5.5 Converter control ITDC

Order No. 6DD1601-0AH0

Description

The ITDC expansion module corresponds to the earlier PG16 module, and provides the gating (control) for

- line-commutated drive converters.

It includes:

- Auto-reversing stage
- Current controller
- Gating unit (for max. 400 Hz output frequency)
- For 6-pulse drive converters

It is especially suitable for connection to SITOR power sections.
The expansion module is inserted on a CPU module (PM5, PM6). A maximum of 2 expansion modules ITxx can be inserted on a CPU module. One ITxx occupies 1 slot (in addition to the slot in the CPU module). Presently, the operation of 2 ITDC modules in one processor module is not supported.

Inputs and outputs

- 1 SITOR interface
- 2 analog outputs
- 4 binary outputs
- 4 binary inputs
- 1 incremental encoder input:
  - With zero pulse
  - Optionally, for differential signals
  - For tracks, shifted through 90 degrees (A, B)
  - For 15 V (HTL)- or 5 V encoders
  - Max. 1 MHz pulse frequency
- No electrical isolation of the inputs-/outputs

Incremental encoder setting

Incremental encoders can be connected to the ITDC, with the following signal voltages

- 15V
- 5V (also as push - pull signals and RS485 differential signals)

The incremental encoder type is selected using DIL switch S1 on the component side of the ITDC (refer to the following diagram).

There is the following assignment of the DIL switch settings S1.X to the pulse encoder channels :

Switch	Switch setting	Function
S1.1	ON	Track A, zero volt switching threshold f. 5V encoders
S1.1	OFF	Track A, 7V switching threshold f. 15V encoders
S1.2	ON	Track B, zero volt switching threshold f. 5V encoders
S1.2	OFF	Track B, 7V switching threshold f. 15V encoders
S1.3	ON	Zero pulse, 0V switching threshold f. 5V encoders
S1.3	OFF	Zero pulse, 7V switching threshold f. 15V encoders
S1.4	any	none

Corresponding to the setting of the switch on S1, either select the 15V 3-phase encoder (7V switching threshold) or 5V 3-phase encoder (0V switching threshold).

For the **factory setting**, the switch is in the OFF position for 15V 3-phase encoders.

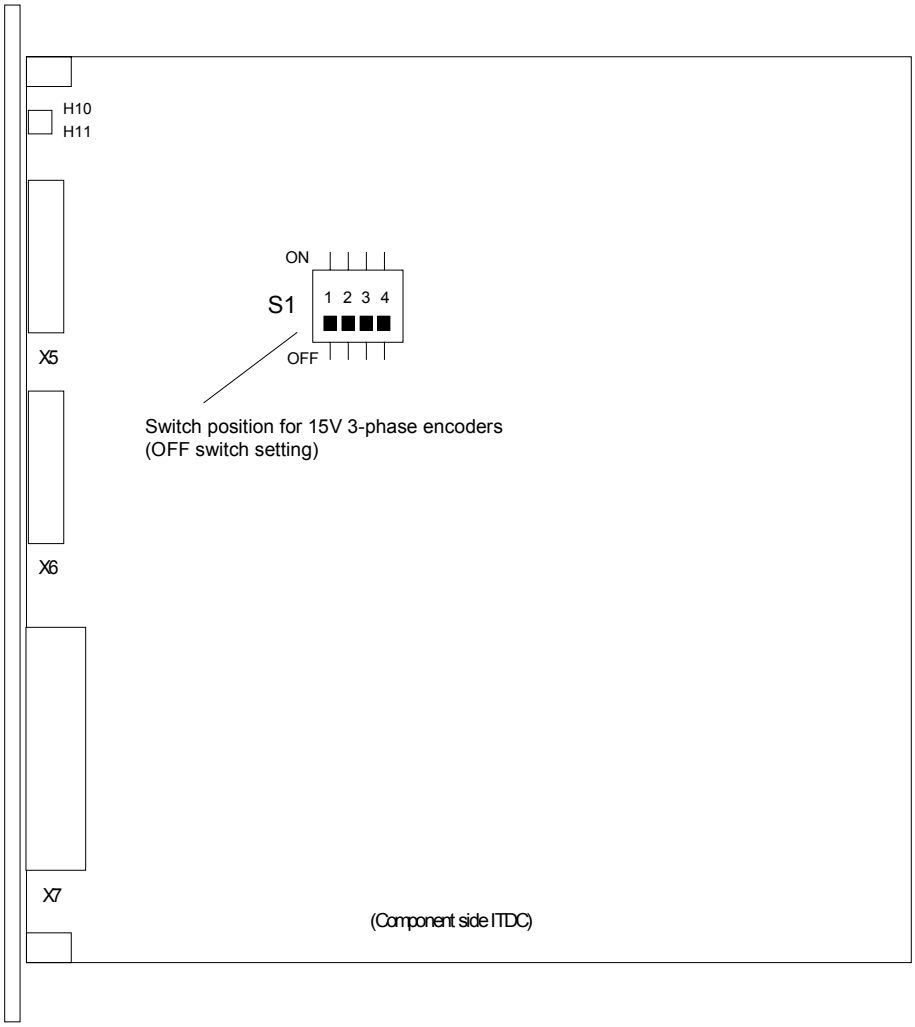

Fig. 5-10 Switch position for incremental encoders