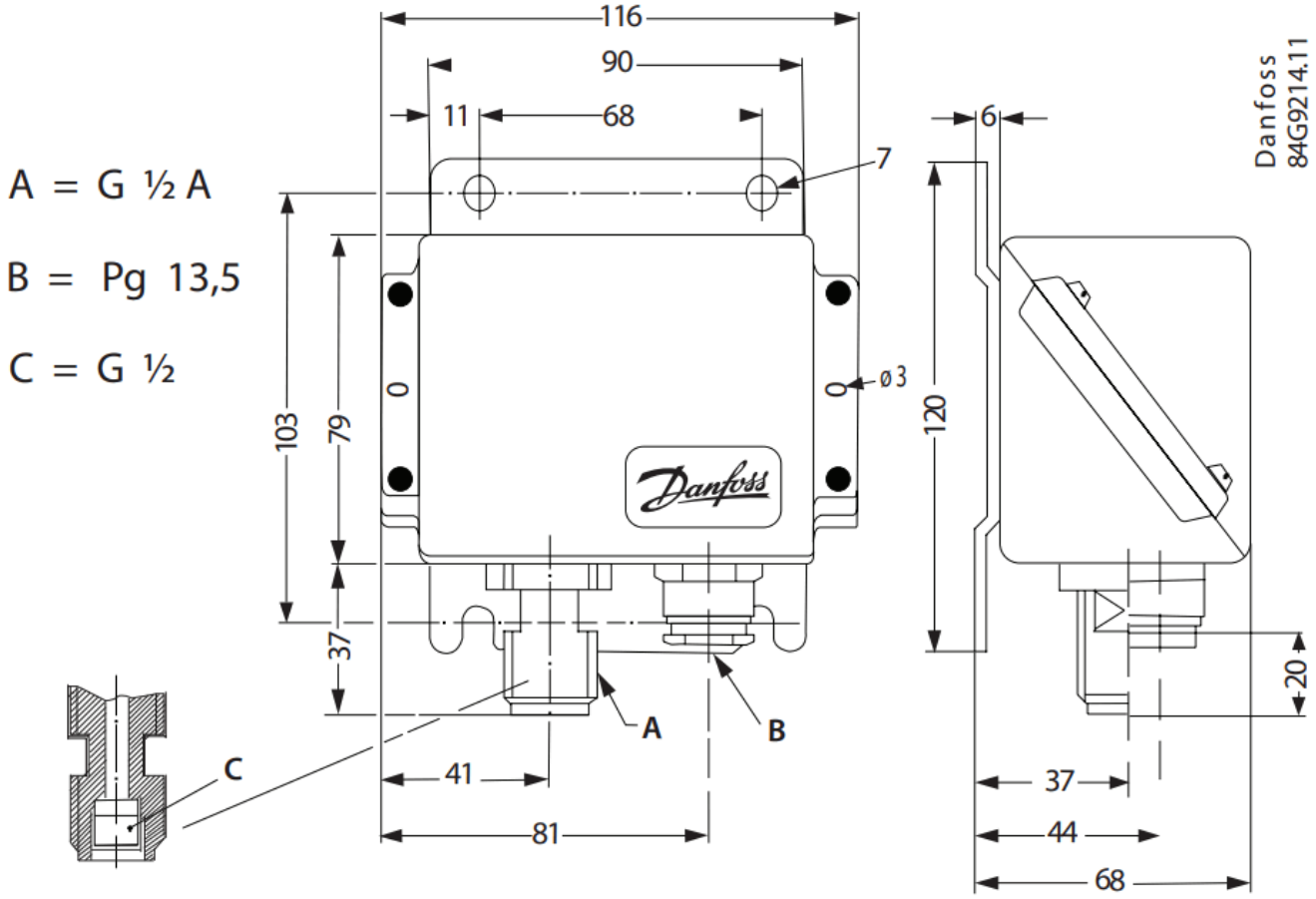
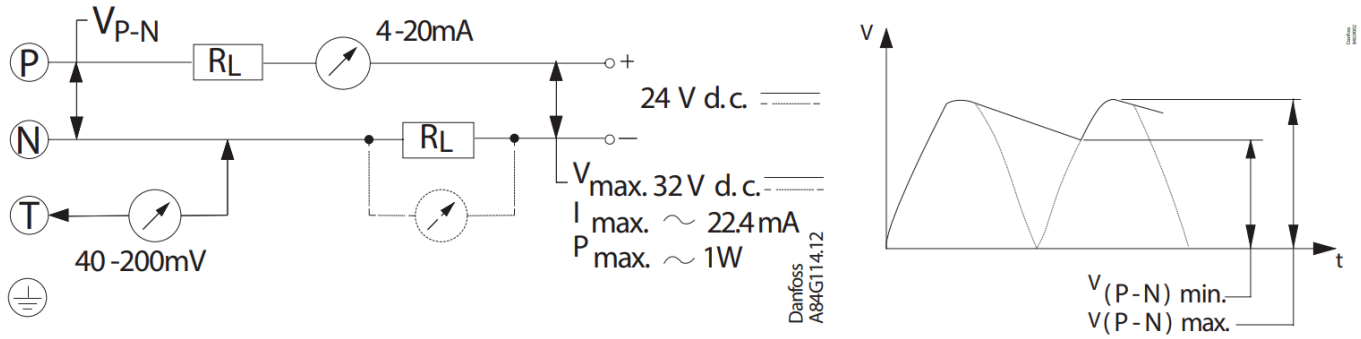
Danfoss EMP 2 Pressure Transmitters Installation Guide

