SIMATIC S7-300 SM 331 HART

Product Data Sheet

6ES7331-7TB00-0AB0

Two-Channel HART Analog Input Module

ANALOG INPUT CHANNELS	SIGNAL RANGES	HART PROTOCOL REVISION	RESOLUTION
2	**0 to 20 mA; 4 to 20 mA**	**5**	**16 bits including overrange and sign**

Siemens 6ES7331-7TB00-0AB0 is a two-channel SM 331 HART analog input module for applicable SIMATIC S7-300 and ET 200M arrangements. It accepts 0 to 20 mA and 4 to 20 mA current signals and supports HART revision 5. The module provides 16-bit conversion including overrange and sign, with a 50 ohm current-input resistance and a 20-pin front connector.

01 TECHNICAL DATA

Analog input channels	2
Signal ranges	0 to 20 mA; 4 to 20 mA
HART protocol revision	5
Resolution	16 bits including overrange and sign
Current-input resistance	50 ohm
Load supply	24 V DC
Maximum load-supply current	180 mA without load
Maximum 5 V backplane current	100 mA
Typical power loss	4.5 W
Transmitter supply	15 V at 22 mA

Siemens 6ES7331-7TB00-0AB0 official technical data; applicable specification pages.

02 ADDITIONAL PRODUCT DATA

Integration-time selections	2.5; 16.67; 20; 100 ms
Maximum shielded cable	400 m
Front connector	20-pin
Channel isolation test	1500 V AC
Maximum operating temperature	60 C

03 PRODUCT FUNCTION

A 24 V DC load supply powers the field-side arrangement, and the module also draws from the 5 V backplane. The documented transmitter supply provides 15 V at 22 mA. Integration time can be selected from 2.5, 16.67, 20 or 100 ms to match the required interference suppression and response. The specification permits up to 400 m of shielded cable and describes channel isolation with a 1500 V AC test rating.

04 SYSTEM COMPATIBILITY

Connect each transmitter in the documented two-wire or four-wire arrangement and include the 50 ohm input resistance in the loop budget. Check whether the internal 15 V transmitter supply at 22 mA is adequate for the connected transmitter and its wiring. Preserve the shielding arrangement over the permitted cable length.

05 REFERENCE

Siemens 6ES7331-7TB00-0AB0 official technical data; applicable specification pages.

AMIKON PRODUCT SUPPORT
+86-18020776786 INFO@AMIKON.CN AMIKONG.COM