

iNS Network Analysis Modules 1st phase release

Kentec is proud to announce the launch of its iNS network Analysis modules.

Product info


iNS is a range of interface modules which can be used when networking Kentec Addressable fire alarm control panels. Compatible with both Syncro AS, Taktis and their branded equivalents the interfaces provide solutions for both RS485, Hybrid (RS485/Fibre) and fibre optic networks. The interfaces are designed to maximise network performance while providing advanced network diagnostics.


Reliable network communications are essential to the performance of any network of fire alarm panels and they can be affected by multiple factors such as external interference, cable properties. iNS Network Analysis modules can help identify areas of weakness, signal interference, voltage drops etc. making diagnostics easier for engineers while also being able to provide early indications of variations in network performance for preventative maintenance.


iNS Network Analysis Modules		
Brief Description	USP's	Release Criteria
<ul style="list-style-type: none"> • A range of modules to provide enhanced network performance using RS485, Hybrid and Full fibre network solutions. 	<ul style="list-style-type: none"> • Compatible with Taktis, Syncro and their OEM variants • Isolates panels from the communications layer • Automatic impedance matching of RS485 cables for network performance • Unique DOM (Digital Optical Monitoring) for fibre solutions provides early warning of network degradation • Simple set-up and commissioning • Easily retrofittable • 2.5KV Galvanic isolation between communication ports • Simple LED notification of status making diagnostics simpler • Complies with the requirements of BS5839 part 1 and EN54-13 • Single interface module for fibre solution 	<ul style="list-style-type: none"> • 1st phase release RS485 and fibre modules only • Advanced monitoring, reporting and diagnostics software IVIEW will be in 2nd phase release Mid-December


Bulletin no. PR1063/082020 Rev 1



Products

Brief Description	Release Information
<p>DNX-A-2R-K RS485 Dynamic Network Isolator</p>  <p>The image shows a white DIN-rail mounted network isolator. It features three ports: PORT B (left), PORT A (center), and PORT C (right). Each port has a 'TERM' label and a 'SIGNAL G&S' label. A central 'LINK ACTIVE' LED is present. Below the ports are four status LEDs labeled IO-1, IO-2, IO-3, and IO-4. A 'NETWORK RESET' button is located on the left side. The bottom of the unit has a terminal block with labels for 24V, 0, 24V, 0, RELAY (C, NC), CLASS 1 LABEL, and EXT IO.</p>	<ul style="list-style-type: none"> • Compatible with Syncro and Taktis RS485 networks • Provides automatic impedance matching of RS485 communication cables • LED indications show network status, signal quality and fault conditions. • LEDs provide detailed information on which part of the network has failed making diagnostics easier • Modules work in a master slave configuration. • Active and Passive modes of operation – Passive mode the module operates as an RS485 signal conditioning repeater -Active mode monitors and records values for diagnostics. • Network reset button provided to reset comms • Plug-in wiring connectors • DIN Rail mounting • Nominal 24V DC supply, current draw of 250mA
<p>Product DNX-A-2R-K</p>	

Brief Description	Release Information
<p>DNX-R-2F/FC-K RS485/Fibre and Dual Fibre Dynamic network Analyser</p>  <p>The image shows a white DIN-rail mounted network analyser. It features three ports: PORT B (left), PORT A (center), and PORT C (right). Each port has a 'TERM' label and a 'SIGNAL G&S' label. A central 'LINK ACTIVE' LED is present. Below the ports are four status LEDs labeled IO-1, IO-2, IO-3, and IO-4. A 'NETWORK RESET' button is located on the left side. The bottom of the unit has a terminal block with labels for 24V, 0, 24V, 0, RELAY (C, NC), CLASS 1 LABEL, and EXT IO.</p>	<ul style="list-style-type: none"> • Compatible with Syncro and Taktis RS485 networks • Provides Hybrid RS485 to Fibre solution or Full fibre solution • Supports single mode, multi-mode and Bi-directional fibre optic transceivers • Unique DOM (Digital Optical Monitoring) provides status on fibre optic transceivers for temperature, laser power, bias current and supply voltage. • Active and Passive modes of operation – Passive mode the module operates as straight through fibre optic converter. -Active mode monitors and records values for diagnostics. • Modules work in a master slave configuration. • LED indications show network status, signal quality and fault conditions. • LEDs provide detailed information on which part of the network has failed making diagnostics easier • Modules work in a master slave configuration. • Network reset button provided to reset comms • Network reset button provided to reset comms • Plug-in wiring connectors • DIN Rail mounting • Nominal 24V DC supply, current draw of 250mA
<p>Product DNX-R-2F/FC-K</p>	

