This sheet applies only to transmitters installed in loops which are **NOT** Intrinsically Safe.

Drawing applies only to **HART** transmitters with following Catalog Numbers:

- **STRUCTURE** PART (19 characters max.)
  - 286

- **OPTIONS** PART "u" (See "NOTE below)

**NOTE**: For Hart Transmitters with "H" on "STRUCTURE PART", NO OPTIONS CODE "u" ARE AVAILABLE AND THE DEVICE CAN NOT BE INSTALLED IN HAZARDOUS CLASSIFIED LOCATION.

**NOTE**: For the complete 266 product code download data sheet from ABB web site:
http://new.abb.com/products/measurement-products/pressure

**Characters meaning**

- 3rd ch : (H or T ) models accuracy
- 19th ch : (H) HART 4...20 mA signal NOT for use in hazardous classified location

* Can be any letter/digit

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**Notes**:

1. A remote indicator, e.g. model 695FI with meter, can be connected to relevant terminals after removing jumper W2.

2. For Non-Incendive Field Wiring parameters, see table below and for installation in non incendive circuits in Class I Division 2 Groups D hazardous locations. See National Electric code section 501.10 (B) exception.


**Transmitter signal/power supply**

- Output : 4 to 20 mA dc
- Power : 24V dc nominal 10.5V min, 42V max.

**WARNING** : Substitution of components may impair Intrinsic safety or suitability for Division 2.

266 Manufacturer : ABB SpA, Via L. Vaccani 4 - 22016 Tremezzina (Loc. Ossuccio) Italy

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**Title** : 2600 T Series
*Control Drawing* for Pressure Transmitters
Models 266 MID option "YC"

**Date** : January 22, 2021

**Drawing No** : DH 3276
Sheet 1 of 4
Drawing applies only to HART transmitters with following Catalog Numbers:

*STRUCTURE* PART (19 characters max.)

2 6 6 * * * * * * * * * * * * * * * * * * 1

OPTIONS PART "u" (36 characters max.)

* * * Ex * * * YC * * * * * * * * * * * * *

PRODUCT CODE CHARACTERS MEANING:

3rd ch : (H or T) models accuracy
19th ch : (1) HART 4...20 mA signal

- 5th ch : (Ex) could be

E4 FM (Canada) XP + IS + NI
E6 FM (US) XP + IS + NI
EA FM (Canada & US) IS
EB FM (Canada & US) XP
EC FM (Canada & US) NI
EN FM (Canada & US) XP + IS + NI and ATEX Ex ia + Ex d + Ex n

* Can be any letter/digit

NOTE: For the complete 266 product code download data sheet from ABB web site:
http://new.abb.com/products/measurement-products/pressure

INTRINSIC SAFETY APPROVED LOOP CONFIGURATIONS

CONFIGURATION 1 : ONE BARRIER OR CONVERTER (Single or Dual Channel See Note 2)

CONFIGURATION 2 : SUPPLY AND RETURN BARRIERS (Only for Barriers approved according to this configuration)

Maximum Entity Parameters for Hart communication (1):

<table>
<thead>
<tr>
<th>Temperature class</th>
<th>lower limit of ambient temperature</th>
<th>upper limit of ambient temperature</th>
<th>I max or I (mA)</th>
<th>R (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T4</td>
<td>- 50°C</td>
<td>+ 85°C</td>
<td>50</td>
<td>0.75</td>
</tr>
<tr>
<td>T4</td>
<td>- 50°C</td>
<td>+ 70°C</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>T5</td>
<td>- 50°C</td>
<td>+ 40°C</td>
<td>50</td>
<td>0.75</td>
</tr>
<tr>
<td>T6</td>
<td>- 50°C</td>
<td>+ 40°C</td>
<td>50</td>
<td>0.4</td>
</tr>
</tbody>
</table>

VMAX = 30V
HART Standard (1) : Ci=5 nF Li = 10µH

TITLIE: 2600 T Series
"Control Drawing" for Pressure Transmitters
Models 266 MID option "YC"

DATE: January 22, 2021
DRAWING N°: DH 3276
Sheet 2 of 4
**Notes:**
1. Associated apparatus manufacturer's installation drawing must be followed when installing the transmitter. The associated apparatus must be approved by FM Approvals.
2. When one side of output barrier circuit can be grounded, use one single channel barrier. When neither side of output circuit can be grounded, use one dual channel barrier.
3. Equipment connected to barrier must not use or generate more that 250 Vrms or dc.
4. Resistance between intrinsically safe ground and earth ground must be less than 1 Ω.
5. Use listed dust tight seal at conduit entry for installation in Class II and III hazardous locations.
6. If the transmitter has an internal output meter or a remote indicator, remove the relevant jumper (see sheet 1) to connect it.

