DI-789 Repeater

Enhanced Ethernet Switch Expands Distance Between Synchronous Units over 100 meters apart

Use With DI-720, DI-730, and DI-78x Ethernet Products

9-36 VDC Power (adapter included)

Model DI-789 repeater is a specialized Ethernet switch that is designed to work with DATAQ Instruments synchronized Ethernet products. Those products allow a number of data acquisition devices to be distributed with as much as 100 meters between units and still maintain high- or low-speed synchronous operation. The DI-789 repeater may be used when the distance between units exceeds 100 meters, or when ambient electrical noise renders long Ethernet runs unreliable.

The DI-789 is an enhanced Ethernet switch that is capable of managing the network to ensure that all data acquisition units in the chain remain synchronized. One or more DI-789s may be deployed with a maximum distance of 100 meters between other repeaters or data acquisition devices so that the maximum distance between a PC and one or more data acquisition units is virtually unlimited.

The DI-789 provides one each upstream and downstream RJ45 connector. Indicators consist of a power-on LED, and pair of LEDS that indicate upstream and downstream activity, and an LED that confirms network synchronization. The DI-789 is provided with an AC adaptor, and can also be powered from any 9-36VDC source.

Features

Status LEDs
Bright red and green LEDs provide convenient activity notification when using the DI-789. The Power LED (green) indicates that Power has been applied to the DI-789. Ethernet activity LEDs (Toward PC and Expansion - both green) indicate activity over the Ethernet Data Lines. The Lost Sync LED (red) warns when the units are no longer acquiring data synchronously.

Sync Management
Maintain synchronous data acquisition over distances greater than 100 meters with the DI-789. The DI-789 is an enhanced Ethernet switch that is capable of managing the network to ensure that all data acquisition units in the chain remain synchronized. Using a standard Ethernet switch will not allow the units to acquire data synchronously.

Compatibility
Use the DI-789 with any combination of DATAQ Instruments DI-788, DI-785, DI-720, or DI-730 Synchronous Ethernet data acquisition units.

9-36 VDC Power
All instruments are supplied with an adapter to operate from any convenient AC power outlet. Alternately, you can power the unit from any 9 to 36 VDC source.
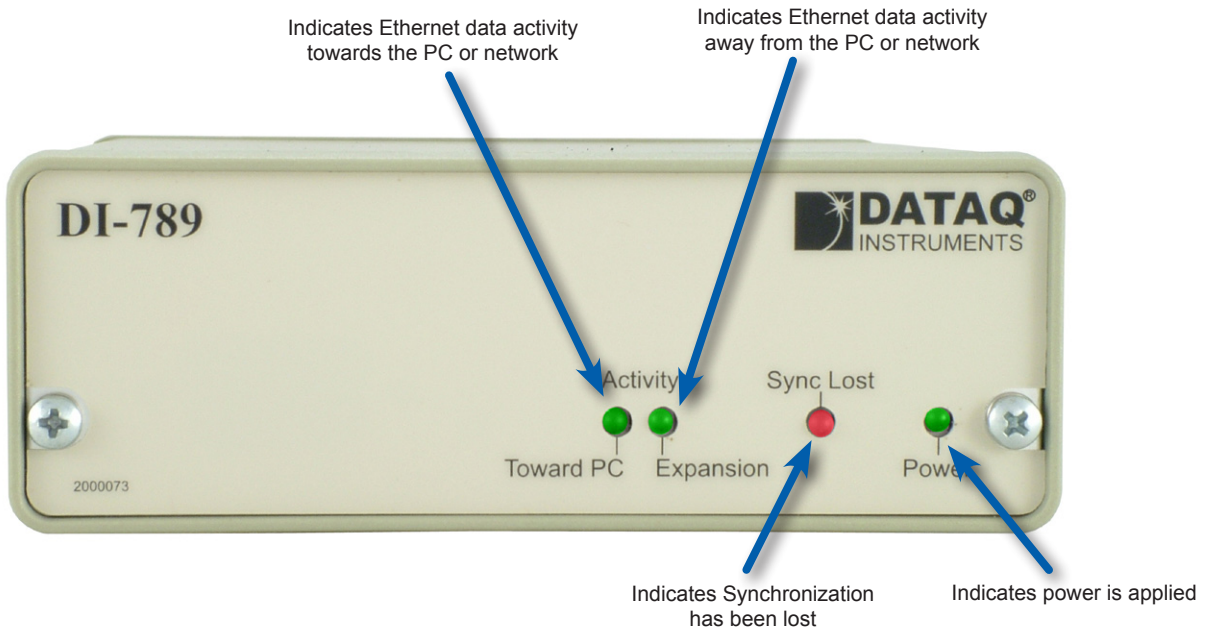
100 Meter Extension
Expand distances greater than 100 meters between Ethernet products while maintaining synchronous data acquisition using the DI-789 Repeater unit. One or more DI-789s may be deployed with a maximum distance of 100 meters between other repeaters or data acquisition devices so that the maximum distance between a PC and one or more data acquisition units is virtually unlimited.

