

- ✘ **Eight digital inputs**
- ✘ **Contact or NPN transistor voltage free inputs**
- ✘ **Input fault detection**
- ✘ **Line or Externally powered**
- ✘ **Galvanically isolated**

## DESCRIPTION

The HubBus Eight Channel Digital Transmitter type HBTX8D is part of the HubBus field bus range of products. The DIN rail mounted HBTX8D is capable of transmitting the status of eight voltage free contacts.

The HBTX8D is designed for sensing the status of remote voltage free contacts such as emergency stop, pullkey, belt wander, belt rip and blocked chute switches on long conveyors to name but a few along with signals from devices with open collector NPN transistor outputs such as inductive proximity switches for example.

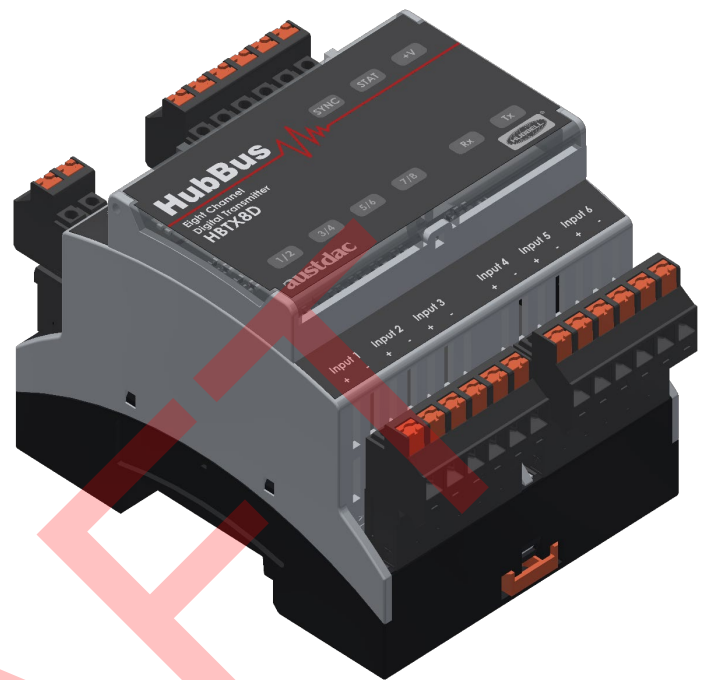
The applications of the HBTX8D are not limited to conveyor installations but include any situation where the status of a remote switch contact or relay contact is required to be monitored.

The transmitter may be line powered from the two-wire HubBus network cable that reduces installation and cabling costs and because of its low power consumption many eight channel digital transmitters type HBTX8D can be connected to a HubBus network.

The HBTX8D offers advanced functionality and diagnostic features. All eight input circuits are monitored for external wiring faults along with other internal fault conditions. The transmitter not only signals a single 'on' state it transmits open, closed and fault states. This then also allows for detection of missing or failed units.

Additionally, diagnostic and operation indication LEDs are provided for fast visual verification of operating state.

Austdac's patented exception handling protocol is supported by the HBTX8D for fast response to changes of state by network components



Maintenance and repair are made easier along with the reduced possibility of wiring faults with the use of pluggable connectors which are available with screw or spring cage terminals and horizontal or vertical wire entry. Maintenance is also improved with easy to read status LEDs with a common layout across the whole module product range.

The status LEDs show communication, power, line status and indicator status at a quick glance, in addition there is a quick open flip top lid to access the programming port.

Any of the HBTX8D parameters can be conveniently configured using the battery powered HubBus Handheld Universal Programmer and Tester, Type HHP1-H.

