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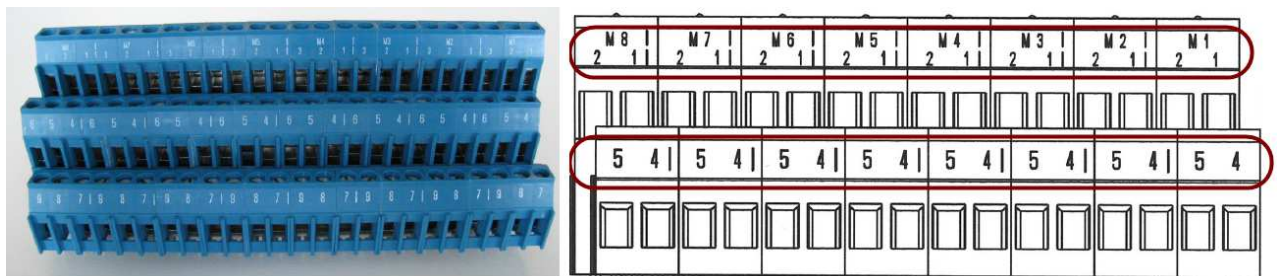
Introduction: New H-board series

Design changes

In the new H-board series a few minor changes have been made to improve our products. Especially in terms of functionality and usability the new series has its benefits.

Printed terminals

The new series comes with printed terminals. Each terminal port is numbered and the referring module is indicated with "M1"-"M8" (for 8 modules).



With the numbered terminals the wiring can be done faster and the probability of failures in the wiring is reduced.

Advantage:

- Easier wiring
- One-to-one marking

Volt free relay fault output

Instead of the fault bus, which requires the use of the fault board (HIATB01-FAULT) the new board series has a volt free relay output for the fault signal implemented on each board.

All module faults, supported by the used modules and the power supplies are monitored and indicated via the volt free fault output.

The fault outputs can be daisy chained.

Advantage:

- Fault board (HIATB01-FAULT) not necessary anymore.
- Saving cabinet space

Fault LED

In addition to the LEDs for power supply the new series has a fault LED.

This fault LED indicates a line fault detected by a module, if supported by the used modules, or missing power supply.

In case of a power supply failure the fault LED flashes. A fault detected by the module is shown by a permanently glowing fault LED.

LED	Display function	Display	Meaning
Green LED "PW1"	Power supply I	On	Power supply OK
		Off	No power
Green LED "PW2"	Power supply II	On	Power supply OK
		Off	No power
Red LED "FAULT"	Device error, device failure	On	Internal fault signal, failure signal – fault/failure display of causes detected inside the device
	Power supply failure	Flashing	Power failure or insufficient power supply

Advantage:

- Additional information for troubleshooting.

New HART pinning

The pinning of the HART connector has been changed. **All of the new Termination Boards are now supporting the 2x16 channel HART board (HIATB01-HART-2x16).**