Easy Set Up
Simply plug in power and connect the Ethernet cables to your daisy-chained Ethernet data acquisition units. Use the provided TCP/IP manager software to quickly set IP addresses and ensure your unit is properly configured in your network.
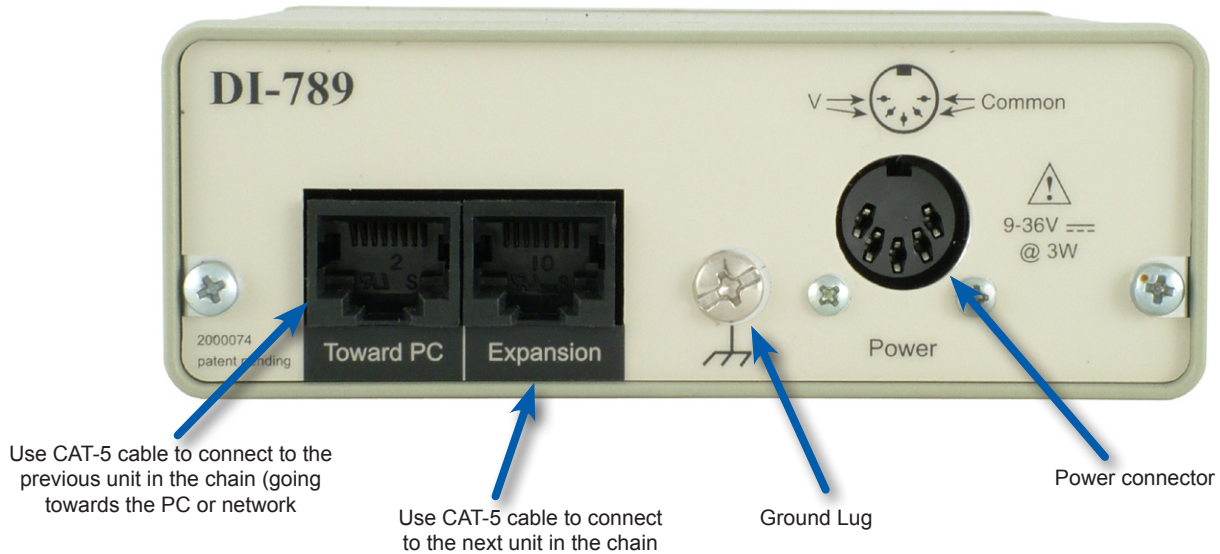
The DI-789 Front Panel consists of two LEDs for Ethernet activity, an LED to indicate Power is applied, and an LED to indicate when Synchronization is lost.

