

+	Red
-	Black
RS 485A	White
RS 485B	Green

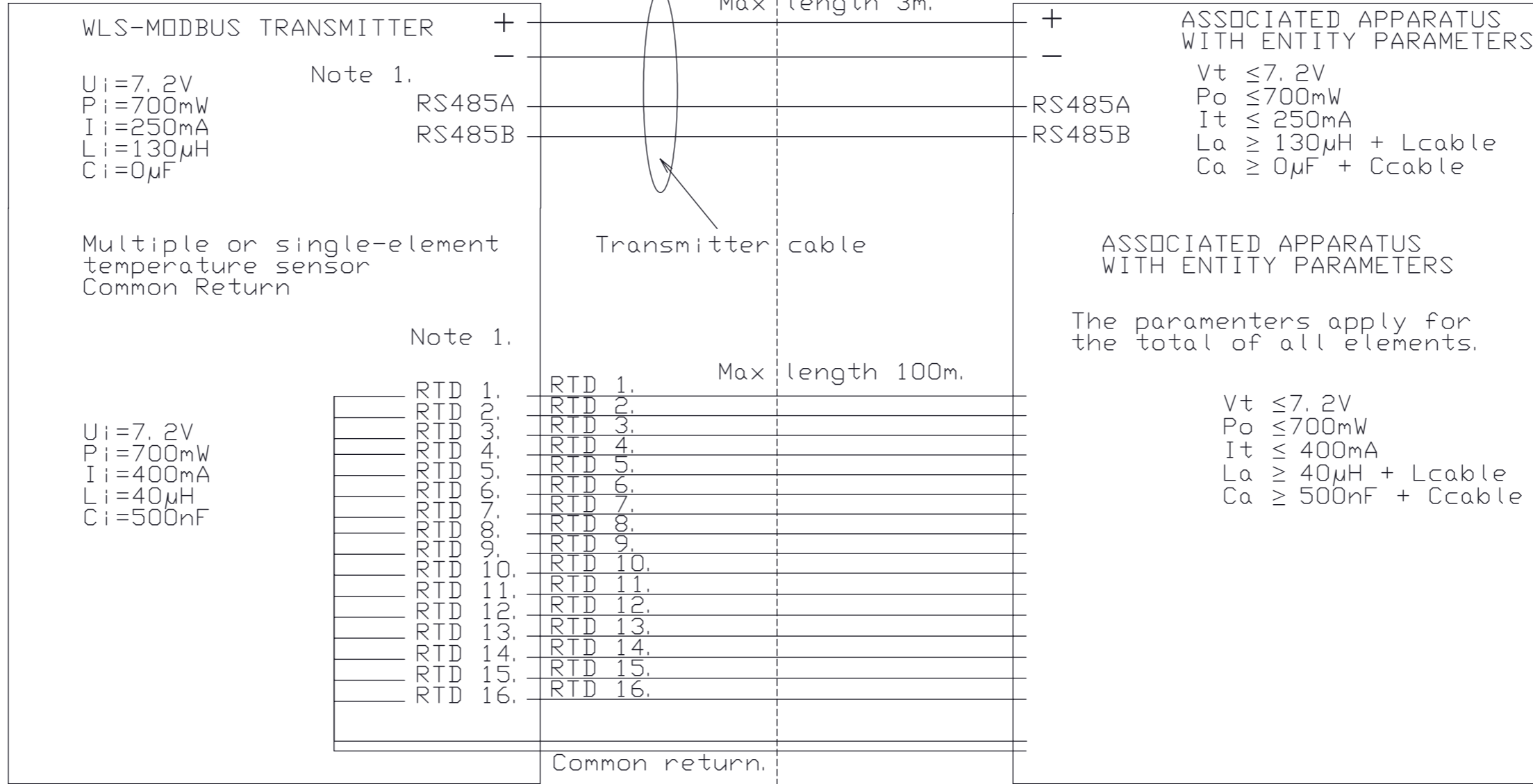
HAZARDOUS (Classified) LOCATION  
 Class I, Div. 1, Group A, B, C, D or  
 Class I, zone 0, AEx ia IIC;  
 Temperature Class T4; -50 ≤ T<sub>A</sub> ≤ 120 °C  
 Temperature Class T6; -50 ≤ T<sub>A</sub> ≤ 70 °C

HAZARDOUS LOCATION /  
 UNCLASSIFIED LOCATION.

Element No.	Color codes
Common return	
RTD 1	brown
RTD 2	red
RTD 3	orange
RTD 4	yellow
RTD 5	green
RTD 6	blue
RTD 7	violet
RTD 8	grey
RTD 9	white
RTD 10	pink
RTD 11	brown/black
RTD 12	red/black
RTD 13	orange/black
RTD 14	yellow/black
RTD 15	green/black
RTD 16	blue/black
RTD 17	violet/black
RTD 18	grey/black
RTD 19	white/black
RTD 20	pink/black

Max No. of elements	Common return
1" hose	20
3/4" hose	13

Black conductors from common point.  
 Common return always have 2 common



Note 1.  
 Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment.  
 The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2:  
 For installations in the US the associated barriers or galvanic isolators shall be FM Approved.  
 For installations in Canada the associated barriers or galvanic isolators shall be cFM or CSA listed.  
 In both cases the manufacturers installation drawings shall be followed when installing the equipment.  
 P<sub>o</sub> of the barrier must be less than or equal to the P<sub>i</sub> of the apparatus and have V<sub>oc</sub> or V<sub>t</sub> not exceeding U<sub>i</sub> and I<sub>sc</sub> or I<sub>t</sub> not exceeding I<sub>i</sub>.

- a. The unclassified location apparatus connected to the associated apparatus shall not generate more than the quoted U<sub>m</sub> of the Associated Apparatus.
- b. For installations in the US the associated intrinsically safe barriers shall have an appropriate FM Approval. For installations in Canada the associated apparatus shall have an appropriate cFM or CSA Approval. The manufacturers control drawing shall be followed when installing this equipment.
- c. Installations shall be in accordance with ANSI/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Location" and the National Electrical Code ANSI/NFPA 70. Installation in Canada shall be in accordance with the Canadian Electrical Code C22.1
- d. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.  
 V<sub>oc</sub> or V<sub>t</sub> equal or less than U<sub>i</sub>  
 I<sub>sc</sub> or I<sub>t</sub> equal or less than I<sub>i</sub>  
 P<sub>o</sub> equal or less than P<sub>i</sub>  
 L<sub>a</sub> equal to or greater than L<sub>cable</sub> + L<sub>i</sub>  
 C<sub>a</sub> equal to or greater than C<sub>cable</sub> + C<sub>i</sub>
- e. The associated apparatus shall be of like polarity.
- f. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.
- g. The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of V<sub>oc</sub> (or U<sub>o</sub>) and I<sub>sc</sub> (or I<sub>o</sub>) for the associated apparatus are less than or equal to U<sub>i</sub> and I<sub>i</sub> for the intrinsically safe apparatus and the approved values of C<sub>a</sub>(C<sub>o</sub>) and L<sub>a</sub>(L<sub>o</sub>) for the associated apparatus are greater than C<sub>i</sub> + C<sub>cable</sub> and L<sub>i</sub> + L<sub>cable</sub>, respectively, for the intrinsically safe apparatus.
- h. WARNING: Substitution of components may impair intrinsic safety and suitability for Division 1/Zone 0 hazardous (classified) Locations.  
 ADVERTISEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.
- i. U<sub>m</sub> = 250V



Industrivej 8  
 DK-5471 Sønderød Denmark  
 Phone +45 6489 2211  
 Fax +45 6489 3311

Item Description:  
 CONTROL DRAWING for US and Canada  
 For hazardous location installation of  
 WLS MODBUS

First angle projection  
 Scale: 1:1  
 Department:

Sheet name:  
 Assembly specification sheet

Drawing Number: 800-9020-FM  
 Rev.: 10

Application:  
 Senmatic Instruction No.:

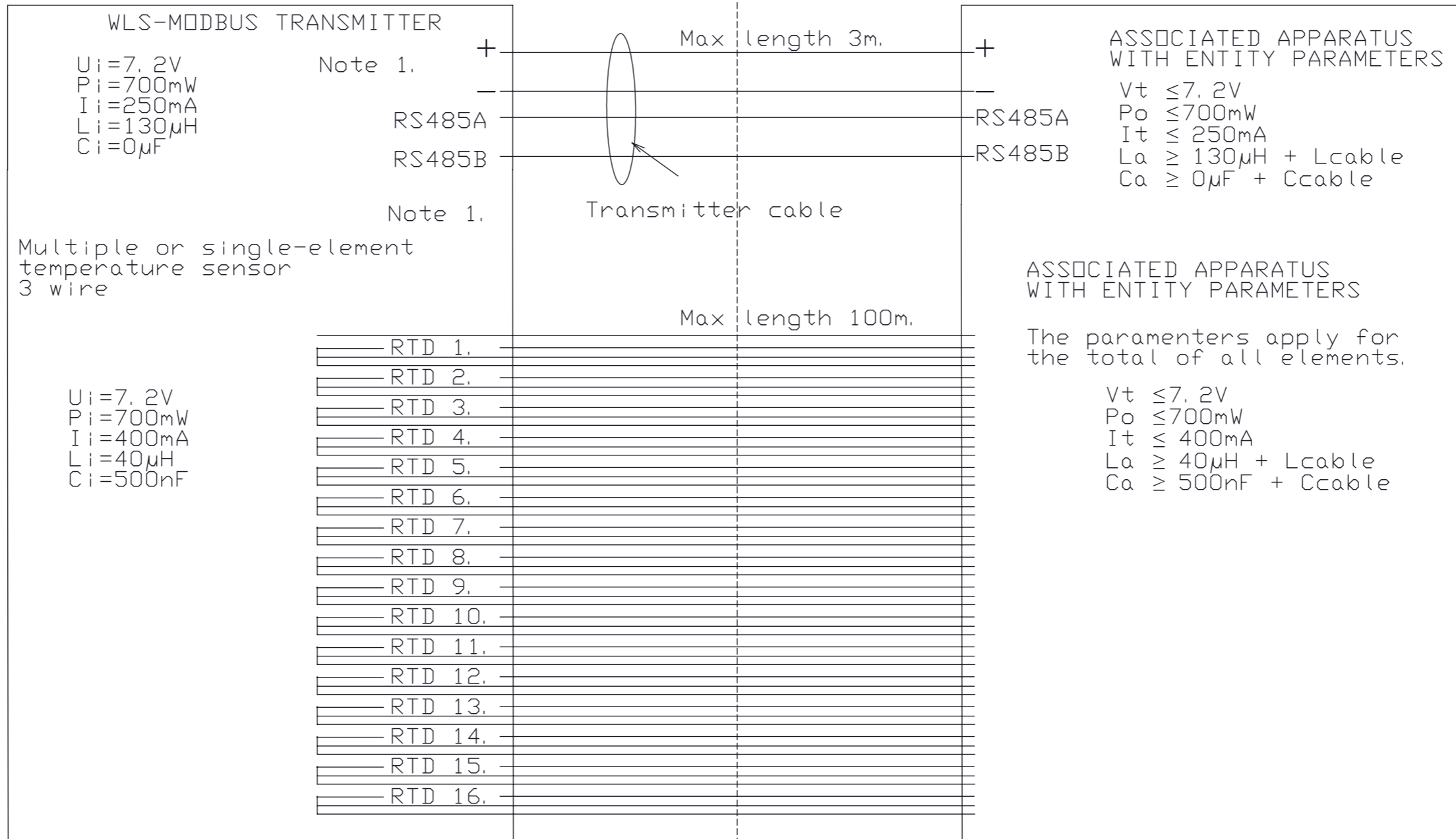
Date/Designed: 29-04-08 / JEH

+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
3 wire	
RTD 1	brown-black, black
RTD 2	red-black, black
RTD 3	orange-black, black
RTD 4	yellow-black, black
RTD 5	green-black, black
RTD 6	blue-black, black
RTD 7	violet-black, black
RTD 8	grey-black, black
RTD 9	white-black, black
RTD 10	pink-black, black
RTD 11	brown, brown-black
RTD 12	red, red-black
RTD 13	orange, orange-black
RTD 14	yellow, yellow-black
RTD 15	green, green-black
RTD 16	blue, blue-black
RTD 17	violet, violet-black
RTD 18	grey, grey-black
RTD 19	white, white-black
RTD 20	pink, pink-black

Max No. of elements	3 wire
1" hose	20
3/4" hose	13

HAZARDOUS LOCATION / UNCLASSIFIED LOCATION.



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure

Note 2.  
For installations in the US the associated barriers or galvanic isolators shall be FM Approved.  
For installations in Canada the associated barriers or galvanic isolators shall be cFM or CSA listed.  
In both cases the manufacturers installation drawings shall be followed when installing the equipment.  
Po of the barrier must be less than or equal to the Pi of the apparatus and have Voc or Vt not exceeding Ui and Isc or It not exceeding Ii.

- a. The unclassified location apparatus connected to the associated apparatus shall not generate more than the quoted Um of the Associated Apparatus.
- b. For installations in the US the associated intrinsically safe barriers shall have an appropriate FM Approval. For installations in Canada the associated apparatus shall have an appropriate cFM or CSA Approval. The manufacturers control drawing shall be followed when installing this equipment.
- c. Installations shall be in accordance with ANSI/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Location" and the National Electrical Code ANSI/NFPA 70. Installation in Canada shall be in accordance with the Canadian Electrical Code C22.1
- d. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.  
Voc or Vt equal or less than Ui  
Isc or It equal or less than Ii  
Po equal or less than Pi  
La equal to or greater than Lcable + Li  
Ca equal to or greater than Ccable + Ci
- e. The associated apparatus shall be of like polarity.
- f. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.
- g. The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of Voc (or Uo) and Isc (or Io) for the associated apparatus are less than or equal to Ui and Ii for the intrinsically safe apparatus and the approved values of Ca(Co) and La(Lo) for the associated apparatus are greater than Ci + Ccable and Li + Lcable, respectively, for the intrinsically safe apparatus.
- h. WARNING: Substitution of components may impair intrinsic safety and suitability for Division 1/Zone 0 hazardous (classified) Locations.  
ADVERTISEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.
- i. Um=250V.



