

NON-HAZARDOUS AREA

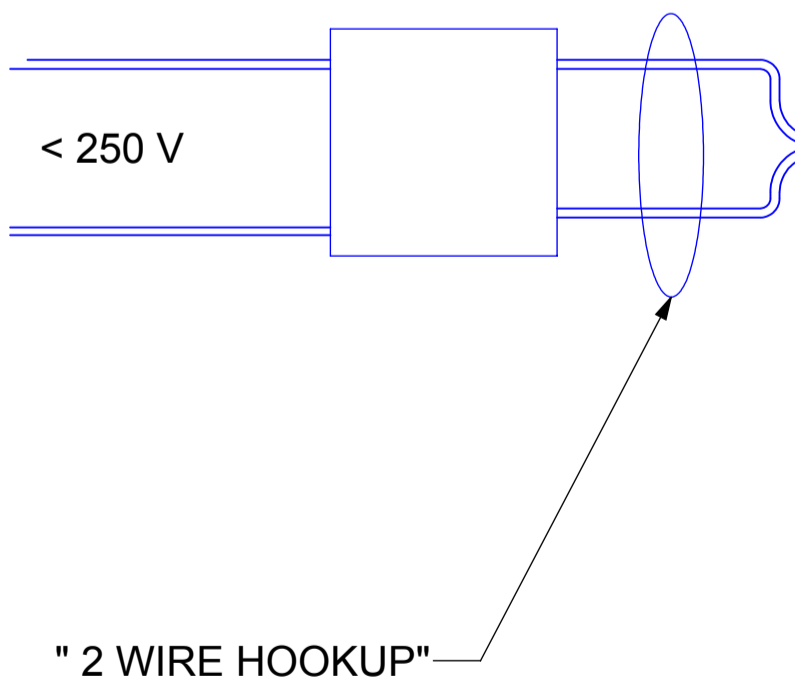
WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR HAZARDOUS LOCATIONS

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. ASSOCIATED APPARATUS MUST BE APPROVED BY AUTHORITY HAVING JURISDICTION AND MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
3. ASSOCIATED APPARATUS PARAMETERS MUST MEET THE FOLLOWING REQUIREMENTS:
 - $V_{oc}/U_o \leq V_{max}$;
 - $I_{sc}/I_o \leq I_{max}$;
 - P_o or $P_t \leq P_{max}$
 - $C_a \geq C_i + C_{cable}$
 - $L_a \geq L_i + L_{cable}$
4. MAXIMUM NON HAZARDOUS AREA VOLTAGE MUST NO EXCEED 250V.
5. A DUST TIGHT SEAL MUST BE USED AT THE CONDUIT ENTRY WHEN THE TRANSMITTER IS USED IN A CLASS II & III LOCATION
6. SUITABLE SEPERATION MUST BE MAINTAINED BETWEEN INPUT WIRING AND SENSOR WIRING
7. WARNING: DO NOT DISCONNECT EQUIPMENT WHILE LIVE UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS

ASSOCIATED APPARATUS



THIRD ANGLE PROJECTION
DO NOT SCALE THIS PRINT
REMOVE ALL BURRS

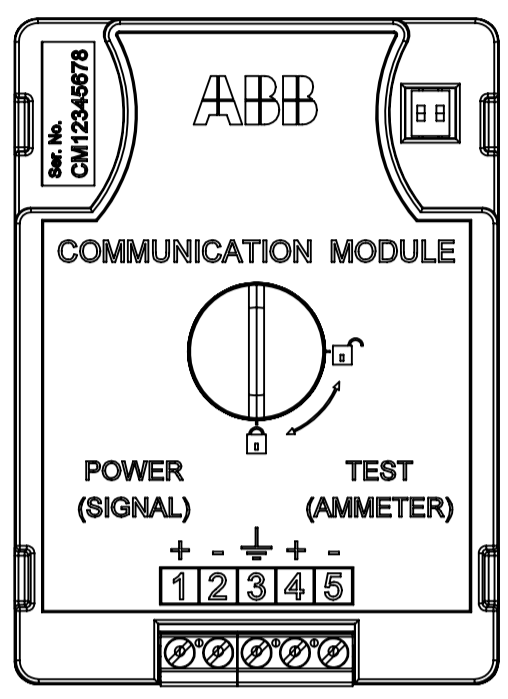
HAZARDOUS AREA

NON INCENDIVE

CLASS I, DIV2 GROUPS A,B,C,D; T4
CLASS II/III, DIV 2, GROUPS F,G; T4

COMMUNICATIONS OPTION MODULES:

