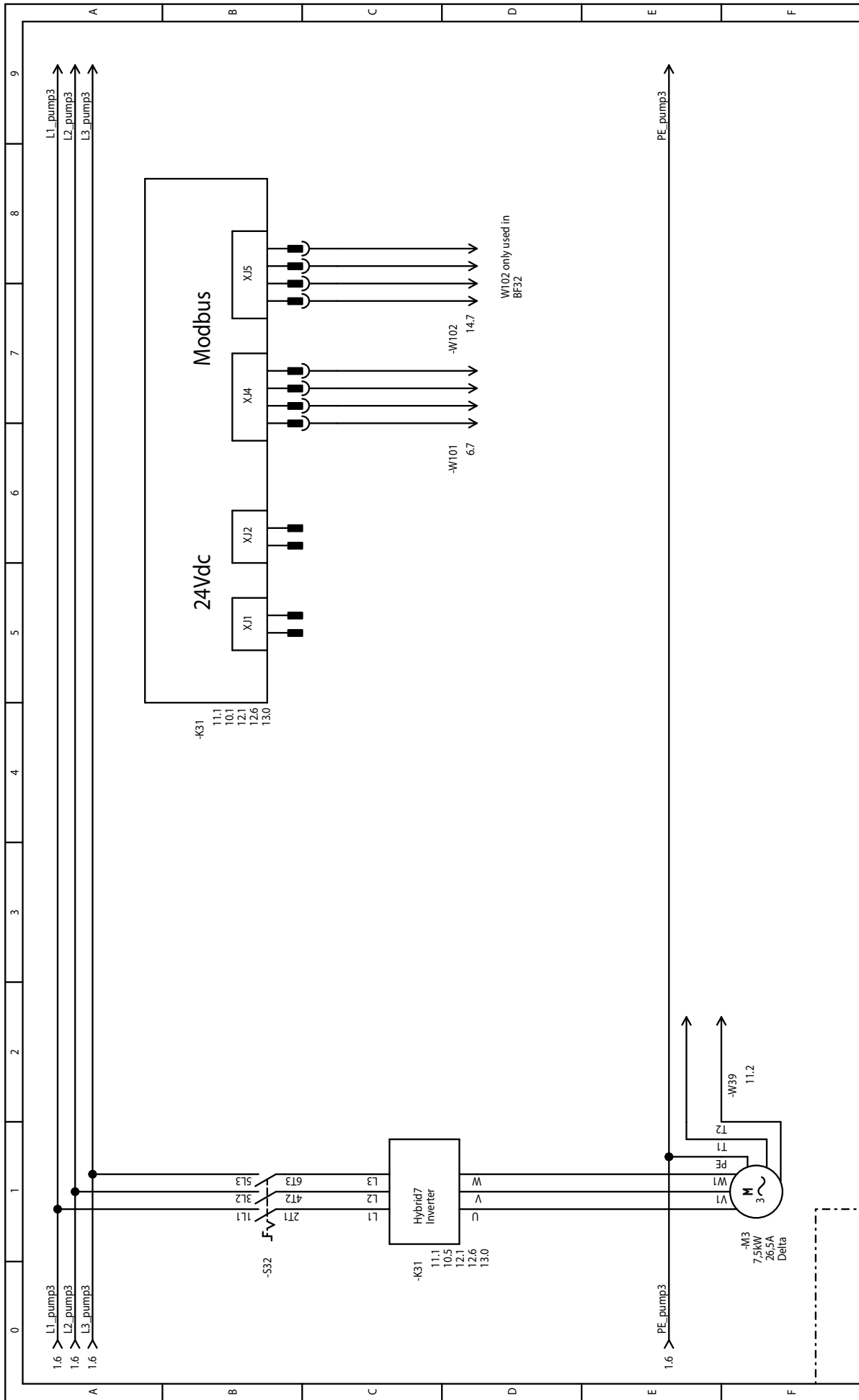
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DCC &FFS

