THIRD ANGLE PROJECTION

DO NOT SCALE THIS PRINT
REMOVE ALL BURRS

DRAWING No.

USED ON

NON-HAZARDOUS AREA

WARNING: SUBSTITUTIONOF COMPONENTS MAY IMPAIR SUITABILITY FOR HAZARDOUS LOCATIONS

WARNING: RESISTANCE BETWEEN BARRIER GROUND AND EARTH GROUND MUST BE LESS THAN 1.0 Ohm

NOTES:

1. INSTALLATION TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA 70)
2. MAXIMUM NON HAZARDOUS AREA VOLTAGE MUST NO EXCEED 250V.
3. A DUST TIGHT SEAL MUST BE USED AT THE ENTRY WHEN THE TRANSMITTER IS USED IN A CLASS II & III LOCATION
4. SUITABLE SEPARATION MUST BE MAINTAINED BETWEEN INPUT WIRING AND SENSOR WIRING
5. WARNING: DO NOT DISCONNECT EQUIPMENT WHILE LIVE UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS
6. ASSOCIATED APPARATUS PROVIDING NON INCENDIVE FIELD WIRING OUTPUTS MUST BE APPROVED BY AUTHORITY HAVING JURISDICTION AND MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
7. ASSOCIATED APPARATUS PROVIDING NON INCENDIVE FIELD WIRING OUTPUTS, PARAMETERS MUST MEET THE FOLLOWING REQUIREMENTS:
   - Voc/Uo ≤ Vmax;
   - Isc/Io ≤ Imax;
   - Po or Pt ≤ Pmax
   - Ca ≥ Ci + Ccable
   - La ≥ Li + Lcable
8. THE OUTPUTS OF THE SENSOR MODULES MEET THE REQUIREMENTS FOR NON INCENDIVE FIELD WIRING.

INSTALLATION METHODS

POWER SUPPLY

CLASS I, DIV 2, USING ANY CLASS I, DIV 2 WIRING METHOD WITH THE EXCEPTION OF CONDUIT TO THE TRANSMITTER:
HART: Vmax: 30V, Pmax: 0.8W
FF/PA: Vmax: 24V. Pmax: 1.2W

< 250 V

" 2 WIRE HOOKUP"

ASSOCIATED APPARATUS
(Providing Non Incendive Field Wiring Outputs)

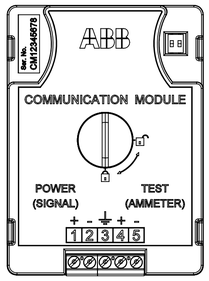
CLASS I, DIV 2, USING OPTIONAL NON INCENDIVE FIELD WIRING & MEETING PARAMETERS AS PER NOTE 7

< 250 V

" 2 WIRE HOOKUP"

COMMUNICATIONS OPTION MODULES:

HART
Fieldbus
Profibus



HART
INPUT PARAMETERS:
TERMINALS 1 & 2
Vmax (Ui) = 30V
Imax(Ii) = 100mA
Pi = 0.8W
Ci = 0.56nF
Li = 3.3mH

Fieldbus
INPUT PARAMETERS:
TERMINALS 1 & 2
Vmax (Ui) = 24V
Imax(Ii) = 250mA
Pi = 1.2W
Ci = 1.1nF
Li = 0mH