Industrivej 8  
DK-5471 Sønderød Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

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CONTROL DRAWING for US and Canada  
For hazardous location installation of  
WLS MODBUS

First angle projection  
Scale: 1:1  
Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM

Application:

Senmatic Instruction No.:

Date/Designed: 29-04-08 / JEH

Page 2 of 18

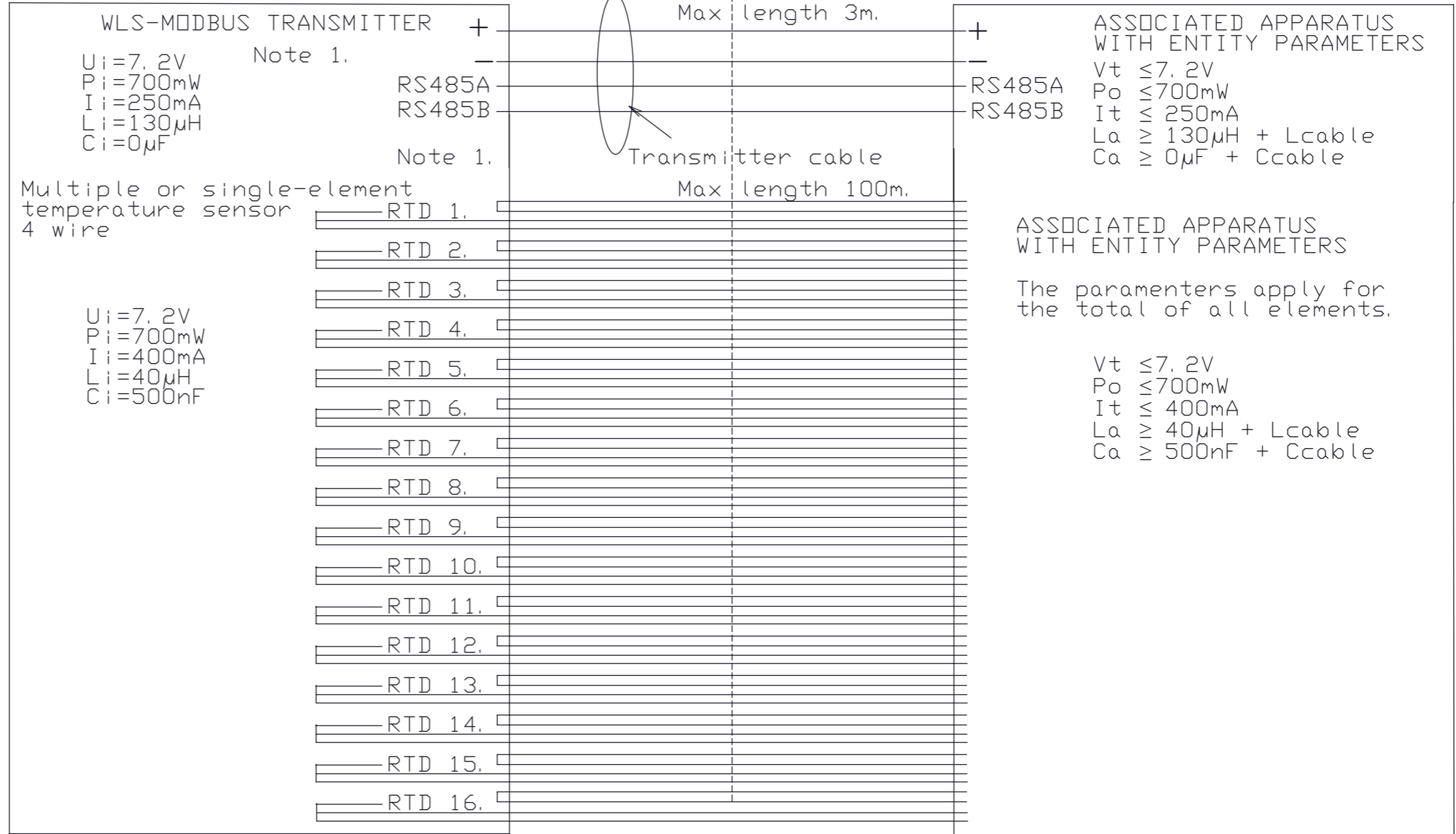
Sheet format: A3

Rev.:  
10

+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Insulation color codes
4 wire	
RTD 1	brown, brown-black, black
RTD 2	red, red-black, black
RTD 3	orange, orange-black, black
RTD 4	yellow, yellow-black, black
RTD 5	green, green-black, black
RTD 6	blue, blue-black, black
RTD 7	violet, violet-black, black
RTD 8	grey, grey-black, black
RTD 9	white, white-black, black
RTD 10	pink, pink-black, black
RTD 11	brown/black, brown/black-black, black
RTD 12	red/black, red/black-black, black
RTD 13	orange/black, orange/black-black, black
RTD 14	yellow/black, yellow/black-black, black
RTD 15	green/black, green/black-black, black
RTD 16	Blue/black, Blue/black-black, black

Max No. of elements	4wire
1" hose	16
3/4" hose	10



Note 1.  
 Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
 For installations in the US the associated barriers or galvanic isolators shall be FM Approved.  
 For installations in Canada the associated barriers or galvanic isolators shall be cFM or CSA listed.  
 In both cases the manufacturers installation drawings shall be followed when installing the equipment.  
 $P_o$  of the barrier must be less than or equal to the  $P_i$  of the apparatus and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .

- a. The unclassified location apparatus connected to the associated apparatus shall not generate more than the quoted  $U_m$  of the Associated Apparatus.
- b. For installations in the US the associated intrinsically safe barriers shall have an appropriate FM Approval. For installations in Canada the associated apparatus shall have an appropriate cFM or CSA Approval. The manufacturers control drawing shall be followed when installing this equipment.
- c. Installations shall be in accordance with ANSI/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Location" and the National Electrical Code ANSI/NFPA 70. Installation in Canada shall be in accordance with the Canadian Electrical Code C22.1
- d. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.  
 $V_{oc}$  or  $V_t$  equal or less than  $U_i$   
 $I_{sc}$  or  $I_t$  equal or less than  $I_i$   
 $P_o$  equal or less than  $P_i$   
 $L_a$  equal to or greater than  $L_{cable} + L_i$   
 $C_a$  equal to or greater than  $C_{cable} + C_i$
- e. The associated apparatus shall be of like polarity.
- f. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.
- g. The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of  $V_{oc}$  (or  $U_o$ ) and  $I_{sc}$  (or  $I_o$ ) for the associated apparatus are less than or equal to  $U_i$  and  $I_i$  for the intrinsically safe apparatus and the approved values of  $C_a(C_o)$  and  $L_a(L_o)$  for the associated apparatus are greater than  $C_i + C_{cable}$  and  $L_i + L_{cable}$ , respectively, for the intrinsically safe apparatus.
- h. WARNING: Substitution of components may impair intrinsic safety and suitability for Division 1/Zone 0 hazardous (classified) Locations.
- i. ADVERTISEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.
- i.  $U_m = 250V$



Industrivej 8  
 DK-5471 Sønderød Denmark  
 Phone +45 6489 2211  
 Fax +45 6489 3311

Item Description:  
 CONTROL DRAWING for US and Canada  
 For hazardous location installation of  
 WLS MODBUS

First angle projection  
 Scale: 1:1  
 Department:

Sheet name:  
 Assembly specification sheet

Drawing Number:  
 800-9020-FM  
 Rev.:  
 10

Application:  
 Senmatic Instruction No.:

Date/Designed: 29-04-08/ JEH

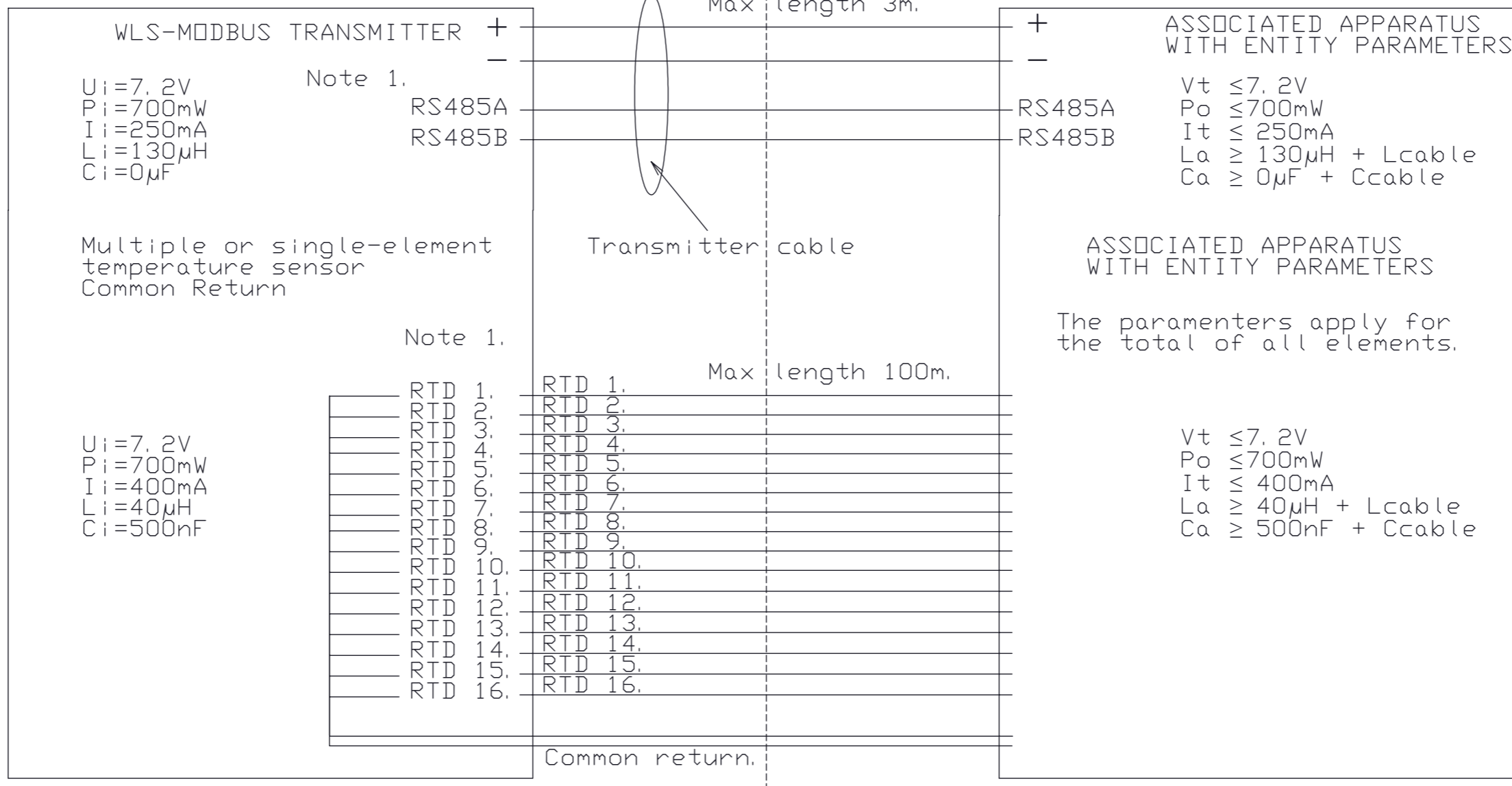
+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
Common return	
RTD 1	brown
RTD 2	red
RTD 3	orange
RTD 4	yellow
RTD 5	green
RTD 6	blue
RTD 7	violet
RTD 8	grey
RTD 9	white
RTD 10	pink
RTD 11	brown/black
RTD 12	red/black
RTD 13	orange/black
RTD 14	yellow/black
RTD 15	green/black
RTD 16	blue/black
RTD 17	violet/black
RTD 18	grey/black
RTD 19	white/black
RTD 20	pink/black

Max No. of elements	Common return
1" hose	20
3/4" hose	13

Black conductors from common point.  
Common return always have 2 common

Temperature class T4;  $-50 \leq TA \leq 120^\circ C$   
Temperature class T6;  $-50 \leq TA \leq 70^\circ C$



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure

Note 2.  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

a. For installations in Europe the associated apparatus shall have an appropriate EC-Type Examination certificate. The manufacturers control drawing shall be followed when installing this equipment.

b. Installations shall be in accordance with EN 60079-14 and local installation requirements.

c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.