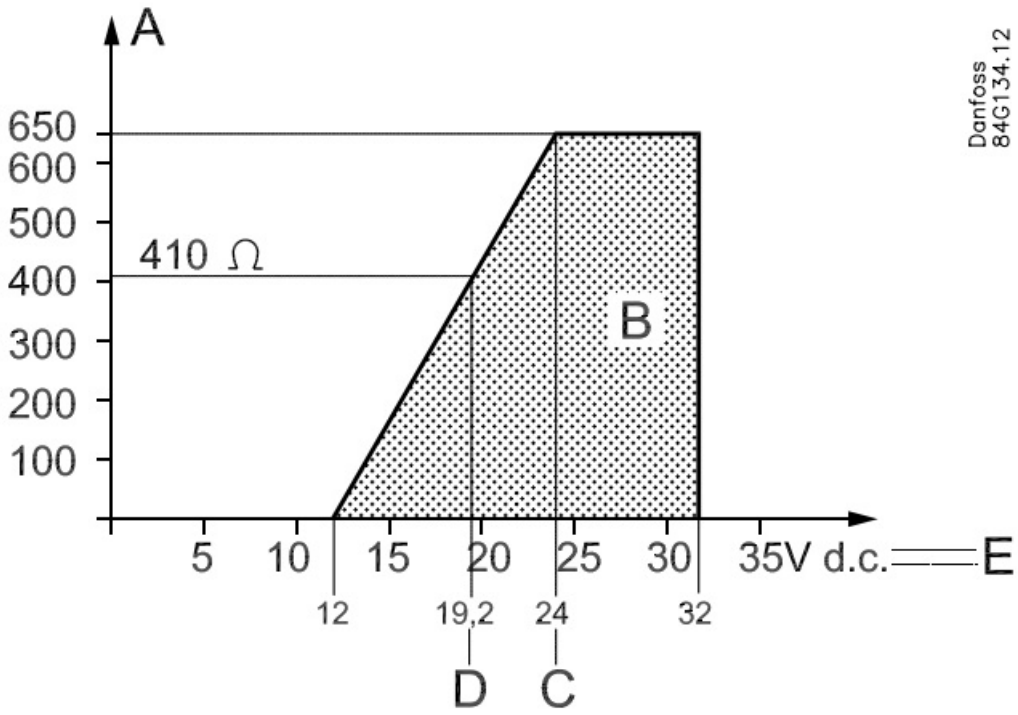
Installation guide
084R9310
EMP 2



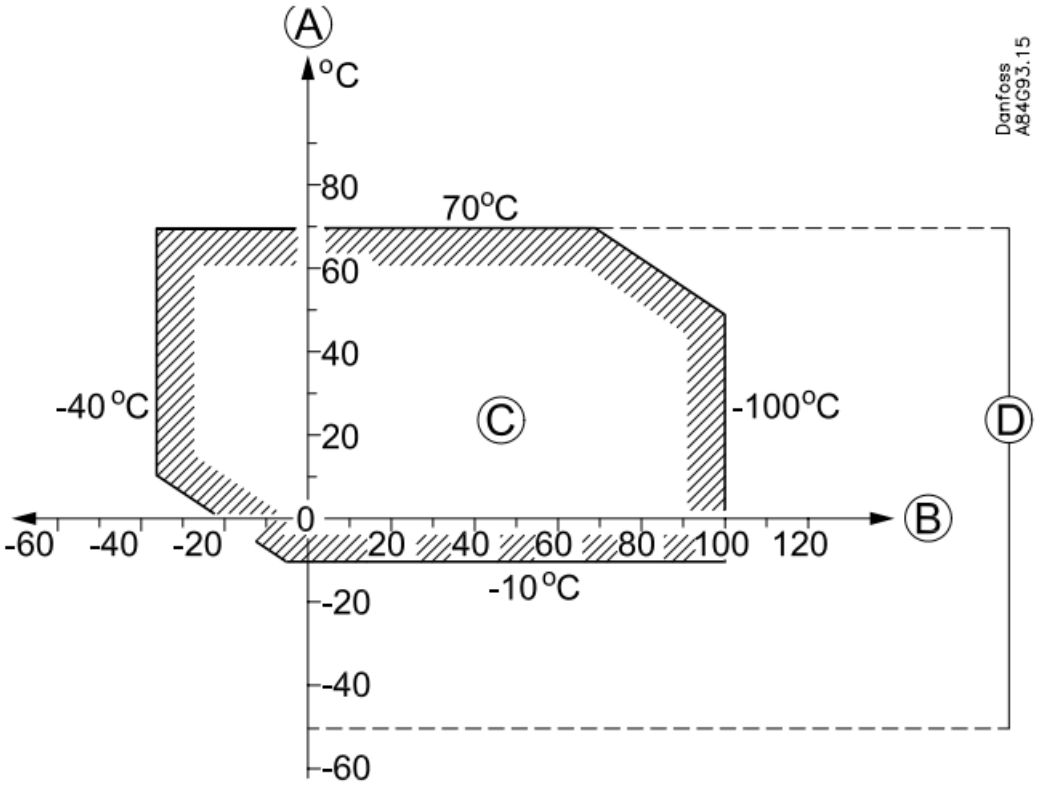
V = Input voltage



A = Load in Ω
B = Operating range
C = Normal Voltage 24 v d.c
D = 20% Undervoltage
E = Input voltage



A = Ambient temperature
B = Media temperature
C = Operating range
D = Storage Temperature



Contents

Identification

Code number, pressure range, and test pressure are printed on the upper part of the unit.

Installation

EMP2 es equipped with a fixing bracket. The pressure connector is G½ A and G¼. It has spanner flats (14 mm a/flats) that should be used when installing and dismantling.
If pulsations occur in the medium being measured, their amplitude must not exceed the test pressure of the unit.
As protection against frost, EMP 2 can operate on an air cushion.
For temperature ranges, see fig. 4.

Electrical connection

The unit is designed for a supply voltage of 24 V d.c.
Min. supply Voltage: 9 V
Max. supply Voltage: 32 V
The Max. permissible load resistance depends on the supply voltage and is given in fig.3.
Connect the supply voltage to terminal P(positive) and N (negative), fig. 2.

Terminal T is the test point and ⏚ the earth terminal. A 10-ohm resistor is inserted between terminals N and T.
Function testing can be performed with a millivoltmeter between terminals N and T.

American and Canadian approvals:

1. Automatic electrical controls acc. to UL 60730-1 and part 2-6 / CAN/CSA E60730 and part 2-6, file E31024.
2. Equipment for process measurement and control acc. to UL 61010-1 / CSA C22.2 No. 61010-12, file E494625.
