



Electrical Installation

Sensors

# MBS1250 H-D Pressure Transmitter



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**Electrical Installation      MBS1250 H-D Pressure Transmitter**

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**Revision history***Table of revisions*

| Date        | Changed                     | Rev |
|-------------|-----------------------------|-----|
| August 2015 | Converted to Danfoss layout | BA  |
| Feb 2009    | First edition               | AA  |

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**Literature references****MBS1250 H-D pressure transmitter literature references**

| Literature title                                                                     | Description                                               | Literature number |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------|
| <i>MBS1250 Heavy Duty Pressure Transmitter Data Sheet</i>                            | Complete product electrical and mechanical specifications | 11058299          |
| <i>MBS1250 Heavy-Duty Pressure Transmitter Compliant Function Block User's Guide</i> | Compliant function block set-up information               | 11062069          |

**Latest version of technical literature**

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Danfoss product literature is online at: <http://powersolutions.danfoss.com/literature/>

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## Electrical Installation MBS1250 H-D Pressure Transmitter

### Product overview

### Product image

MBS1250 H-D pressure transmitter



### Part numbers

Pressure transmitter ranges/part numbers

| Pressure transmitter range | Danfoss material number |          |          |
|----------------------------|-------------------------|----------|----------|
|                            | Pressure connection     |          |          |
|                            | SAE 4                   | SAE 6    | G1/4     |
| 0 to 40 bar [580 psi]      | 11044499                | 11044545 | 11044551 |
| 0 to 160 bar [2320 psi]    | 11044500                | 11044546 | 11044562 |
| 0 to 250 bar [3626 psi]    | 11044501                | 11044547 | 11044563 |
| 0 to 400 bar [5800 psi]    | 11044542                | 11044548 | 11044564 |
| 0 to 500 bar [7250 psi]    | 11044543                | 11044549 | 11044565 |
| 0 to 600 bar [8700 psi]    | 11044544                | 11044550 | 11044566 |

## Electrical Installation MBS1250 H-D Pressure Transmitter

### Product overview

### Theory of operation

Danfoss Heavy-Duty Pressure Transmitters convert measured pressure into a linear, temperature-compensated, output signal with a range of 10% to 90% of transmitter supply voltage. The PLUS+1® Compliant pressure transmitter function block requires that transmitter supply voltage be 5 Vdc regulated sensor power provided by a PLUS+1® Compliant control device.

A unique PLUS+1® Compliant pressure transmitter function block template is available for each transmitter range.

Be sure that the PLUS+1® Compliant function block template being used is appropriate for the range of the pressure transmitter installed in the system.

### Electrical specifications

#### Pressure transmitter electrical specifications

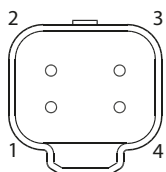
|                                                     |                               |
|-----------------------------------------------------|-------------------------------|
| <b>Nominal output signal</b>                        | 10 to 90% of supply           |
| <b>Supply voltage—V supply (polarity protected)</b> | 5 Vdc $\pm$ 0.5 Vdc           |
| <b>Power consumption</b>                            | 4.5 mA at 5 Vdc               |
| <b>Output impedance</b>                             | 90 $\Omega$                   |
| <b>Load resistance</b>                              | > 5 k $\Omega$ at 5 Vdc       |
| <b>Accuracy (at reference conditions)</b>           | $\pm$ 0.5% full scale         |
| <b>Hysteresis and repeatability</b>                 | $\leq \pm$ 0.1% full scale    |
| <b>Thermal zero point shift</b>                     | < $\pm$ 0.15% full scale/ 10K |
| <b>Thermal sensitivity (span) shift</b>             | < $\pm$ 0.15% full scale/ 10K |
| <b>Response time liquids (10 to 90%)</b>            | < 1 ms                        |

## Electrical Installation MBS1250 H-D Pressure Transmitter

### Electrical installation

#### Pinout

4 pin DEUTSCH Receptacle DT-04



Pinout and Wiring Information

| Pin | Function          |
|-----|-------------------|
| 1   | Supply -          |
| 2   | Supply +          |
| 3   | P. E. (not used)* |
| 4   | Output +          |

\* Pin 3 connected to case; typically not used (P. E. = protective earth).

#### Pin compatibility

PLUS+1® module pin type/pressure transmitter pin compatibility

| Pin | Function        |
|-----|-----------------|
| 2   | Sensor power +  |
| 1   | Sensor power -  |
| 4   | AIN/CAN0 shield |
| 4   | AIN/CAN1 shield |
| 4   | AIN/CAN2 shield |
| 4   | DIN/AIN         |
| 4   | DIN/AIN/FreqIN  |
| 4   | AIN/Temp/Rheo   |

#### Mating connector

DEUTSCH connector

| Description                                             | Quantity | Ordering number  |
|---------------------------------------------------------|----------|------------------|
| 4 pin DEUTSCH Plug<br>DT-06-45-E003 Series bag assembly | 1        | Danfoss 11028348 |



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Local address:

**Danfoss Power Solutions (US) Company**  
2800 East 13th Street  
Ames, IA 50010, USA  
Phone: +1 515 239 6000

**Danfoss Power Solutions GmbH & Co. OHG**  
Krokamp 35  
D-24539 Neumünster, Germany  
Phone: +49 4321 871 0

**Danfoss Power Solutions ApS**  
Nordborgvej 81  
DK-6430 Nordborg, Denmark  
Phone: +45 7488 2222

**Danfoss Power Solutions Trading (Shanghai) Co., Ltd.**  
Building #22, No. 1000 Jin Hai Rd  
Jin Qiao, Pudong New District  
Shanghai, China 201206  
Phone: +86 21 3418 5200

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