HART
Fieldbus
Profibus



HART
INPUT PARAMETERS:
TERMINALS 1 & 2
 $V_{max}(U_i) = 30V$
 $I_{max}(I_i) = 100mA$
 $P_i = 0.8W$
 $C_i = 0.56nF$
 $L_i = 3.3mH$

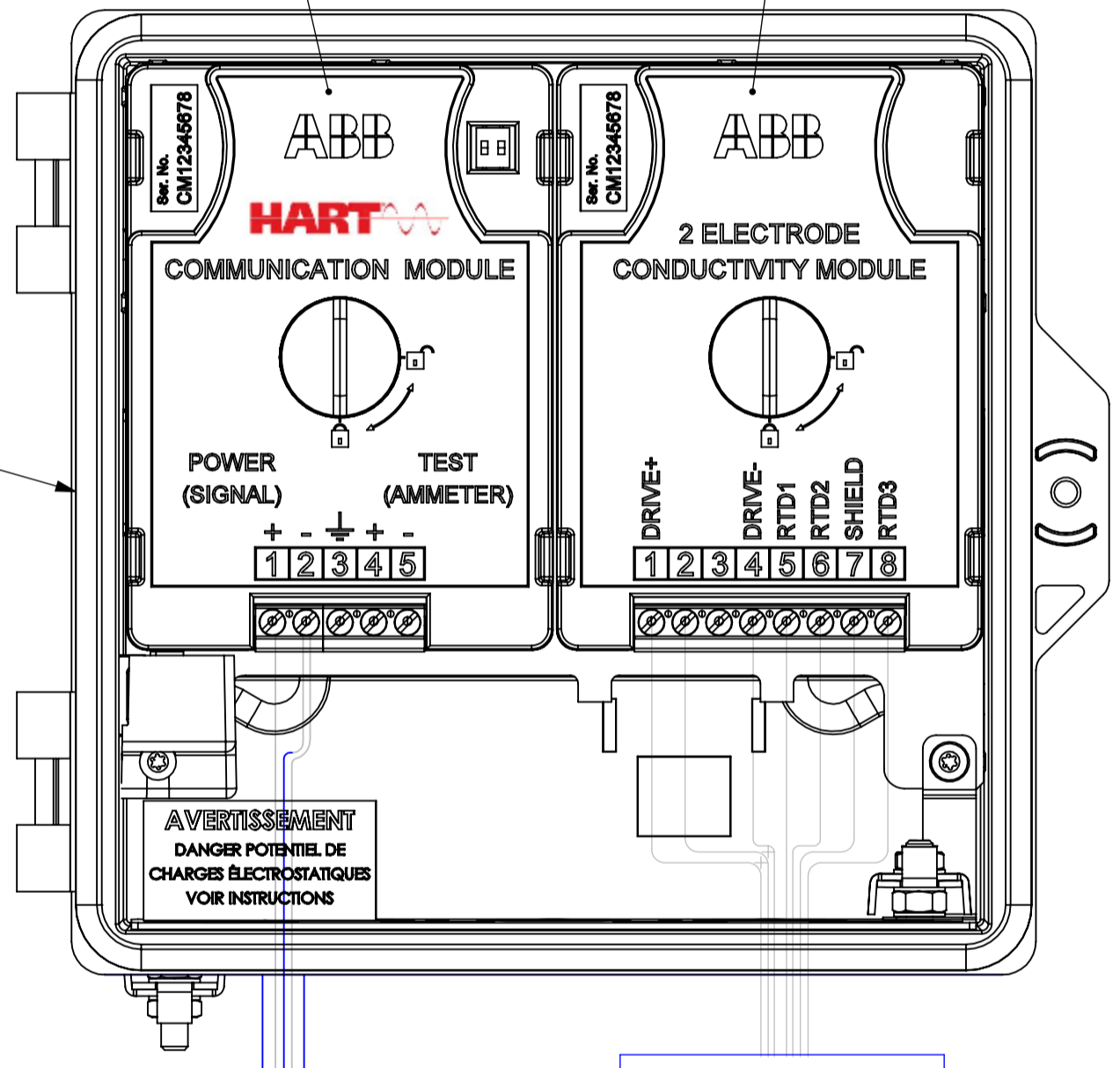
Fieldbus
INPUT PARAMETERS:
TERMINALS 1 & 2
 $V_{max}(U_i) = 24V$
 $I_{max}(I_i) = 250mA$
 $P_i = 1.2W$
 $C_i = 1.1nF$
 $L_i = 0mH$