- $U_o$  equal or less than  $U_i$
- $I_o$  equal or less than  $I_i$
- $P_o$  equal or less than  $P_i$
- $L_o$  equal to or greater than  $L_{cable} + L_i$
- $C_o$  equal to or greater than  $C_{cable} + C_i$

d. The associated apparatus shall be of like polarity.

e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



Industrivej 8  
DK-5471 Sønderød Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

Item Description:  
CONTROL DRAWING for ATEX  
For hazardous location installation of  
WLS MODBUS



First angle projection

Scale: 1:1  
Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM

Rev.:  
10

Application:

Senmatic Instruction No.:

Date/Designed: 29-04-08 / JEH

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Page 4 of 18

Sheet format: A3

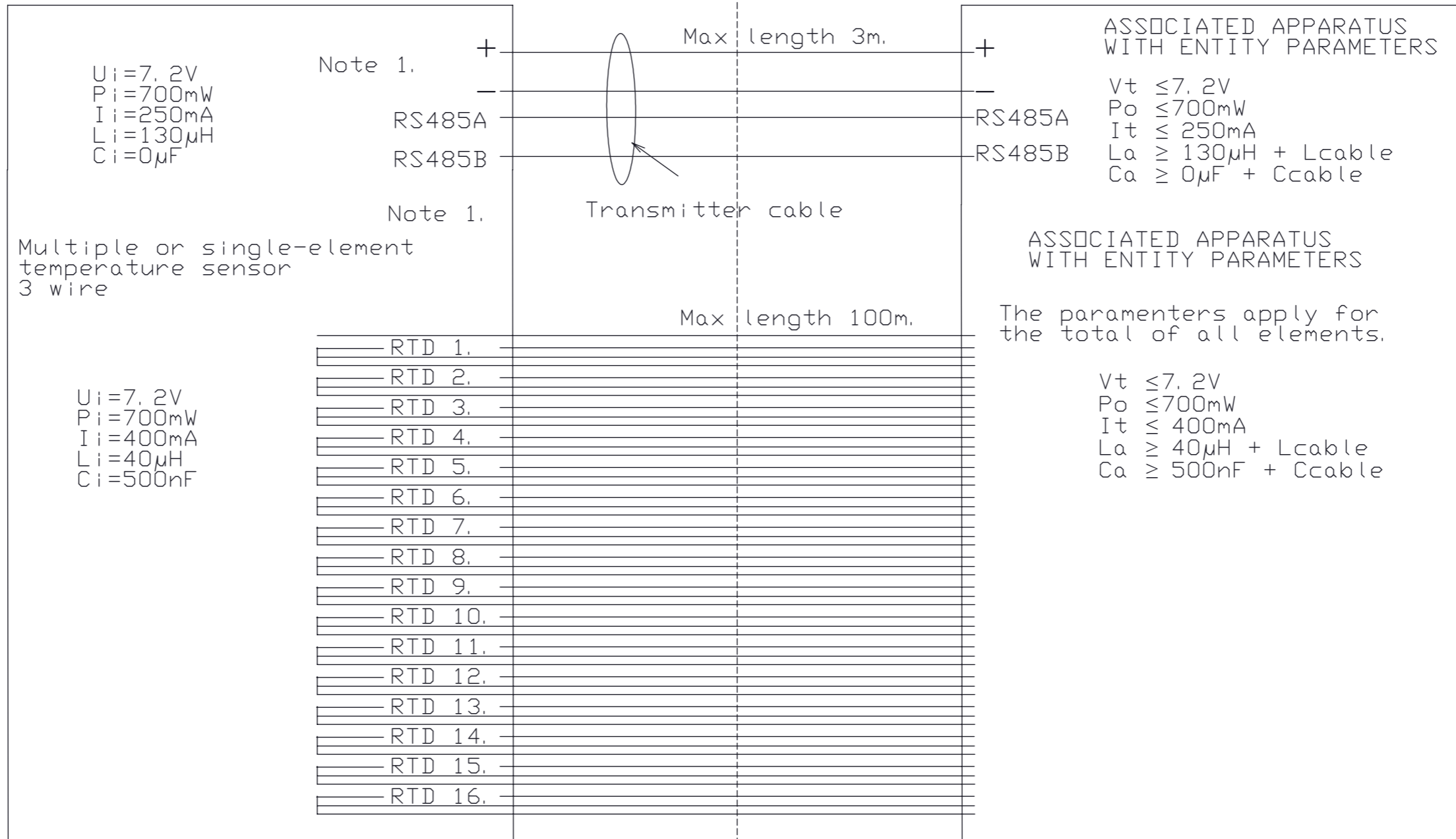
+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
3 wire	
RTD 1	brown-black, black
RTD 2	red-black, black
RTD 3	orange-black, black
RTD 4	yellow-black, black
RTD 5	green-black, black
RTD 6	blue-black, black
RTD 7	violet-black, black
RTD 8	grey-black, black
RTD 9	white-black, black
RTD 10	pink-black, black
RTD 11	brown, brown-black
RTD 12	red, red-black
RTD 13	orange, orange-black
RTD 14	yellow, yellow-black
RTD 15	green, green-black
RTD 16	blue, blue-black
RTD 17	violet, violet-black
RTD 18	grey, grey-black
RTD 19	white, white-black
RTD 20	pink, pink-black

Max. No. of elements	3 wire
1" hose	20
3/4" hose	13

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$   
 Temperature class T6;  $-50 \leq T_A \leq 70^\circ\text{C}$

HAZARDOUS LOCATION /  
NON-HAZARDOUS LOCATION.



Note 1. Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2. Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

a. For installations in Europe the associated apparatus shall have an appropriate EC-Type Examination certificate. The manufacturers control drawing shall be followed when installing this equipment.

b. Installations shall be in accordance with EN 60079-14 and local installation requirements.

c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.

- $U_o$  equal or less than  $U_i$
- $I_o$  equal or less than  $I_i$
- $P_o$  equal or less than  $P_i$
- $L_o$  equal to or greater than  $L_{\text{cable}} + L_i$
- $C_o$  equal to or greater than  $C_{\text{cable}} + C_i$

d. The associated apparatus shall be of like polarity.

e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



Industrivej 8  
 DK-5471 Sønderø Denmark  
 Phone +45 6489 2211  
 Fax +45 6489 3311

Item Description:  
 CONTROL DRAWING for ATEX  
 For hazardous location installation of  
 WLS MODBUS

First angle projection  
 Scale: 1:1 Department:

Sheet name:  
 Assembly specification sheet

Drawing Number:  
 800-9020-FM Rev.: 10

Application:  
 Senmatic Instruction No.:

Date/Designed: 29-04-08 / JEH



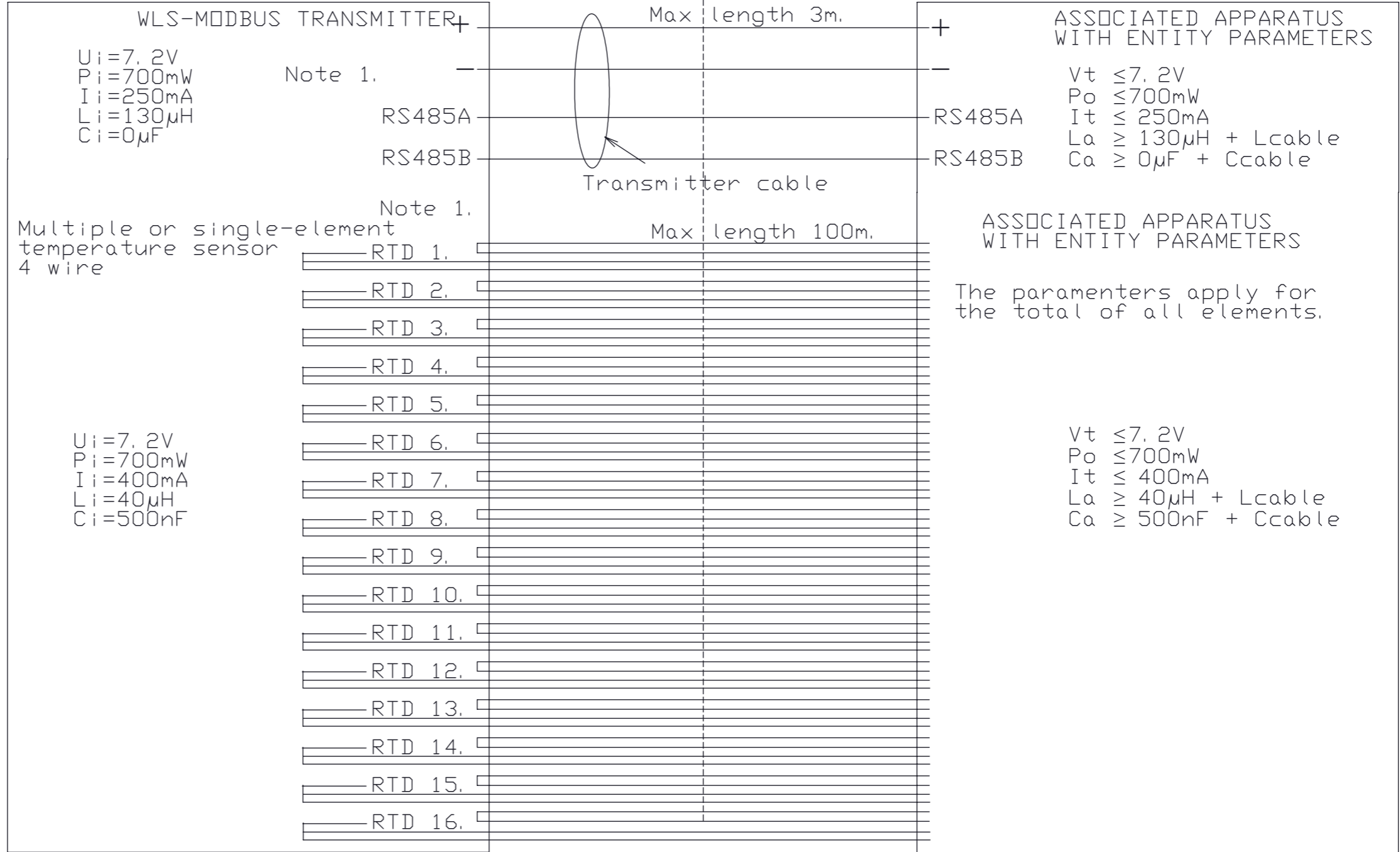
+	Red
-	Black
RS 485A	White
RS 485B	Green

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$   
Temperature class T6;  $-50 \leq T_A \leq 70^\circ\text{C}$

HAZARDOUS LOCATION /  
NON-HAZARDOUS LOCATION.

Element No.	Insulation color codes	
	4 wire	
RTD 1	brown, brown-black, black	
RTD 2	red, red-black, black	
RTD 3	orange, orange-black, black	
RTD 4	yellow, yellow-black, black	
RTD 5	green, green-black, black	
RTD 6	blue, blue-black, black	
RTD 7	violet, violet-black, black	
RTD 8	grey, grey-black, black	
RTD 9	white, white-black, black	
RTD 10	pink, pink-black, black	
RTD 11	brown/black, brown/black-black, black	
RTD 12	red/black, red/black-black, black	
RTD 13	orange/black, orange/black-black, black	
RTD 14	yellow/black, yellow/black-black, black	
RTD 15	green/black, green/black-black, black	
RTD 16	Blue/black, Blue/black-black, black	

Max No. of elements	4wire
1" hose	16
3/4" hose	10



ASSOCIATED APPARATUS WITH ENTITY PARAMETERS

$V_t \leq 7.2\text{V}$   
 $P_o \leq 700\text{mW}$   
 $I_t \leq 250\text{mA}$   
 $L_a \geq 130\mu\text{H} + L_{\text{cable}}$   
 $C_a \geq 0\mu\text{F} + C_{\text{cable}}$

ASSOCIATED APPARATUS WITH ENTITY PARAMETERS

The parameters apply for the total of all elements.

$V_t \leq 7.2\text{V}$   
 $P_o \leq 700\text{mW}$   
 $I_t \leq 400\text{mA}$   
 $L_a \geq 40\mu\text{H} + L_{\text{cable}}$   
 $C_a \geq 500\text{nF} + C_{\text{cable}}$

**Note 1.**  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

**Note 2.**  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

a. For installations in Europe the associated apparatus shall have an appropriate EC-Type Examination certificate. The manufacturers control drawing shall be followed when installing this equipment.

b. Installations shall be in accordance with EN 60079-14 and local installation requirements.

c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.  
 $U_o$  equal or less than  $U_i$   
 $I_o$  equal or less than  $I_i$   
 $P_o$  equal or less than  $P_i$   
 $L_o$  equal to or greater than  $L_{\text{cable}} + L_i$   
 $C_o$  equal to or greater than  $C_{\text{cable}} + C_i$

d. The associated apparatus shall be of like polarity.

e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



Industrivej 8  
DK-5471 Sønderø Denmark  
Phone +45 6489 2211  
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Item Description:  
CONTROL DRAWING for ATEX  
For hazardous location installation  
of WLS MODBUS



First angle projection

Scale: 1:1 Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM

Rev.:  
10

Application:

Senmatic Instruction No.:

