DIN Switch Series

DIN Switch Series | Industrial Software Defined Network Switches

DYNICS DIN switch products are built to withstand harsh industrial environments, and designed for wide-temperature range applications, supporting industrial automation protocols Ethernet/IP and Modbus TCP and Storm Protection. In an IP30 rated aluminum housing, the DIN switches include USB storage for firmware updates, configuration backup, restoration, boot up, and system logs.

Orderable Part Number	NICS	Storage
SDN-DN0802XXD1-01G	8x RJ45 1GB NICS and 2x 1GB SFP Ports	1x USB 2.0
SDN-DN1604XXD1-01G	16x RJ45 1GB NICS and 4x 1GB SFP Ports	1x USB 2.0
SDN-DN0804XXD1-10G	8x RJ45 1GB NICS and 4x 1/10GB SFP+ Ports	1x USB 2.0
SDN-DN1604XXD1-10G	16x RJ45 1GB NICS and 4x 1/10GB SFP+ Ports	1x USB 2.0

Software Defined Networking Overview

Networking is a critical component of industrial control systems (ICS). ICS networks differ significantly from information technology networks. Unfortunately, most existing Ethernet networking-related technologies are based on information technologies and practices. While information technology networks must manage dynamic environments, ICS networks are typically less dynamic and more repeatable in terms of network communications. ICS networks control processes including factory floor automation, food processing, water and wastewater system, and electric power distribution.

Software Defined Networking (SDN), among other things, addresses reliability, visibility, data traffic control, network segmentation, and deny-by-default security.

We have adapted (SDN) to address demanding ICS requirements that traditional networking technologies are unable to do. SDN is an architectural networking concept that separates network configuration, or control plane, from the switch, or data plane. What this allows ICS network designers and engineers to do is define exactly what traffic and to which devices the traffic is allowed to flow within an ICS network. SDN technology also obsoletes complex concepts including VLANS, Spanning Trees, Network loops, and allows ICS networks to be designed to fit the requirements of the control system *using standard IEEE 802.3 Ethernet*. Network designers and engineers are not encumbered by traditional information technology practices.