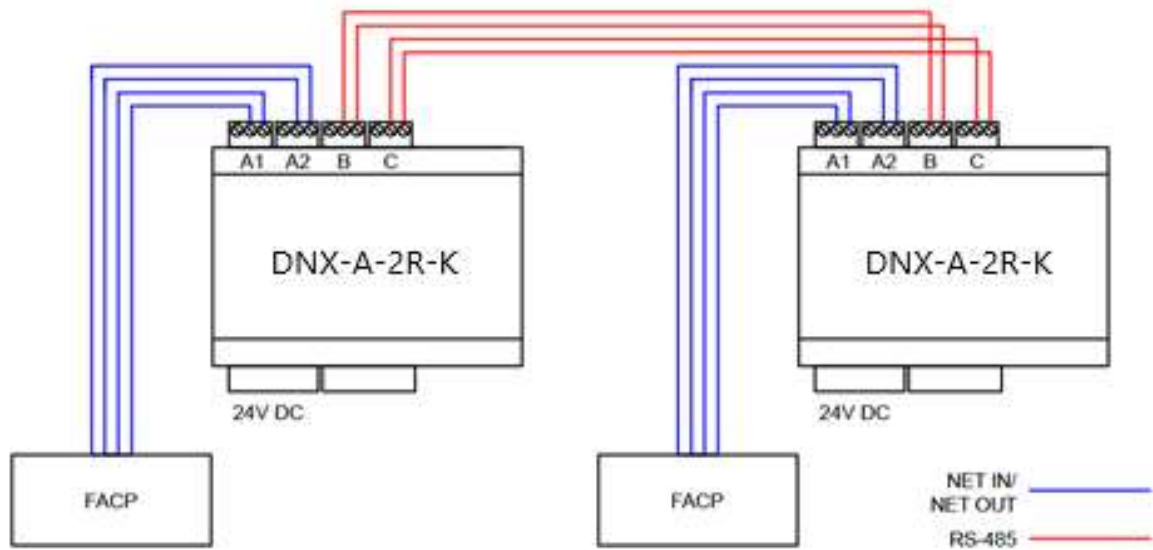
Brief Description	Release Information
<p>INST-SFP-MM-01-K Multi-mode transceiver</p> 	<ul style="list-style-type: none"> • Kentec locked and signed for use with DNX-R-2F/FC-K modules only (Third party equivalent transceivers cannot be used) • 850nm FP Laser transmitter • 550m range when using 62.5/125µm fibre optic cable • Hot pluggable • Class 1 FDA and IEC60825-1 Laser safety compliant. • Built in diagnostic functions • Hybrid system requires 1 x transceiver per module • Full fibre system requires 2 x transceivers per module • Two fibre optic cables required per transceiver <p>Note: Multi-mode systems are suitable for short distances only – up to 550m. For longer distances a single mode fibre system would be required. Multi-mode and single mode fibre solutions require different cable types therefore switching between the two types of system is not possible. Recommended choice for new installations should be single mode fibre.</p>
<p>Product INST-SFP-MM-01-K</p>	

Brief Description	Release Information
<p>INST-SFP-SS-20K-1 Single mode transceiver</p> 	<ul style="list-style-type: none"> • Kentec locked and signed for use with DNX-R-2F/FC-K modules only (Third party equivalent transceivers cannot be used) • 1310nm FP Laser transmitter • 20Km reach when using 9/125µm fibre optic cable • Hot pluggable • Class 1 FDA and IEC60825-1 Laser safety compliant. • Built in diagnostic functions • Hybrid system requires 1 x transceiver per module • Full fibre system requires 2 x transceivers per module • Two fibre optic cables required per transceiver <p>Note: Multi-mode provides longer transmission distances and is the recommended option for new installations. INST-SFP-SS-20K-1 will transmit up to 20Km however transceivers with longer transmission distances are available on request.</p>
<p>Product INST-SFP-SS-20K-1</p>	