Profibus
INPUT PARAMETERS:
TERMINALS 1 & 2
 $V_{max}(U_i) = 24V$
 $I_{max}(I_i) = 250mA$
 $P_i = 1.2W$
 $C_i = 1.1nF$
 $L_i = 0mH$

COMMUNICATION MODULE

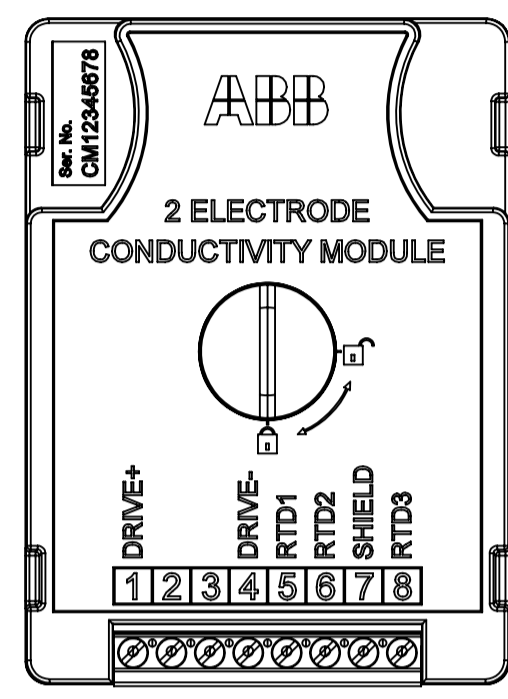
SENSOR MODULE

IPX6 ENCLOSURE

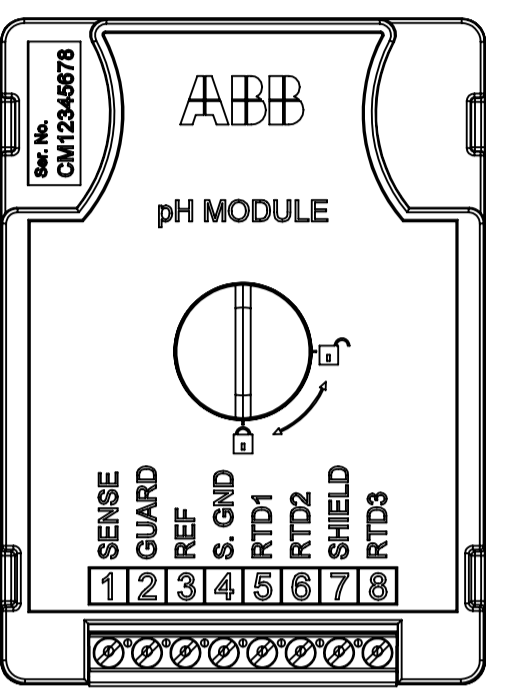


pH/ORP/ISE OR Conductivity SENSOR

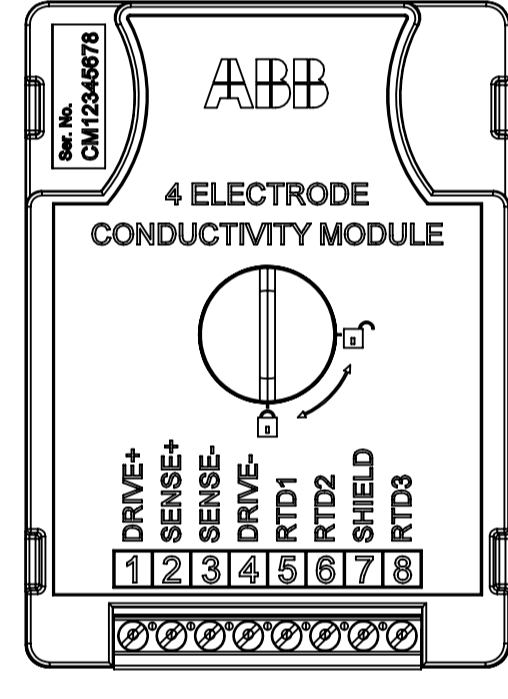
SENSOR OPTION MODULES



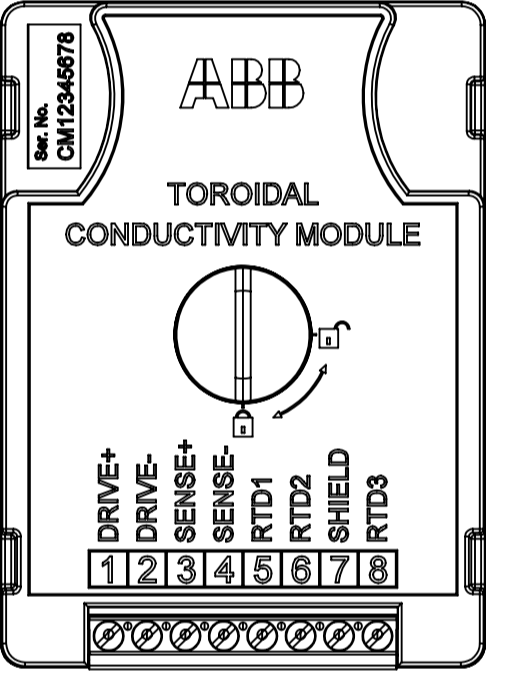
OUTPUT PARAMETERS - 2 ELECTRODE
 $V_{oc}(U_o) = 11.8V$
 $I_{sc}(I_o) = 11.8mA$
 $P_o = 36mW$
 $Ca(Co) = 1.5uF$
 $La = 1H$



OUTPUT PARAMETERS - pH
 $V_{oc}(U_o) = 11.8V$
 $I_{sc}(I_o) = 11.8mA$
 $P_o = 36mW$
 $Ca(Co) = 1.5uF$
 $La = 1H$



OUTPUT PARAMETERS - 4 ELECTRODE
 $V_{oc}(U_o) = 11.8V$
 $I_{sc}(I_o) = 11.8mA$
 $P_o = 36mW$
 $Ca(Co) = 1.5uF$
 $La = 1H$



OUTPUT PARAMETERS - TOROIDAL
 $V_{oc}(U_o) = 11.8V$
 $I_{sc}(I_o) = 11.8mA$
 $P_o = 36mW$
 $Ca(Co) = 1.5uF$
 $La = 1H$

AWT210 FOR CONNECTION TO:

1. ABB pH/ORP/ISE SENSOR TYPES
TB551; TB551; TB556; TB557; TB557; TB561;
