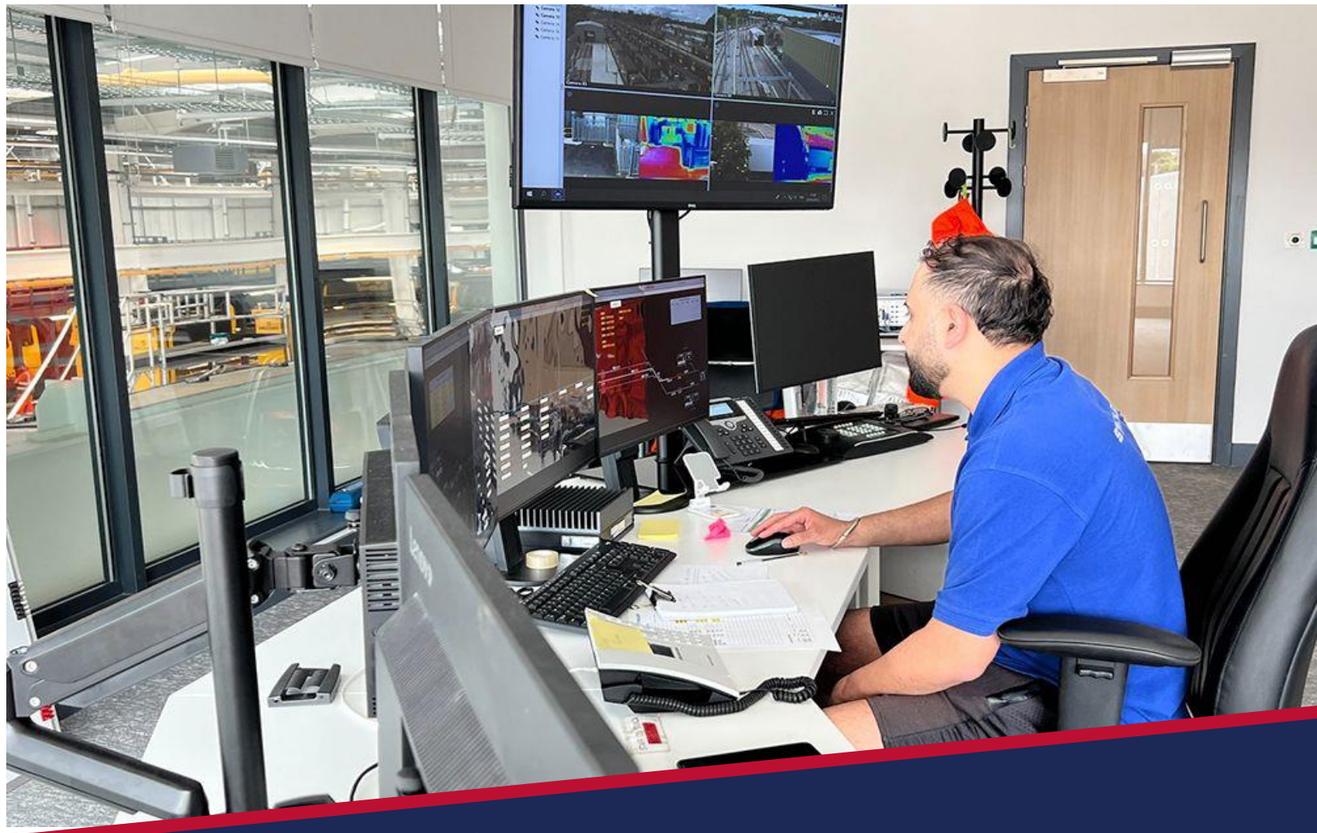
FENLOCK

TRAIN FACILITY CONTROL SYSTEMS

Technical review, applications and selection guidance for the 100, 200, 300, 400 and 500 systems.



FENIX RAIL GROUP | SEPTEMBER 2026

SYSTEM SELECTION

Five control levels, one facility specific design

The published product descriptions show a clear progression in control, interlocking, train detection and movement authority.