CE   FC   RoHS COMPLIANT

DIN Switch Series

SDN-DN0802XXD1-01G

HARDWARE SPECIFICATIONS

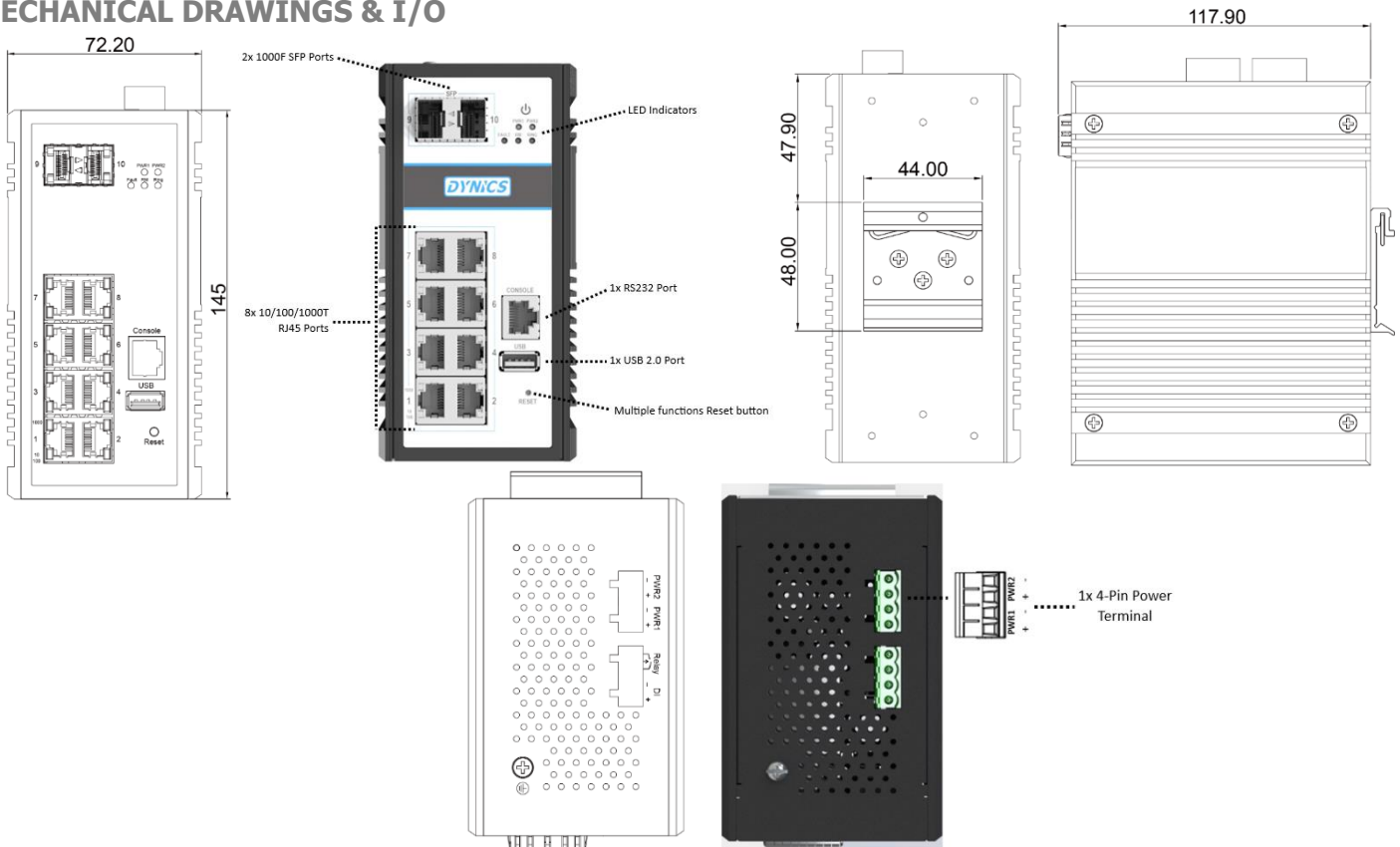| UTILITY PORTS	
RS232 Serial Console Port	1x
USB 2.0 Ports	1x
NICS	8x 1GB RJ45 Ethernet Ports and 2x 1GB SFP Ports
POWER SUPPLY	12-48VDC redundant dual (4-pin) inputs
TEMPERATURE	Operating: -40°-75°C | -40°-167°F | Non-Operating: -40°-85°C | -40°-185°F
RELATIVE HUMIDITY	Non-Condensing: 5% - 95%
SHOCK RESISTANCE	IAW IEC60068-2-27
VIBRATION	IAW IEC60068-2-6
COMPLIANCE	CE EN 55032 Class A, UL 60950-1/62368 (Pending), EN 50121-4 FCC Part 15 Subpart B Class A European Union Directive 2011/65/EU (RoHS)
WARRANTY	36-Month limited warranty. 2-year extended warranty available, contact DYNICS for more details.
INCLUDED	Console Cable (115.2Kbps, 8N1), DIN-Rail Mounting, Optional Wall Mounting Kits
TECHNICAL SUPPORT & MAINTENANCE	Available, Renews Yearly, Contact DYNICS for details.

Key Features

- Redundant Dual Power Entry
- Wide Temperature Range
- Overload Current Protection
- IP30 Rated
- 8x RJ45 1GB NICS and 2x SFP Ports
- Din Rail Mounting, Optional Wall Mounting Kits

DIMENSIONS, WEIGHT AND POWER CONSUMPTION

HEIGHT	5.71" (145.0mm)
WIDTH	2.84" (72.2mm)
DEPTH	4.64" (117.9mm)
WEIGHT	1.9 lbs.* (0.85 kq)
POWER CONSUMPTION	0.57A @ 24VDC**

* Weights are approximate, contact DYNICS for details.
** Power consumption is based on maximum ratings; actual ratings vary significantly based on components used.