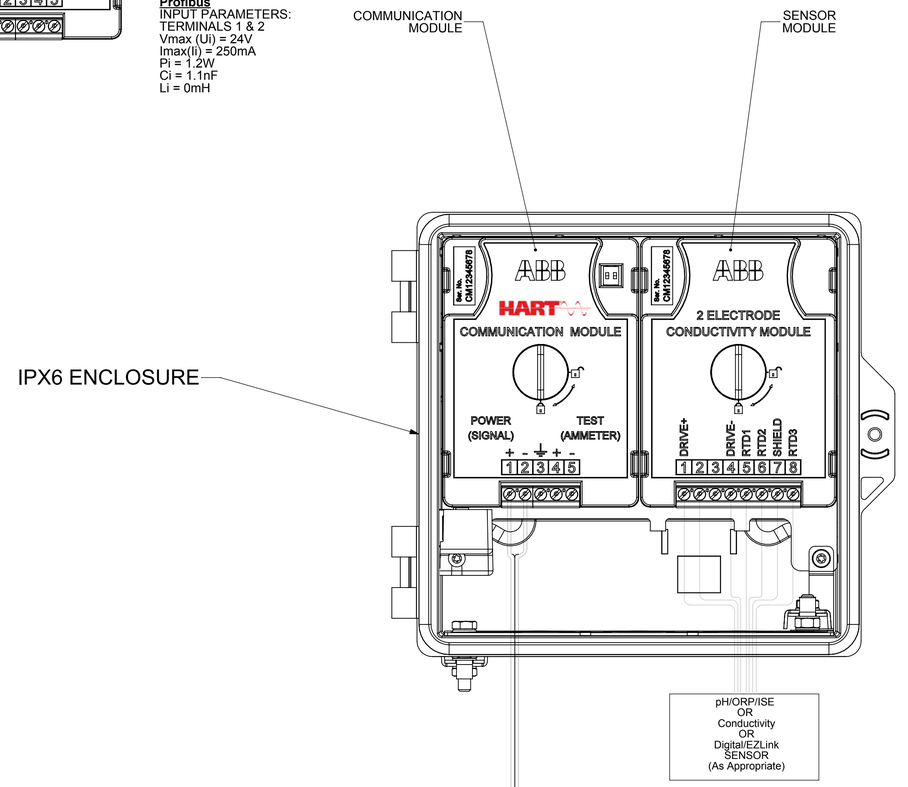
Profibus
INPUT PARAMETERS:
TERMINALS 1 & 2
Vmax (Ui) = 24V
Imax(Ii) = 250mA
Pi = 1.2W
Ci = 1.1nF
Li = 0mH

HAZARDOUS AREA

NON INCENDIVE

CLASS I, DIV 2 GROUPS A, B, C, D; T4

CLASS II/III, DIV 2 GROUPS F, G; T4



AWT210 MODULE (A) FOR CONNECTION TO:

1. ABB pH/ORP/ISE SENSOR TYPES 2867; TB551; TBX551; TB556; TB557; TBX557; TB561; TBX561; TB564; TBX564; TBX567; AP10; AP20; AP30; 765; 766; 500 PRO.
2. OTHER SENSORS CAN BE USED BUT MUST COMPLY WITH ENTITY PARAMETERS.(CONNECTED PER MANUFACTURERS INSTRUCTIONS)
3. SIMPLE APPARATUS; PASSIVE DEVICE THAT DOES NOT CONTAIN ENERGY STORING COMPONENTS AND DOES NOT GENERATE MORE THAN1.5V, 100mA, OR 25mW
4. I.S.DEVICES MUST BE FM APPROVED WITH ENTITY PARAMETERS (CONNECTED PER MANUFACTURERS INSTRUCTIONS)

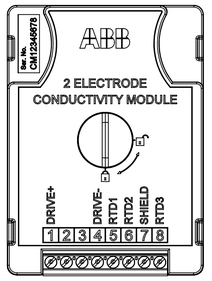
AWT210 MODULE (B) FOR CONNECTION TO:

5. ABB CONDUCTIVITY SENSORS, TYPES; 2085; AC2; TB254; TB26; TB264; TB27; TB404; TB451; TB456; TB457 TB461; TB464; TB465; TB468; TB47
6. OTHER SENSORS CAN BE USED BUT MUST COMPLY WITH ENTITY PARAMETERS.(CONNECTED PER MANUFACTURERS INSTRUCTIONS)

AWT210 MODULE (C) FOR CONNECTION TO:

