



Elster GmbH
 Geschäftssegment Systeme
 - Elektrotechnik -

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🖱 docuthek.kromschroeder.com

Kromschroder, a product
 brand of the Elster Group



Customer :

Commission :

Production
 job no. :

Drawing no : 84402282

Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2.SP3
 All conductors without cross-section indication are mm²

| | | | | | |
|---|--------------|------------|-------|----------|------------|
| G | UVD | 13.03.2009 | Born | alzen | 05.07.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed | Thele |
| D | Para.21 | 05.02.2008 | Thele | Verified | Kroner |
| R | Modification | Date | Name | Standard | |

BGT SM-8U1/1




Cover sheet

Cover sheet

84402282

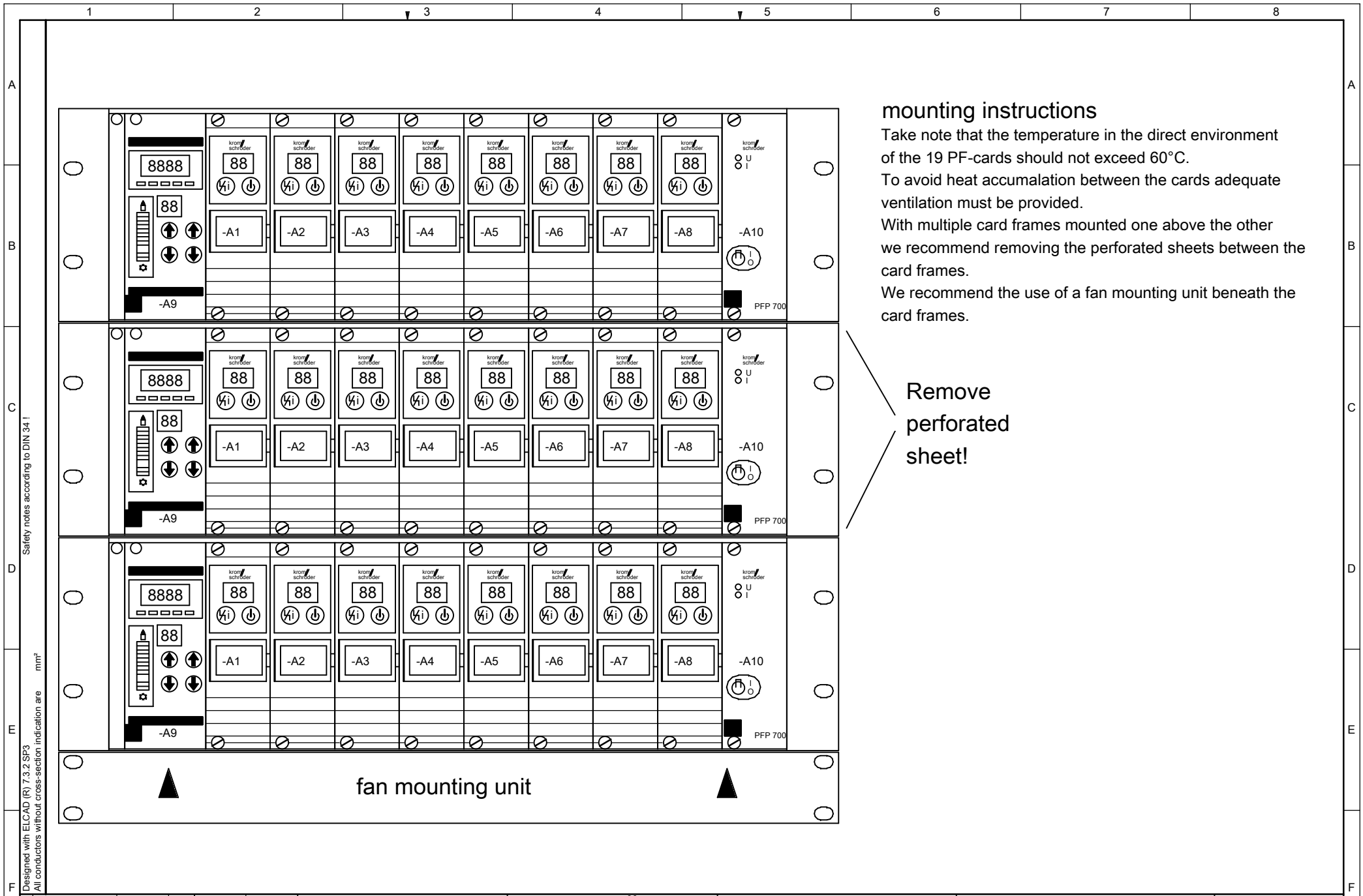
Pg. 1/3

2

| | | | | | | | | | |
|---|--|------------|------------|------------|---|--------------|---------------|---|----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| A | <p>Note:</p> <p>Erecting, operation and maintenance of the switchgear equipment combination only may be executed by electrically qualified personnel or under supervision.</p> <p>Please heed the manufacturer's remarks for the components (operating instructions) integrated in the switchgear assembly.</p> <p>The listed data and material qualities (cable types, ways of installation, ...) only have to be regarded as reference values. These must be checked in individual cases and if necessary be corrected.</p> <p>For faults in this circuit diagram a liability is assumed only in the context of our terms of delivery and payment.</p> <p>For plant parts outside of our scope of delivery no liability can be assumed.</p> | | | | <p>Please check during commissioning:</p> <ul style="list-style-type: none"> - Earthing and protective measures in accordance with local requirements - Mains voltage - Settings of protection devices - Function of safety circuits - Presettings of parameters <p>Make connection only with permanent wiring. Different phases of a three-phases power system may not be connected to the inputs. No voltage may be applied to the outputs for valves and ignition transformer.</p> <div style="text-align: center;">  </div> | | | | A |
| B | | | | | | | | | B |
| C | | | | | | | | | C |
| D | | | | | | | | | D |
| E | | | | | | | | | E |
| F | | | | | | | | | F |
| | G UVD | 13.03.2009 | Bornhalden | 05.07.2007 | BGT SM-8U1/1 | kromschroder | Cover sheet | | = |
| | E Takt 2..8 | 27.10.2008 | Thele | Designed | | | Thele | | |
| | D Para.21 | 05.02.2008 | Thele | Verified | Kroner | | | | |
| | R Modification | Date | Name | Standard | Origin | Replaced by | General notes | | 84402282 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Pg. 3/3 |

Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
All conductors without cross-section indication are mm²



mounting instructions

Take note that the temperature in the direct environment of the 19 PF-cards should not exceed 60°C.

To avoid heat accumulation between the cards adequate ventilation must be provided.

With multiple card frames mounted one above the other we recommend removing the perforated sheets between the card frames.

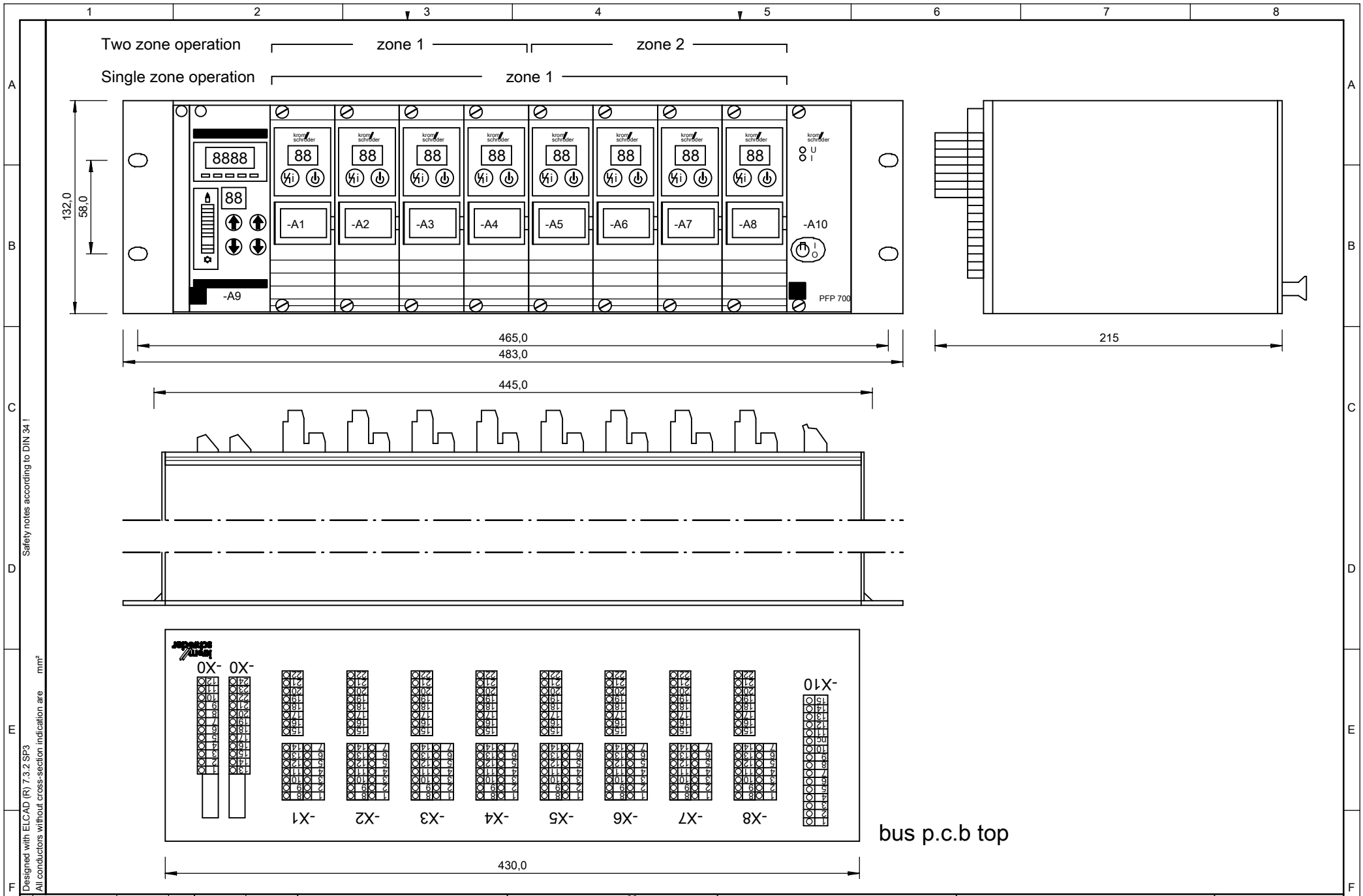
We recommend the use of a fan mounting unit beneath the card frames.

Remove perforated sheet!

Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2.SP3
All conductors without cross-section indication are mm²

| | | | | | | | |
|----------------|------------|------------|------------|-------------|-----------------|----------------|-----------------------|
| G UVD | 13.03.2009 | Bornhalden | 05.07.2007 | BGT SM-8U/1 | | Layout diagram | |
| E Takt 2..8 | 27.10.2008 | Thele | Thele | | | | |
| D Para.21 | 05.02.2008 | Thele | Kroner | | | | |
| R Modification | Date | Name | Standard | Origin | Replacement for | Replaced by | mounting instructions |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |



Safety notes according to DIN 341

Designed with ELCAD (R) 7.3.2 SP3
All conductors without cross-section indication are mm²

| | | | | |
|---|--------------|------------|----------------|------------|
| G | UVD | 13.03.2009 | Bornhalden | 05.07.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele Designed | Thele |
| D | Para.21 | 05.02.2008 | Thele Verified | Kroner |
| R | Modification | Date | Name | Standard |

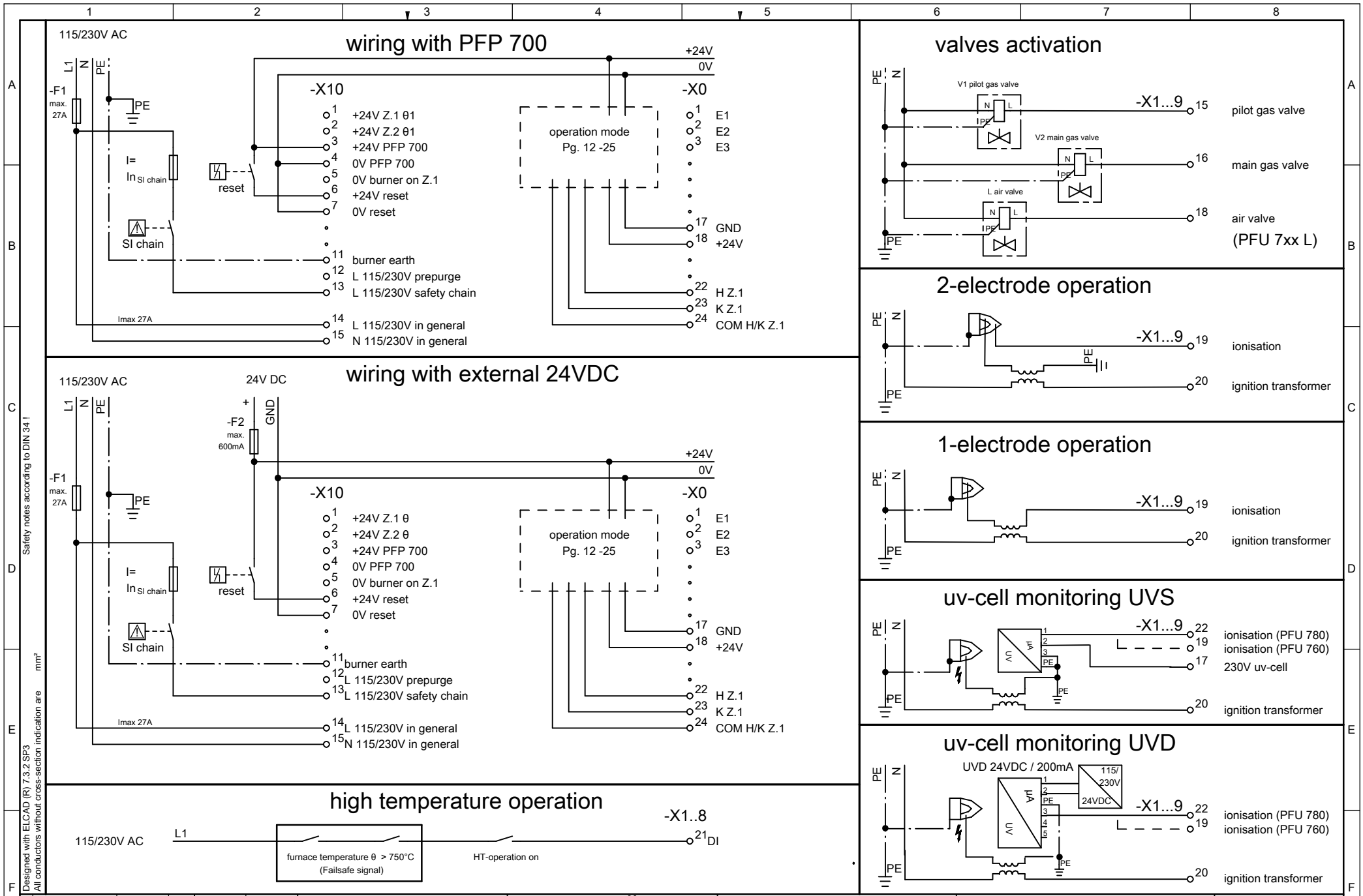
| | | | |
|--------------|-----------------|-------------|--|
| BGT SM-8U1/1 | | | |
| Origin | Replacement for | Replaced by | |

| | | | |
|-----------------|--|----------|---------|
| Layout diagram | | | |
| dimension sheet | | 84402282 | Pg. 7/2 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | |
|---------------------------------|----------|--------------------------------|--------------|--|-----------------------------------|-----------|---------------------|---------------------|-------------|----------|------------------------------|------------------|
| Parameter settings as delivered | | | | Before commissioning of the whole plant check the settings and modify according to your application. | | | | | | | | |
| Para. Nr. | Preset | Designation | Range | Function | Remarks | Para. Nr. | Preset | Designation | Range | Function | Remarks | |
| 10 | 2 | Setting source | 0...5 | 4...20mA | heating | 50 | 0.01 | Delay | 0.01...20s | | 1. parameter set | |
| 11 | 1 | Mode of operation | 1...8 | | | 51 | 0.01 | Delay | 0.01...20s | | | 1. parameter set |
| 12 | 1 | Equipment address (Z.1) | 1...32 | | zone 1/2 Single zone operation | 52 | 0.01 | Delay | 0.01...20s | | 1. parameter set | |
| 13 | 2 | Equipment address (Z.2) | 1...32 | | | 53 | 0.01 | Delay | 0.01...20s | | | 1. parameter set |
| 14 | 0 | Setting indicator | 0...2 | | | 54 | 12 | Min. on time (Z.2) | 0.05...160s | | | 1. parameter set |
| 15 | 8 | Number of outputs (Z.1) | 1...8 | | | 55 | 3 | Min. off time (Z.2) | 0.05...160s | | | 1. parameter set |
| 16 | 0 | Number of outputs (Z.2) | 1...8 | | | 56 | 0.01 | Delay | 0.01...20s | | | 1. parameter set |
| 17 | | | | | | 57 | 0.01 | Delay | 0.01...20s | | | 1. parameter set |
| 18 | 128 | MPT mode | 108/128 | | | 58 | 0.01 | Delay | 0.01...20s | | | 1. parameter set |
| 19 | 30 | Keyboard repetition rate | 1...32 | | | 59 | 0.01 | Delay | 0.01...20s | | | 1. parameter set |
| 20 | 1 | Ignition timing Br.1 | 0/1...255 | | 60 | 24 | Pulse width Br.1 | 0.05...160s | | | 2. parameter set | |
| 21 | 32 | Ignition timing Br.2 | 0/1...255 | | 61 | 24 | Pulse width Br.2 | 0.05...160s | | | 2. parameter set | |
| 22 | 64 | Ignition timing Br.3 | 0/1...255 | | 62 | 24 | Pulse width Br.3 | 0.05...160s | | | 2. parameter set | |
| 23 | 96 | Ignition timing Br.4 | 0/1...255 | | 63 | 24 | Pulse width Br.4 | 0.05...160s | | | 2. parameter set | |
| 24 | 128 | Ignition timing Br.5 | 0/1...255 | | 64 | 24 | Pulse width Br.5 | 0.05...160s | | | 2. parameter set (Br.1, Z.2) | |
| 25 | 160 | Ignition timing Br.6 | 0/1...255 | | 65 | 24 | Pulse width Br.6 | 0.05...160s | | | 2. parameter set (Br.2, Z.2) | |
| 26 | 192 | Ignition timing Br.7 | 0/1...255 | | 66 | 24 | Pulse width Br.7 | 0.05...160s | | | 2. parameter set (Br.3, Z.2) | |
| 27 | 224 | Ignition timing Br.8 | 0/1...255 | | 67 | 24 | Pulse width Br.8 | 0.05...160s | | | 2. parameter set (Br.4, Z.2) | |
| 28 | 80 | Setting control factor (Z.1) | 10%...90% | | 68 | 24 | Min. on time (Z.1) | 0.05...160s | | | 2. parameter set | |
| 29 | 80 | Setting control factor (Z.2) | 10%...90% | | 69 | 6 | Min. off time (Z.1) | 0.05...160s | | | 2. parameter set | |
| 30 | 50 (Z.1) | Heating/cooling limit (Z.1) | 10%...90% | | 70 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 31 | 50 (Z.2) | Heating/cooling limit (Z.2) | 10%...90% | | 71 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 32 | 10 (Z.1) | Heating/cooling deadzone (Z.1) | 0%...50% | | 72 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 33 | 10 (Z.2) | Heating/cooling deadzone (Z.2) | 0%...50% | | 73 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 34 | 95 (Z.1) | Continuous pulse (Z.1) | 0/50%...100% | | 74 | 24 | Min. on time (Z.2) | 0.05...160s | | | 2. parameter set | |
| 35 | 95 (Z.2) | Continuous pulse (Z.2) | 0/50%...100% | | 75 | 6 | Min. off time (Z.2) | 0.05...160s | | | 2. parameter set | |
| 36 | 30 (Z.1) | Control rate (Z.1) | 1...180s | | 76 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 37 | 30 (Z.2) | Control rate (Z.2) | 1...180s | | 77 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 38 | 10 (Z.1) | Fixed setting (Z.1) | 0/1%...100% | | 78 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 39 | 10 (Z.2) | Fixed setting (Z.2) | 0/1%...100% | | 79 | 0.01 | Delay | 0.01...20s | | | 2. parameter set | |
| 40 | 12 | Pulse width Br.1 | 0.05...160s | | 80 | | | | | | 1. parameter set | |
| 41 | 12 | Pulse width Br.2 | 0.05...160s | | 81 | | | | | | 1. parameter set | |
| 42 | 12 | Pulse width Br.3 | 0.05...160s | | 82 | | | | | | 1. parameter set | |
| 43 | 12 | Pulse width Br.4 | 0.05...160s | | 83 | | | | | | 1. parameter set | |
| 44 | 12 | Pulse width Br.5 | 0.05...160s | | 84 | | | | | | 1. parameter set (Br.1, Z.2) | |
| 45 | 12 | Pulse width Br.6 | 0.05...160s | | 85 | | | | | | 1. parameter set (Br.2, Z.2) | |
| 46 | 12 | Pulse width Br.7 | 0.05...160s | | 86 | | | | | | 1. parameter set (Br.3, Z.2) | |
| 47 | 12 | Pulse width Br.8 | 0.05...160s | | 87 | | | | | | 1. parameter set (Br.4, Z.2) | |
| 48 | 12 | Min. on time (Z.1) | 0.05...160s | | 88 | | | | | | 1. parameter set | |
| 49 | 3 | Min. off time (Z.1) | 0.05...160s | | 89 | | | | | | 1. parameter set | |
| | | | | | | | Equipment code | 0/1...255 | | | 0 => no Equipment code | |

Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
All conductors without cross-section indication are mm²