LEVEL	POINT CONTROL	ROUTE LOGIC	DRIVER AUTHORITY	TYPICAL ROLE
100	Local plunger at each turnout	None in basic design	Hand signal / instruction	Simple local layout
200	One point at a time from panel	None in basic design	Hand signal / instruction	Small centralised operation
300	Route from VDU or RSP	Interlocking; axle counter option	Operator instruction	Complex layout, no signals
400	Route from VDU	Signals + axle counter interlocking	Ground position light signal	Fully signalled facility
500	Manual or identity driven route	400 logic plus auto route request	Ground position light signal	Repeatable identity led flow

HOW TO READ THIS GUIDE

Each product has two pages: an operating and technical review, then applications and a selection recommendation. Options are identified where the published system descriptions make them conditional.

Operation and technology

System description based on the published FenLock 100 brochure. Field equipment and variants are selected for each facility.

OPERATING METHOD

The shunter moves through the intended path and commands each point from a plunger or key switch near the turnout. The point machine moves and, where fitted, its points position indicator (PPI) flashes while the move is incomplete. A steady indication confirms the detected lie. The shunter checks the complete path and gives the driver the movement instruction under the depot rules.

FIELD EQUIPMENT

The basic system comprises a point machine, local controller and plunger. A two sided LED PPI can show straight or diverging lie with vertical or horizontal white lights. A flashing, out of correspondence indication persists if the motor times out, point detection fails or communication is lost.

CONTROL HARDWARE

A post mounted cabinet can house control cards for a single or double ended turnout. A larger location cabinet can group several point ends. The published design uses modular industrial cards that perform circuit self checks and flag faults. Cabinets may be outside, in a building or within a relocatable equipment building.

POINTS AND POWER

The source describes trailable point machines, with manual key and crank operation for loss of power. Its example supply is three phase 400 V AC, with lower voltage electronic circuits. The detailed power variant and machine choice must be verified for a new project.

SYSTEM BOUNDARY

The 100 has no VDU, route setting panel, lineside signals or train detection in its basic design. It does not set or protect a multi point route. Control of a point does not itself give the driver movement authority.

TECHNICAL REVIEW

The attraction is a compact architecture close to the turnout and straightforward replacement of faulted cards. The operating workload grows with the number and distance between point ends. Safe access to local controls and clear visibility of indications are therefore central to selecting this level.

MOVEMENT CONTROL SEQUENCE

01 Local plunger — **02** Point moves — **03** PPI / lie check — **04** Shunter authorises

Control and authority shown for the published system level. Site specific options depend on the design.

SOURCE: FENIX PUBLISHED FENLOCK 100 SYSTEM DESCRIPTION • OPEN PDF

Uses and recommendation

A practical assessment of where the system fits, its interfaces and what changes when moving to another level.

RECOMMENDED APPLICATIONS

Small depots, sidings and simple yards with a limited number of point ends, modest movement frequency and safe pedestrian access to every control. A local method of working must be acceptable to the infrastructure manager and operator.

EXAMPLE MOVEMENT

For a train entering a two point siding, the shunter operates the first plunger, confirms detection, walks to the next point, repeats the check and then authorises the driver by the agreed hand signal or voice procedure. No single route command or signal clearance replaces these steps.

INTEGRATION CONSIDERATIONS

Confirm PPI positions and sighting, point machine mounting, cable segregation, cabinet locations, the power supply and the manual recovery procedure. Point heating can operate alongside the 100, but operator control of heating is placed at 300 or above in the source brochure.

SELECTION RECOMMENDATION

Select FenLock 100 only when the site can work safely with individual local point commands and procedural movement authority. Fenix should check walking distance, staff exposure, weather, visibility and likely traffic before making it the preferred option.

WHEN TO CHOOSE 200 OR HIGHER

Move to 200 if staff need one place to command and see several point ends. Move to 300 if the system itself must reject conflicting route requests. Move to 400 if the driver needs a signalled authority rather than a local hand signal or verbal direction.

DESIGN CHECKS

Document the operating sequence, the person responsible for each command, expected indication after a failed throw, loss of power handling and the boundary to any mainline controlled movement. The safety case must reflect the actual installation, not the product name.

SELECTION SNAPSHOT

BEST FIT

few turnouts

KEY DEPENDENCY

safe local access

NEXT LEVEL

central point panel

Final selection follows an operating concept, interface definition and facility safety assessment.