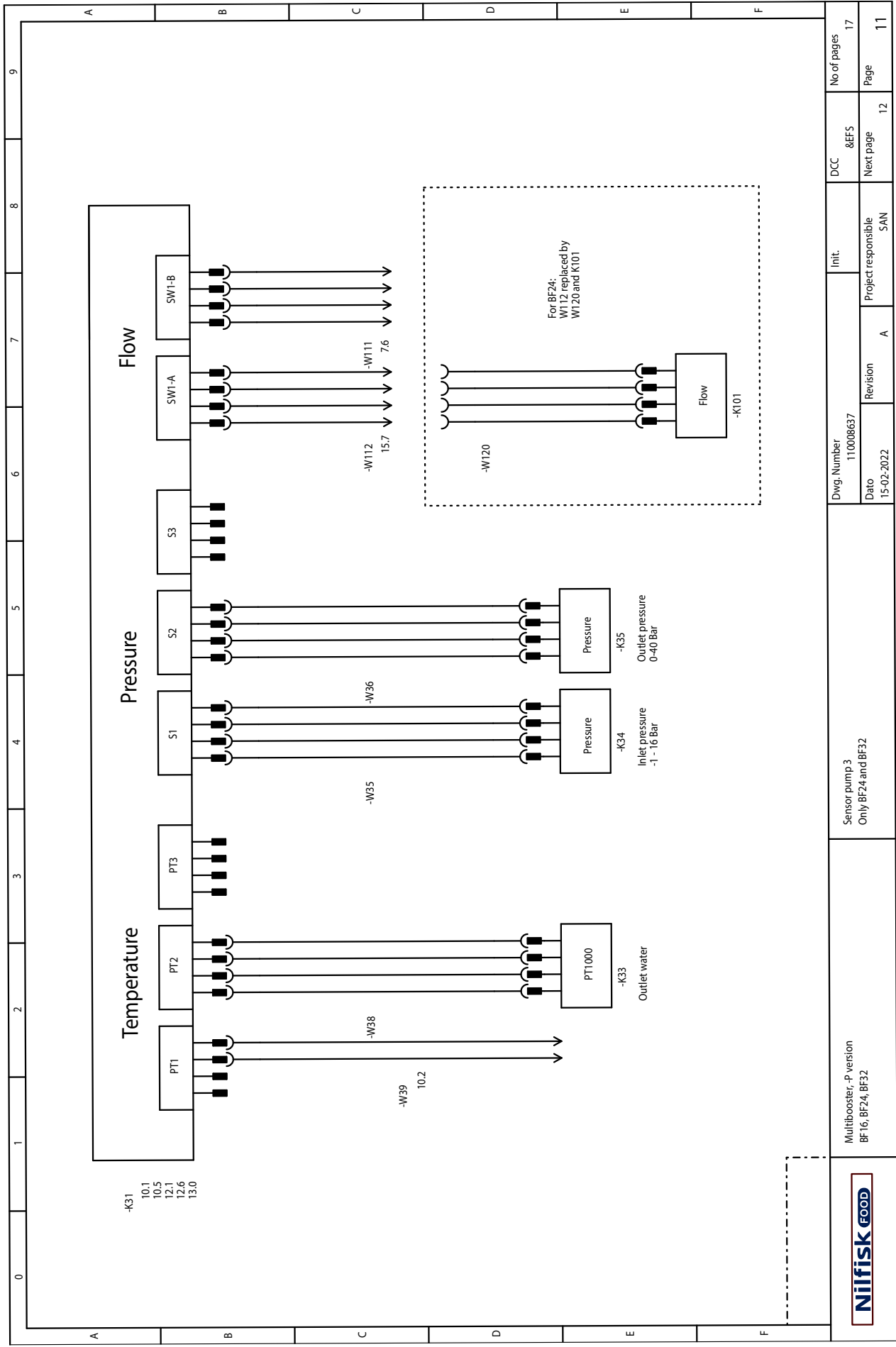
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