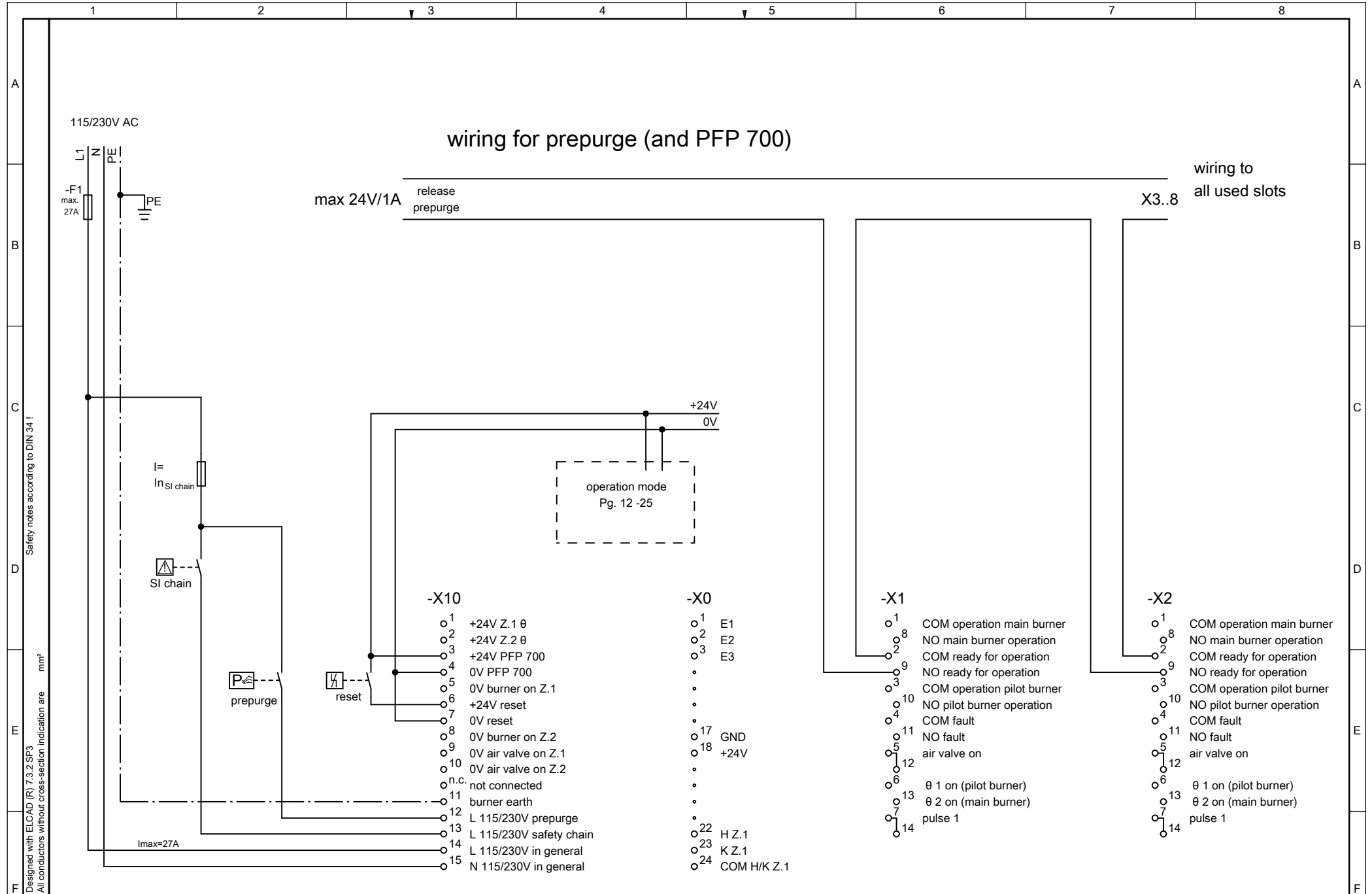


Safety notes according to DIN 34 1
 Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²

| | | | | |
|---|--------------|------------|-----------|------------|
| G | UVD | 13.03.2009 | Bornhagen | 05.07.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed |
| D | Para.21 | 05.02.2008 | Thele | Verified |
| R | Modification | Date | Name | Standard |

| | | |
|--------------|-------------|---------------------|
| BGT SM-8U1/1 | | kromschroder |
| Origin | Replaced by | |

| | | |
|--------------------|----------|---------|
| example for wiring | 84402282 | Pg. 8/4 |
| voltage supply | | 9 |



| | | | | |
|---|--------------|------------|-------------|------------|
| G | UVD | 13.03.2009 | Bornholtzen | 05.07.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed |
| D | Para.21 | 05.02.2008 | Thele | Verified |
| R | Modification | Date | Name | Standard |

BGT SM-8U/1



example for wiring

pre-purge

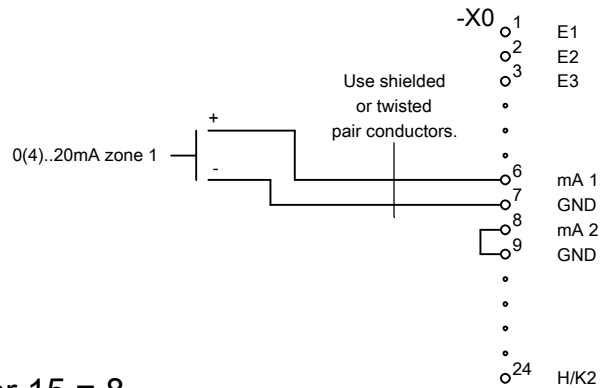
84402282

Pg. 9/4

10

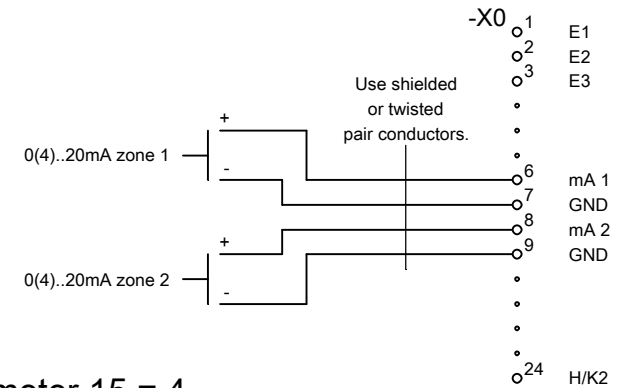
Operation of MPT as single zone unit Wiring with 0(4)...mA

The positive terminals of the unused control inputs should be connected to their respective GND terminals.



Parameter 15 = 8
Parameter 16 = 0

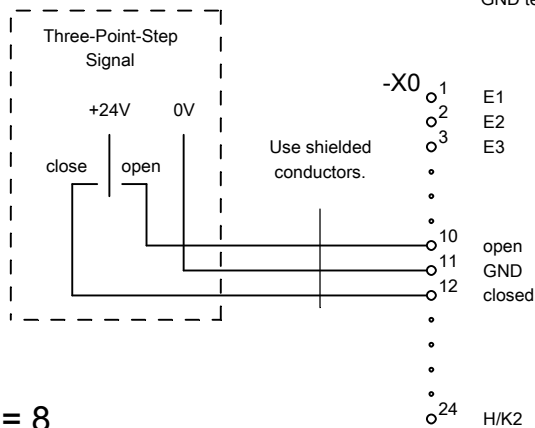
Operation of MPT as two zone unit Wiring with 0(4)...mA



Parameter 15 = 4
Parameter 16 = 4

Operation of MPT as single zone unit Wiring with three-point-step signal

The positive terminals of the unused control inputs should be connected to their respective GND terminals.



Parameter 15 = 8
Parameter 16 = 0

Operation of MPT as two zone unit Wiring with three-point-step signal

Not possible

Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
All conductors without cross-section indication are mm²

| | | | | |
|---|--------------|------------|------------|--------------------|
| G | UVD | 13.03.2009 | Bornhalden | 05.07.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed Thele |
| D | Para.21 | 05.02.2008 | Thele | Verified Kroner |
| R | Modification | Date | Name | Standard |

BGT SM-8U1/1



example for wiring

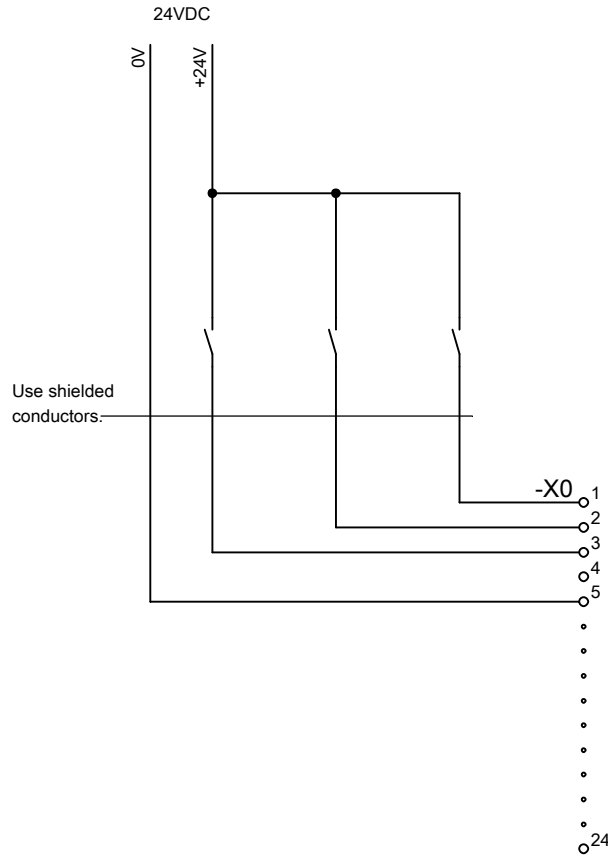
Setting source

84402282

Pg. 10/4

11

Wiring of inputs E1 to E3



The positive terminals of the unused control inputs should be connected to their respective GND terminals.

- E1 Active = fixed contr.output zone 1 (Parameter 38)
- E2 Active = 2. parameter set (Parameter 60...79)
- E3 Active = fixed contr.output zone 2 (Parameter 39)

GND

H/K2

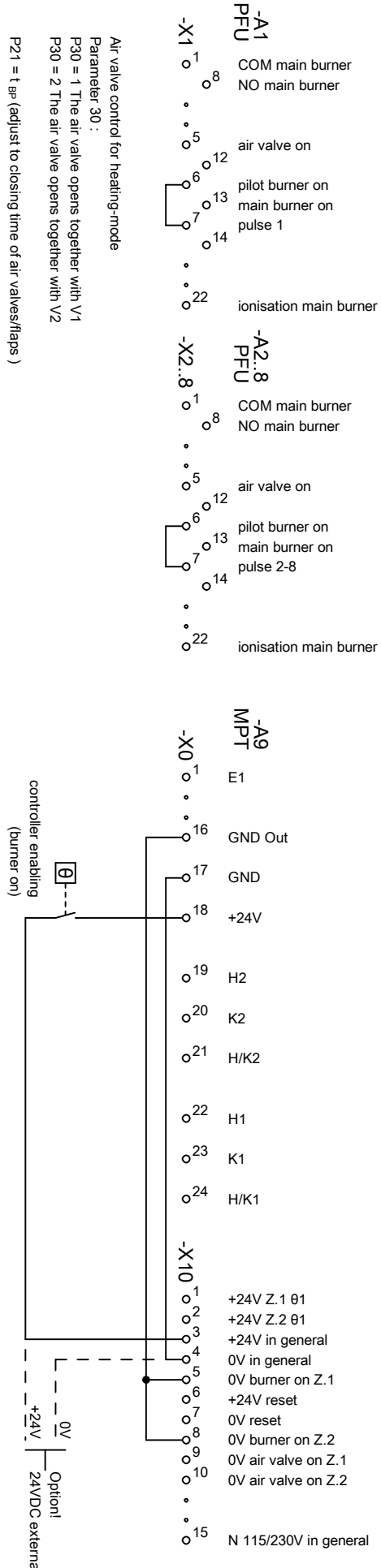
Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
All conductors without cross-section indication are mm²

| | | | | | | | | | | | |
|---|--------------|------------|-------|----------|------------|-----------------|------------------|--------------------|---------------------------|----------|----------|
| G | UVD | 13.03.2009 | Born | alzen | 05.07.2007 | BGT SM-8U1/1 | krom schroder | example for wiring | Binary control inputs MPT | 84402282 | Pg. 11/4 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed | Thele | | | | | | |
| D | Para.21 | 05.02.2008 | Thele | Verified | Kroner | | | | | | |
| R | Modification | Date | Name | Standard | Origin | Replacement for | Replaced by | | | | |