SOURCE: FENIX PUBLISHED FENLOCK 100 SYSTEM DESCRIPTION • OPEN PDF

Operation and technology

System description based on the published FenLock 200 brochure. Field equipment and variants are selected for each facility.

OPERATING METHOD

The user approaches a point setting panel and presses the button for each point end needed for a movement. LEDs show the detected normal or reverse lie. The user checks that all relevant LEDs are steady and correct before directing the driver by hand signalling or verbal communication.

PANEL TECHNOLOGY

The published point setting panel is a stainless steel push button unit positioned within the depot. It provides one control per point end and a separate end position indication. Trackside PPIs can show the lie to the driver and shunter; local plungers may also be specified.

FIELD ARCHITECTURE

The 200 uses point machines and modular control cards similar to the 100, but draws the individual commands into a panel. Equipment usually sits in a location cabinet with racks of interface cards. Circuit self checks detect faults. The published example uses a three phase 400 V AC supply to the housing and lower voltage electronic circuits.

CRITICAL LIMITATION

The panel does not create an interlocked route. It sends one point command at a time, with the user responsible for checking the whole path. The published operating overview says there is no interlocking. If more than one panel is installed, procedures must prevent simultaneous point commands from different users.

MOVEMENT AUTHORITY

The source does not provide lineside signals as part of the basic 200 system. The driver relies on the shunter or designated operator giving the agreed instruction. The correct point position indication is a prerequisite to the procedure, but it is not a signal to proceed.

POINT MACHINE DETAILS

The source describes trailable machines with manual key and crank operation if power fails. The machine and detection can be linked by a single multicore cable. The exact machine model, power option and maintenance regime are selected for the turnout and operating environment.

MOVEMENT CONTROL SEQUENCE

01 Panel button — **02** Point moves — **03** LED / lie check — **04** Shunter authorises

Control and authority shown for the published system level. Site specific options depend on the design.

SOURCE: FENIX PUBLISHED FENLOCK 200 SYSTEM DESCRIPTION • OPEN PDF

Uses and recommendation

A practical assessment of where the system fits, its interfaces and what changes when moving to another level.

RECOMMENDED APPLICATIONS

Small or medium facilities where a single central panel reduces the need to walk to each turnout, but traffic remains simple enough for a procedure based movement method. The panel should be located where staff can use the indication and apply the operating rules safely.

EXAMPLE MOVEMENT

A shunter at the panel presses each point button along the intended path, confirms the steady position LEDs, checks any trackside indications and then directs the driver. If one point fails to detect, the movement is held while the failure is resolved under the local rule book.

INTEGRATION CONSIDERATIONS

Define panel siting, who has control, any local override, PPI sighting, failure indication and how multiple panels are managed. The published 200 brochure places operator control of point heating at 300 or 400 rather than this level.

SELECTION RECOMMENDATION

Choose 200 when central point command and indication solve the access problem but system level route protection is not required. Test this assumption against peak movements, crossing moves, more than one operator and future expansion.

WHEN TO CHOOSE 300 OR HIGHER

Choose 300 if operators need one request to set a route and the system must lock points and reject conflicting movements. Choose 400 if ground position light signals are needed to give authority to the driver or interfaces to mainline and protection systems become complex.

DESIGN CHECKS

Write a clear procedure for the order of point setting, confirmation of all indications, failed commands, simultaneous users and handover of control. A panel layout should match the physical track plan and avoid ambiguous point identifiers.

SELECTION SNAPSHOT

BEST FIT

simple central control

KEY DEPENDENCY

clear user procedures

NEXT LEVEL

route interlocking

Final selection follows an operating concept, interface definition and facility safety assessment.

SOURCE: FENIX PUBLISHED FENLOCK 200 SYSTEM DESCRIPTION • OPEN PDF

Operation and technology

System description based on the published FenLock 300 brochure. Field equipment and variants are selected for each facility.

OPERATING METHOD

The operator requests a complete route through a VDU or a route setting panel (RSP). The central interlocking checks point detection, track occupation where detection is provided and already locked routes. If the conditions permit, it commands and locks the points. A failed request is rejected with an indication of the conflicting condition.