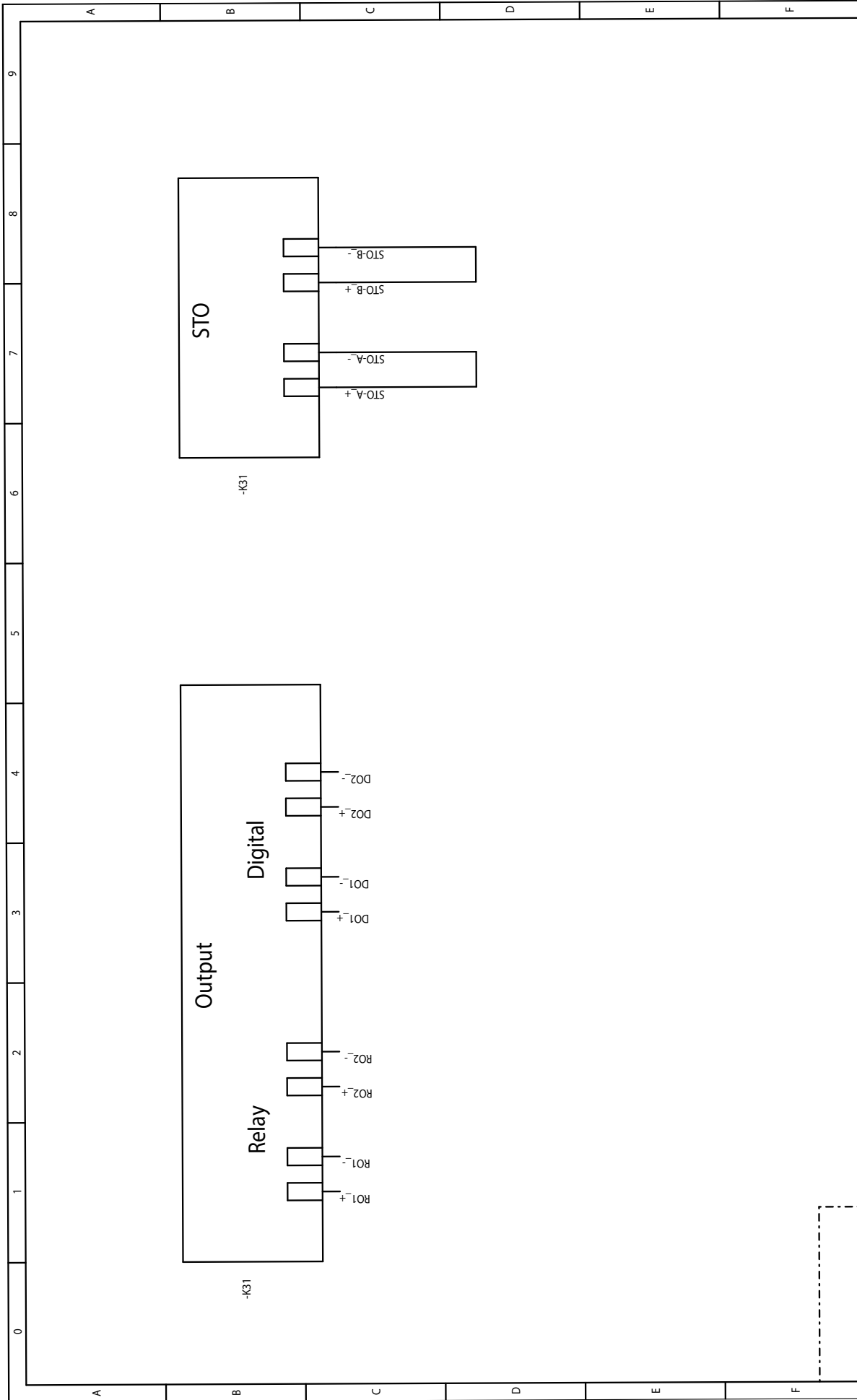
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