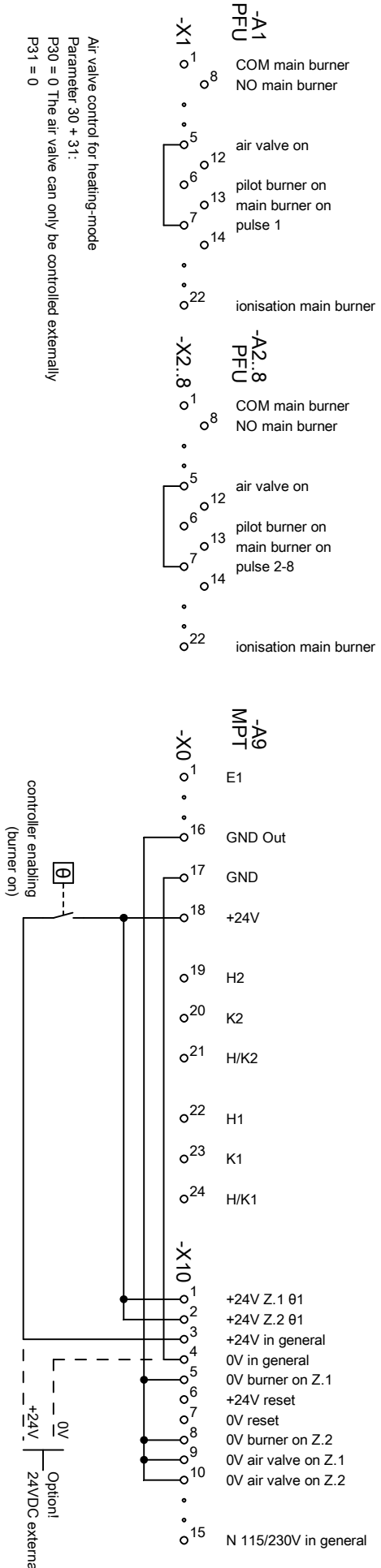
Single zone operation heating, off/on

operation mode 1(3) (Parameter 11)



Single zone operation heating, low/high

operation mode 1(3) (Parameter 11)



| | | | |
|---|------------|------------------------------------|------------|
| Designed with ELCAD (R) 7.3.2 SP3 | | Safety notes according to DIN 34 ! | |
| All conductors without cross-section indication are mm² | | | |
| GI UNID | 13.03.2009 | Erwin Hasen | 05.07.2007 |
| E Takt 2.8 | 27.10.2008 | Theil Designed | Theil |
| D Para 2.1 | 05.02.2008 | Theil Verified | Kroner |
| R1 Modification | Date | Name/Standard | Origin |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |

BGT SM-8U1/1



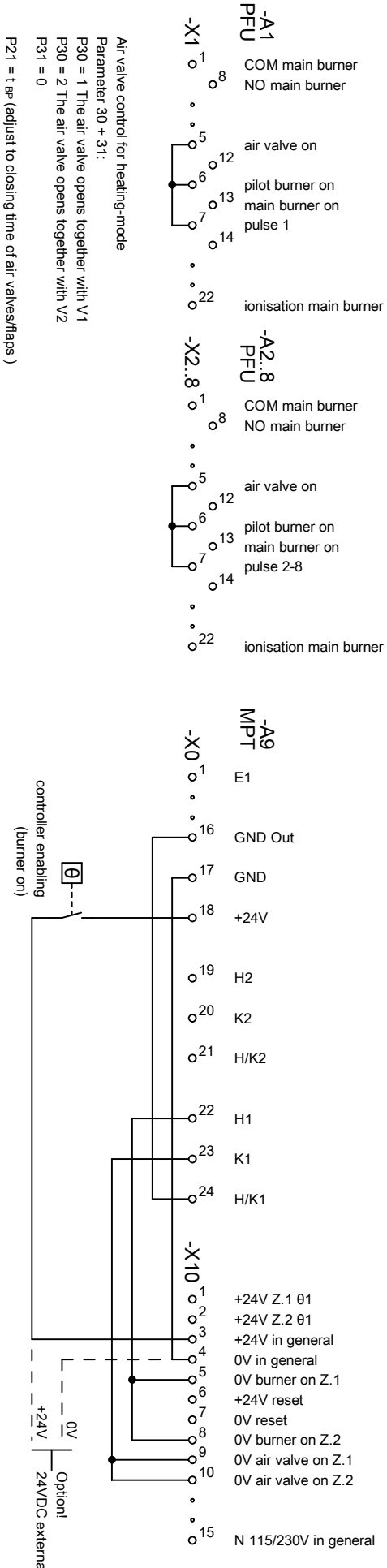
Operating modes
 PFI 80
 Single zone operation
 heating

84402282

Pg. 12/3
 13

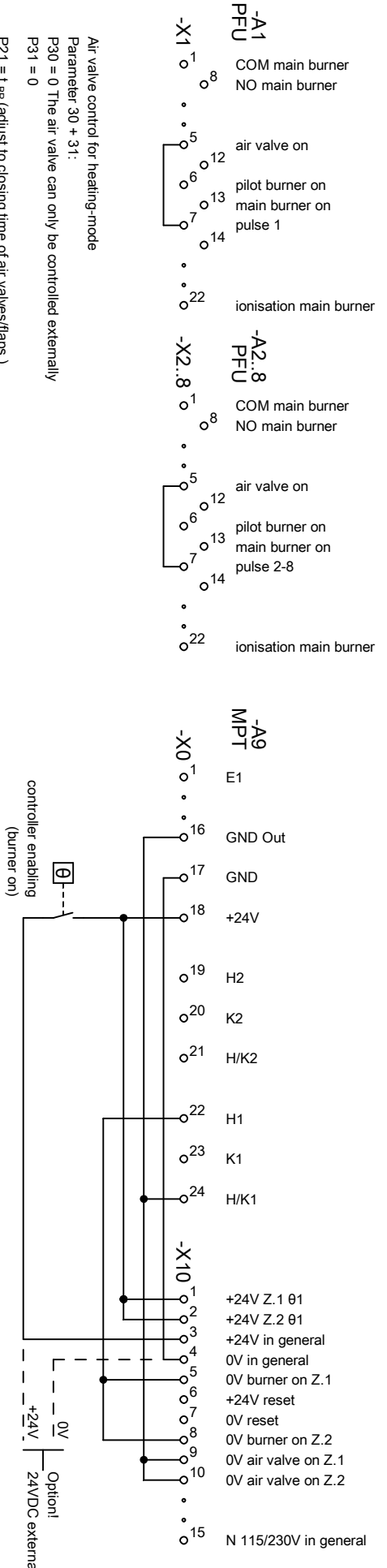
Single zone operation heating/cooling, off/on

operation mode 2(4) (Parameter 11)



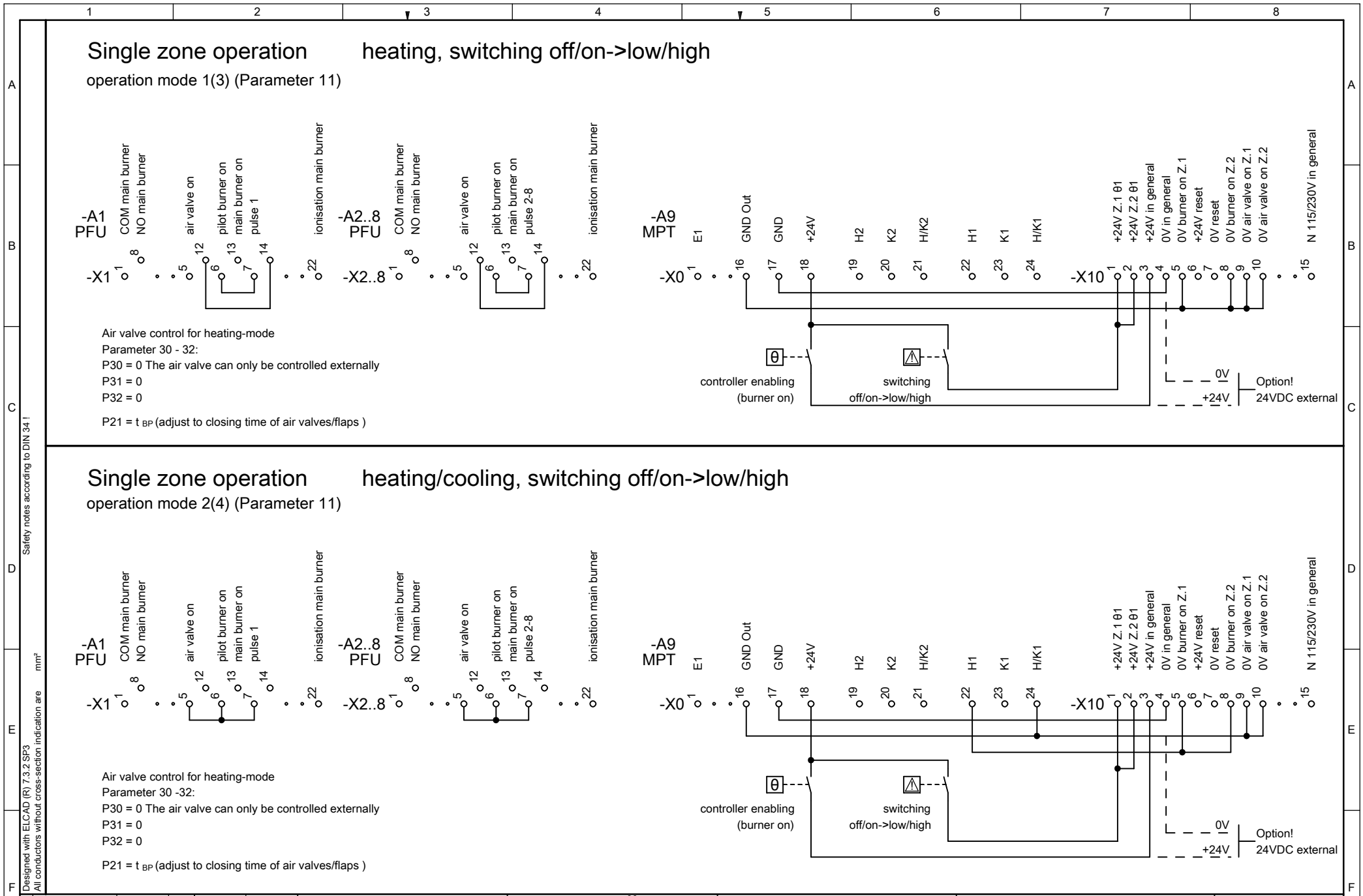
Single zone operation heating/cooling, low/high

operation mode 2(4) (Parameter 11)



| | | | |
|--|--------------|------------------------------------|----------------|
| Designed with ELCAD (R) 7.3.2 SP3 All conductors without cross-section indication are mm² | | Safety notes according to DIN 34 ! | |
| GI | UND | 13.03.2009 | Born/Haseman |
| KI | 23 | 19.02.2009 | Theil/Designed |
| TA | 2.8 | 27.10.2008 | Theil/Verified |
| RI | Modification | Date | Name/Standard |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |

| | | |
|--|--------|-------------|
| BGT SM-8U1/1 | Origin | Replaced by |
| Krom schroder | | |
| Operating modes PF180 Single zone operation heating / cooling | | |
| 84402282 | | |
| Pg. 13/3 | | |