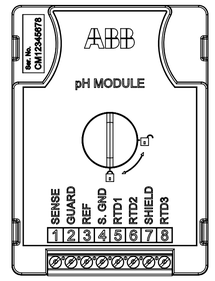
7. ABB DIGITAL/EZLINK SENSORS, TYPES; 500 PRO-D.
8. OTHER SENSORS CAN BE USED BUT MUST COMPLY WITH ENTITY PARAMETERS.(CONNECTED PER MANUFACTURERS INSTRUCTIONS)

SENSOR OPTION MODULES



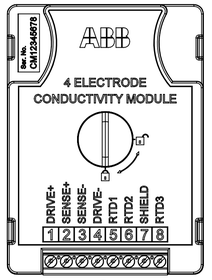
(B)

OUTPUT PARAMETERS - 2 ELECTRODE
Voc(Uo) = 11.8V
Isc(Io) = 11.8mA
Po = 36mW
Ca(Co) = 1.5uF
La = 1H



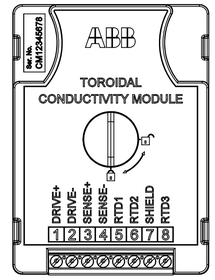
(A)

OUTPUT PARAMETERS - pH
Voc(Uo) = 11.8V
Isc(Io) = 11.8mA
Po = 36mW
Ca(Co) = 1.5uF
La = 1H



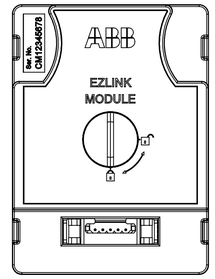
(B)

OUTPUT PARAMETERS - 4 ELECTRODE
Voc(Uo) = 11.8V
Isc(Io) = 11.8mA
Po = 36mW
Ca(Co) = 1.5uF
La = 1H



(B)

OUTPUT PARAMETERS - TOROIDAL
Voc(Uo) = 11.8V
Isc(Io) = 11.8mA
Po = 36mW
Ca(Co) = 1.5uF
La = 1H



(C)

OUTPUT PARAMETERS - EZLINK
Voc (Uo) = 5.21V
Isc (Io) = 98.2mA
Po = 127.9mW
Ca (Co) = 60uF
La (Lo) = 43mH

CERTIFIED PRODUCT
NO MODIFICATION IS PERMITTED WITHOUT REFERENCE TO THE APPROVAL AUTHORITY

THIS DRAWING WAS CREATED ON A COMPUTER AIDED DESIGN (CAD) SYSTEM
TO ENSURE THE INTEGRITY OF THE DATA BASE ALL CHANGES/REVISIONS MUST BE MADE ON THE CAD SYSTEM.

MATERIAL	
FINISH	
CONFIDENTIAL	The contents of this document must not be copied or communicated to a third party without the written consent of the company.

ABB Ltd
St Neots, Cambs, PE19 8EU, UK

SCALE
DIMS. IN

TOLERANCES
LINEAR DIMS
X = ± 0.5
X.X = ± 0.1
ANGULAR DIMS
±0.5°
UNLESS OTHERWISE STATED

	AMENDMENTS	MOD No	DRAWN	CH'KD	D & D	M.E.D.	DATE
H	Connection notes changed to include sensor types		CEH				21/01/19
G	Output parameters added for each sensor module		CEH				12/11/18
F	SENSOR MODULE OPTIONS ADDED		CEH				31-05-18

	AMENDMENTS	MOD No	DRAWN	CH'KD	D & D	M.E.D.	DATE
L	EZLink Module Option Added (Parameters updated & module/sensor connectivity identified)	CR2003015	SME				010421
K	Fieldbus & Profibus Variant added		CEH				11-06-19
J	500 PRO & 500 PRO HT added		CEH				08/02/19

TITLE: AWT210 cFMus NON-INCENDIVE CONTROL DRAWING (USA)

DRAWING No. AWT200031

A1