

CAN BUS PRESSURE TRANSMITTER (Preliminary)



The Y11 3748-*** is a pressure transmitter with the purpose of measuring pressure in hydraulic and pneumatic systems. It is based on the standard pressure transmitter with the difference of having a CAN-BUS interface instead of a analogue output.

CAN-BUS

Characteristics area based on the following two documents:

- CiA Draft Standard 301 Version 4.01, Date : 10 February 2000: "Application Layer and Communication Profile" of CAN in Automation e.V.
- CiA Draft Standard Proposal 404 Version 1.0, Date : 1 June 2000: "Measuring Devices and Closed-Loop Controllers" of CAN in Automation e.V.

The CAN-BUS has a bus-cycle-time of 1ms.

Boot-Up and Reset

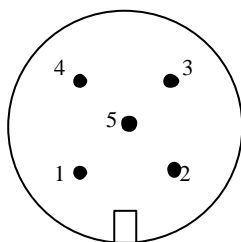
After power-on an initialisation is started. First all the parameters are read from a non-volatile memory. Then the device enters the node state PREOPERATIONAL and sends a boot-up-message (0x0700+Node-ID). If the device is not able to send the message (possible reasons: wrong Baud-Rate or no other CAN-Nodes, ..), this action is repeated every 100 ms. The different node states of the device are: PRE-OPERATIONAL, OPERATIONAL and STOPPED. The node states OPERATIONAL and STOPPED can be entered by the Network Management (NMT) Commands 'Start Remote Node' and 'Stop Remote Node'. The node state PRE-OPERATIONAL can be entered by the Command 'Reset Node', 'Enter PRE-Operational' and 'Reset Communication'.

Technical Details

Input data	
Measuring ranges	0 .. 250 bar
Overload pressure	150 % FS
Burst pressure	300 % FS
Parts in contact with media	Stainless steel, Viton-seal
Output data	
Curve deviation at max. setting to DIN 16086 (accuracy class)	Max. ± 0.5 %FS
	Typ. ± 0.25 %FS
Curve deviation at min. setting	Max. ± 0.2 %FS
	Typ. ± 0.1 %FS
Rise time	approx. 1 ms
Ambient conditions	
Nominal temperature range	0...+70 °C
Operating temperature range	-25...+85 °C
Storage temperature range	-40...+100 °C
Fluid temperature range	-40...+100 °C

Note :FS (Full Scale) = relative to the full measuring range

The device has a male M12 x 5 Micro-Style Connector with the following pinning :



Pin 1: Ground
 Pin 2 : (+) 18-32V
 Pin 3: (-)
 Pin 4: CAN-H
 Pin 5: CAN-L