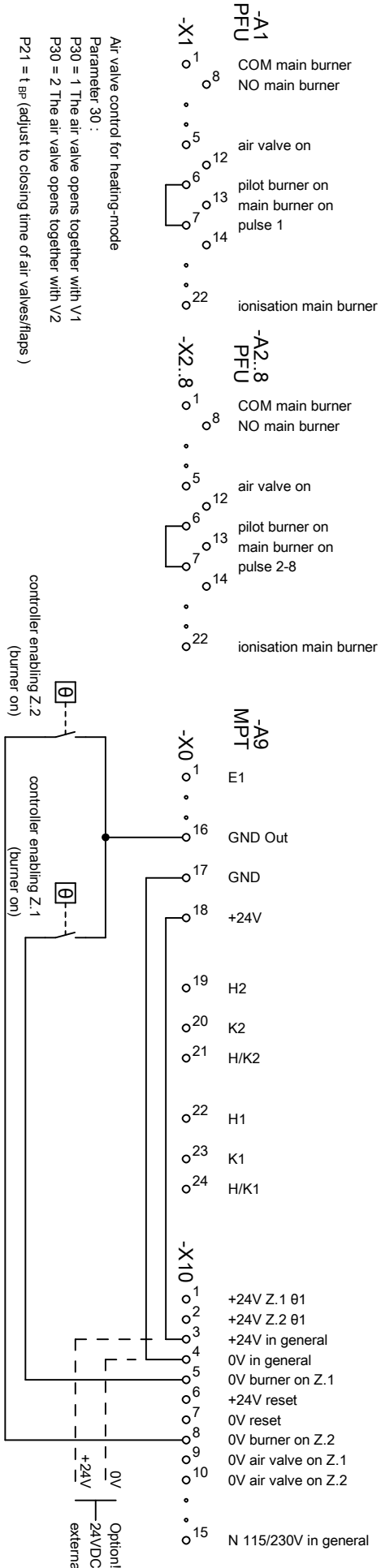
Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
All conductors without cross-section indication are mm²

| | | | | | | | | | | |
|---|--------------|------------|-------------|------------|--------------|-----------------|-----------------|-----------------------|----------|--|
| G | UVD | 13.03.2009 | Bornholtzen | 20.09.2007 | BGT SM-8U1/1 | | Operating modes | | | |
| F | Ki.23 | 19.02.2009 | Thele | Designed | | | Thele | PFU 760 | | |
| E | Takt 2..8 | 27.10.2008 | Thele | Verified | | | Kroner | Single zone operation | | |
| R | Modification | Date | Name | Standard | Origin | Replacement for | Replaced by | 84402282 | Pg. 14/3 | |

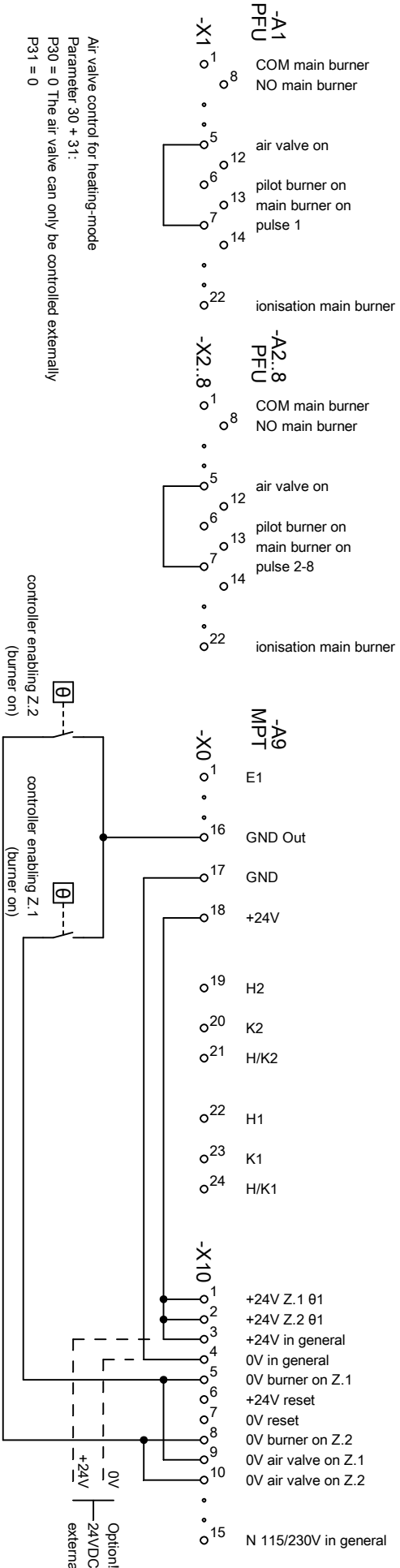
Two zone operation heating, off/on

operation mode 1(3) (Parameter 11)

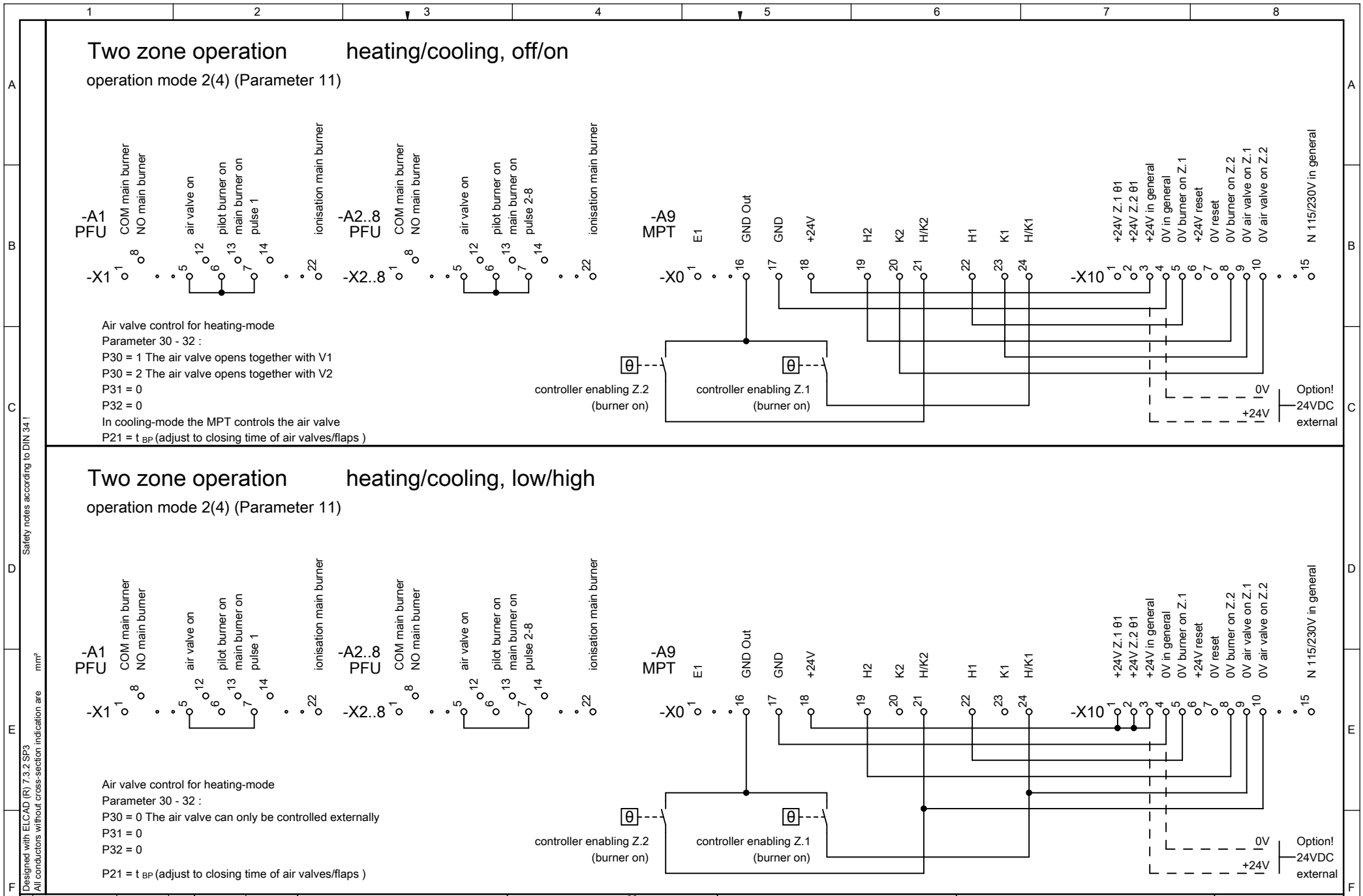


Two zone operation heating, low/high

operation mode 1(3) (Parameter 11)



| | | | |
|--|------------|---|-----------------|
| Designed with ELCAD (R) 7.3.2 SP3 All conductors without cross-section indication are mm² | | Safety notes according to DIN 34 1 | |
| CI UNV | 13.03.2009 | Ernst Hansen | 05.07.2007 |
| E Fakt 2.8 | 27.10.2008 | Theil Designed | Theil |
| D Para 2.1 | 05.02.2008 | Theil Verified | Kroner |
| RI Modification | Date | Name/Standard | Origin |
| 1 | | | |
| 2 | | | |
| 3 | | BGT SM-8U1/1 | Replacement for |
| 4 | | Kromschroder | Replaced by |
| 5 | | Operating modes PF 60 Two zone operation heating | |
| 6 | | | |
| 7 | | 8440282 | |
| 8 | | | Pg. 15/3 |