Date/Designed: 29-04-08/ JEH

+	Red
-	Black
RS 485A	White
RS 485B	Green

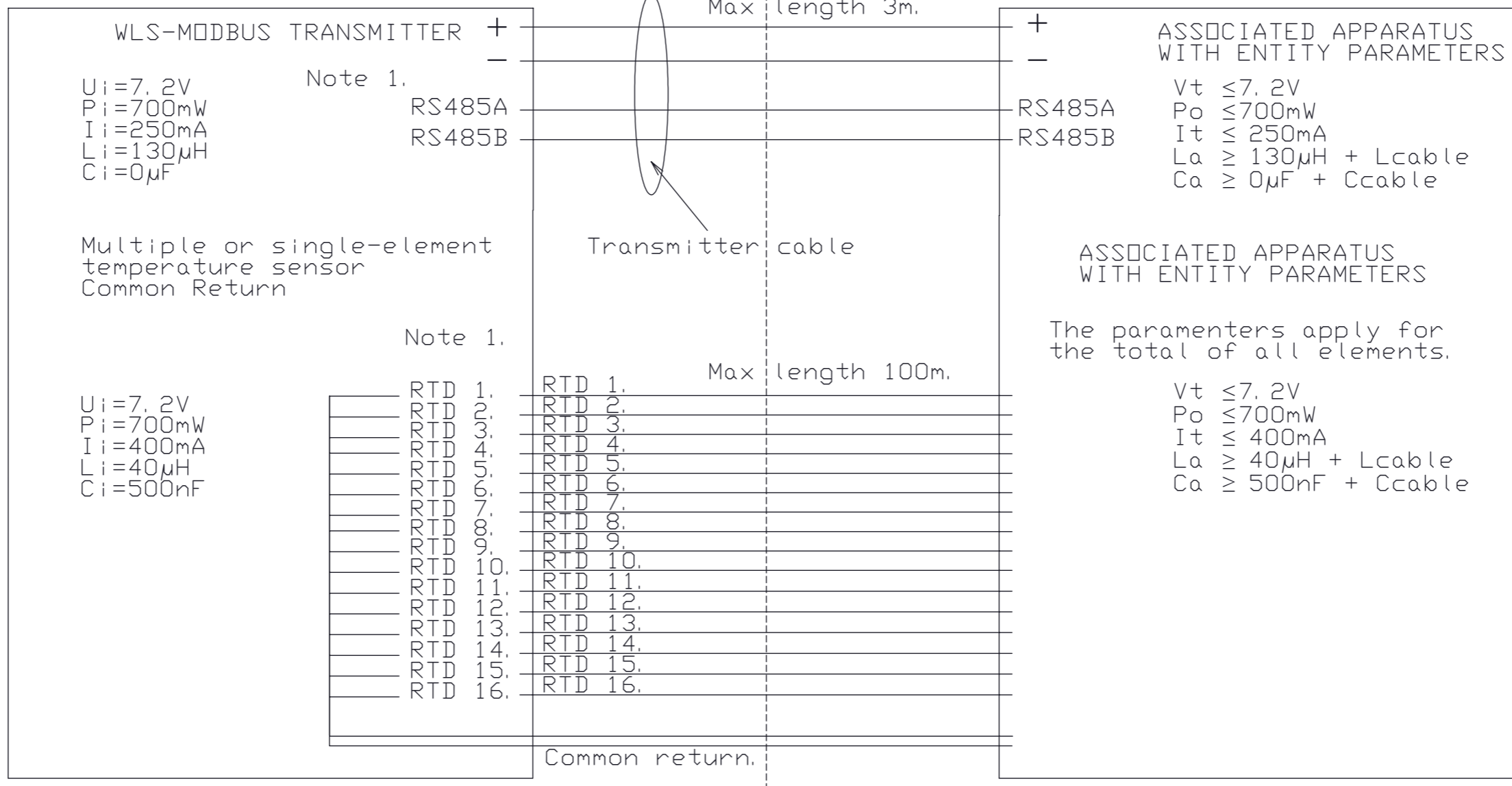
Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$   
 Temperature class T6;  $-50 \leq T_A \leq 70^\circ\text{C}$

HAZARDOUS LOCATION /  
NON-HAZARDOUS LOCATION.

Element No.	Color codes
Common return	
RTD 1	brown
RTD 2	red
RTD 3	orange
RTD 4	yellow
RTD 5	green
RTD 6	blue
RTD 7	violet
RTD 8	grey
RTD 9	white
RTD 10	pink
RTD 11	brown/black
RTD 12	red/black
RTD 13	orange/black
RTD 14	yellow/black
RTD 15	green/black
RTD 16	blue/black
RTD 17	violet/black
RTD 18	grey/black
RTD 19	white/black
RTD 20	pink/black

Max No. of elements	Common return
1" hose	20
3/4" hose	13

black conductors from common point.  
Common return always have 2 common



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

- The associated apparatus shall have an appropriate IECEx certificate. The manufacturers control drawing shall be followed when installing this equipment.
- Installations shall be in accordance with EN 60079-14 and local installation requirements.
- The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.
  - $U_o$  equal or less than  $U_i$
  - $I_o$  equal or less than  $I_i$
  - $P_o$  equal or less than  $P_i$
  - $L_o$  equal to or greater than  $L_{\text{cable}} + L_i$
  - $C_o$  equal to or greater than  $C_{\text{cable}} + C_i$
- The associated apparatus shall be of like polarity.
- The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



Industrivej 8  
DK-5471 Sønderød Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

Item Description:  
CONTROL DRAWING for IECEx  
For hazardous location installation of  
WLS MODBUS

First angle projection  
Scale: 1:1 Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM Rev.: 10

Application:  
Senmatic Instruction No.:

Date/Designed: 29-04-08 / JEH  
Page 7 of 18 Sheet format: A3

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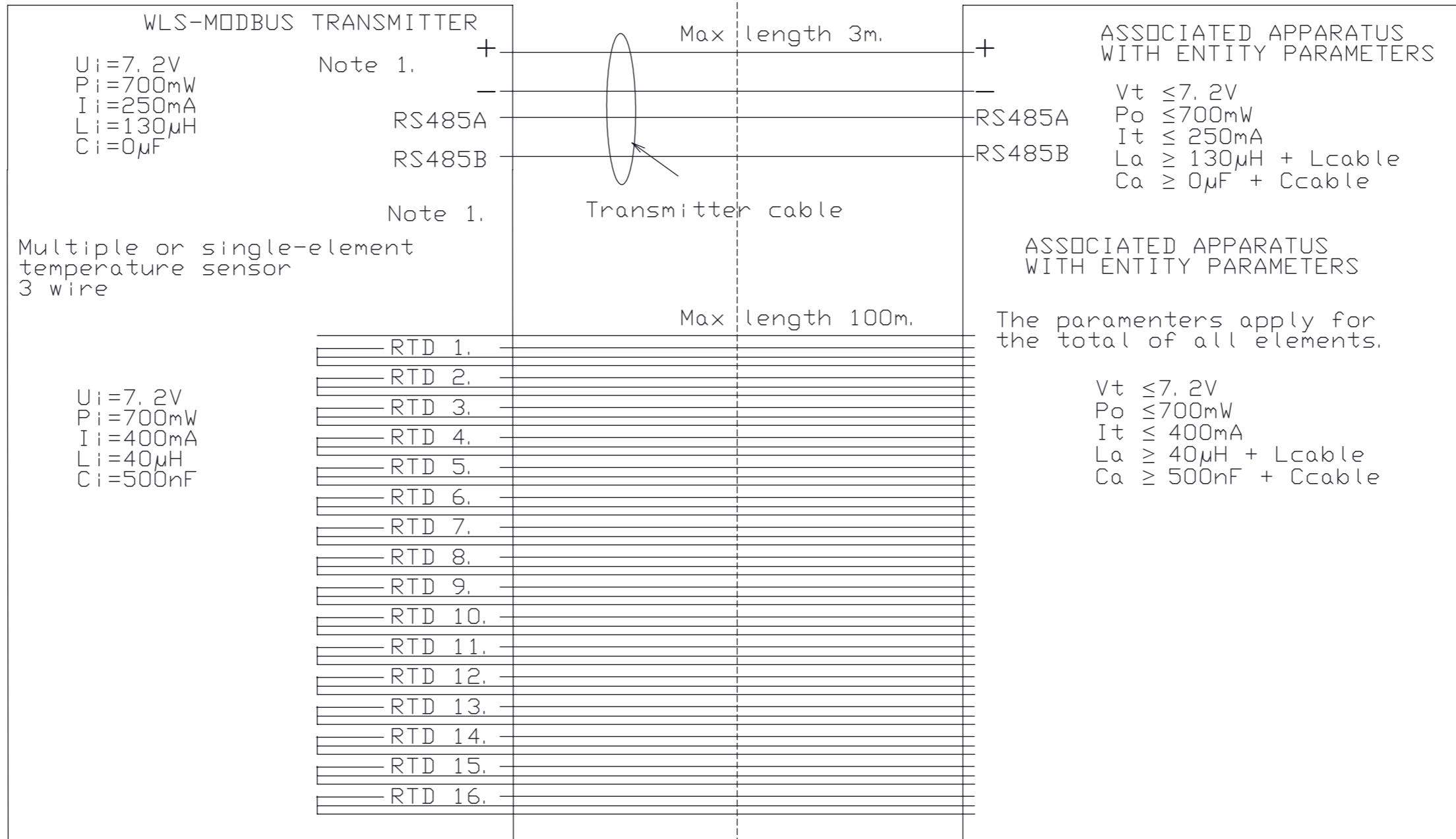
+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
3 wire	
RTD 1	brown-black, black
RTD 2	red-black, black
RTD 3	orange-black, black
RTD 4	yellow-black, black
RTD 5	green-black, black
RTD 6	blue-black, black
RTD 7	violet-black, black
RTD 8	grey-black, black
RTD 9	white-black, black
RTD 10	pink-black, black
RTD 11	brown, brown-black
RTD 12	red, red-black
RTD 13	orange, orange-black
RTD 14	yellow, yellow-black
RTD 15	green, green-black
RTD 16	blue, blue-black
RTD 17	violet, violet-black
RTD 18	grey, grey-black
RTD 19	white, white-black
RTD 20	pink, pink-black

Max No. of elements	3 wire
1" hose	20
3/4" hose	13

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$   
Temperature class T6;  $-50 \leq T_A \leq 70^\circ\text{C}$

HAZARDOUS LOCATION /  
NON-HAZARDOUS LOCATION.



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

- The associated apparatus shall have an appropriate IECEx certificate. The manufacturers control drawing shall be followed when installing this equipment.
- Installations shall be in accordance with EN 60079-14 and local installation requirements.
- The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.
  - $U_o$  equal or less than  $U_i$
  - $I_o$  equal or less than  $I_i$
  - $P_o$  equal or less than  $P_i$
  - $L_o$  equal to or greater than  $L_{\text{cable}} + L_i$
  - $C_o$  equal to or greater than  $C_{\text{cable}} + C_i$
- The associated apparatus shall be of like polarity.
- The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



Industrivej 8  
DK-5471 Sønderød Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

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Item Description:  
CONTROL DRAWING for IECEx  
For hazardous location installation of  
WLS MODBUS

First angle projection  
Scale: 1:1  
Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM

Application:

Senmatic Instruction No.:

Date/Designed: 29-04-08 / JEH

Page 8 of 18

Rev.:  
10

Sheet format: A3



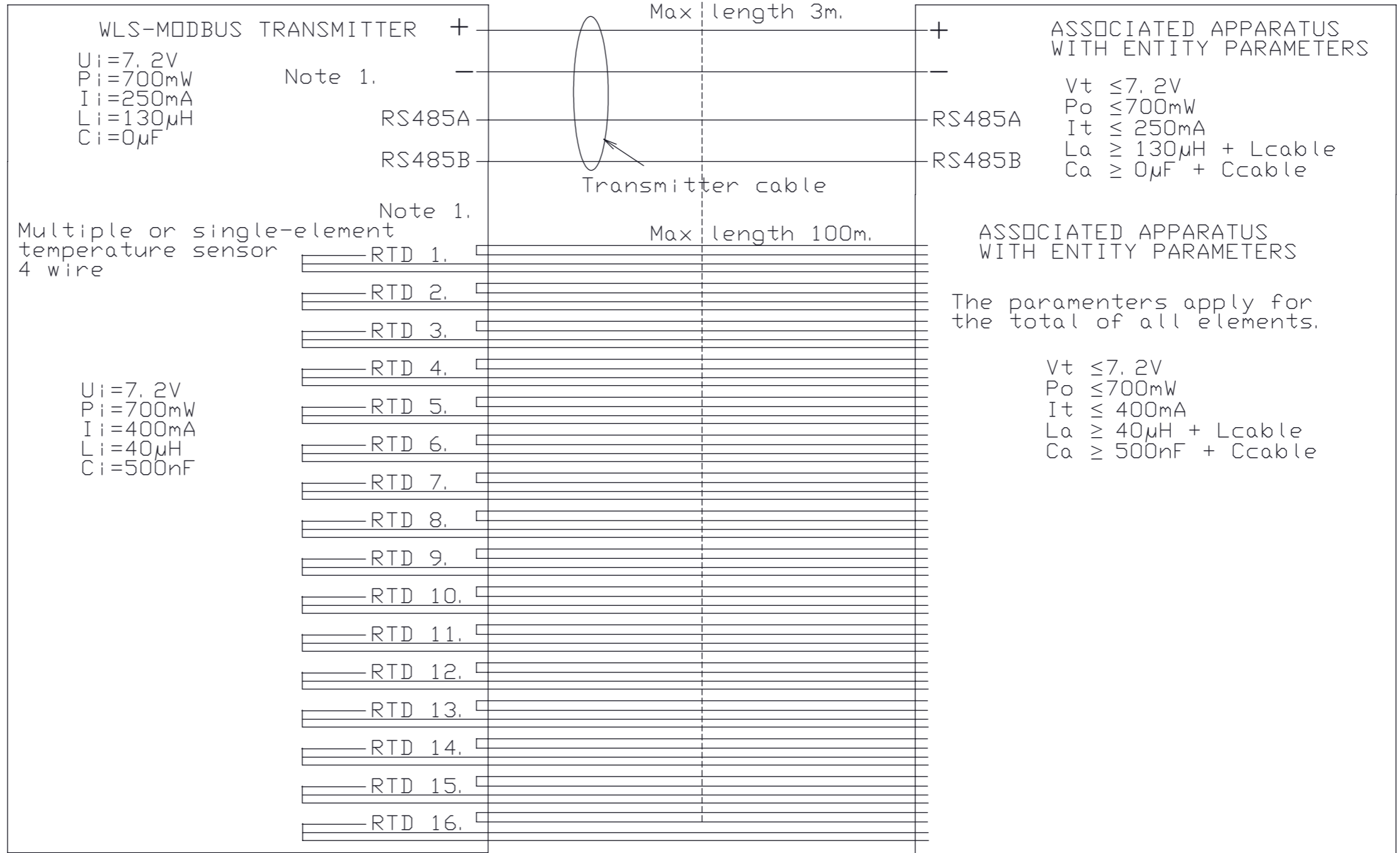
+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Insulation color codes
4 wire	
RTD 1	brown, brown-black, black
RTD 2	red, red-black, black
RTD 3	orange, orange-black, black
RTD 4	yellow, yellow-black, black
RTD 5	green, green-black, black
RTD 6	blue, blue-black, black
RTD 7	violet, violet-black, black
RTD 8	grey, grey-black, black
RTD 9	white, white-black, black
RTD 10	pink, pink-black, black
RTD 11	brown/black, brown/black-black, black
RTD 12	red/black, red/black-black, black
RTD 13	orange/black, orange/black-black, black
RTD 14	yellow/black, yellow/black-black, black
RTD 15	green/black, green/black-black, black
RTD 16	Blue/black, Blue/black-black, black

Max No. of elements	4wire
1" hose	16
3/4" hose	10

Temperature class T4;  $-50 \leq TA \leq 120^\circ C$   
Temperature class T6;  $-50 \leq TA \leq 70^\circ C$

HAZARDOUS LOCATION /  
NON-HAZARDOUS LOCATION.