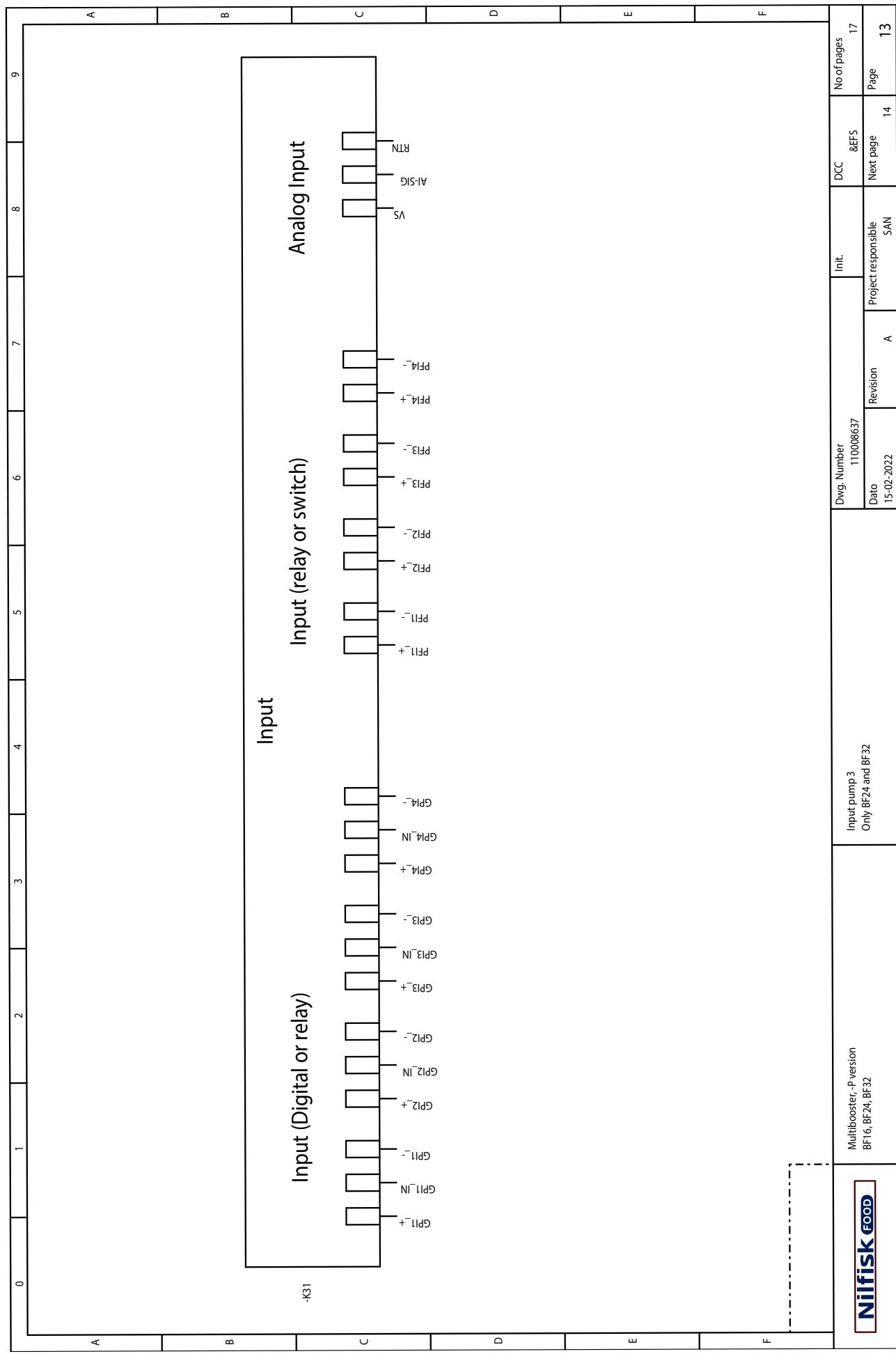
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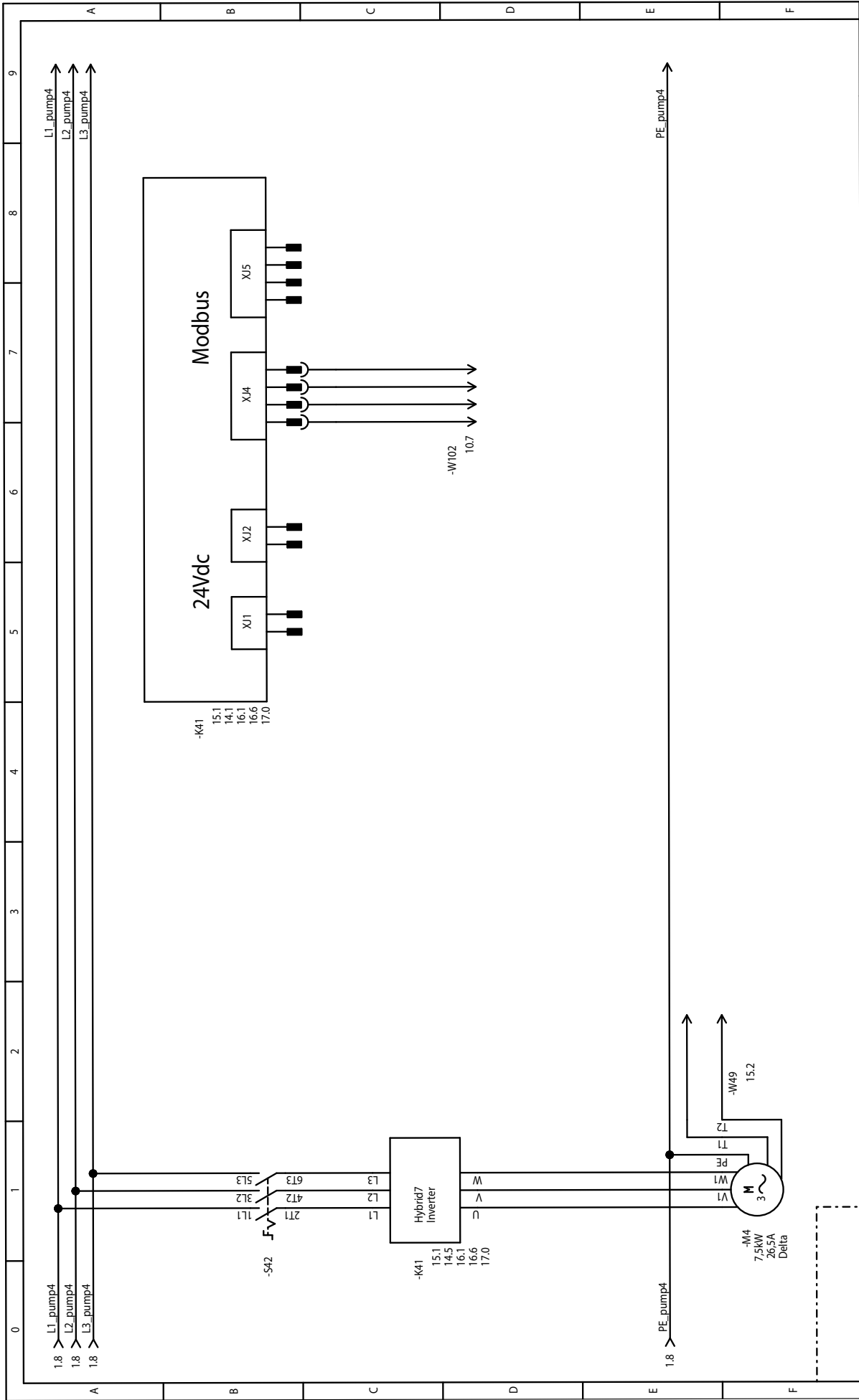