CONTROL ARCHITECTURE

A central control unit gathers wayside inputs and distributes commands. A processor holds the site specific interlocking data. Modular interface cards connect field equipment. Self diagnostics and an event log record route requests, equipment failures and changes in relay or wayside state. This is a genuine step beyond a panel that merely commands points.

OPERATOR INTERFACES

The VDU displays the track plan and live equipment state. Confirmation prompts guard against accidental requests. RSPs can give authorised staff a local route button; each talks to the same interlocking. Multiple VDU desks can be configured with only one active master, with a controlled handover.

TRAIN DETECTION AND DATA

Axle counters may be specified for occupancy and interlocking functions. The published description includes a car count display option for permissive stabling and a UPS arrangement to retain axle count and train position memory through short power interruptions. The chosen detector integrity and train counting logic are project specific.

MOVEMENT AUTHORITY BOUNDARY

The 300 brochure states that lineside signals are not provided. Although the route is interlocked and PPIs can show turnout position, the depot operator still instructs the driver when and where to proceed. This distinction from 400 matters wherever a formal signalled authority is required.

SCALABILITY AND UPGRADE

The modular interlocking and wayside architecture can be split across substations for a large facility. A VDU based 300 may be a platform for a later 400 upgrade, but that requires signals, associated field equipment, interlocking changes and a revised safety assessment.

MOVEMENT CONTROL SEQUENCE

01 Route request — **02** Interlocking checks — **03** Points lock — **04** Operator instructs

Control and authority shown for the published system level. Site specific options depend on the design.

SOURCE: FENIX PUBLISHED FENLOCK 300 SYSTEM DESCRIPTION • OPEN PDF

Uses and recommendation

A practical assessment of where the system fits, its interfaces and what changes when moving to another level.

RECOMMENDED APPLICATIONS

Depots or yards with several conflicting possible movements, multiple point ends and one central control location, where route interlocking is valuable but the operating rules still permit non signalled driver instructions. An RSP can support a defined local movement area.

EXAMPLE MOVEMENT

The controller selects a path to a stabling road. The interlocking checks the route and drives all relevant points, then locks them. The VDU displays the established state. The controller gives the driver authority using the agreed communication procedure because the 300 has no ground position light signals.

INTEGRATION CONSIDERATIONS

A mainline slot and selected external interfaces can be designed where the VDU is used. The source cautions that PPIs rather than signals make multiple or complex interfaces harder. Heating status and control may also be added to the VDU. Confirm axle counter coverage, occupied section rules and permissive working.

SELECTION RECOMMENDATION

Use 300 when route logic is essential and the absence of depot signals is operationally acceptable. The decision should be supported by the movement risk assessment, the driver communication method and the nature of the boundary to the mainline.

WHEN TO CHOOSE 400

Prefer 400 if the driver needs visible signalled authority, the depot joins a complex mainline interface, depot personnel protection slots control movements, or repeated voice instructions create a material operational burden.

DESIGN CHECKS

Define the complete route table, conflicting routes, point locking, axle counter sections, failed detection response, master VDU handover, RSP jurisdiction and the way each established route is communicated to the driver.

SELECTION SNAPSHOT

BEST FIT	KEY DEPENDENCY	NEXT LEVEL
complex unsignalled yard	driver instruction	signalled authority

Final selection follows an operating concept, interface definition and facility safety assessment.

SOURCE: FENIX PUBLISHED FENLOCK 300 SYSTEM DESCRIPTION • OPEN PDF

Operation and technology

System description based on the published FenLock 400 brochure. Field equipment and variants are selected for each facility.

OPERATING METHOD

The operator requests a route on the VDU. The interlocking checks that relevant sections are clear, all points are detected in the correct lie, no conflicting movement is locked and required external permissions are present. It then sets the route and may clear the ground position light signal. If a condition fails, the route remains unavailable and the VDU reports the reason.

SIGNALS AND AUTHORITY

Network Rail style LED ground position light signals provide movement authority and mark its limit. The published design describes red over red for danger and two white lights at 45 degrees for proceed. Signal outputs are driven through interlocking cards; the driver receives a visual authority within the signalled area.

INTERLOCKING HARDWARE

Site specific data in the processor defines route conditions. Central and wayside cards collect detection inputs and drive point machines and signal outputs. A modular arrangement can distribute substations across a large depot. Diagnostics and event logs support fault finding and operational review.