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

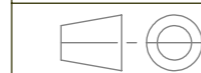
- a. The associated apparatus shall have an appropriate IECEx certificate. The manufacturers control drawing shall be followed when installing this equipment.
- b. Installations shall be in accordance with EN 60079-14 and local installation requirements.
- c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.
  - $U_o$  equal or less than  $U_i$
  - $I_o$  equal or less than  $I_i$
  - $P_o$  equal or less than  $P_i$
  - $L_o$  equal to or greater than  $L_{cable} + L_i$
  - $C_o$  equal to or greater than  $C_{cable} + C_i$
- d. The associated apparatus shall be of like polarity.
- e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



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DK-5471 Sønderød Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

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Item Description:  
CONTROL DRAWING for IECEx  
For hazardous location installation  
of WLS MODBUS



First angle projection

Scale: 1:1 Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM

Application:

Senmatic Instruction No.:

Date/Designed: 29-04-08/ JEH

Rev.:  
10

Page 9 of 18 Sheet format: A3

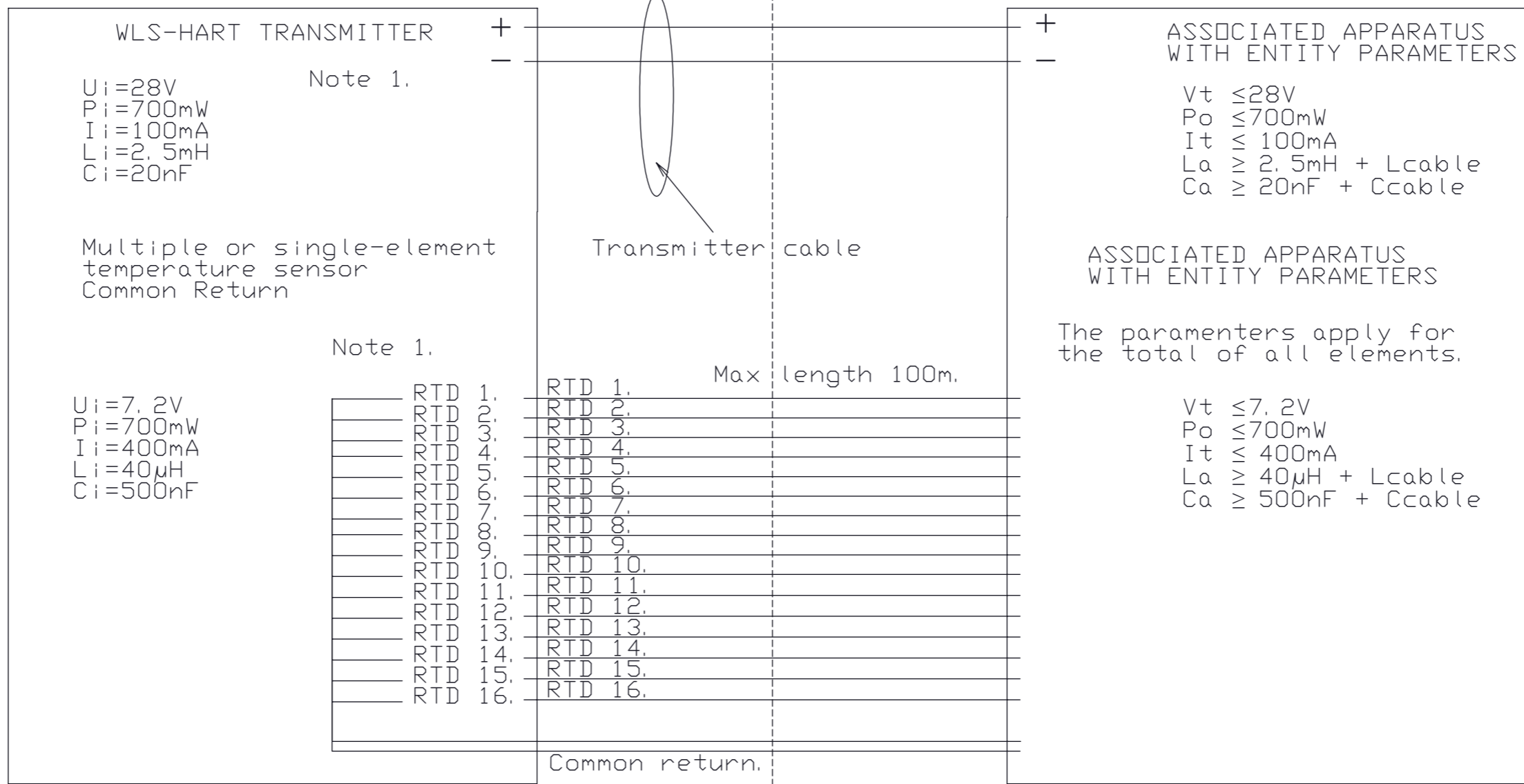
+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
Common return	
RTD 1	brown
RTD 2	red
RTD 3	orange
RTD 4	yellow
RTD 5	green
RTD 6	blue
RTD 7	violet
RTD 8	grey
RTD 9	white
RTD 10	pink
RTD 11	brown/black
RTD 12	red/black
RTD 13	orange/black
RTD 14	yellow/black
RTD 15	green/black
RTD 16	blue/black
RTD 17	violet/black
RTD 18	grey/black
RTD 19	white/black
RTD 20	pink/black

Max No. of elements	Common return
1" hose	20
3/4" hose	13

Black conductors from common point.  
Common return always have 2 common

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$



**Note 1.**  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

**Note 2.**  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have Voc or Vt not exceeding Ui and Isc or It not exceeding Ii. Po of the barrier must be less than or equal to the Pi of the intrinsically safe equipment.

- a. The associated apparatus shall have an appropriate IECEx certificate. The manufacturers control drawing shall be followed when installing this equipment.
- b. Installations shall be in accordance with EN 60079-14 and local installation requirements.
- c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following:
  - Uo equal or less than Ui
  - Io equal or less than Ii
  - Po equal or less than Pi
  - Lo equal to or greater than Lcable + Li
  - Co equal to or greater than Ccable + Ci
- d. The associated apparatus shall be of like polarity.
- e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.

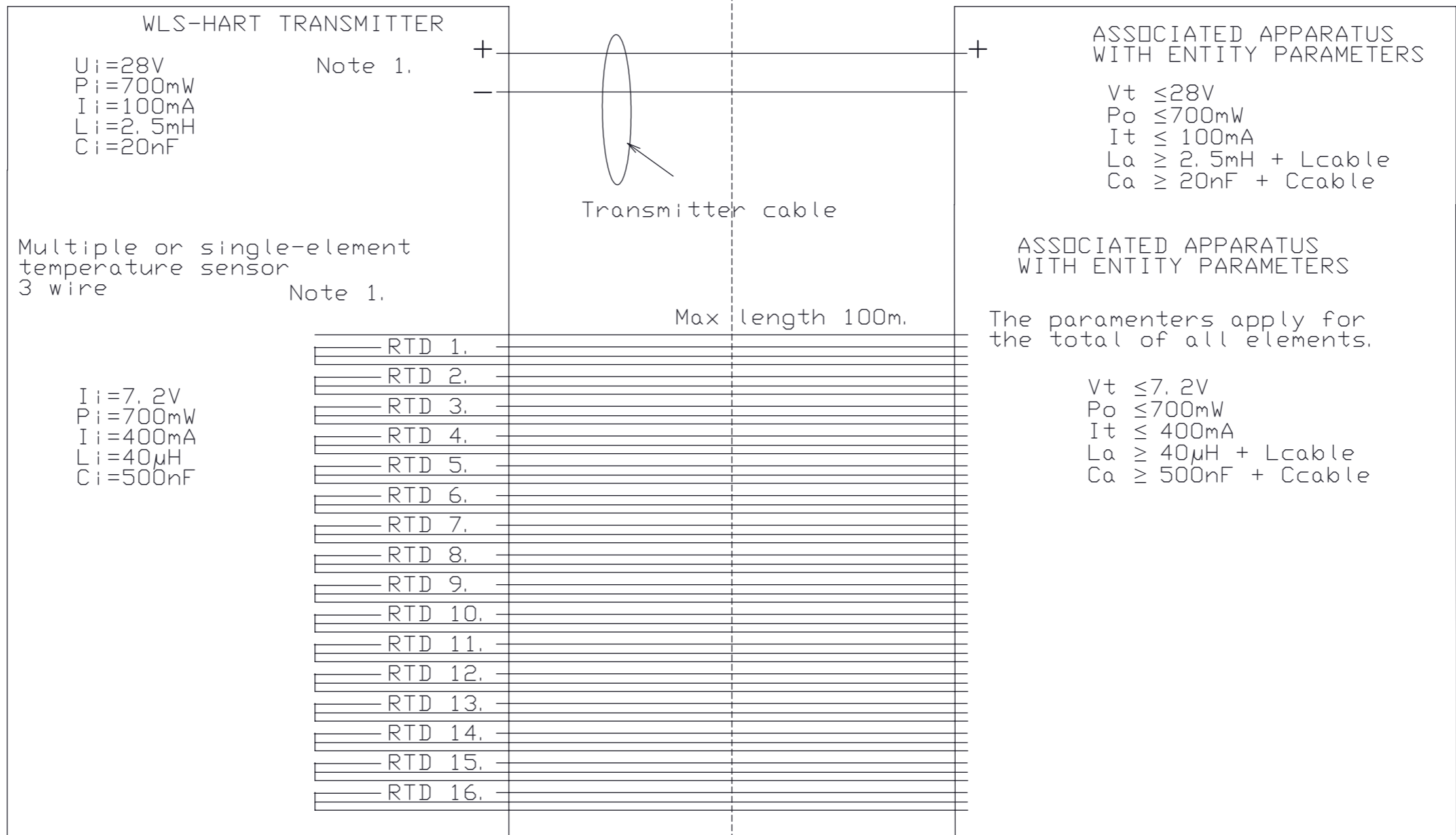
	<b>Item Description:</b> CONTROL DRAWING for IECEx For hazardous location installation of WLS HART		<b>Drawing Number:</b> 800-9020-FM	<b>Rev.:</b> 10
			<b>Application:</b> Senmatic Instruction No.:	<b>Date/Designed:</b> 29-04-08 / JEH
Industrivej 8 DK-5471 Sønderø Denmark Phone +45 6489 2211 Fax +45 6489 3311	<b>Scale:</b> 1:1	<b>Department:</b>	<b>Date/Designed:</b> 29-04-08 / JEH	
<b>Sheet name:</b> Assembly specification sheet			<b>Date/Designed:</b> 29-04-08 / JEH	<b>Page 10 of 18</b>
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				<b>Sheet format:</b> A3

+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
3 wire	
RTD 1	brown-black, black
RTD 2	red-black, black
RTD 3	orange-black, black
RTD 4	yellow-black, black
RTD 5	green-black, black
RTD 6	blue-black, black
RTD 7	violet-black, black
RTD 8	grey-black, black
RTD 9	white-black, black
RTD 10	pink-black, black
RTD 11	brown, brown-black
RTD 12	red, red-black
RTD 13	orange, orange-black
RTD 14	yellow, yellow-black
RTD 15	green, green-black
RTD 16	blue, blue-black
RTD 17	violet, violet-black
RTD 18	grey, grey-black
RTD 19	white, white-black
RTD 20	pink, pink-black

Max No. of elements	3 wire
1' hose	20
3/4' hose	13

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have Voc or Vt not exceeding Ui and Isc or It not exceeding Ii. Po of the barrier must be less than or equal to the Pi of the intrinsically safe equipment.

- a. The associated apparatus shall have an appropriate IECEx certificate. The manufacturers control drawing shall be followed when installing this equipment.
- b. Installations shall be in accordance with EN 60079-14 and local installation requirements.
- c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.
  - Uo equal or less than Ui
  - Io equal or less than Ii
  - Po equal or less than Pi
  - Lo equal to or greater than Lcable + Li
  - Co equal to or greater than Ccable + Ci
- d. The associated apparatus shall be of like polarity.
- e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.