MECHANICAL DRAWINGS & I/O

DIN Switch Series

SDN-DN1604XXD1-01G | SDN-DN1604XXD1-10G

HARDWARE SPECIFICATIONS

UTILITY PORTS	
RS232 Serial Console Port	1x
USB 2.0 Ports	1x
NICS	SDN-DN1604XXD1-01G: 16x 1GB RJ45 Ethernet Ports and 4x 1GB SFP Ports SDN-DN1604XXD1-10G: 16x 1GB RJ45 Ethernet Ports and 4x 10GB SFP+ Ports
POWER SUPPLY	12-48VDC redundant dual (4-pin) inputs
TEMPERATURE	Operating: -40°-75°C	-40°-167°F | Non-Operating: -40°-85°C	-40°-185°F
RELATIVE HUMIDITY	Non-Condensing: 5% - 95%
SHOCK RESISTANCE	IAW IEC60068-2-27
VIBRATION	IAW IEC60068-2-6
COMPLIANCE	CE EN 55032 Class A, UL 60950-1/62368 (Pending), EN 50121-4 FCC Part 15 Subpart B Class A European Union Directive 2011/65/EU (RoHS)
WARRANTY	36-Month limited warranty. 2-year extended warranty available, contact DYNICS for more details.
INCLUDED	Console Cable (115.2Kbps, 8N1), DIN-Rail Mounting, Optional Wall Mounting Kits
TECHNICAL SUPPORT & MAINTENANCE	Available, Renews Yearly, Contact DYNICS for details.

Key Features

- Redundant Dual Power Entry
- Wide Temperature Range
- Overload Current Protection
- IP30 Rated
- 16x RJ45 1GB NICS and 4x SFP/SFP+ Ports
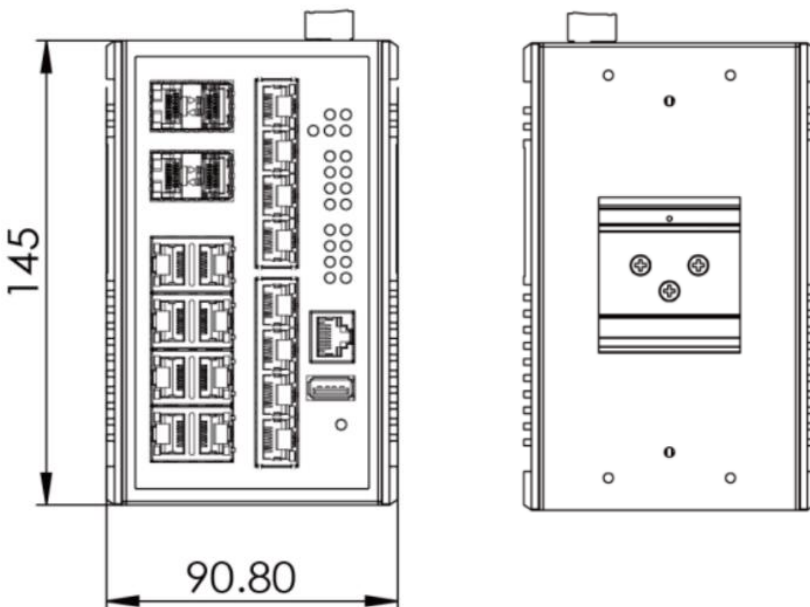- Din Rail Mounting, Optional Wall Mounting Kits

