8.4 Interface module SB10

Order No. 6DD1681-0AE2

Description The interface module outputs binary signals from SIMADYN D / SIMATIC TDC / S7-400 FM 458- components to the plant/system **or** receives binary signals from the plant/system and transfers these to SIMADYN D / SIMATIC TDC / S7-400 FM 458- components. The connection to SIMADYN D / SIMATIC TDC / S7-400 FM 458- components is established through ribbon cables and on the plant/system side, via terminals. There is no electrical isolation between the SIMADYN D / SIMATIC TDC / S7-400 FM 458- components side and the plant/system side.

Module design

- housing which can be snapped onto mounting rails
- ribbon cable connector (X1):
  - 8 pins for binary signals, 24 V DC
  - 2 pins for 1P, 1M power supply voltages
- connector (X2), 2x 8 pin:
  - 8 terminals for 24 V DC binary signals
  - 8 terminals for the reference point (1M, 1P is also possible)
- 1 terminal pair X3: 1P and 1M
- double test socket X5: 1P(+), 1M(G)
- diagnostic LEDs

Power supply on the SIMADYN D side

The power supply on the SIMADYN D side is fed-in at terminal X3:

Terminal X3	Voltage at the SIMADYN D side
1P	+24 V
1M	0 V

To connect the power supply use accessory
SM11 power supply connector for interface modules
(Order No. 6DD1680-0BB0)

The maximum conductor cross section is 2,5 mm².

NOTE To connect the power supply see “User manual FM 458-1 DP” chapter “Installation and EMC guideline”.

Green LED The SIMADYN-side power supply is displayed using a green LED (P).

Red LED The SIMADYN-side power supply (1P, 1M) is short-circuited (fault condition).

Test socket

Voltages 1P and 1M can be used, via the double test socket (G; +) to simulate an input signal for SIMADYN D.

Double test socket X5		Voltage
+	(1P from X3)	+24 V
G	(1M from X3)	0 V

WARNUNG **Explosion Hazard**

No connections are to be made to X5 unless the area is known to be non-hazardous.

8.4.1 Signals

Yellow LED

Each status of the 8 signals is displayed using a yellow LED (1...8). There is a screw connection for each signal at the two terminal strips X2:

- terminals 1 to 8 for binary signals
- terminals 51 to 58 for reference points

Reference potential of the signals

The reference points of the signals are either at 1M potential or 1P potential. The polarity is selected on the module using a solder link:

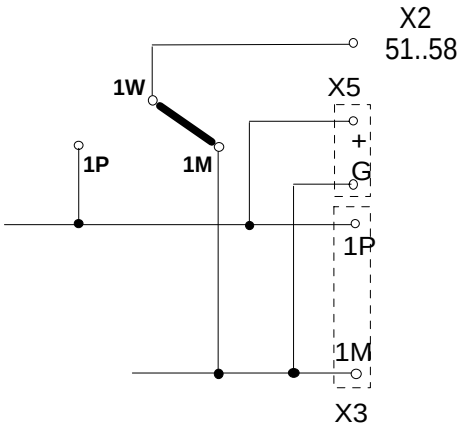

Fig. 8-5 Solder link to set the signal reference points

NOTE Link 1M-1W is inserted in the factory

8.4.2 Application information

The interface module can be mounted both vertically **and** horizontally.

Other information Further information on EMC and ambient conditions, refer to Section „General technical data“

Example A typical application is shown in the following diagram:

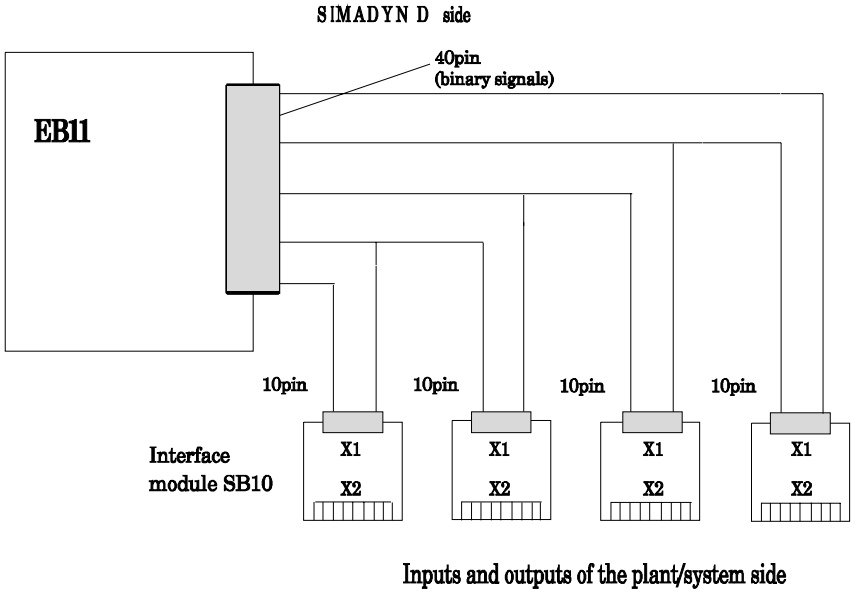

Fig. 8-6 Application example for SB10 interface module at the binary input-, output module EB11

The binary signals of the plant/system side are connected directly with the SIMADYN D modules via the interface module. A ribbon cable is used (refer to the Chapter Plug in cables).