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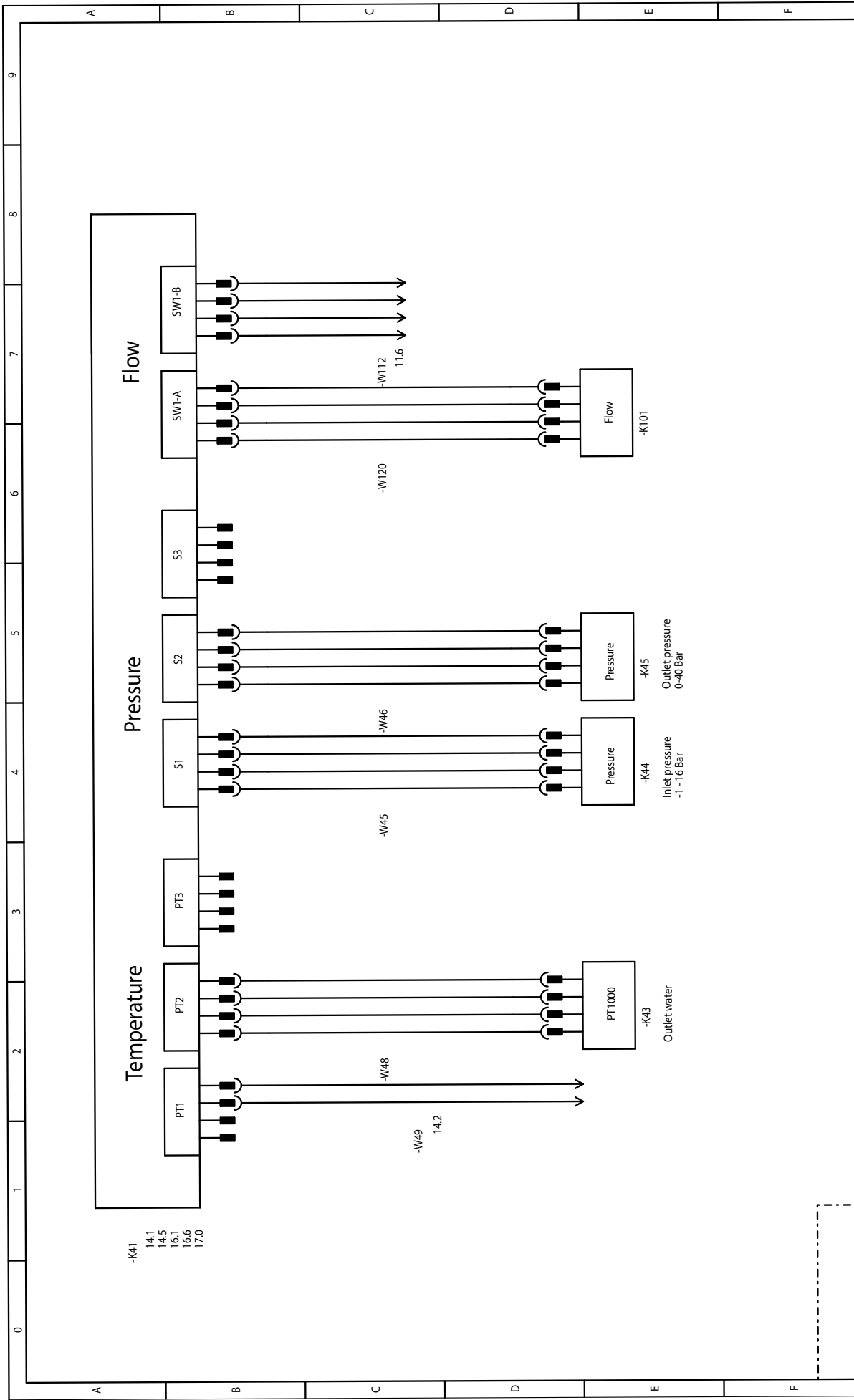