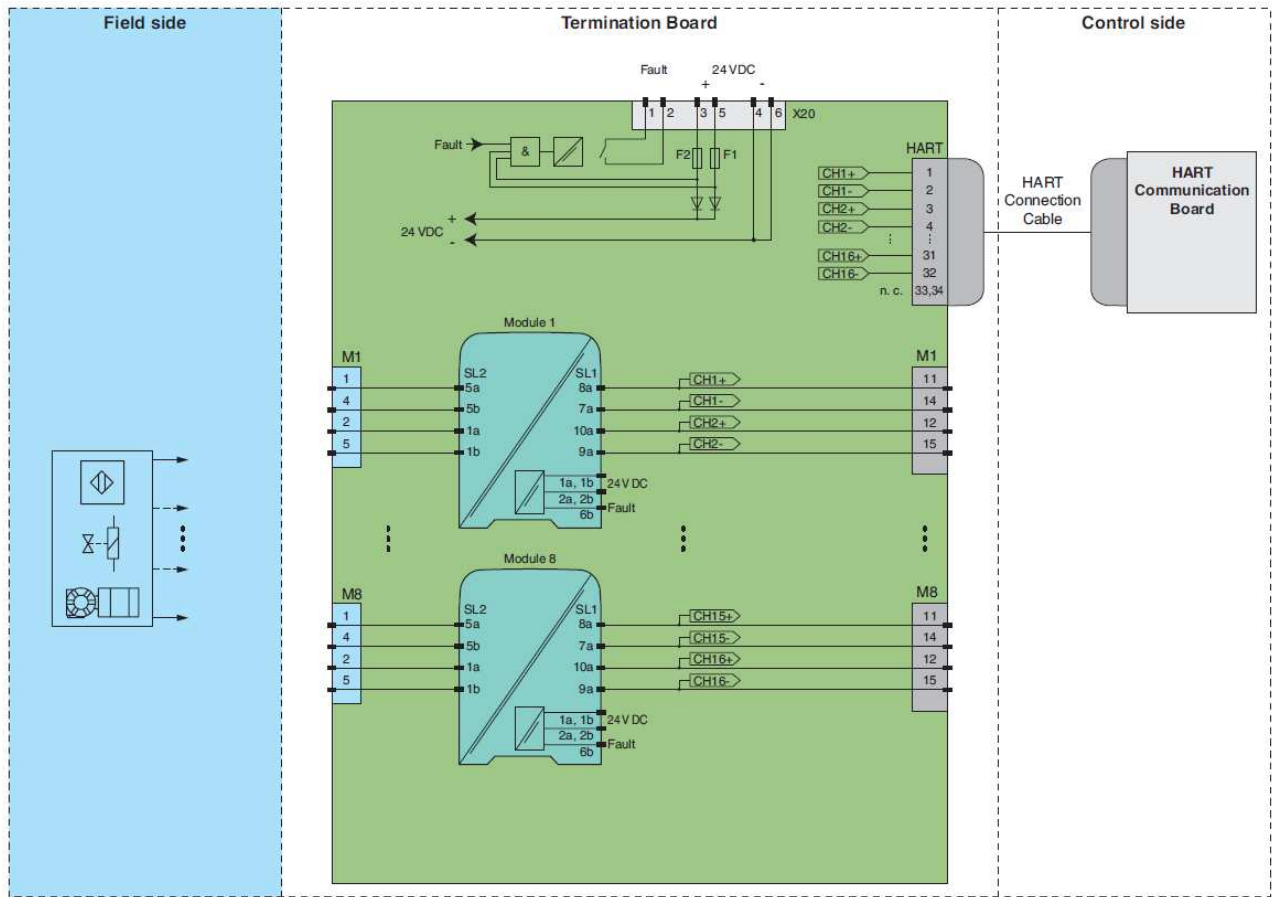
A selection between the 8 channel (HIATB01-HART-4x8) and the 16 channel version (HIATBo1-HART-2x16) is only required if not all usable channels shall be connected to the HART board.

Revised documentation

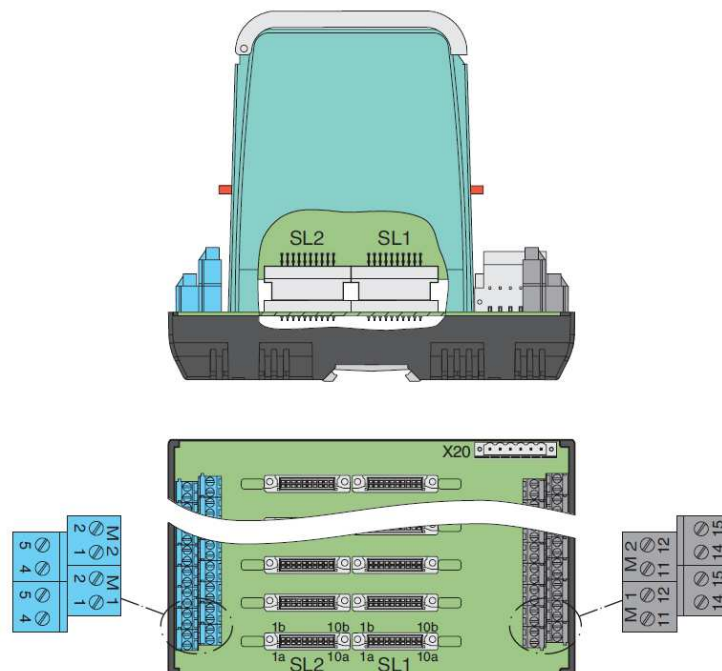
To increase the quality of our documentation the data sheets have been revised.

This has been done to improve the understanding in terms of the board wiring and usage in combination with the H-system modules.

Connection diagram: The connection diagram shows the internal wiring between the module connectors (SL1/SL2) and the board input/output terminals. This makes it easier to connect the external wiring to the right module pin.



Profile drawing: The profile drawing shows the exact positioning of the connectors SL1 and SL2 on the Termination Board and module.



Pin out table: The pin out table is available on the internet and intranet as an extra document. It shows the connection between all input/output terminals and the module. Furthermore the pinning of the HART connector is shown.