3. Nonincendive electrical equipement for use in Class I, Div. 2, Groups A, B, C, and D, harzardous locations in acc. To UL 121201 / C22.2 No. CSA-213, file E227388 and E510763. Combinations of equipment in systems are subject to investigation by the local Authority Having Jurisdiction at the time of installation.
   These components are to be installed within a suitable tool-secured enclosure in the end application.
   WARNING -EXPLOSION HAZARD – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.
4. The MWP (max. working pressure) is in the range of 1 to 250 bar depending on the sensor pressure range. Refer to the product label.
   (E494625)
5. Evaluated for pollution Degree 3.
6. Altitude up to 8,000 m.
7. Max. R.H. 95% non-condensing.
8. Overvoltag–e category I.
9. Powered by class 2 supply.

Type	EMP 2
Max. ambient temperature/ T-code	70 °C
Electrical connections	For UL approved see over
Voltage supply	+9 to 32 V DC
Output	4 – 20 mA

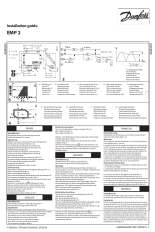
ATEX ZONE 2

CE Ex II 3G Ex ec IIA T4 Gc -20 °C < Ta < + 55 °C	EN60079-0; EN60079

Applicable in ATEX Zone 2 with media classified as IIA in accordance with EN 60079-20-1:
All electrical connections must comply with the ATEX requirements for Zone 2 – and EN 60079-14.
When used in ATEX Zone2 areas at temperatures <-10 °C the cable and plug must be protected against impact.
The plug must not be removed when the sensor is energized.
The cable must neither be exposed to any mechanical damage, corrosion, vibration, heat nor UV radiation.

provided that such alterations can be made without subsequential changes being necessary for specifications already agreed.

Documents / Resources

	Danfoss EMP 2 Pressure Transmitters [pdf] Installation Guide EMP 2, Pressure Transmitters, EMP 2 Pressure Transmitters, Transmitters