**ENTITY AND NON-INCENDIVE COMPONENT FIELD WIRING CONCEPTS**

**Entity Concept**

Equipment which is FM approved for intrinsic safety may be connected to barriers based on the ENTITY CONCEPT. This concept permits interconnection of approved transmitters, meters and other devices in combinations which have not been specifically examined by FM, provided that the agency's criteria are met. The combination is then intrinsically safe if the entity concept is acceptable to the authority having jurisdiction over the installation.

The entity concept criteria are as follows:

- The intrinsically safe devices, other than barriers, must not be a source of power.
- The maximum voltage (Vmax) and current (Imax), which the device can receive and remain intrinsically safe, must be equal to or greater than the voltage (Vsc or Vt) and current (isc or it) which can be delivered by the barrier.
- The sum of the maximum unprotected capacitance (Ci) for each intrinsically device and the interconnecting wiring must be less than the capacitance (C0) which can safely be connected to the barrier.
- The sum of the maximum unprotected inductance (Li) for each intrinsically device and the interconnecting wiring must be less than the inductance (L0) which can safely be connected to the barrier.

The **maximum entity parameters Vmax, Imax, Ci and Li for the 266 transmitters are listed on table at page 2**

The entity parameters Vsc or Vt, isc or it, Ca and La, for barriers, are provided by the barrier manufacturer.

**Non-Incendive Field Wiring concepts**

The Non-Incendive Field Wiring concept is very similar to the entity concept except it allows devices approved with Non-Incendive Component Field Wiring parameters to be installed in Class I Division 2 hazardous locations when connected to appropriate sources of power provided that the appropriate criteria are met. The combination is then safe if the concept is acceptable to the authority having jurisdiction over the installation.

The criteria are as follows:

- There must be only one source of power. The source may be an intrinsic safety barrier or it may be a device marked with Non-Incendive Field Wiring parameters suitable for connection to non-incendive circuit components located in Division 2 hazardous locations.
- The maximum voltage (Vmax) and current (Imax), which the device can receive and remain non-incendive, must be equal to or greater than the voltage (Vsc or Vt) and current (isc or it) which can be delivered by the source of power.
- The sum of the maximum unprotected capacitance (Ci) for each device and the interconnecting wiring must be less than the capacitance (C0) which can safely be connected to the source of power.
- The sum of the maximum unprotected inductance (Li) for each device and the interconnecting wiring must be less than the inductance (L0) which can safely be connected to the source of power.

The **Non-Incendive Field Wiring parameters VMAX, IMAX, CI and LI for the 266 transmitter are listed on table below**.

The parameters, Vsc or Vt, isc or it, Ca and La, for the source of power are provided by the manufacturer of that equipment.

In case the surge protection option is present and the transmitter is installed in a Hazardous area, the transmitter shall absorb power supplied from a voltage source isolated from mains (galvanic separation). Furthermore the potential equalization for the entire powering cable must be guaranteed since the intrinsic safety circuit of the transmitter is grounded.

**Non-Incendive Field Wiring Parameters for Hart Communication 1**

<table>
<thead>
<tr>
<th>Temperature class</th>
<th>lower limit of ambient temperature</th>
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</tr>
</thead>
<tbody>
<tr>
<td>T4</td>
<td>- 50°C</td>
<td>+ 85°C</td>
</tr>
<tr>
<td>T4</td>
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</tr>
<tr>
<td>T5</td>
<td>- 50°C</td>
<td>+ 40°C</td>
</tr>
<tr>
<td>T6</td>
<td>- 50°C</td>
<td>+ 40°C</td>
</tr>
</tbody>
</table>

V<sub>MAX</sub> = 42V  I<sub>MAX</sub> = 25mA

HART Standard (1)  Ci=5nF  Li=10µH

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**Title:**
2600 T Series
*Control Drawing* for Pressure Transmitters
Models 266 MID option "YC"

**Date:**
January 22, 2021

**Drawing No.:**
DH3276

Sheet 3 of 4
- WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR
  SUITABILITY FOR CLASS I, DIVISION 2
  and
  ADVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTION DE COMPOSANTS
  PEUT RENDRE CE MATÉRIEL INACCEPTABLE POUR LES EMPLACEMENTS
  DE CLASS I, DIVISION 2

- Ex i INTRINSICALLY SAFE/SECURITÉ INSTRINSEE WHEN CONNECTED PER AND
  WITH GROUP LIMITATION STATED HEREIN

- TRANSMITTER GROUND MUST BE AT SAME POTENTIAL AS BARRIER GROUND