Termination Board field side			Modules		Termination Board control side	
Module	Channel	IS terminals M1 ... M8	IS terminals SL2 field side	Non-IS terminals SL1 control side	Non-IS terminals M1 ... M8	Signal name
1	1	1	5a	8a	11	CH1+
		4	5b	7a	14	CH1-
	2	2	1a	10a	12	CH2+
		5	1b	9a	15	CH2-
2	3	1	5a	8a	11	CH3+
		4	5b	7a	14	CH3-
	4	2	1a	10a	12	CH4+
		5	1b	9a	15	CH4-
3	5	1	5a	8a	11	CH5+
		4	5b	7a	14	CH5-
	6	2	1a	10a	12	CH6+
		5	1b	9a	15	CH6-
4	7	1	5a	8a	11	CH7+
		4	5b	7a	14	CH7-
	8	2	1a	10a	12	CH8+
		5	1b	9a	15	CH8-
5	9	1	5a	8a	11	CH9+
		4	5b	7a	14	CH9-
	10	2	1a	10a	12	CH10+
		5	1b	9a	15	CH10-
6	11	1	5a	8a	11	CH11+
		4	5b	7a	14	CH11-
	12	2	1a	10a	12	CH12+
		5	1b	9a	15	CH12-
7	13	1	5a	8a	11	CH13+
		4	5b	7a	14	CH13-
	14	2	1a	10a	12	CH14+
		5	1b	9a	15	CH14-
8	15	1	5a	8a	11	CH15+
		4	5b	7a	14	CH15-
	16	2	1a	10a	12	CH16+
		5	1b	9a	15	CH16-

Terminal pin-out	Connector	Pin	Channel
HART Signal	HART	1, 2	CH1+, CH1-
		3, 4	CH2+, CH2-
		5, 6	CH3+, CH3-
		7, 8	CH4+, CH4-
		9, 10	CH5+, CH5-
		11, 12	CH6+, CH6-
		13, 14	CH7+, CH7-
		15, 16	CH8+, CH8-
		17, 18	CH9+, CH9-
		19, 20	CH10+, CH10-
		21, 22	CH11+, CH11-
		23, 24	CH12+, CH12-
		25, 26	CH13+, CH13-
		27, 28	CH14+, CH14-
		29, 30	CH15+, CH15-
		31, 32	CH16+, CH16-

The new type code contains more information. This way it is possible to tell whether a board is fitting to certain models before looking at the data sheet. Especially the number of pins available per module on field and DCS sides is making a fast evaluation possible.

isolated barrier type HID isolated barrier type HIC termination board 8 position Board for 8 barriers 16 position Board for 16 barriers 32 position Board for 32 barriers	IS-relevant codes: no modifications allowed
Sub-D Connector Screw Terminals Spring Terminals	
Pin Count per Module at DCS side	
Pin Count per Module at Field side	
Consecutive channel configuration Split channel configuration Alternative channel configuration	
screw terminal spring terminal pluggable screw terminal pluggable screw terminal with flange	IS-relevant codes: no modifications allowed
Single Power Supply Redundant Power Supply Daisychainable Power Supply No Power Supply	
All Faults are monitored Only Supply Faults are monitored Only Line Faults are monitored Capable of Line Fault Transparency	
Additional optional board information	
variation of a standard	

Alternatives for old board series:

Old universal series		New universal series alternative	
Part number	Code	Part number	Code
195043	HiCTB08-UNI-SC-SC	256886	HiCTB08-SCT-44C-SC-RA
236610	HiCTB08-UNI-SD37-NEXSC		
195050	HiCTB08-UNI-SD37-SC	260435	HiCTB08-SDC-44C-SC-RA
195044	HiCTB16-UNI-SC-SC	260436	HiCTB16-SCT-44C-SC-RA
195059	HiCTB16-UNI-SD37R-SC	260437(*)	HiCTB16-SDC-24C-SC-RA(*)
195051	HiCTB16-UNI-SD37-SC	256889	HiCTB16-SDC-44C-SC-RA
218777	HiDTB08-UNI-DA16-SD37-NEXSC		
195053	HiDTB08-UNI-DA16-SD37	260438	HiDTB08-SDC-44C-SC-RA
195055	HiDTB08-UNI-DA32-SD37	256888	HiDTB08-SDC-89C-SC-RA
212947	HiDTB08-UNI-SC-NEXSC		
195045	HiDTB08-UNI-SC-SC	260222	HiDTB08-SCT-44C-SC-RA
218778	HiDTB16-UNI-DA32-SD37-NEXSC		
195058	HiDTB16-UNI-DA32-SD37-SC	260440	HiDTB16-SDC-44C-SC-RA
195054	HiDTB16-UNI-DA64-SD37-SC	260440	HiDTB16-SDC-44C-SC-RA
195046	HiDTB16-UNI-SC-SC	260439	HiDTB16-SCT-44C-SC-RA

(*) Single channel board. Not usable for modules with splitter function.

Note: The new HiD boards are coming with a 2-level terminal block by default, providing 4 terminals per module at field and control side. Versions with a 3-level terminal block, providing 9 terminals per module at both sides, are available on request.

One version with a 3-level terminal block, #256888 HiDTB08-SDC-89C-SC-RA, will be available at series release.