TRAIN DETECTION AND VDU

Axle counters show occupied sections and provide vital conditions to the interlocking. The VDU can display route status, track occupancy, point detection, signal aspect and alarms. Optional car counting helps manage permissive stabling. Several workstations may be installed, with controlled transfer of the active master.

INTERFACE TECHNOLOGY

Mainline relay interfaces and a slot handshake can coordinate train entry or exit. Depot personnel protection may withhold permission for a route into a maintenance road. The source also describes configurable interfaces to gates, barriers, alarms and point heating, subject to a written functional specification.

POWER AND RESILIENCE

The published architecture distributes an incoming three phase 400 V supply to the required voltages. It discusses 110 V signal heads, 400 V point machines, lower voltage logic and a backup supply for axle count memory. These values describe an example design and must be confirmed against selected equipment.

MOVEMENT CONTROL SEQUENCE

01 VDU route request

02 Interlocking + slots

03 Signal clears

04 Driver proceeds

Control and authority shown for the published system level. Site specific options depend on the design.

SOURCE: FENIX PUBLISHED FENLOCK 400 SYSTEM DESCRIPTION • OPEN PDF

Uses and recommendation

A practical assessment of where the system fits, its interfaces and what changes when moving to another level.

RECOMMENDED APPLICATIONS

Busy train depots, intermodal terminals and yards where point control alone is insufficient. 400 suits facilities requiring routes checked against track occupancy, visible driver authority, integration to a running line and defined protection for staff working around trains.

EXAMPLE MOVEMENT

The depot signaller requests a route from reception to a service road. The mainline and depot exchange the required slot; depot protection confirms the destination is available. The interlocking checks section occupancy and all point detection, locks the route and clears its ground position light signal.

INTEGRATION CONSIDERATIONS

Specify the boundary of authority between mainline and depot signalling, the slot sequences, each signal location, axle counter limits and emergency replacement controls. The source describes volt free relay contact arrangements and recommends documenting every sent and received function before design completion.

SELECTION RECOMMENDATION

Select 400 where a signalled movement method is a core safety and operating requirement. It creates a clearer authority boundary for drivers than 300. Check the need for every signal and detection section against the actual operating plan, not a standard template.

WHEN TO CHOOSE 500

Move to 500 if repeatable movements and reliable train identity data justify automatic route requests and destination assignment. Otherwise, 400 offers the same fundamental signalled route protection with operator selected routes.

DESIGN CHECKS

Confirm the route table, signal sighting, overlap and flank principles where applicable, detection layout, mainline interface, DPPS permissions, degraded modes, emergency signal replacement and the safety integrity claim for the installed functions.

SELECTION SNAPSHOT

BEST FIT

signalled depot

KEY DEPENDENCY

interface specification

NEXT LEVEL

vehicle ID routing

Final selection follows an operating concept, interface definition and facility safety assessment.

SOURCE: FENIX PUBLISHED FENLOCK 400 SYSTEM DESCRIPTION • OPEN PDF

Operation and technology

System description based on the published FenLock 500 brochure. Field equipment and variants are selected for each facility.

OPERATING METHOD

The 500 retains the 400 signalled interlocking and adds vehicle recognition. The published example associates an arriving train ID with a planned destination, allowing the system to request a route automatically. The interlocking then checks section occupancy, point detection, other routes and interface permissions before any signal clears.

IDENTIFICATION AND DATA

The brochure illustrates RFID or train reporting number inputs. The identity must connect to an accurate movement plan that defines destination and authorised route. The identity source, lookup logic, response to an unknown or duplicate ID and any manual correction process must be specified for each site.

CONTROL TECHNOLOGY

The central unit gathers wayside states and a processor holds site specific interlocking rules. Modular cards interface to points, signals, axle counters and external systems. A VDU lets the operator monitor the movement and intervene where required. An event log records both successful and rejected actions.

AUTOMATIC ROUTE REQUEST

Recognition and route selection reduce repeated manual input. They do not bypass the interlocking. If track is occupied, a point is not detected, a conflicting route exists or a required slot is absent, the route is withheld. The source presents automated arrivals, internal yard moves and departures as an illustrative application.