Indicates Ethernet data activity
towards the PC or network

Indicates Ethernet data activity
away from the PC or network

Activity   Sync Lost

Toward PC   Expansion   Power

Indicates Synchronization
has been lost

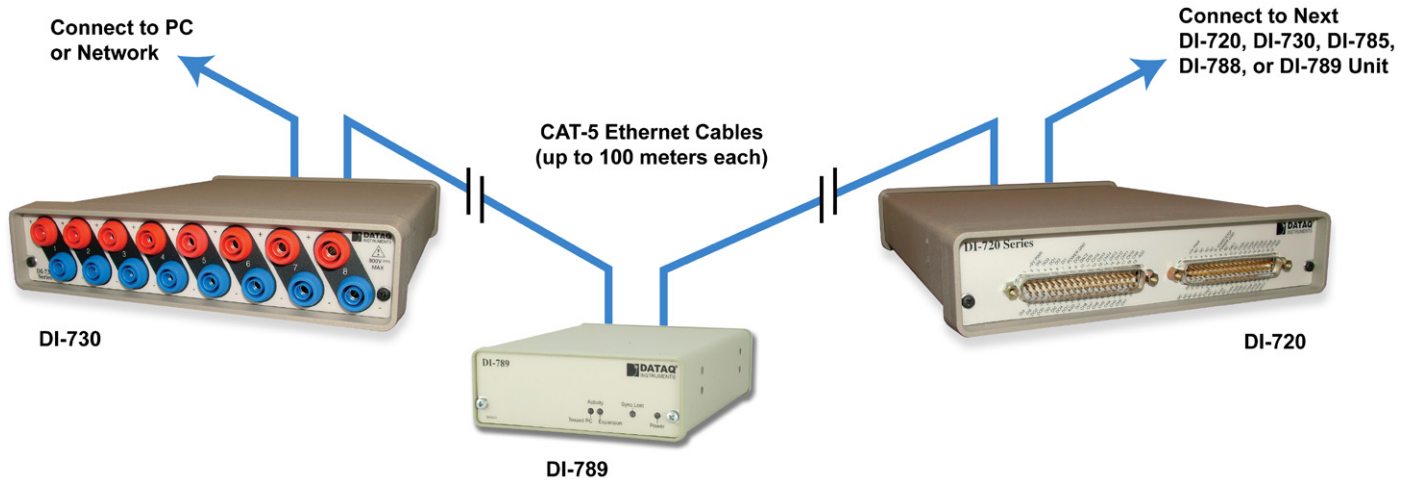Indicates power is applied

DI-789 Rear Panel

The DI-789 Front Panel contains two Ethernet ports (RJ45) to connect multiple Ethernet Synchronous data acquisition systems, a ground lug, and power connector.

V → → ← Common

9-36V ===
@ 3W

Toward PC   Expansion   Power

Use CAT-5 cable to connect to the
previous unit in the chain (going
towards the PC or network

Use CAT-5 cable to connect
to the next unit in the chain

Ground Lug

Power connector

Connect to PC or Network

Connect to Next DI-720, DI-730, DI-785, DI-788, or DI-789 Unit

CAT-5 Ethernet Cables (up to 100 meters each)

DI-730

DI-789

DI-720

DI-789 Specifications

Interface and Connections

Type:	Etherenet (RJ45)
Interface Connections:	2 (upstream synchronization and downstream synchronization)
Power:	Standard DIN power connector (DC power supply provided)
Ground:	Ground lug screw

Indicators

Front Panel:	Power LED (green); Upstream Ethernet activity LED (green); Downstream Ethernet activity LED (green); Lost Synchronization LED (red).
Rear Panel:	none

Power

Voltage Range:	9-36 VDC
Power Requirements:	< 5 Watts

Environmental

Operating Temperature:	-40°C to 70°C
Operating Humidity:	0 to 90% non-condensing
Storage Temperature:	-40°C to 70°C
Storage Humidity:	0 to 90% non-condensing

Physical Characteristics

Enclosure:	Aluminum base with steel wrap-around. Aluminum end-panels with plastic bezels.
Dimensions:	5.4D × 4.1W × 1.5H in. (13.81D × 10.48W × 3.81H cm.)
Weight:	14 oz. (397 grams)

Ordering Guide

Description	Order No.
DI-789 Repeater Board Enhanced Ethernet switch for use with DI-720, DI-730, DI-785, and DI-788 synchronous Ethernet products.	DI-789

DATAQ® INSTRUMENTS

241 Springside Drive
Akron, Ohio 44333
Phone: 330-668-1444
Fax: 330-666-5434

Data Acquisition Product Links

(click on text to jump to page)

Data Acquisition | Data Logger | Chart Recorder | Thermocouple | Oscilloscope