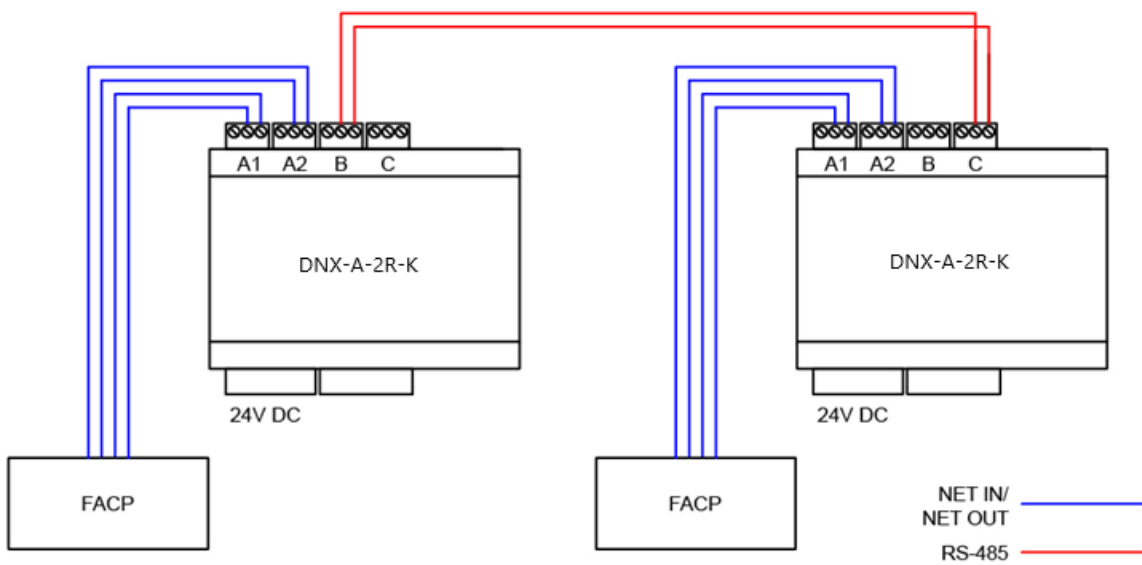
Brief Description	Release Information
<p data-bbox="204 248 815 304">INST-SFP-BiBi-10K-AB-1 SFP Bi-Directional Single Mode Fibre Optic Transceiver (1550nm TX/1310 nm RX)</p>  <p data-bbox="204 678 815 734">INST-SFP-BiBi-10K-BA-1 SFP Bi-Directional Single Mode Fibre Optic Transceiver (1310nm TX/1550nm RX)</p> 	<ul data-bbox="919 221 1431 607" style="list-style-type: none"> • Transmits and Receives using a single fibre optic cable • INST-SFP-BiBi-10K-AB-1 and INST-SFP-BiBi-10K-BA-1 required at either end of fibre optic cable to match TX and RX frequencies • Operating data rates up to 1.25 Gbps • 10km reach for 9/125µm single mode fibre optic cable • Hot pluggable • Class 1 FDA and IEC60825-1 Laser safety compliant. • Built in diagnostic functions • One transceiver required per module <p data-bbox="869 640 1426 898">Note: Bi-Directional system transmits and receives using the same single mode fibre optic cable, redundancy is impacted as damage to the single cable will cause the network to fail at this point. An ideal solution for quick repair of systems using two single mode fibres for transmit and receiver i.e. if the transmit or receive cable becomes damaged the single mode transceivers can be swapped to Bi-di transceivers to maintain operation of the communications using the remaining single core.</p>
<p data-bbox="204 1267 296 1290">Product</p>	
<p data-bbox="204 1301 469 1323">INST-SFP-BiBi-10K-AB-1</p> <p data-bbox="204 1330 469 1352">INST-SFP-BiBi-10K-BA-1</p>	