INHERITED SIGNALLING CAPABILITY

The 500 retains ground position light movement authority, axle counter detection, point control, mainline and DPPS interfaces, and centralised VDU operation from the 400 range. Multiple desks with one active master and remote operation can be configured where the operating concept requires them.

RESILIENCE AND ASSURANCE

The published architecture includes self diagnostics, modular replacement cards and UPS support to retain detection and train position data. The source describes equipment capable of SIL 4. The automatic routing logic and each safety function still need a site specific assurance case and a defined response to unavailable identity data.

MOVEMENT CONTROL SEQUENCE

01 Train ID — **02** Destination rule — **03** Interlocking checks — **04** Signal clears

Control and authority shown for the published system level. Site specific options depend on the design.

SOURCE: FENIX PUBLISHED FENLOCK 500 SYSTEM DESCRIPTION • OPEN PDF

Uses and recommendation

A practical assessment of where the system fits, its interfaces and what changes when moving to another level.

RECOMMENDED APPLICATIONS

High throughput depots, intermodal terminals or ports with frequent movements, stable identity data and repeatable destinations. The operational benefit grows when route requests are numerous and the traffic plan can be maintained accurately.

EXAMPLE MOVEMENT

A freight arrival is identified before the reception boundary. Its planned destination selects a reception road. The 500 requests the route, performs the same interlocking checks as 400, sets the points and clears the signal when conditions permit. The operator sees the identity, destination, route and any exception on the VDU.

INTEGRATION CONSIDERATIONS

Specify how IDs are captured and validated, where route rules are stored, how the movement plan is updated and who can override a destination. Formalise the mainline slot, depot protection, exception alarms, loss of communications and audit trail. Avoid treating a conceptual example as a commissioned site feature.

SELECTION RECOMMENDATION

Select 500 where a sound operating plan and reliable identity feed support useful automation. Quantify the expected number of route requests, exception rate and operator workload before committing to the additional data and integration scope.

WHEN 400 IS SUFFICIENT

A 400 is the clearer choice where train identities are unreliable, destinations often change at short notice or automation saves little work. It retains signalled routes and interlocking without depending on identity driven route requests.

DESIGN CHECKS

Define the identification method, data ownership, destination mapping, confidence and timeout rules, recovery from wrong or missing ID, operator confirmation and override, retained manual route setting and an auditable history of automatic requests.

SELECTION SNAPSHOT

BEST FIT	KEY DEPENDENCY	ALTERNATIVE
repeated train flows	reliable identity data	operator selected 400

Final selection follows an operating concept, interface definition and facility safety assessment.

SOURCE: FENIX PUBLISHED FENLOCK 500 SYSTEM DESCRIPTION • OPEN PDF

The processor and its safety interfaces

HANNING & KAHL technology relevant to the design of interlocked FenLock facilities.

PROCESSOR ARCHITECTURE

H-VITAL (HVIP) is a modular, networkable, two-channel processor platform. The supplier describes safety functions to SIL 4 and use in point controllers, signalling installations, depots and shunting facilities. Site-specific interlocking data and functions must be engineered and assured for each installation.

DISTRIBUTED CONTROL

Complex layouts can be divided into local control segments. HVIP exchanges safety-relevant data over Ethernet and can communicate with HANNING & KAHL HN-P equipment. This can shorten field cable runs and support staged integration of existing equipment where the interfaces have been assessed.

SAFETY INPUT AND OUTPUT CAPACITY

The published maximum is 288 digital safety-relevant inputs per rack and 86 digital safety-relevant outputs per rack. Outputs have integrated current monitoring in supply and feedback lines. These are product limits, not a capacity commitment for any FenLock layout; rack allocation, loading and redundancy follow detailed design.

ELECTRICAL AND ENVIRONMENT

The source lists output supply at 16.8 to 57.6 V; SDO output current 10 to 800 mA and SDOH output current 50 to 2,500 mA. It cites an operating environment of -40°C to +70°C and applicable rail EMC, climate, insulation, shock and vibration requirements. Cabinet and interface ratings must be checked for the selected build.

TRAIN DETECTION OPTIONS

The HVIP brochure describes HN-P vehicle-detection inputs, including axle counters and an SBC blocking circuit. SBC passively detects a vehicle entering via wheel shunt and leaving via a change in vehicle mass. It requires no insulating joints; short-circuit connectors define its effective section, with a cited standard length of 3 to 20 m. An axle-counter installation compares entering and departing axle counts to confirm a section has cleared.

