

# HYDAC INTERNATIONAL



## Electronic Pressure Transmitter with HSI Sensor Recognition HDA 4748-H

### Description:

The pressure transmitter HDA 4748-H with HSI sensor recognition has been specially developed for use in conjunction with HYDAC measuring instruments HMG 500, HMG 510, HMG 3000 and CMU 1000. For data transmission, the HDA 4748-H has an HSI interface (HYDAC Sensor Interface). The HSI sensors are automatically recognised via the HSI interface by the above-mentioned HYDAC measuring instruments and all the necessary basic settings are taken from each sensor.

Like all pressure transmitters of the HDA 4700 series, the HDA 4748-H also has a very accurate and robust sensor cell with a thin-film strain gauge on a stainless steel membrane. It combines excellent technical specifications with a very compact design.

### Special features:

- Automatic recognition by, and voltage supply from, HYDAC measuring instruments HMG 500, HMG 510, HMG 3000 or CMU 1000
- Automatic transfer of measuring range, measured value and measurement unit
- Accuracy  $\leq \pm 0.25\%$  FS typ.
- Highly robust sensor cell
- Very small temperature error
- Excellent EMC characteristics
- Excellent long term stability
- Very compact design

### Technical specifications:

| Input data   |  |
|--|--|
| Measuring ranges   | -1 .. 9; 16; 60; 100; 250; 400; 600; 1000* bar                         |
| Overload pressures                                       | 20; 32; 120; 200; 500; 800; 1000; 1600 bar                             |
| Burst pressures  | 100; 200; 300; 500; 1000; 2000; 3000 bar                               |
| Mechanical connection (torque value)                     | G1/4 A DIN 3852 (20 Nm)<br>G1/2 DIN 3852 * (40 Nm)                     |
| Parts in contact with medium                             | Mech. connection: Stainless steel<br>Seal: FPM                         |
| Output data  |  |
| Output signal  | HSI (HYDAC Sensor Interface)<br>Automatic sensor recognition           |
| Accuracy to DIN 16086                                    | $\leq \pm 0.25\%$ FS typ.  |
| Max. setting   | $\leq \pm 0.5\%$ FS max.   |
| Accuracy at min. setting (B.F.S.L.)                      | $\leq \pm 0.15\%$ FS typ.<br>$\leq \pm 0.25\%$ FS max.                 |
| Temperature compensation                                 | $\leq \pm 0.008\%$ FS / °C typ.  |
| Zero point   | $\leq \pm 0.015\%$ FS / °C max.  |
| Temperature compensation                                 | $\leq \pm 0.008\%$ FS / °C typ.  |
| Over range   | $\leq \pm 0.015\%$ FS / °C max.  |
| Non-linearity at max. setting to DIN 16086               | $\leq \pm 0.3\%$ FS max.   |
| Hysteresis   | $\leq \pm 0.1\%$ FS max.   |
| Repeatability  | $\leq \pm 0.05\%$ FS   |
| Rise time  | $\leq 0.5$ ms  |
| Long-term drift  | $\leq \pm 0.1\%$ FS typ. / year  |
| Environmental conditions                                 |  |
| Compensated temperature range                            | -25 .. +85 °C  |
| Operating temperature range                              | -20 .. +85 °C  |
| Storage temperature range                                | -40 .. +100 °C   |
| Fluid temperature range                                  | -20 .. +100 °C   |
| CE mark  | EN 61000-6-1 / 2 / 3 / 4   |
| Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz | $\leq 20$ g  |
| Protection class to DIN 40050                            | IP 67 (when an IP 67 connector is used)                                |
| Other data   |  |
| Voltage supply   | via HYDAC measuring instruments HMG 500, HMG 510, HMG 3000 or CMU 1000 |
| Life expectancy  | > 10 million cycles<br>0 .. 100 % FS                                   |
| Weight   | approx. 150 g  |

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

FS (Full Scale) = relative to complete measuring range

B.F.S.L. = Best Fit Straight Line

\* 1000 bar only with mech. connection G1/2 DIN 3852 and vice versa

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**Niehues**

Hydraulik · Automation

**Model code:****HDA 4 7 4 8 - H - XXXX - 000****Mechanical connection**

- 2 = G1/2 DIN 3852 (male)  
 4 = G1/4 A DIN 3852 (male)

**Electrical connection**

- 8 = M12x1, 5-pole, male  
 (connector not supplied)

**Signal**

- H = HSI (automatic sensor recognition)

**Pressure ranges in bar**

0009; 0016; 0060; 0100; 0250; 0400; 0600 (only in conjunction with mech. connection "4")  
 1000 (only in conjunction with mech. connection "2")

**Modification number**

000 = Standard

**Note:**

On instruments with a different modification number, please read the label or the technical amendment details supplied with the instrument.

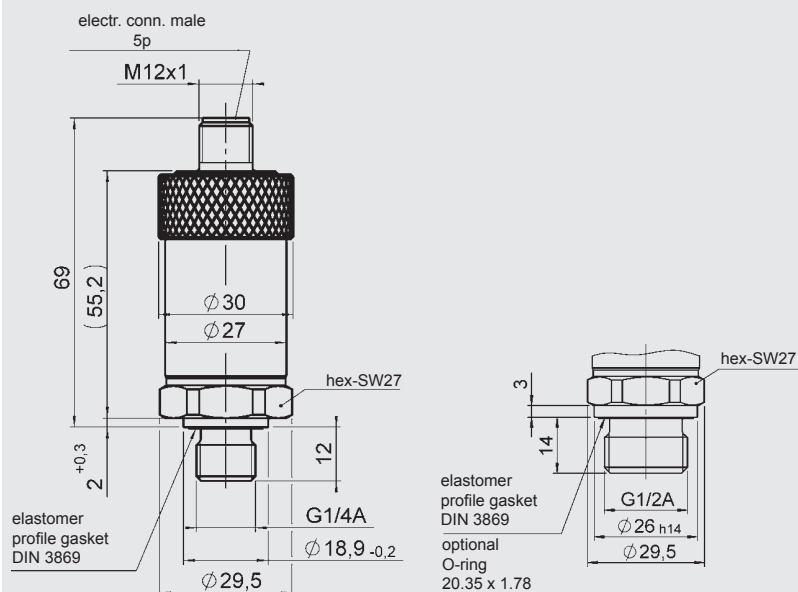
**Accessories:**

Appropriate accessories, such as electrical connectors, can be found in the Accessories brochure.

**Note:**

The information in this brochure relates to the operating conditions and applications described.

For applications and/or operating conditions not described, please contact the relevant technical department.  
 Subject to technical modifications.

**Dimensions:**

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