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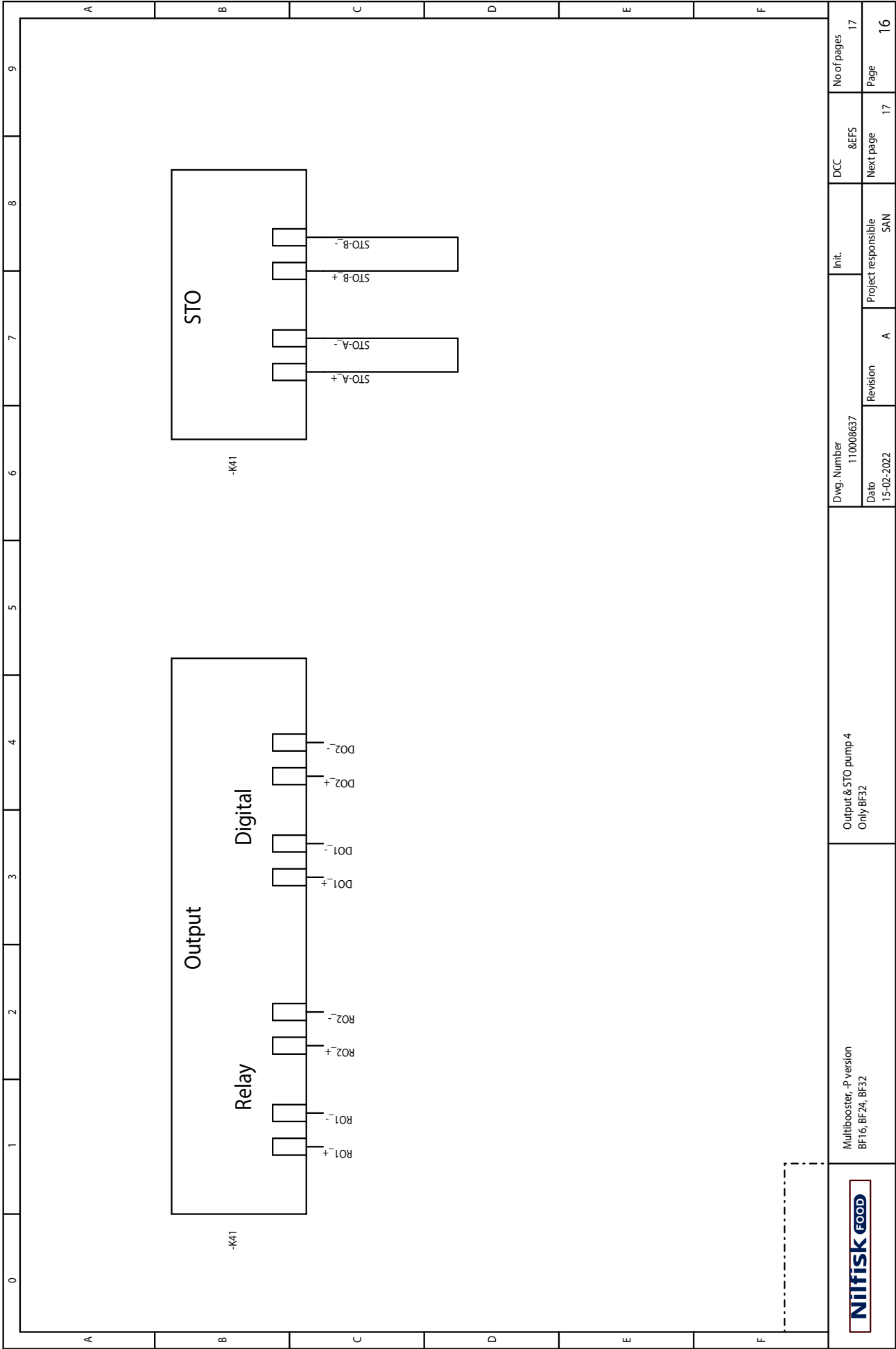