TBX561; TB564; TBX564; TBX567; AP10; AP20;
2867; AP30; 765; 766; 500 PRO; 500 PRO HT
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 THAN 1.5V, 100mA, OR 25mW
4. I.S.DEVICES MUST BE FM APPROVED WITH ENTITY PARAMETERS (CONNECTED PER MANUFACTURERS INSTRUCTIONS)

AWT210 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)

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	SCALE DIMS. IN	J	500 PRO & 500 PRO HT added	CEH	08/02/19	F	SENSOR MODULE OPTIONS ADDED	CEH	31-05-18	
CONFIDENTIAL	TOLERANCES LINEAR DIMS X = ± 0.5 X.X = ± 0.1 ANGULAR DIMS ± 0.5° UNLESS OTHERWISE STATED	H	Connection notes changed to include sensor types	CEH	21/01/19	E	Input Parameters Imax was 160mA Pi was 1.0W	CEH	06-07-17	
ABB Ltd 2018		G	Output parameters added for each sensor module	CEH	12/11/18	K	Fieldbus & Profibus Variant added	CEH	11-06-19	
ABB Ltd St Neots, Cambs, PE19 8EU, UK		AMENDMENTS		MOD No	DRAWN	CHKD	D & D	M.E.D.	DATE	
		TITLE		AWT210 FM NON-INCENDIVE CONTROL DRAWING					DRAWING No.	AWT200031