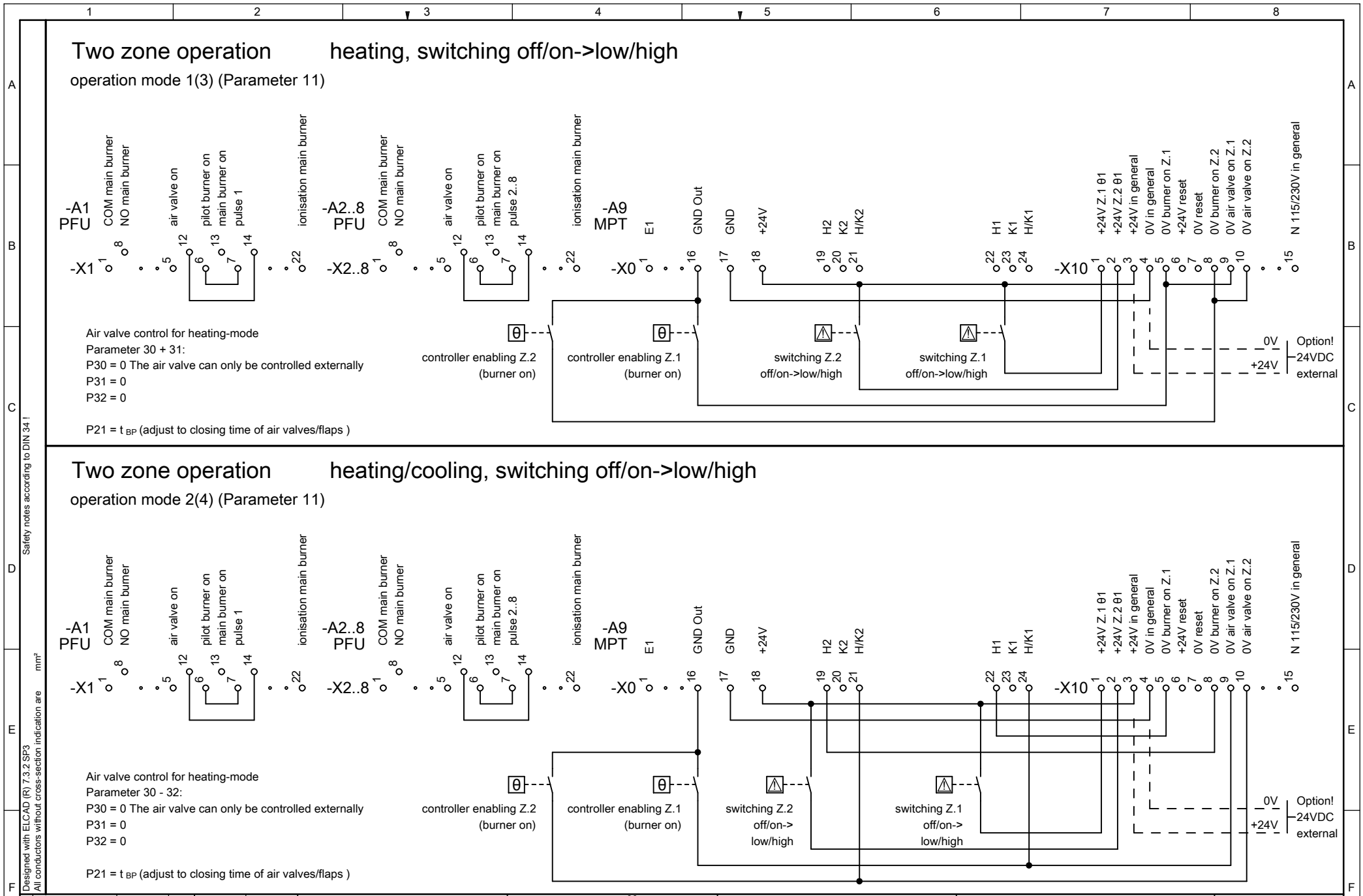
Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2.SP3
All conductors without cross-section indication are mm²

| | | | |
|-----------------|------------|----------------|------------|
| G UVD | 13.03.2009 | Bornh. auzten | 05.07.2007 |
| E Takt 2..8 | 27.10.2008 | Thele Designed | Thele |
| D Para.21 | 05.02.2008 | Thele Verified | Kroner |
| R. Modification | Date | Name Standard | Origin |

| | |
|---------------------|---------|
| BGT SM-8U1/1 | |
| | |
| Operating modes | PFU 760 |
| Two zone operation | |
| heating / cooling | |
| Replaced by | |

| | | |
|----------|--|----------|
| 84402282 | | Pg. 16/3 |
| 17 | | |



Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²
 Safety notes according to DIN 34 1

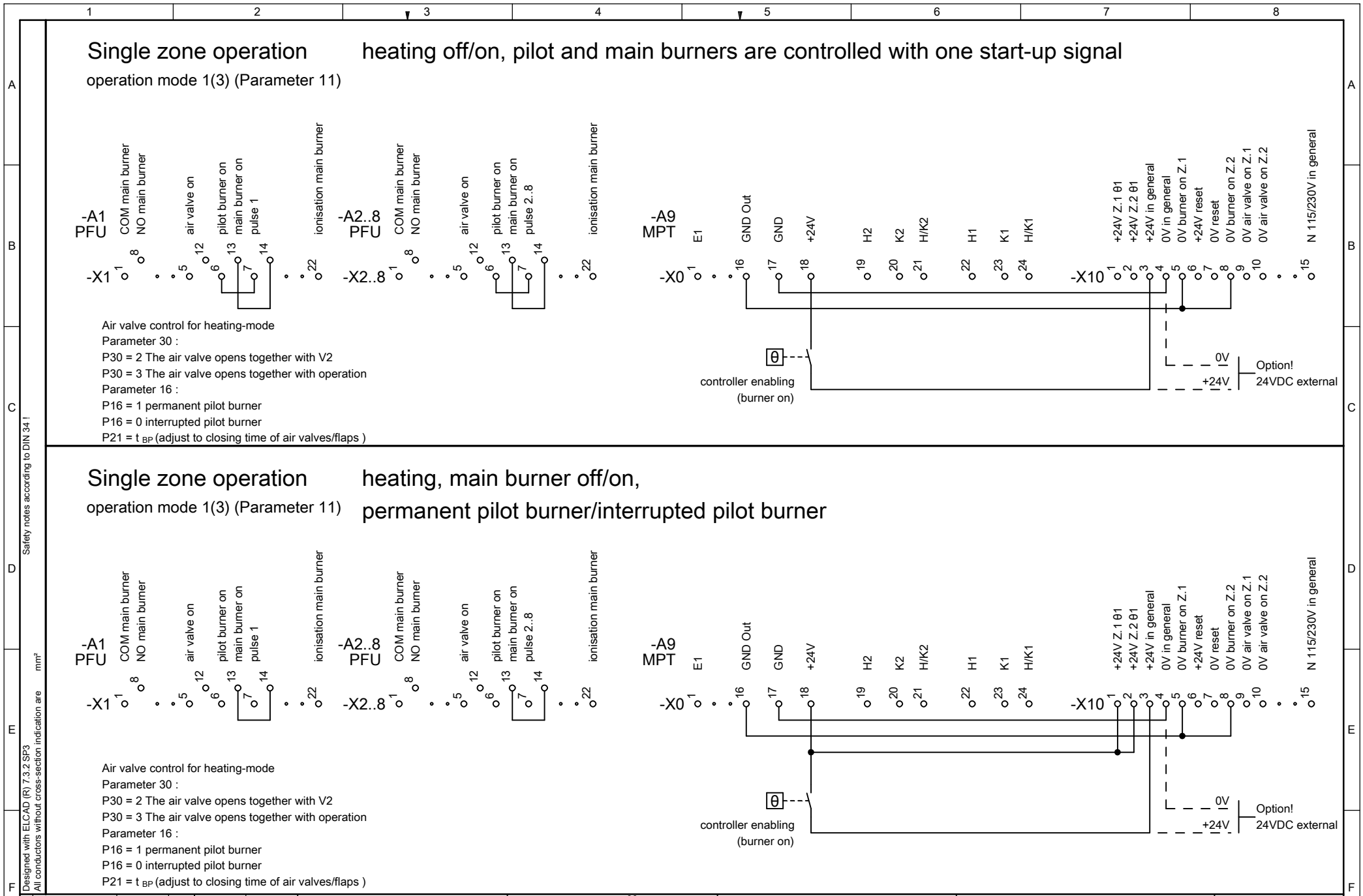
| | | | | |
|---|--------------|------------|----------------|------------|
| G | UVD | 13.03.2009 | Bornhalden | 20.09.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele Designed | Thele |
| D | Para.21 | 05.02.2008 | Thele Verified | Kroner |
| R | Modification | Date | Name/Standard | Origin |

BGT SM-8U1/1

kromschroder

Replaced by

| | | |
|--------------------|------------------|----------|
| Operating modes | PFU 760 | 84402282 |
| Two zone operation | off/on->low/high | |
| | | Pg. 17/3 |



Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²
 Safety notes according to DIN 34 1

| | | | | | |
|---|--------------|------------|-------|----------|------------|
| G | UVD | 13.03.2009 | Born | alzen | 17.09.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed | Thele |
| D | Para.21 | 05.02.2008 | Thele | Verified | Kroner |
| R | Modification | Date | Name | Standard | |

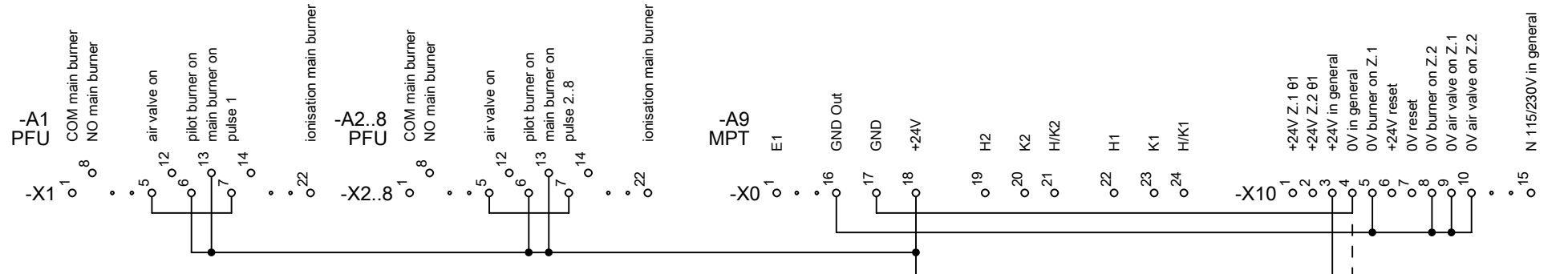
| | | | |
|--------------|-----------------|-------------|--|
| BGT SM-8U1/1 | | | |
| Origin | Replacement for | Replaced by | |

| | | | |
|-----------------------|------------------|----------|----------|
| Operating modes | PFU 780 | 84402282 | Pg. 18/4 |
| Single zone operation | heating (off/on) | | 19 |

A

Single zone operation heating, main burner low/high, operation mode 1(3) (Parameter 11) permanent pilot burner/interrupted pilot burner

A



Air valve control for heating-mode
 Parameter 30 -32:
 P30 = 0 The air valve can only be controlled externally
 P31 = 0
 P32 = 0
 Parameter 16 :
 P16 = 1 permanent pilot burner
 P16 = 0 interrupted pilot burner