DIMENSIONS, WEIGHT AND POWER CONSUMPTION

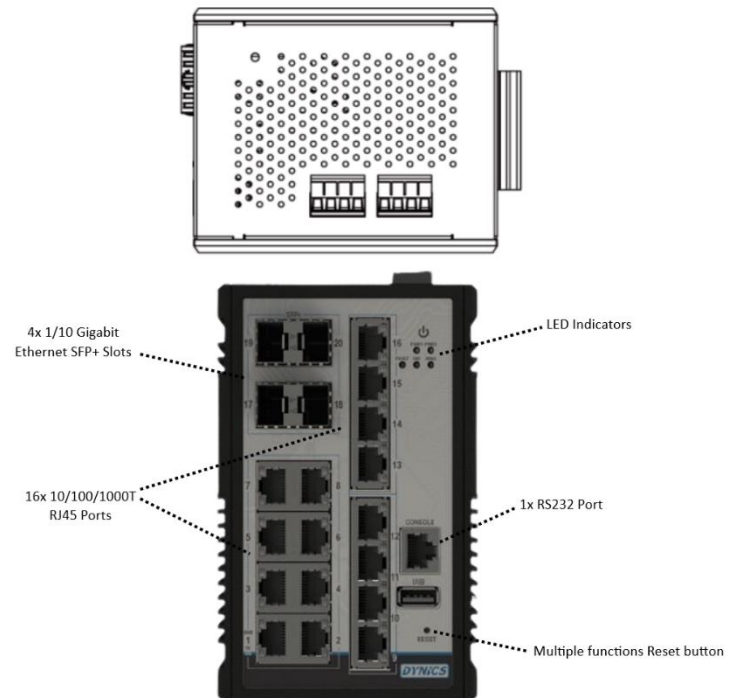|	
HEIGHT	5.71" (145.0mm)
WIDTH	3.58" (91.0mm)
DEPTH	4.64" (118.0mm)
WEIGHT	2.1 lbs.* (0.97 kg)
POWER CONSUMPTION	0.70A @ 24VDC**

* Weights are approximate, contact DYNICS for details.
** Power consumption is based on maximum ratings; actual ratings vary significantly based on components used.

MECHANICAL DRAWINGS & I/O

FRONT AND BACK VIEW

145

90.80

TOP VIEW

4x 1/10 Gigabit Ethernet SFP+ Slots

16x 10/100/1000T RJ45 Ports

LED Indicators

1x RS232 Port

Multiple functions Reset button

DIN Switch Series

SDN-DN0804XXD1-10G

HARDWARE SPECIFICATIONS

UTILITY PORTS	
RS232 Serial Console Port	1x
USB 2.0 Ports	1x
NICS	8x 1Gb RJ45 Ethernet Ports and 4x 10GB SFP+ Ports
POWER SUPPLY	12-48VDC, redundant dual (4-pin) inputs
TEMPERATURE	Operating: -40°-75°C | -40°-167°F | Non-Operating: -40°-85°C | -40°-185°F
RELATIVE HUMIDITY	Non-Condensing: 5% - 95%
SHOCK RESISTANCE	IAW IEC60068-2-27
VIBRATION	IAW IEC60068-2-6
COMPLIANCE	CE EN 55032 Class A, UL 60950-1/62368 (Pending), EN 50121-4 FCC Part 15 Subpart B Class A European Union Directive 2011/65/EU (RoHS)
WARRANTY	36-Month limited warranty. 2-year extended warranty available, contact DYNICS for more details.
INCLUDED	Console Cable (115.2Kbps, 8N1), DIN-Rail Mounting, Optional Wall Mounting Kits
TECHNICAL SUPPORT & MAINTENANCE	Available, Renews Yearly, Contact DYNICS for details.

Key Features

- Redundant Dual Power Entry
- Wide Temperature Range
- Overload Current Protection
- IP30 Rated
- 8x RJ45 1GB NICS and 4x SFP+ Ports
- Din Rail Mounting, Optional Wall Mounting Kits

DIMENSIONS, WEIGHT AND POWER CONSUMPTION

HEIGHT	5.72" (145.0mm)
WIDTH	2.84" (72.2mm)
DEPTH	4.64" (117.9mm)
WEIGHT	2.0 lbs.* (0.90 kg)
POWER CONSUMPTION	0.35A @ 48VDC**

* Weights are approximate, contact DYNICS for details.
** Power consumption is based on maximum ratings; actual ratings vary significantly based on components used.

MECHANICAL DRAWINGS & I/O
FRONT AND BACK VIEW

1.73" (44.0mm)
1.89" (48.0mm)

1x 4-Pin Power Terminal
PWR1 PWR2
- + - +

4x 1/10Gb SFP+ Ports

TOP VIEW

8x 10/100/1000T RJ45 Ports with PoE+

1x RS232 Port

1x USB 2.0 Port

1x Reset Button