FC-TSHART-1620M

Sixteen-Channel Safe HART Input FTA

Honeywell FC-TSHART-1620M is a 16-channel safe HART input FTA. It conditions transmitter loops for an SAI-1620m module and presents the HART signal to a multiplex unit.

PRODUCT SNAPSHOT

BRAND	Honeywell
FAMILY	Safety Manager
PART	FC-TSHART-1620M
ORIGIN / HS	USA / 8537101190

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PRODUCT OVERVIEW

Honeywell FC-TSHART-1620M is a 16-channel safe HART input FTA. It conditions transmitter loops for an SAI-1620m module and presents the HART signal to a multiplex unit.

1. Terminates safety-related analog input loops
2. Provides HART multiplex access
3. Interfaces passive transmitters to SAI-1620m
4. Organizes field loops around documented common references

SYSTEM COMPONENTS

- SAI-1620m safe analog input module
- 30 Vdc external loop supply
- HART multiplex unit
- Passive 4-20 mA transmitters

TECHNICAL DATA

PARAMETER	VALUE
Input channels	16; 2 groups of 8
External supply	30 Vdc; 3 mA without loop loads
Input current	0 to 25 mA
Input resistance	250 ohm +/-1%

PARAMETER	VALUE
Output to SAI-1620m	0 to 4 Vdc
Accuracy	0.10%
HART multiplex output	5 V peak-to-peak maximum
Fuse	315 mA

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TECHNICAL NOTE

Keep the documented channel commons separated, verify the loop supply and confirm both analog accuracy and HART communication.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Safety pressure transmitters

Terminates safety-related analog input loops

HART fire-and-gas loops

Provides HART multiplex access

SIL analog measurement

Interfaces passive transmitters to SAI-1620m

Safe transmitter diagnostics

Organizes field loops around documented common references

PRODUCT PRECAUTIONS

1. Verify the complete FC-TSHART-1620M marking and the assigned Safety Manager position before field work.
2. Isolate the applicable power, network and field energy before disconnecting FC-TSHART-1620M.
3. Use ESD controls and protect the keyed connectors of FC-TSHART-1620M during handling.
4. Record the installed wiring, jumpers, node or channel assignment before replacement.
5. Confirm SAI-1620m safe analog input module and 30 Vdc external loop supply against the approved system configuration.
6. Restore FC-TSHART-1620M under controlled conditions and review the product-specific diagnostics.
7. Complete a functional test for safety pressure transmitters before production release.

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ENGINEER FAQ

Q1 Which SAI-1620m safe analog input module identity must be verified before fitting the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA?

Match the complete FC-TSHART-1620M marking, assigned Safety Manager position and installed SAI-1620m safe analog input module before work.

Q2 How should 30 Vdc external loop supply be isolated before disconnecting the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA?

Place the affected process in its approved maintenance state, isolate applicable energy and prove 30 Vdc external loop supply safe before disconnection.

Q3 What as-found wiring record is required for the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA in Safety pressure transmitters?

Record terminal identity, polarity, shields, jumpers, cable tags and the as-found diagnostic state for FC-TSHART-1620M.

Q4 Which Safety Manager configuration must be checked when commissioning the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA?

Verify the assigned channel, slot, node or interface and compare it with the approved Safety Manager configuration before enabling FC-TSHART-1620M.

Q5 How can the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA be function-tested for HART fire-and-gas loops without disturbing the process?

Use a controlled stimulus or limited command, observe the expected system indication and confirm the intended response while normal interlocks remain effective.

Q6 Which diagnostics should be reviewed if the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA stops performing its assigned system function?

Check seating, the matched SAI-1620m safe analog input module, the condition of 30 Vdc external loop supply and the model-specific diagnostics before replacing more hardware.

Q7 Can the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA used for SIL analog measurement be transferred to another Safety Manager position without engineering review?

No. Confirm the hardware execution, connector scheme and approved Safety Manager configuration before transferring FC-TSHART-1620M to a different duty.

Q8 What evidence should be retained after the FC-TSHART-1620M Sixteen-Channel Safe HART Input FTA returns to Safe transmitter diagnostics service?

Retain the physical identification, as-left wiring or configuration, final diagnostics and controlled functional-test result for FC-TSHART-1620M.

SOURCE Honeywell Safety Manager Hardware Reference | EP-SM.MAN.6284 Issue 2.1

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