	<b>Item Description:</b> CONTROL DRAWING for IECEx For hazardous location installation of WLS HART	<b>Drawing Number:</b> 800-9020-FM	<b>Rev.:</b> 10
		<b>Scale:</b> 1:1	<b>Department:</b>
<b>Sheet name:</b> Assembly specification sheet	<b>Application:</b> Senmatic Instruction No.:		<b>Date/Designed:</b> 29-04-08 / JEH
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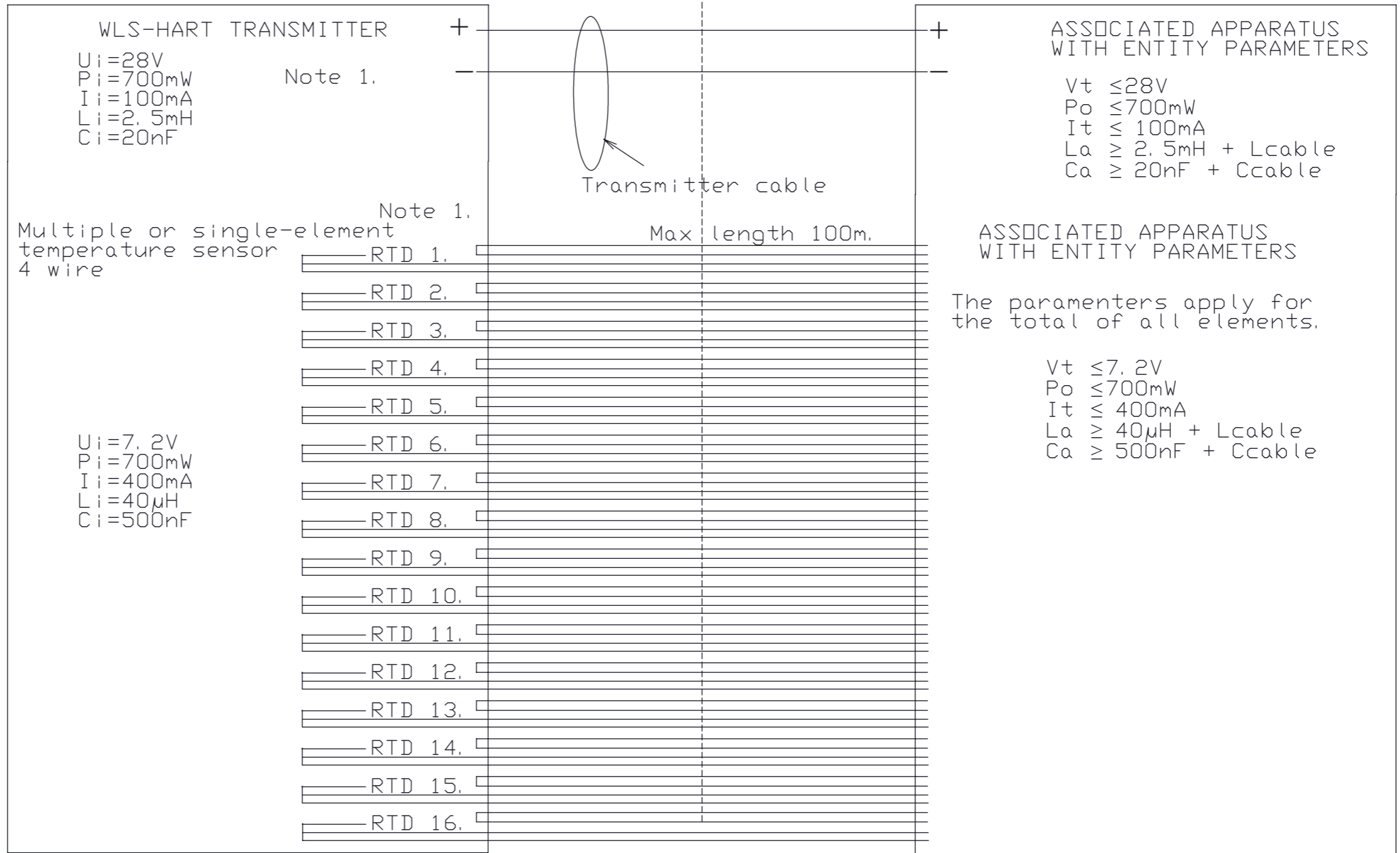
+	Red
-	Black
RS 485A	White
RS 485B	Green

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$

HAZARDOUS LOCATION /  
NON-HAZARDOUS LOCATION.

Element No.	Insulation color codes
4 wire	
RTD 1	brown, brown-black, black
RTD 2	red, red-black, black
RTD 3	orange, orange-black, black
RTD 4	yellow, yellow-black, black
RTD 5	green, green-black, black
RTD 6	blue, blue-black, black
RTD 7	violet, violet-black, black
RTD 8	grey, grey-black, black
RTD 9	white, white-black, black
RTD 10	pink, pink-black, black
RTD 11	brown/black, brown/black-black, black
RTD 12	red/black, red/black-black, black
RTD 13	orange/black, orange/black-black, black
RTD 14	yellow/black, yellow/black-black, black
RTD 15	green/black, green/black-black, black
RTD 16	Blue/black, Blue/black-black, black

Max No. of elements	4wire
1" hose	16
3/4" hose	10



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

- a. The associated apparatus shall have an appropriate IECEx certificate. The manufacturers control drawing shall be followed when installing this equipment.
- b. Installations shall be in accordance with EN 60079-14 and local installation requirements.
- c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.
  - $U_o$  equal or less than  $U_i$
  - $I_o$  equal or less than  $I_i$
  - $P_o$  equal or less than  $P_i$
  - $L_o$  equal to or greater than  $L_{cable} + L_i$
  - $C_o$  equal to or greater than  $C_{cable} + C_i$
- d. The associated apparatus shall be of like polarity.
- e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



Industrivej 8  
DK-5471 Sønderød Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

Item Description:  
CONTROL DRAWING for IECEx  
For hazardous location installation  
of WLS HART

First angle projection

Scale: 1:1 Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM Rev.:  
10

Application:  
Senmatic Instruction No.:

Date/Designed: 29-04-08/ JEH

Page 12 of 18 Sheet format: A3

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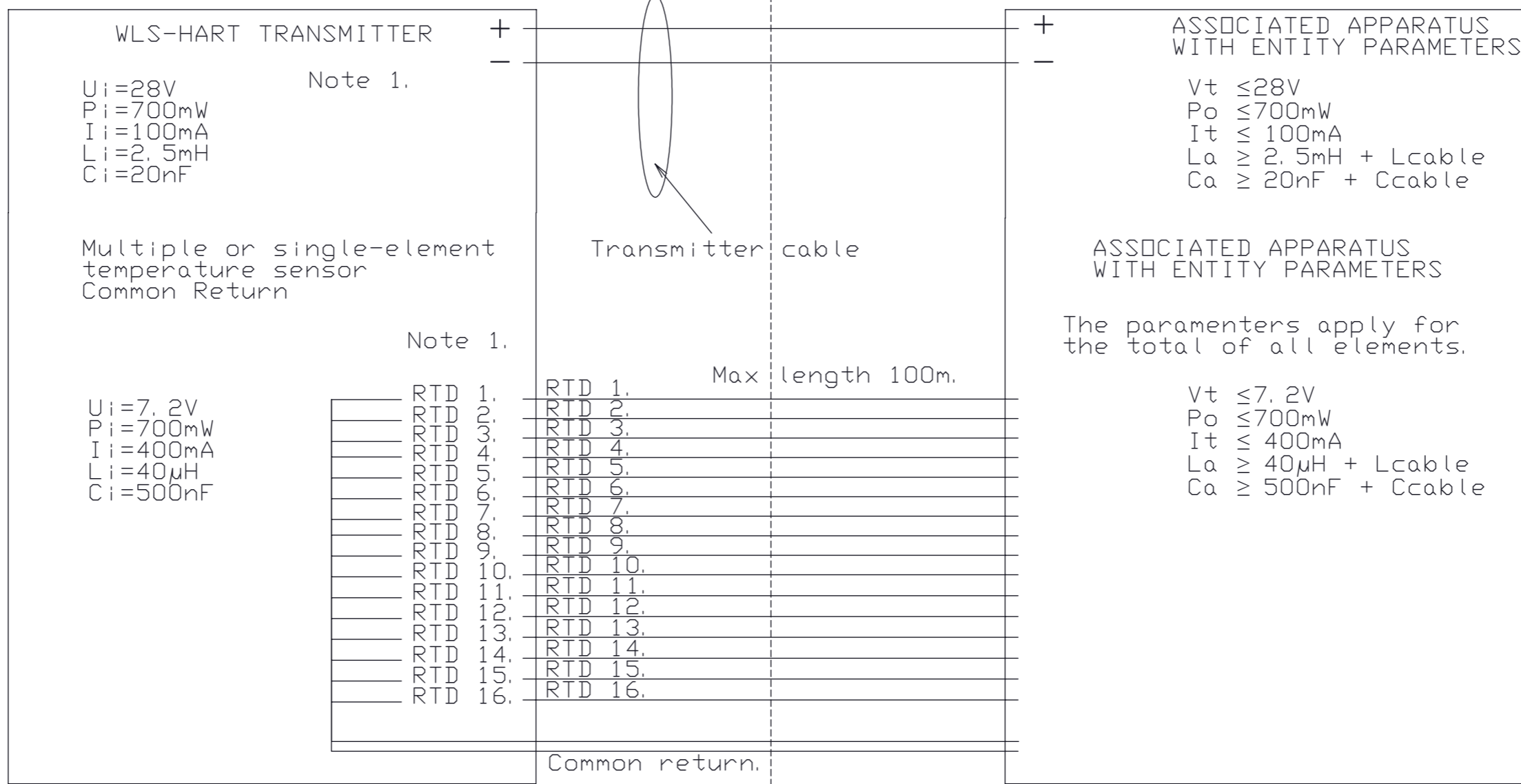
+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
Common return	
RTD 1	brown
RTD 2	red
RTD 3	orange
RTD 4	yellow
RTD 5	green
RTD 6	blue
RTD 7	violet
RTD 8	grey
RTD 9	white
RTD 10	pink
RTD 11	brown/black
RTD 12	red/black
RTD 13	orange/black
RTD 14	yellow/black
RTD 15	green/black
RTD 16	blue/black
RTD 17	violet/black
RTD 18	grey/black
RTD 19	white/black
RTD 20	pink/black

Max No. of elements	Common return
1" hose	20
3/4" hose	13

Black conductors from common point.  
Common return always have 2 common.

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

- For installations in Europe the associated apparatus shall have an appropriate EC-Type Examination certificate. The manufacturers control drawing shall be followed when installing this equipment.
- Installations shall be in accordance with EN 60079-14 and local installation requirements.
- The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.  
 $U_o$  equal or less than  $U_i$   
 $I_o$  equal or less than  $I_i$   
 $P_o$  equal or less than  $P_i$   
 $L_o$  equal to or greater than  $L_{\text{cable}} + L_i$   
 $C_o$  equal to or greater than  $C_{\text{cable}} + C_i$
- The associated apparatus shall be of like polarity.
- The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.

	<b>Item Description:</b> CONTROL DRAWING for ATEX For hazardous location installation of WLS HART	<b>Drawing Number:</b> 800-9020-FM	<b>Rev.:</b> 10
		<b>Application:</b> Senmatic Instruction No.:	
<b>Sheet name:</b> Assembly specification sheet	<b>Scale:</b> 1:1	<b>Department:</b>	<b>Date/Designed:</b> 29-04-08 / JEH
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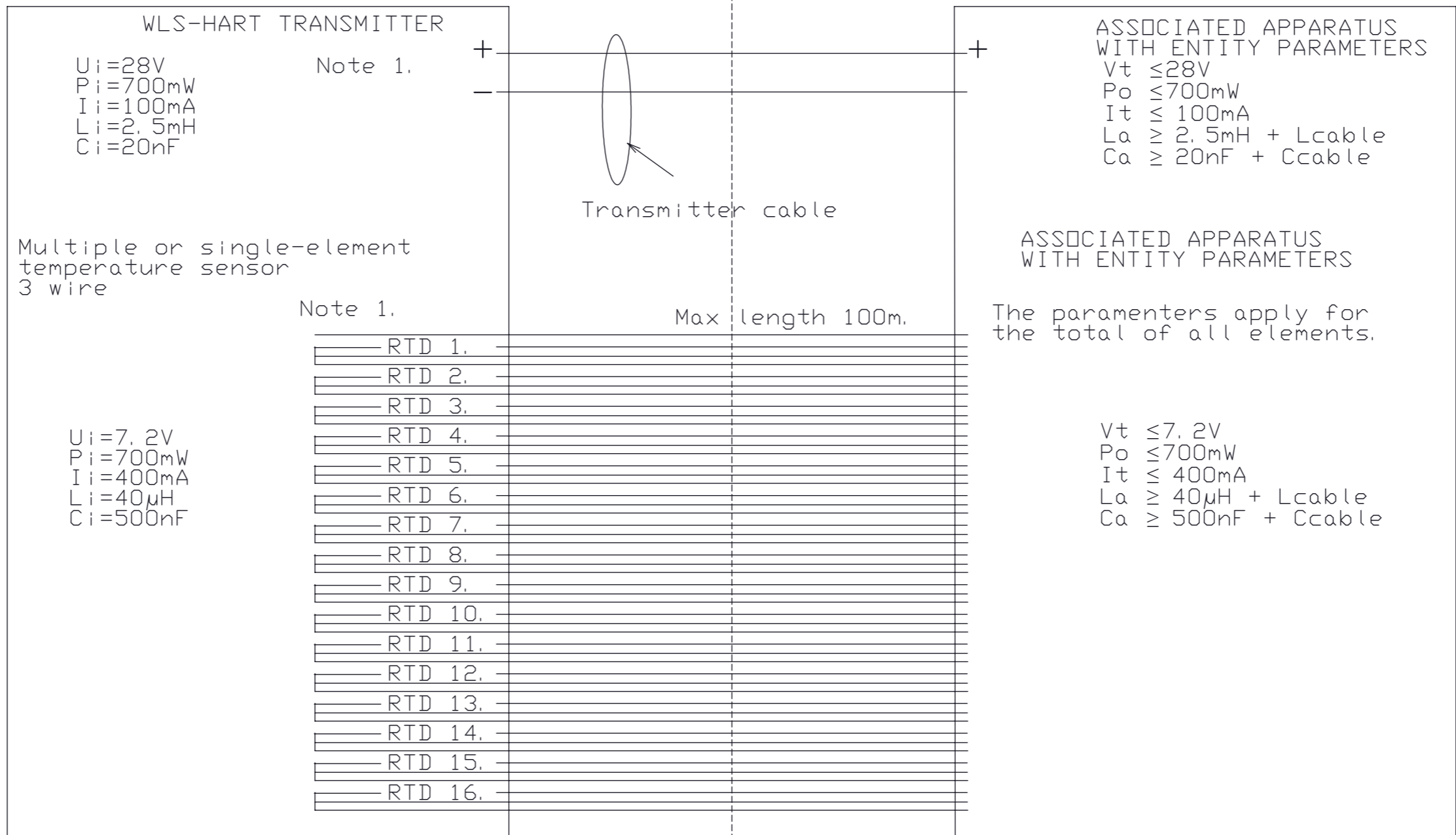


+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
	3 wire
RTD 1	brown-black, black
RTD 2	red-black, black
RTD 3	orange-black, black
RTD 4	yellow-black, black
RTD 5	green-black, black
RTD 6	blue-black, black
RTD 7	violet-black, black
RTD 8	grey-black, black
RTD 9	white-black, black
RTD 10	pink-black, black
RTD 11	brown, brown-black
RTD 12	red, red-black
RTD 13	orange, orange-black
RTD 14	yellow, yellow-black
RTD 15	green, green-black
RTD 16	blue, blue-black
RTD 17	violet, violet-black
RTD 18	grey, grey-black
RTD 19	white, white-black
RTD 20	pink, pink-black

Max No. of elements	3 wire
1' hose	20
3/4' hose	13

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$



**Note 1.**  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.


**Note 2.**  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have Voc or Vt not exceeding Ui and Isc or It not exceeding Ii. Po of the barrier must be less than or equal to the Pi of the intrinsically safe equipment.