COMMUNICATIONS AND FENIX FIRST FIX

H-VITAL provides safety-relevant Ethernet communication, RS232 and RS485 cabinet interfaces, voltage and temperature monitoring, and a one-channel SD-card data recorder. Its source identifies ConnAct as a native diagnostic tool. Fenix First Fix is the customer-facing monitoring and maintenance option: connected asset data, daily monitoring, scheduled reports, alerts and a prepared engineering response. Any connection to HVIP data is defined in the agreed integration scope.

OPERATING STATES AND MAINTAINABILITY

The source identifies online, restricted online, offline and failsafe modes, with controlled deactivation of individual safety functions described for restricted operation. The supplier separates safety-related and non-safety-related functions. Degraded operation, permissions, logs and recovery must be specified and tested against the facility rules.

FENIX FIRST FIX | AGREED DIAGNOSTIC DATA PATH

H-VITAL events
Selected fault and condition data

>

Defined interface
Approved transfer and access

>

Fenix First Fix
Monitor, report, prepare response

SOURCES: H-VITAL INTERLOCKING PROCESSOR, PP. 1-2; FENIX FIRST FIX CLIENT BROCHURE 2026. FEATURES SUBJECT TO AGREED SCOPE.

Where the technology can fit

System selection remains driven by the movement method, route complexity and safety case.

FENLOCK LEVEL	H-VITAL DESIGN RELEVANCE
100 / 200	Local or central point commands in the published basic configurations. H-VITAL interlocking is not inherent to these levels.
300	A possible processor and safe communications platform for a project-specific interlocked, generally unsignalled route design.
400	A possible core for the project-specific interlocking of points, train detection, signals and external permissions.
500	The same safety checks remain in force when train identity and destination data initiate route requests automatically.

DESIGN A SAFE ROUTE

Identify every point, signal, detection section, protected work area and external slot. Define route conflicts and flank conditions, plus the effect of a failed input or lost communication. Only when the required conditions are proved should the interlocking establish the route and, at signalled levels, permit a signal to clear.

CHOOSE THE DETECTOR TO SUIT THE SITE

Assess axle counting and SBC sections against track layout, vehicle types, stabling rules and recovery procedures. The source also illustrates level crossings and automatic train control, but those functions are separate design options; their inclusion must not be assumed for a depot.

COMMISSION AND MAINTAIN

Test the installed data, interface states, failure responses and each permitted degraded mode. Where specified, feed the agreed diagnostic events into Fenix First Fix for trend reports, engineer alerts and a maintenance action pack before attendance. Confirm data access, secure transfer, spare parts, software control and response commitments in the service agreement.

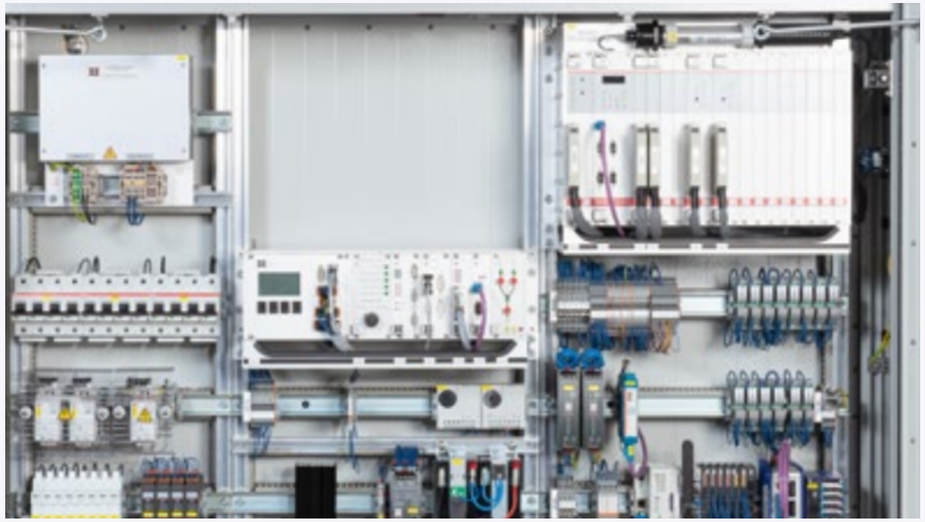
RECOMMENDATION

Consider H-VITAL when FenLock 300, 400 or 500 needs a modular, distributed safety platform and the HANNING & KAHL interfaces suit the site. Do not infer that every FenLock installation uses HVIP or that the processor rating alone certifies the complete facility. Confirm the selected hardware, function integrity and integration evidence in the project safety case.