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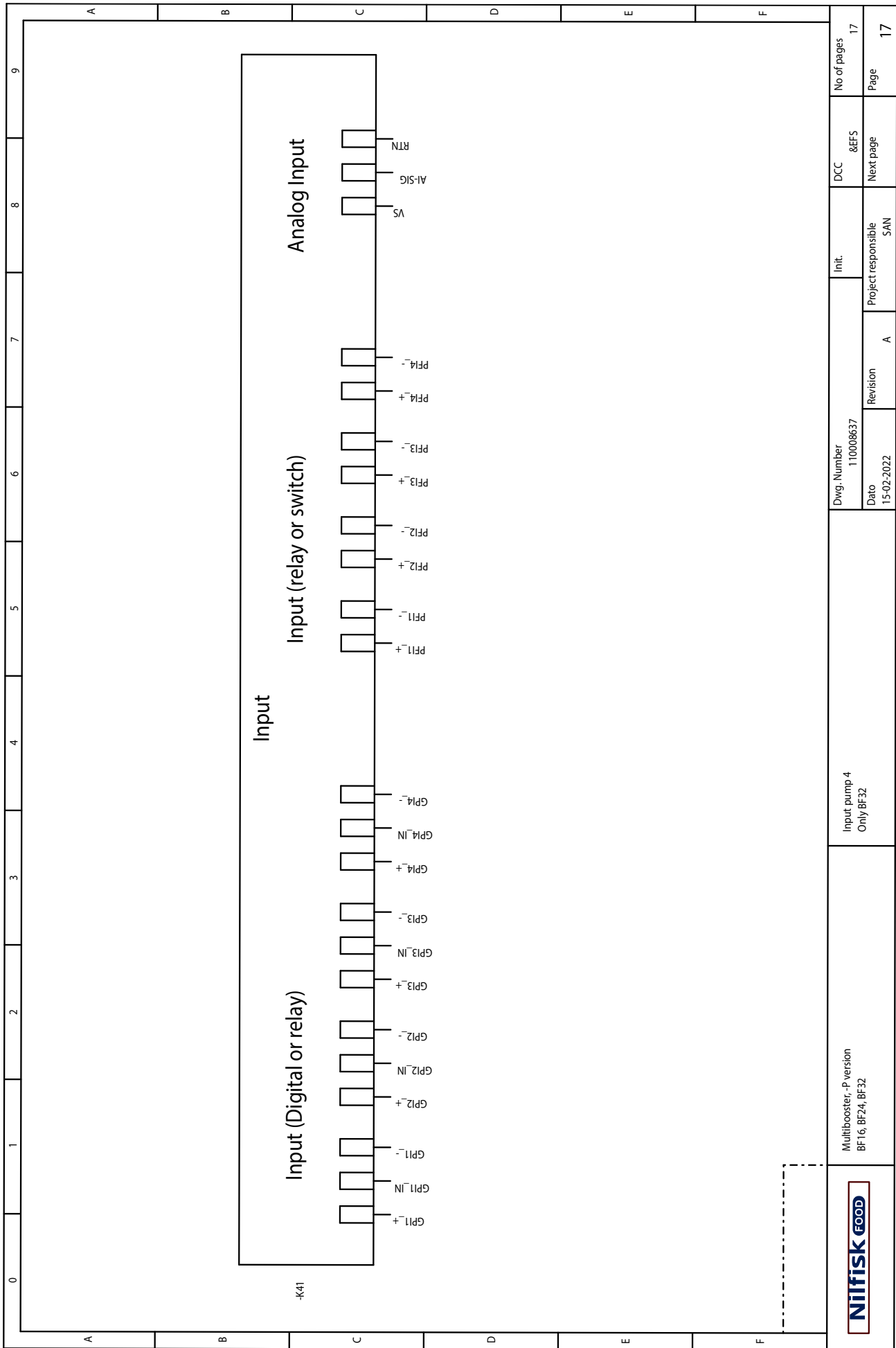
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Only BF32

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