- a. For installations in Europe the associated apparatus shall have an appropriate EC-Type Examination certificate. The manufacturers control drawing shall be followed when installing this equipment.
- b. Installations shall be in accordance with EN 60079-14 and local installation requirements.
- c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.  
 Uo equal or less than Ui  
 Io equal or less than Ii  
 Po equal or less than Pi  
 Lo equal to or greater than Lcable + Li  
 Co equal to or greater than Ccable + Ci
- d. The associated apparatus shall be of like polarity.
- e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.

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Phone +45 6489 2211  
Fax +45 6489 3311

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Item Description: CONTROL DRAWING for ATEX For hazardous location installation of WLS HART		Drawing Number: 800-9020-FM	Rev.: 10
 First angle projection Scale: 1:1		Application: Senmatic Instruction No.:	
Sheet name: Assembly specification sheet		Date/Designed: 29-04-08 / JEH	
This drawing belongs to Senmatic A/S and must not be copied or used without permission.		Page 14 of 18	Sheet format: A3

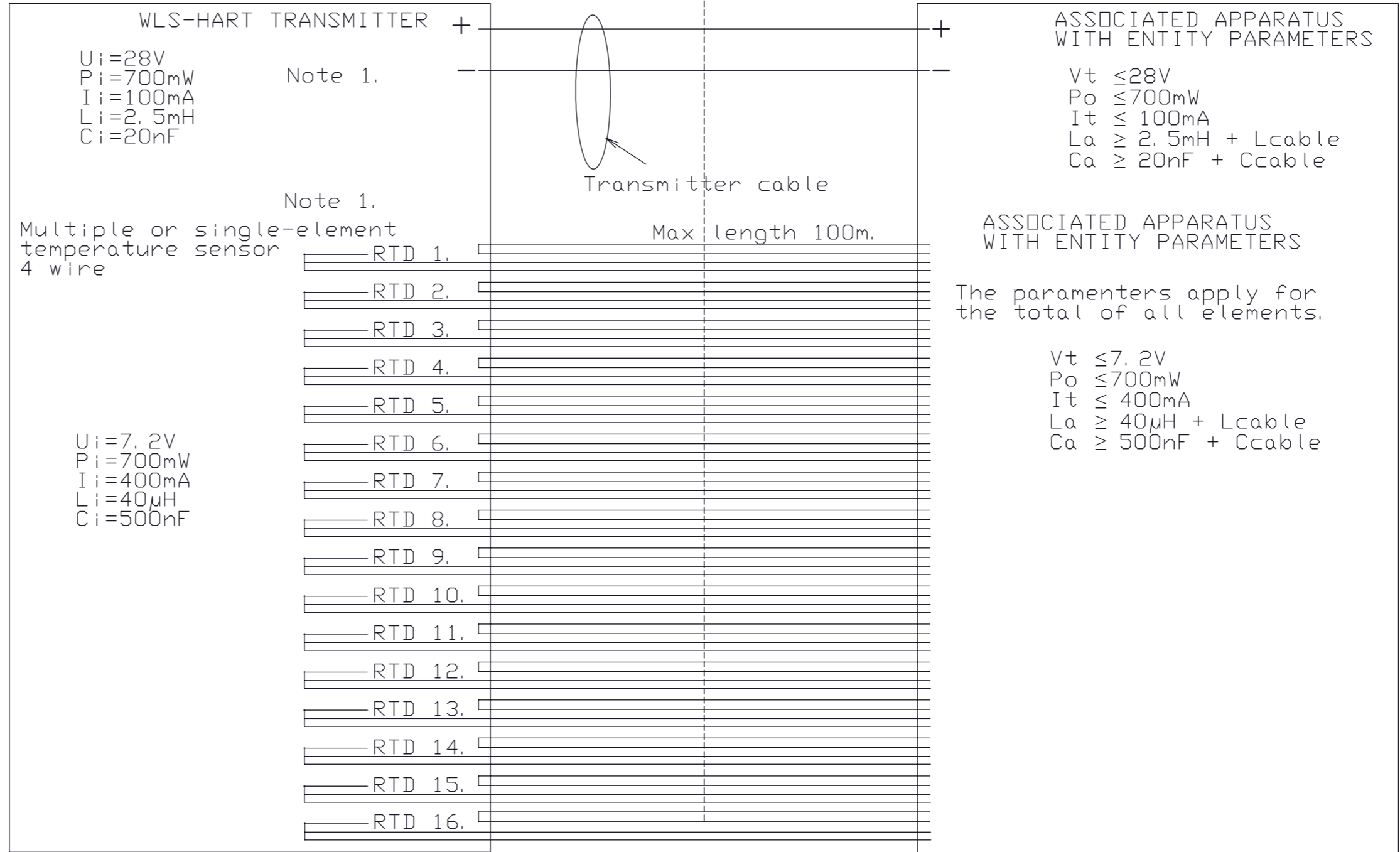
+	Red
-	Black
RS 485A	White
RS 485B	Green

Temperature class T4;  $-50 \leq T_A \leq 120^\circ\text{C}$

HAZARDOUS LOCATION /  
NON-HAZARDOUS LOCATION.

Element No.	Insulation color codes	
	4 wire	
RTD 1	brown, brown-black, black	
RTD 2	red, red-black, black	
RTD 3	orange, orange-black, black	
RTD 4	yellow, yellow-black, black	
RTD 5	green, green-black, black	
RTD 6	blue, blue-black, black	
RTD 7	violet, violet-black, black	
RTD 8	grey, grey-black, black	
RTD 9	white, white-black, black	
RTD 10	pink, pink-black, black	
RTD 11	brown/black, brown/black-black, black	
RTD 12	red/black, red/black-black, black	
RTD 13	orange/black, orange/black-black, black	
RTD 14	yellow/black, yellow/black-black, black	
RTD 15	green/black, green/black-black, black	
RTD 16	Blue/black, Blue/black-black, black	

Max No. of elements	4 wire
1" hose	16
3/4" hose	10



**Note 1.**  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

**Note 2.**  
Selected barriers must be third party certified as providing intrinsically safe circuits for the application, and have  $V_{oc}$  or  $V_t$  not exceeding  $U_i$  and  $I_{sc}$  or  $I_t$  not exceeding  $I_i$ .  $P_o$  of the barrier must be less than or equal to the  $P_i$  of the intrinsically safe equipment.

a. For installations in Europe the associated apparatus shall have an appropriate EC-Type Examination certificate. The manufacturers control drawing shall be followed when installing this equipment.

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c. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following.

- $U_o$  equal or less than  $U_i$
- $I_o$  equal or less than  $I_i$
- $P_o$  equal or less than  $P_i$
- $L_o$  equal to or greater than  $L_{\text{cable}} + L_i$
- $C_o$  equal to or greater than  $C_{\text{cable}} + C_i$

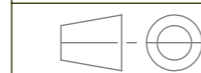
d. The associated apparatus shall be of like polarity.

e. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.



Industrivej 8  
DK-5471 Sønderø Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

Item Description:  
CONTROL DRAWING for ATEX  
For hazardous location installation  
of WLS HART



First angle projection

Scale: 1:1 Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM

Rev.:  
10

Application:

Senmatic Instruction No.:

Date/Designed: 29-04-08/ JEH

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Page 15 of 18 Sheet format: A3

+	Red
-	Black
RS 485A	White
RS 485B	Green

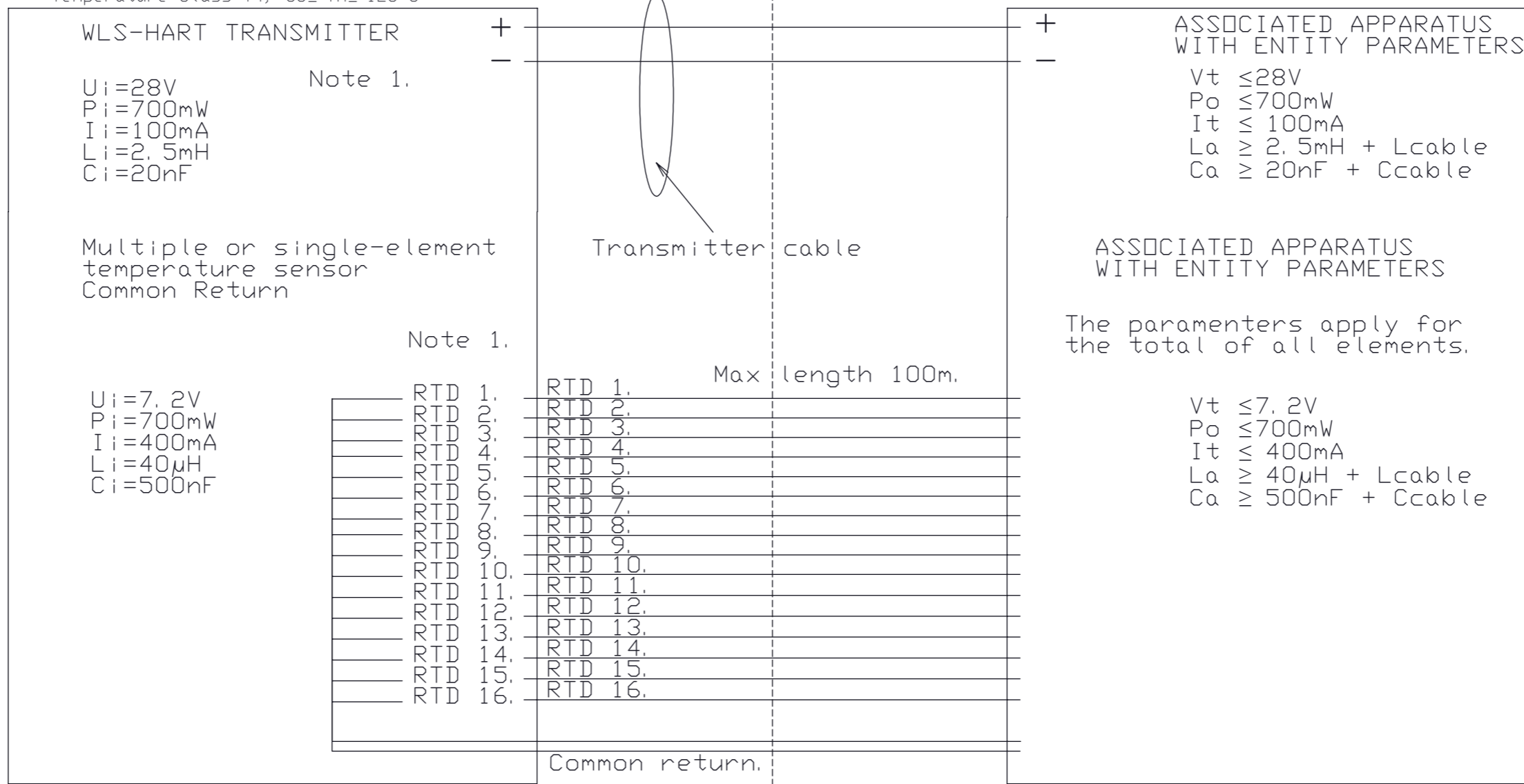
Element No.	Color codes
Common return	
RTD 1	brown
RTD 2	red
RTD 3	orange
RTD 4	yellow
RTD 5	green
RTD 6	blue
RTD 7	violet
RTD 8	grey
RTD 9	white
RTD 10	pink
RTD 11	brown/black
RTD 12	red/black
RTD 13	orange/black
RTD 14	yellow/black
RTD 15	green/black
RTD 16	blue/black
RTD 17	violet/black
RTD 18	grey/black
RTD 19	white/black
RTD 20	pink/black

Max No. of elements	Common return
1" hose	20
3/4" hose	13

Black conductors from common point.  
Common return always have 2 common

HAZARDOUS (Classified) LOCATION  
Class I, Div. 1, Group A, B, C, D or  
Class I, zone 0, AEx ia IIC;  
Temperature Class T4; -50 ≤ TA ≤ 120 °C

HAZARDOUS LOCATION /  
UNCLASSIFIED LOCATION.