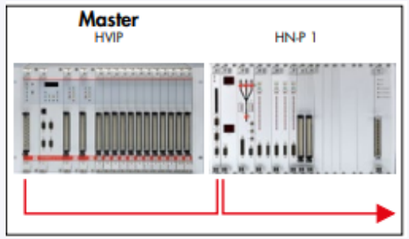
SOURCES: H-VITAL INTERLOCKING PROCESSOR, PP. 1-2; FENIX FIRST FIX CLIENT BROCHURE 2026. FEATURES SUBJECT TO AGREED SCOPE.

A closer look at the hardware

Photographs from the supplied H-VITAL interlocking processor brochure.



H-VITAL control cabinet



HVIP and HN-P racks

Modular equipment linked through safety-relevant communication.



Axle counter detector

Trackside wheel detection for project-defined clear sections.

HOW THE IMAGES RELATE TO FENLOCK

These are examples of HANNING & KAHL equipment relevant to interlocked depot control. The components, interfaces and train detection for FenLock 300, 400 or 500 are selected for each site and safety case.

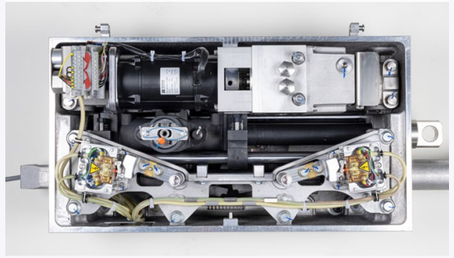
IMAGE SOURCE: FENIX RAIL SYSTEMS, H-VITAL INTERLOCKING PROCESSOR, P. 2 AND COVER. IMAGES ARE ILLUSTRATIVE.

A closer look at the hardware

Interlocking installed in a relocatable equipment building (REB), alongside the H725 point machine.



Interlocking in REB, 19-inch racking



H725 point machine

Internal drive and detection mechanism with cover removed.



H725 point machine

Enclosed unit with operating rods visible.

EQUIPMENT SELECTION

Point machines and control equipment are specified against the turnout, operating method and project interfaces.

IMAGES: FENIX-SUPPLIED HANNING & KAHL EQUIPMENT PHOTOGRAPHS. H725 IMAGES SHOW TWO VIEWS OF THE SAME PRODUCT TYPE.

Design the solution around the facility

The system number describes a level of control. The installed functions and claimed safety integrity follow from the project design.

SCOPE THE OPERATION

Record the track plan, movement frequency, operator roles, routes, driver authority method, mainline boundary, degraded operation and maintenance access. These details decide whether local points, route interlocking, signals or identity driven automation are justified.

SPECIFY EVERY INTERFACE

List each input, output, permission, detection section and operational dependency. Confirm point machine selection, power distribution, VDU locations, communications, depot personnel protection and point heating as applicable.

ASSURE THE INSTALLED SYSTEM

FenLock components can be specified for safety integrity up to CENELEC SIL 4. A component rating is not an assurance claim for the whole facility. Define the required integrity of each function, test the site data and verify the integrated interface and operating rules.

DELIVERY AND SUPPORT

Fenix Rail Group can support feasibility, detailed design, procurement, integration, installation, testing, commissioning and handover. Fenix Maintenance supports the agreed installed asset scope through planned and reactive work.

TALK TO FENIX

Share the layout and a short account of how trains move through the facility. Fenix can identify the suitable FenLock level and set out the interfaces and assurance work needed to confirm a proposal.

CONTACT

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PUBLISHED PRODUCT SOURCES: 100 / 200 / 300 / 400 / 500 100 PDF 200 PDF 300 PDF 400 PDF 500 PDF