

Overview



- 1-channel module for connecting SSI sensors to the ET 200S
- For position detection and simple positioning tasks
- With two comparison operations with specifiable comparison values (standard mode)
- With a digital input for latching actual values (standard mode)
- Can be plugged into TM-E terminal module with automatic coding
- Fast mode for high-speed acquisition of encoder values (e.g. for drive controls)
- Module replacement possible during operation and when live (hot swapping)
- Simple parameterization without additional software

Note:

We supply positioning systems and prepared connection cables for counting and positioning functions as SIMODRIVE Sensors or Motion Connect 500 (also visit <http://www.siemens.com/simatic-technology>)

Technical specifications

Article number	6ES7138-4DB03-0AB0
	ET200S, EL-MOD., 1SSI 25BIT/1MHZ
Product type designation	
Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	28.8 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	40 mA
Encoder supply	
24 V encoder supply	
• 24 V	Yes
• short-circuit protection	Yes
• Output current, max.	500 mA
Absolute encoder (SSI) encoder supply	
• Absolute encoder (SSI)	Yes
• Type of output voltage	L+ (-0.8 V)
• Output current, max.	500 mA
• short-circuit protection	Yes
Power losses	
Power loss, typ.	1 W
Hardware configuration	
Module exchange	
• Hot swapping the IM-DP	Yes
• Module exchange under process voltage	Yes
Digital inputs	
Number of digital inputs	1
Input voltage	
• for signal "0"	-30 to +5V
• for signal "1"	+11 to +30V
Input current	
• for signal "0", max. (permissible quiescent current)	2 mA
• for signal "1", typ.	9 mA
Cable length	
• shielded, max.	50 m

Article number	6ES7138-4DB03-0AB0
	ET200S, EL-MOD., 1SSI 25BIT/1MHZ
Encoder	
Number of connectable encoders, max.	1
Connectable encoders	
• Absolute encoder (SSI)	Yes
Encoder signals, absolute encoder (SSI)	
• Message frame length, parameterizable	13, 14, 16, 21, 24 & 25 bit
• Binary code	Yes
• Gray code	Yes
• Cable length, shielded, max.	320 m; At 125 kHz
• Monoflop time	16/32/48/64 µs
Diagnostics indication LED	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
• Status indicator backward counting (green)	Yes
• Status indicator forward counting (green)	Yes
Galvanic isolation	
Galvanic isolation digital inputs	
• Galvanic isolation digital inputs	No; same potential with L+ and SSI
Galvanic isolation counter	
• between the channels and the backplane bus	Yes
• between the channels and the load voltage L+	No
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	40 g

I/O systems

ET 200 systems for the control cabinet

ET 200S - I/O modules - Technology modules

SSI module**Ordering data****Article No.****Article No.****SSI module**

For connecting absolute encoders
with an SSI interface

6ES7138-4DB03-0AB0**Accessories****Label sheets DIN A4 (10 pieces)**

Each sheet contains 60 labeling
strips for I/O modules and
20 labeling strips for interface
modules

- petrol
- red
- yellow
- light beige

6ES7193-4BH00-0AA0**6ES7193-4BD00-0AA0****6ES7193-4BB00-0AA0****6ES7193-4BA00-0AA0****Signal cable**

Preambled for SSI absolute
encoder 6FX2001-5, without D-Sub
connector, UL/DESINA.
For length code, see page 5/142.

6FX5002-2CC12-....