Yokogawa YHC4150X-01

Engineering Installation, Diagnostic and Acceptance Guide

Yokogawa YHC4150X-01 is a portable HART field communicator with 3-year DOF subscription. Its exact marking, installed interfaces and companion equipment must be verified before replacement or commissioning.

01 Work package

Complete model	YHC4150X-01
Product type	portable HART field communicator with 3-year DOF subscription
Manufacturer	Yokogawa
Supply condition	New, original product
Technical source	Yokogawa GS YHC4150X_03 and IM 61A YHC1-E-A

Field decisions

1 Establish identity

Capture the full marking, installed companion components and baseline before disconnection.

2 Inspect interfaces

Verify mounting, cable, connector, armor, approval and environmental boundaries.

3 Fit the exact chain

Preserve the documented probe-cable-Proximitor or sensor-monitor relationship.

4 Prove response

Use the approved stopped-machine and operating acceptance procedure.

5 Record as left

Save markings, configuration, test values and operating observations.

02 Interface and configuration map

Ordering option -01	Standard 3-year DOF download subscription
HART command support	Universal, Common Practice and device-specific commands
Configuration storage	More than 200 configurations
Continuous battery operation	60 hours without backlight
Typical startup and connect	15 seconds
Display	13-line, 128 x 128 pixel graphic LCD with backlight
Viewable display area	2.1 in x 2.1 in

Keypad	4 soft, 8 single-function, 30 dual-function and 3 thumb keys
Battery supply	Six approved AA alkaline batteries
External adapter	100 to 240 V AC universal power adapter
Operating temperature	-5 to +50 °C
Storage temperature	-40 to +60 °C
HART terminals	Standard banana jacks on 0.75 in centres
PC communication	Dongle with DB-9 serial connection
Intrinsic-safety certification	ATEX and cULus for approved configurations
Loop accessory	250 Ω adapter included in the standard lead kit

03 Installation workflow

Check certification marking

Use hazardous-area functions only when the exact unit and batteries carry the required approval.

Inspect the lead kit

Check banana plugs, mini-grabbers and the 250 Ω adapter for damage and contamination.

Save as-found data

Capture device identity, revision, status and configuration before making changes.

Verify loop resistance

Confirm the HART loop has sufficient resistance before connecting the communicator.

Control DOF revisions

Use a device-specific DOF that matches the field-device manufacturer, type and revision.

Document as-left state

Save final configuration, trim results, loop test and any unresolved diagnostics.

Application checks

Field-device commissioning

Read identity, configure parameters and document the as-left state.

Maintenance diagnostics

View device status and compare live data with the approved instrument record.

Replacement cloning

Transfer reviewed configurations between compatible device revisions.

Offline preparation

Build and review configurations before controlled field execution.

04 Diagnostic decision table

How should the correct DOF be selected on YHC4150X-01?	Match the field-device manufacturer, device type and revision, then verify the menu exposes the expected device-specific parameters before writing changes.
What resistance check is needed before connecting YHC4150X-01?	Measure or confirm the loop resistance and add the approved 250 Ω adapter only when required by the HART communication design.

How should intrinsic-safety status of YHC4150X-01 be verified?	Read the exact approval marking, inspect the unit condition and use only the approved AA alkaline batteries and accessories for the classified location.
What data should be saved before trimming with YHC4150X-01?	Save device identity, revision, range, damping, output mode, diagnostics and as-found configuration before any trim or write operation.

Release review

Installation relationship	Use the exact model marking and manufacturer wiring or installation information for the delivered hardware.
System boundary	Verify host equipment, companion interfaces, field wiring and configuration before energizing.
Technical reference	Yokogawa GS YHC4150X_03 and IM 61A YHC1-E-A.

Engineering questions

How should the correct DOF be selected on YHC4150X-01?	Match the field-device manufacturer, device type and revision, then verify the menu exposes the expected device-specific parameters before writing changes.
What resistance check is needed before connecting YHC4150X-01?	Measure or confirm the loop resistance and add the approved 250 Ω adapter only when required by the HART communication design.
How should intrinsic-safety status of YHC4150X-01 be verified?	Read the exact approval marking, inspect the unit condition and use only the approved AA alkaline batteries and accessories for the classified location.
What data should be saved before trimming with YHC4150X-01?	Save device identity, revision, range, damping, output mode, diagnostics and as-found configuration before any trim or write operation.
How can a communication failure on YHC4150X-01 be isolated?	Check polarity, loop current, resistance, connection points, polling address, battery condition and device status before changing the DOF or firmware.
How should a cloned configuration from YHC4150X-01 be reviewed?	Compare device revision, sensor range, units, damping, alarm direction and write-protected parameters; never send a clone solely because the model family matches.
What proves a successful loop test using YHC4150X-01?	Command approved output points and compare communicator value, loop current, control-system indication and final normal-mode recovery.
What should be recorded when closing work with YHC4150X-01?	Retain as-found and as-left files, device identity, DOF revision, trim and loop-test results, date and responsible technician.

Acceptance and support

Retain the full marking, installed-chain identities, test readings and approved machine configuration. Confirm the exact offered item and included scope in the written quotation.

Discuss the exact marking and installed application with Apter Power.
sales13@apterpower.com | +86 18030235313

Verified related product references

Related product	S9400UK
Related product	AAB841
Related product	AAI841-H00
Related product	ADV159-P00

Commissioning record template

Installed asset	Machine, bearing, channel or cabinet reference
Companion identities	Probe, cable, sensor, interface or monitor markings
Mechanical datum	Mounting reference, reach, alignment or sealing condition
Electrical datum	Chain length, connector, shield, supply or input assignment
Before-work baseline	Gap, bias, vibration, continuity or channel observation
As-left result	Final measured value and functional proof
Approval basis	Applicable drawing, control requirement or site procedure
Handover	Technician, date, revision and maintenance-record location

Handover note

A replacement is complete only after the installed identity, physical interfaces, measured response and configuration record agree. Escalate any mismatch before the channel returns to protection or monitoring service.

Release checklist

Identity accepted	Complete marking agrees with the order, photographs and installed asset record.
Interfaces accepted	Mechanical fit, connector, wiring and companion components match the approved design.
Environment accepted	Temperature, contamination, vibration and route protection remain inside documented limits.