Network topologies

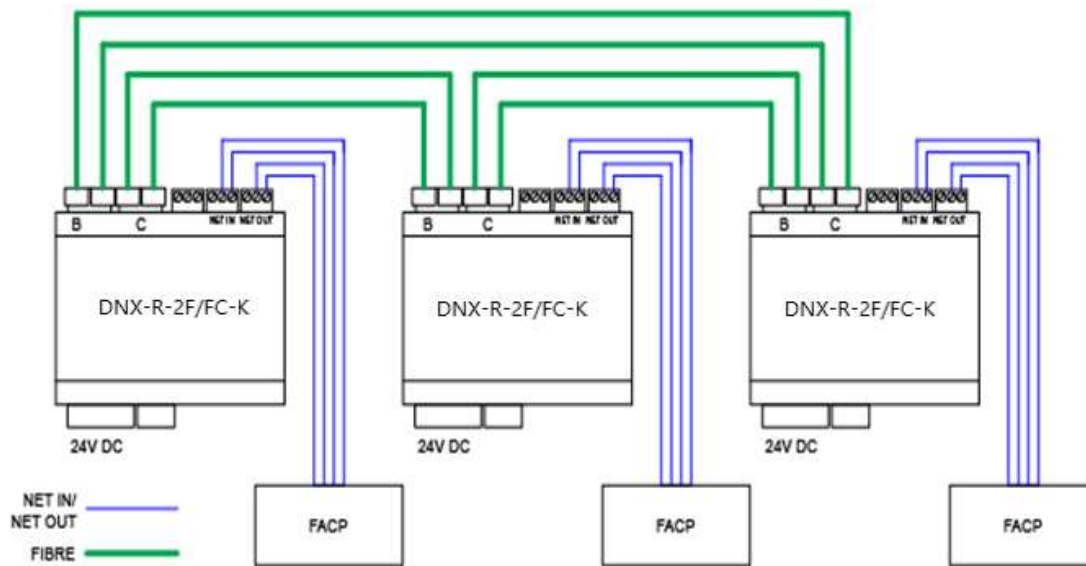
RS485 Class A network



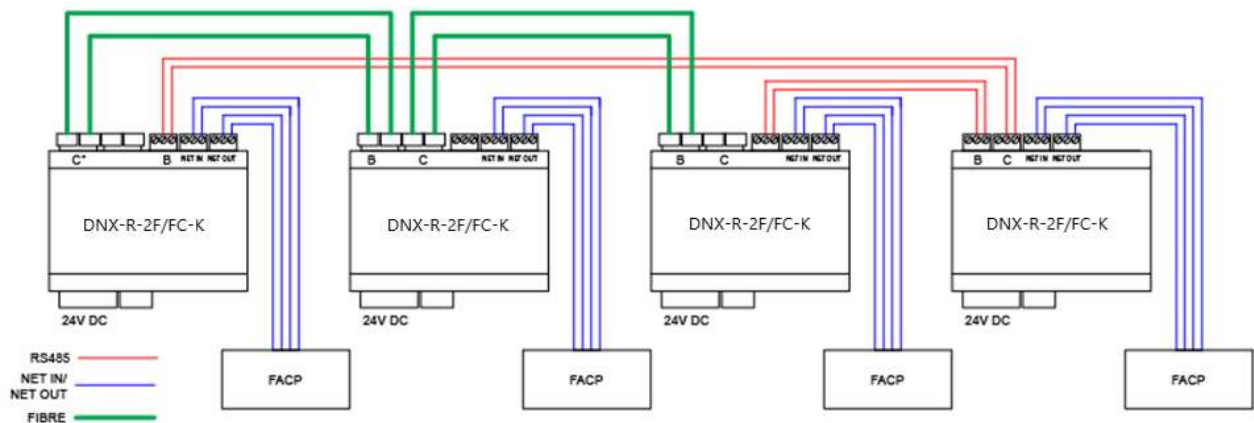
RS485 Class B network



Fibre optic network



Hybrid RS485/Fibre network



Product Summary

Product	Description
DNX-A-2R-K	RS485 Dynamic Network Analyser
DNX-R-2F/FC-K	RS485/Fibre & Dual Fibre Dynamic Network Analyser
INST-SFP-MM-01-K	SFP Multi-mode Fibre Optic Transceiver (550m)
INST-SFP-SS-01-K	SFP Single Mode Fibre Optic Transceiver (20Km)
INST-SFP-BiDi-10K-AB-1	SFP Bi-directional Single Mode Fibre Optic Transceiver (1550nm TX/1310nm RX)
INST-SFP-BiDi-10K-BA-1	SFP Bi-directional Single Mode Fibre Optic Transceiver (1310nm TX/1550nm RX)

Documentation

Is available on the [Kentec website](#)

Brochure	iNS sales brochure
Datasheets	DNX-A-2R-K DNX-R-2F/FC-K INST-SFP-MM-01-K INST-SFP-SS-20K-1 INST-SFP-BiDi-10K-AB-1 INST-SFP-BiDi-10K-BA-1
Manuals	DNX-A-2R-K DNX-R-2F/FC-K iNS QSG (Quick Start Guide)