Note 1.  
Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment.  
The junction box shall be mounted directly on top of the WLS tube enclosure.

Note 2.  
For installations in the US the associated barriers or galvanic isolators shall be FM Approved.  
For installations in Canada the associated barriers or galvanic isolators shall be cFM or CSA listed.  
In both cases the manufacturers installation drawings shall be followed when installing the equipment.  
Po of the barrier must be less than or equal to the Pi of the apparatus and have Voc or Vt not exceeding Ui and Isc or It not exceeding Ii.

- a. The unclassified location apparatus connected to the associated apparatus shall not generate more than the quoted Um of the Associated Apparatus.
- b. For installations in the US the associated intrinsically safe barriers shall have an appropriate FM Approval. For installations in Canada the associated apparatus shall have an appropriate cFM or CSA Approval. The manufacturers control drawing shall be followed when installing this equipment.
- c. Installations shall be in accordance with ANSI/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Location" and the National Electrical Code ANSI/NFPA 70. Installation in Canada shall be in accordance with the Canadian Electrical Code C22.1
- d. The Associated apparatus shall single channel or one channel of dual channel barrier with entity parameters complying with the following:  
Voc or Vt equal or less than Ui  
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Po equal or less than Pi  
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Ca equal to or greater than Ccable + Ci
- e. The associated apparatus shall be of like polarity.
- f. The Transmitter Cable and the Temperature Sensor Cables shall be treated as separate intrinsically safe circuits.

g. The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of Voc (or Uo) and Isc (or Io) for the associated apparatus are less than or equal to Ui and Ii for the intrinsically safe apparatus and the approved values of Ca(Co) and La(Lo) for the associated apparatus are greater than Ci + Ccable and Li + Lcable, respectively, for the intrinsically safe apparatus.

h. WARNING: Substitution of components may impair intrinsic safety and suitability for Division 1/Zone 0 hazardous (classified) Locations.  
ADVERTISEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.

i. Um=250V



Industrivej 8  
DK-5471 Sønderød Denmark  
Phone +45 6489 2211  
Fax +45 6489 3311

Item Description:  
CONTROL DRAWING for US and Canada  
For hazardous location installation of  
WLS HART



First angle projection

Scale: 1:1  
Department:

Sheet name:  
Assembly specification sheet

Drawing Number:  
800-9020-FM

Rev.:  
10

Application:  
Senmatic Instruction No.:

Date/Designed: 29-04-08 / JEH

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Page 16 of 18 Sheet format: A3

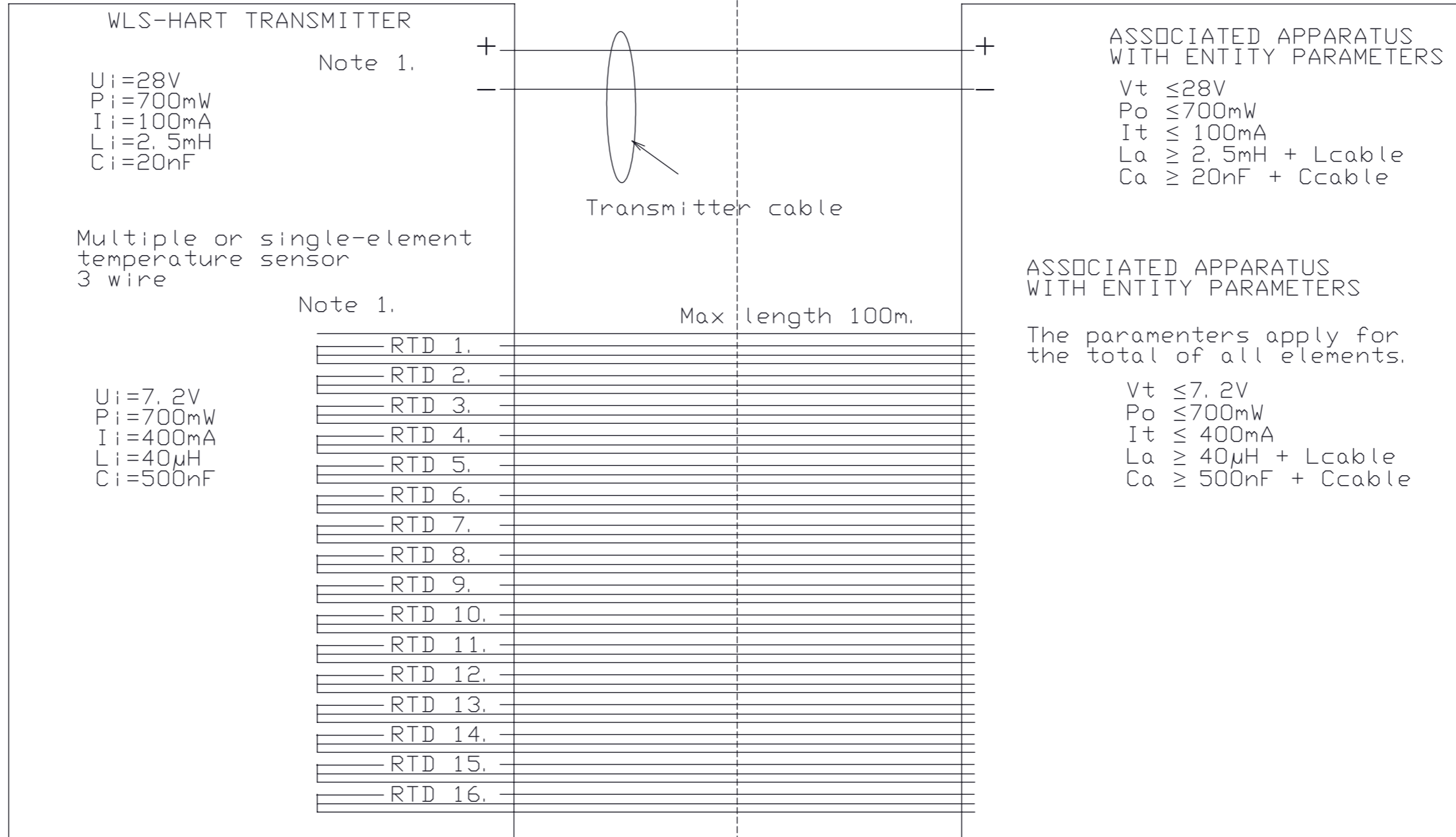
+	Red
-	Black
RS 485A	White
RS 485B	Green

Element No.	Color codes
	3 wire
RTD 1	brown-black, black
RTD 2	red-black, black
RTD 3	orange-black, black
RTD 4	yellow-black, black
RTD 5	green-black, black
RTD 6	blue-black, black
RTD 7	violet-black, black
RTD 8	grey-black, black
RTD 9	white-black, black
RTD 10	pink-black, black
RTD 11	brown, brown-black
RTD 12	red, red-black
RTD 13	orange, orange-black
RTD 14	yellow, yellow-black
RTD 15	green, green-black
RTD 16	blue, blue-black
RTD 17	violet, violet-black
RTD 18	grey, grey-black
RTD 19	white, white-black
RTD 20	pink, pink-black

Max No. of elements	3 wire
1" hose	20
3/4" hose	13

HAZARDOUS (Classified) LOCATION  
 Class I, Div. 1, Group A, B, C, D or  
 Class I, zone 0, AEx ia IIC;  
 Temperature Class T4;  $-50 \leq T_A \leq 120^\circ C$

HAZARDOUS LOCATION /  
 UNCLASSIFIED LOCATION.



**Note 1.**  
 Transmitter and RTD cables are non-detachable. Wires shall be terminated properly at terminal blocks in a suitable junction box according to the installation environment. The junction box shall be mounted directly on top of the WLS tube enclosure.

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	<b>Application:</b> Senmatic Instruction No.:	
	<b>Scale:</b> 1:1	<b>Department:</b>
<b>Sheet name:</b> Assembly specification sheet		<b>Date/Designed:</b> 29-04-08 / JEH
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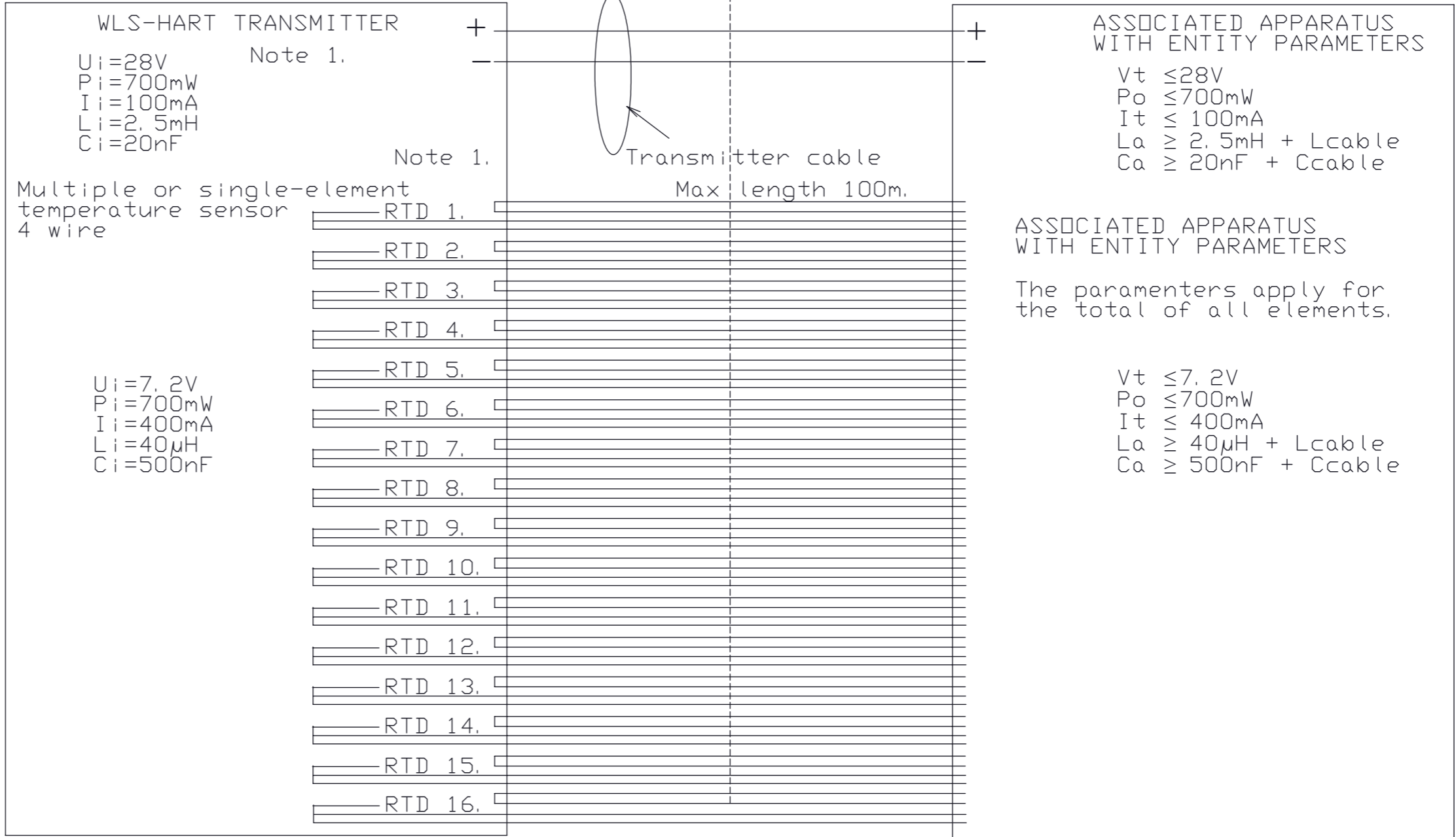
+	Red
-	Black
RS 485A	White
RS 485B	Green

HAZARDOUS (Classified) LOCATION  
 Class I, Div. 1, Group A, B, C, D or  
 Class I, zone 0, AEx ia IIC;  
 Temperature Class T4; -50 ≤ TA ≤ 120°C

HAZARDOUS LOCATION /  
 UNCLASSIFIED LOCATION.

Element No.	Insulation color codes
	4 wire
RTD 1	brown, brown-black, black
RTD 2	red, red-black, black
RTD 3	orange, orange-black, black
RTD 4	yellow, yellow-black, black
RTD 5	green, green-black, black
RTD 6	blue, blue-black, black
RTD 7	violet, violet-black, black
RTD 8	grey, grey-black, black
RTD 9	white, white-black, black
RTD 10	pink, pink-black, black
RTD 11	brown/black, brown/black-black, black
RTD 12	red/black, red/black-black, black
RTD 13	orange/black, orange/black-black, black
RTD 14	yellow/black, yellow/black-black, black
RTD 15	green/black, green/black-black, black
RTD 16	Blue/black, Blue/black-black, black

Max No. of elements	4wire
1" hose	16
3/4" hose	10



Note 1.  
 Multiple or single-element  
 temperature sensor  
 4 wire

Ui=7.2V  
 Pi=700mW  
 Ii=400mA  
 Li=40μH  
 Ci=500nF

ASSOCIATED APPARATUS  
 WITH ENTITY PARAMETERS

The parameters apply for  
 the total of all elements.

Vt ≤ 7.2V  
 Po ≤ 700mW  
 It ≤ 400mA  
 La ≥ 40μH + Lcable  
 Ca ≥ 500nF + Ccable

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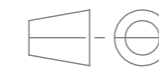
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