Safety notes according to DIN 34 1

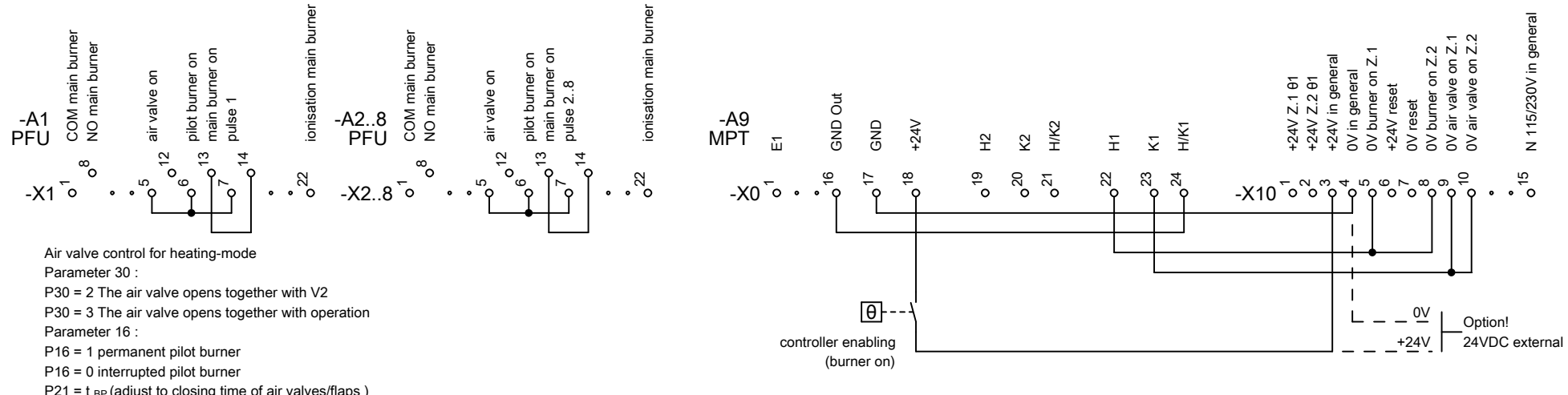
Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²

| | | | | | | | | |
|----------------|------------|------------|------------|--------------|-------------|---|----------|----------|
| G UVD | 13.03.2009 | Bornhalden | 17.09.2007 | BGT SM-8U1/1 | | Operating modes PFU 780 Single zone operation heating (low/high) | 84402282 | Pg. 19/4 |
| E Takt 2..8 | 27.10.2008 | Thele | Thele | | | | | |
| D Para.21 | 05.02.2008 | Thele | Kroner | Origin | Replaced by | | | 20 |
| R Modification | Date | Name | Standard | | | | | |

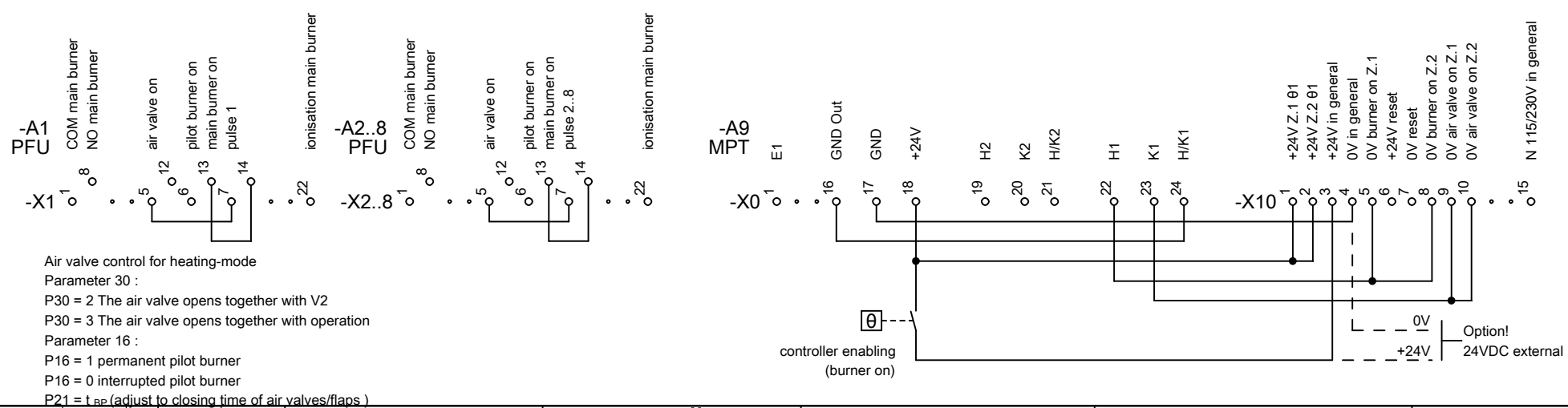
F

A
B
C
D
E
F
 Safety notes according to DIN 34 1
 Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²

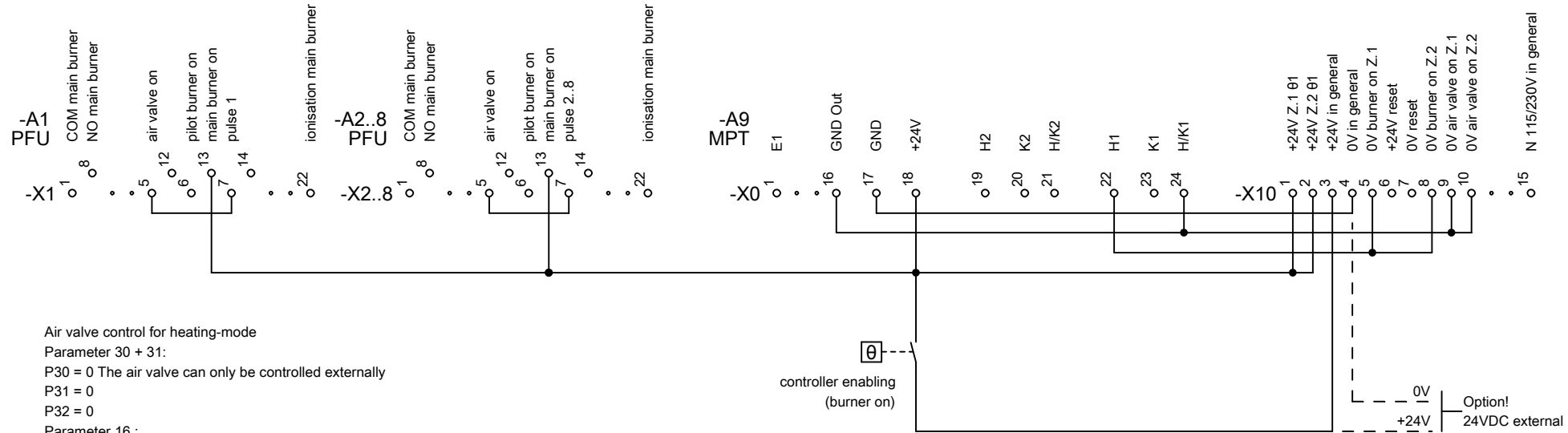
Single zone operation heating/cooling, off/on,
 operation mode 2(4) (Parameter 11) pilot and main burners are controlled with one start-up signal



Single zone operation heating/cooling, main burner off/on,
 operation mode 2(4) (Parameter 11) permanent pilot burner/interrupted pilot burner



Single zone operation heating/cooling, main burner low/high,
operation mode 2(4) (Parameter 11) permanent pilot burner/interrupted pilot burner



Air valve control for heating-mode
 Parameter 30 + 31:
 P30 = 0 The air valve can only be controlled externally
 P31 = 0
 P32 = 0
 Parameter 16 :
 P16 = 1 permanent pilot burner
 P16 = 0 interrupted pilot burner
 P21 = t_{BP} (adjust to closing time of air valves/flaps)

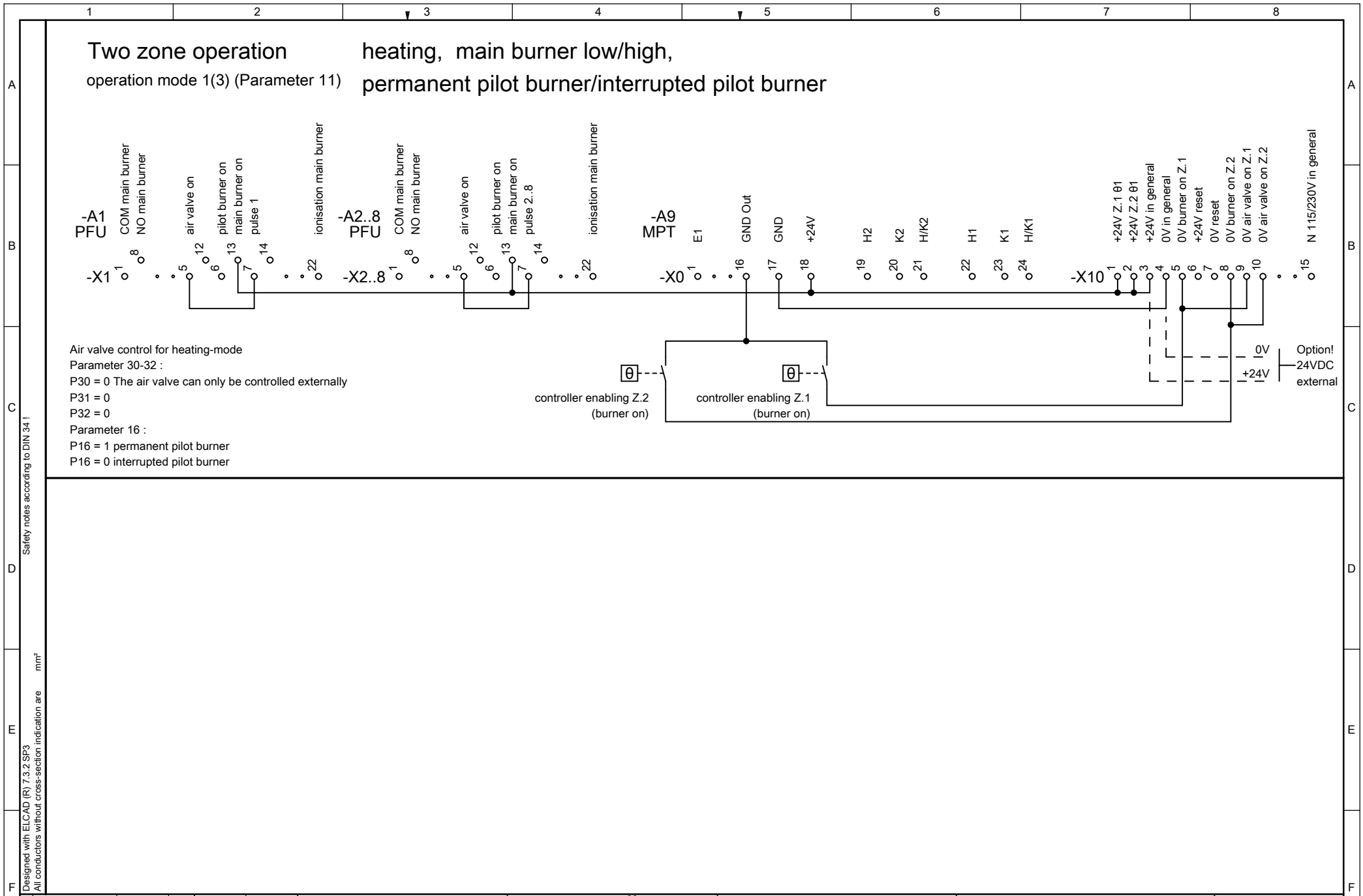
controller enabling
(burner on)

Option!
 0V
 +24V
 24VDC external

Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²

| | | | | | | | | | | |
|---|--------------|------------|-------|----------|------------|-----------------|-------------|--|----------|----------|
| G | UVD | 13.03.2009 | Bornh | alzen | 18.09.2007 | BGT SM-8U1/1 | | Operating modes PFU 780 Single zone operation heating (low/high)/ cooling | 84402282 | Pg. 21/4 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed | Thele | | | | | |
| D | Para.21 | 05.02.2008 | Thele | Verified | Kroner | | | | | |
| R | Modification | Date | Name | Standard | Origin | Replacement for | Replaced by | | | |