## CERTIFICATION

- UL61010-1 (Safety) [E471953]
- CAN/CSA-C22.2 No. 61010-1 (Safety) [70189567]
- IEC61000-6-4 (Emissions)
- IEC61000-6-2 (Immunity-Industrial Environments)
- IEC61000-6-7 (Immunity-Functional Safety)
- IEC60068-2-1 & IEC60068-2-2 (Environmental)
- IEC60068-2-6 (Vibration)



## SPECIFICATIONS

<b>General</b>	
Name	HubBus Eight Channel Digital Transmitter
Type	HBTX8D
<b>Interface</b>	
Bus channels	Adaptive (up to 2048)
RS485	1 x Modbus 2 wire (isolated port, DIN rail bus only)
Configuration	TTL
<b>Physical</b>	
Dimensions	72mm (W) x 63mm (D) x 90mm (H) 2.83 (W) x 2.48 (D) x 3.54 (H) inches
Mass	150g
Mounting	DIN EN 60715 / TS35
Ingress protection	IP20
<b>Environment</b>	
Operating Temperature	-20°C to 50°C
Humidity	max 80% rH, non-condensing
Pollution Degree	2
Installation Category	1
Altitude	2000m
<b>Electrical</b>	
Bus current consumption	10mA maximum @ 12-48VDC
Power supply voltage	10 to 48VDC
Power supply current	5mA maximum @ 10VDC
	3mA maximum @ 24VDC
	2mA maximum @ 48VDC
<b>Status</b>	
Modbus Activity	2 front panel LED
Controller, Power & Bus healthy	1 front panel LED each
Input Fault Status	4 front panel LED
<b>Digital Inputs</b>	
Number of inputs	8
Type	Voltage free: Contact or NPN
Open loop voltage	3.3VDC
Closed loop current	NPN: 3.3mA
	Contact: 33µA
Minimum contact time	50ms

## SAFETY DATA

The HBTX8D is not intended for use in safety functions. If safety inputs are required, the HBTX2D should be used. The HBTX8D does not provide a safety function, but, as it is on the same bus with other modules which provide safety functions, its failure modes have been assessed.

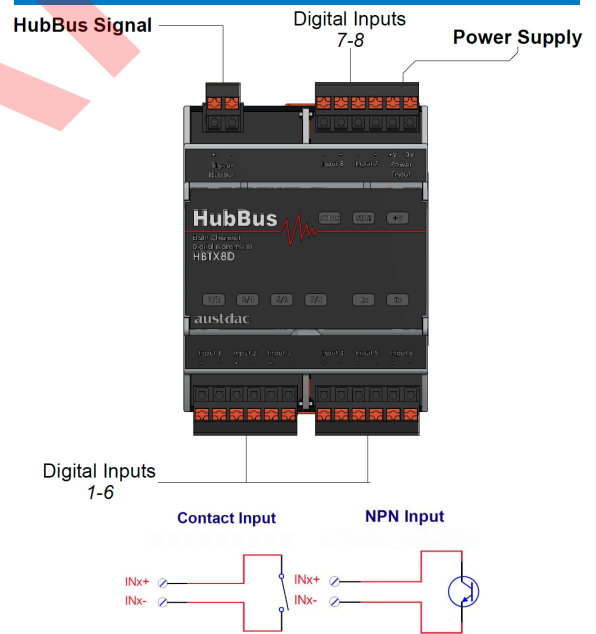
Additionally, the HBTX8D uses a functional safety certified interface module to interact with the HubBus system.

The configuration of the module must be validated not to interfere with any safety function on the system.

## Terminals

HBTX8D					
13	+	Input 1	Hubbus	Signal+	1
14	-			Signal-	2
15	+	Input 2			
16	-				
17	+	Input 3			
18	-				
19	+	Input 4	Input 8	-	7
20	-			+	8
21	+	Input 5	Input 7	-	9
22	-			+	10
23	+	Input 6	Power	+V	11
24	-			0V	12

## CONNECTION DIAGRAM



## ORDERING DETAILS

DESCRIPTION	ORDER CODE
HubBus Eight Channel Digital Transmitter	HBTX8D



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