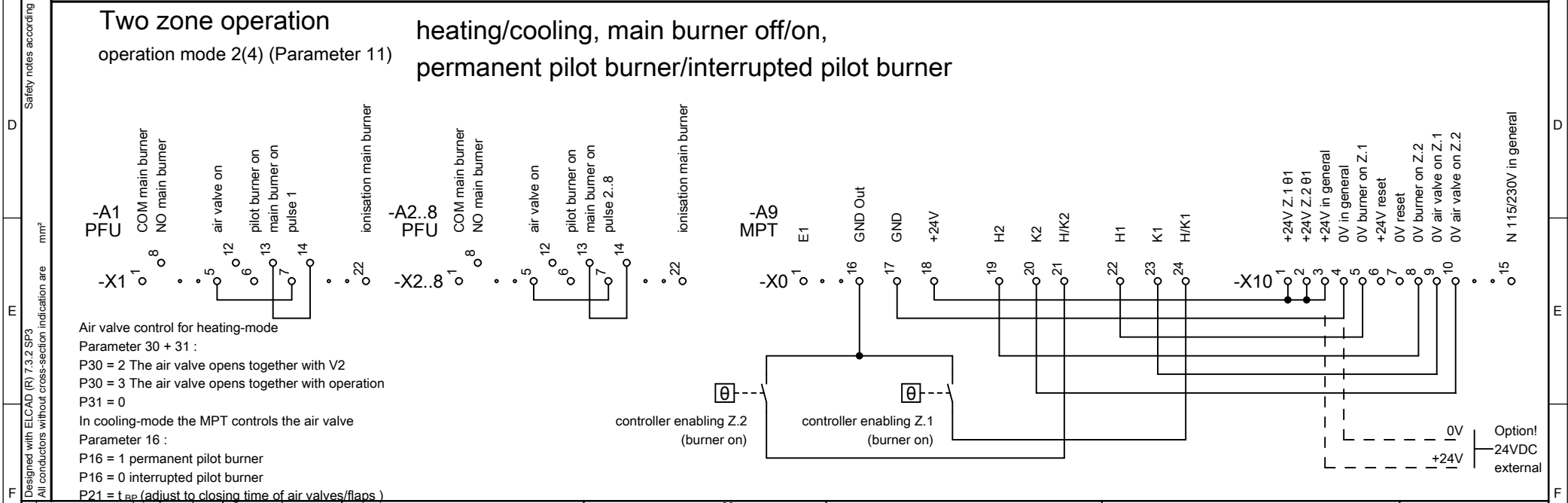
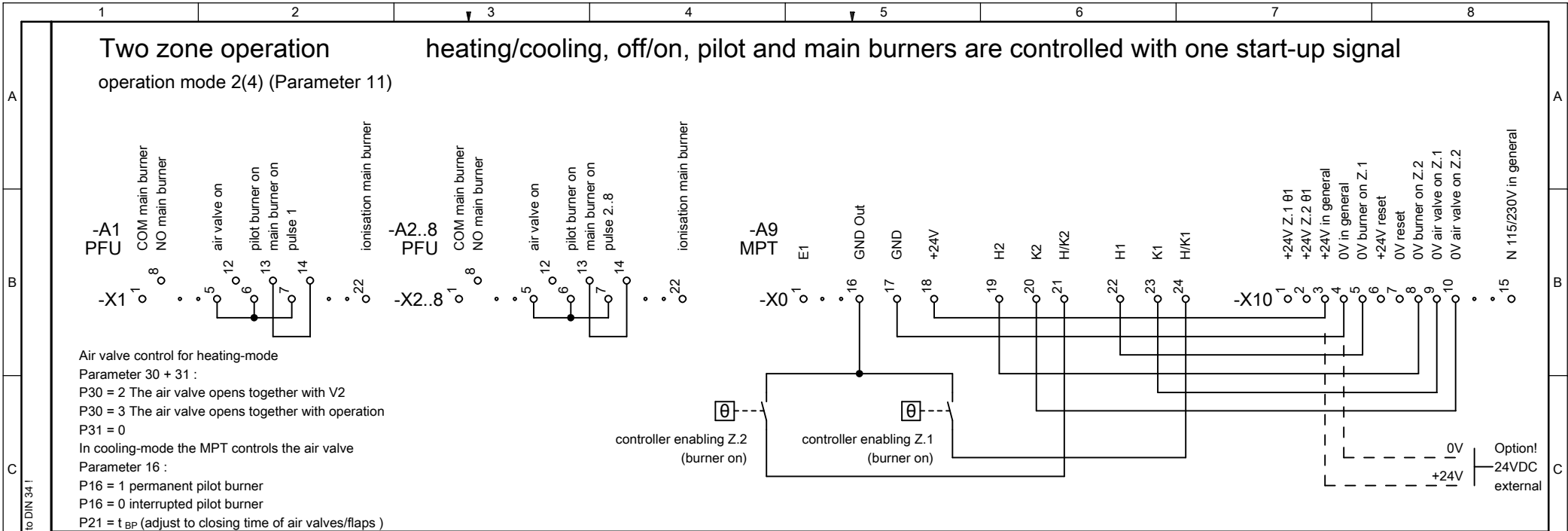


Air valve control for heating-mode
 Parameter 30-32 :
 P30 = 0 The air valve can only be controlled externally
 P31 = 0
 P32 = 0
 Parameter 16 :
 P16 = 1 permanent pilot burner
 P16 = 0 interrupted pilot burner

Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²

| | | | | | | | | | | |
|----------------|------------|-------------|------------|--------------------|-------------|--|---|---|----|----|
| G UVD | 13.03.2009 | Bornholtzen | 20.09.2007 | BGT SM-8U/1 | | Operating modes PFU 780 Two zone operation heating (low/high) | | | | |
| E Takt 2..8 | 27.10.2008 | Thele | Thele | | | | | | | |
| D Para.21 | 05.02.2008 | Thele | Kroner | | | | | | | |
| R Modification | Date | Name | Standard | Origin | Replaced by | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |



Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
 All conductors without cross-section indication are mm²

| | | | | |
|---|--------------|------------|---------|------------|
| G | UVD | 13.03.2009 | Bornitz | 17.09.2007 |
| E | Takt 2..8 | 27.10.2008 | Thele | Designed |
| D | Para.21 | 05.02.2008 | Thele | Verified |
| R | Modification | Date | Name | Standard |

BGT SM-8U1/1

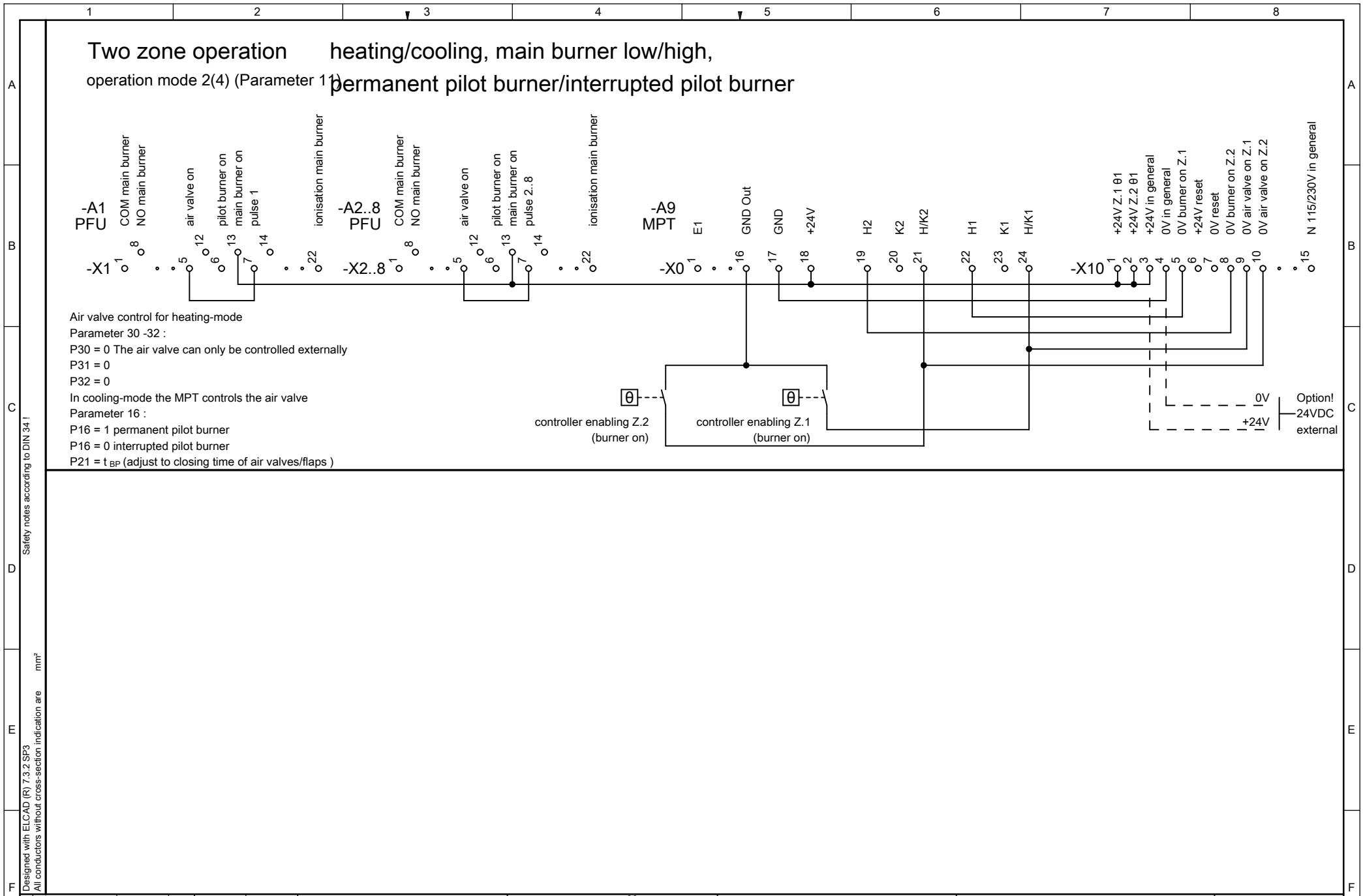


Operating modes
 PFU 780
 Two zone operation
 heating (off/on)/ cooling

84402282

Pg. 24/4

25



Safety notes according to DIN 34 1

Designed with ELCAD (R) 7.3.2 SP3
All conductors without cross-section indication are mm²

| | | | | | | | | |
|----------------|------------|------------|------------|--------------------|---------------------|-----------------------------|----------|----------|
| G UVD | 13.03.2009 | Bornhalden | 20.09.2007 | BGT SM-8U/1 | kromschroder | Operating modes | | |
| E Takt 2..8 | 27.10.2008 | Thele | Thele | | | PFU 780 | | |
| D Para.21 | 05.02.2008 | Thele | Kroner | | | Two zone operation | | |
| R Modification | Date | Name | Standard | Origin | Replaced by | heating (low/high)/ cooling | 84402282 | Pg. 25/4 |