Honeywell

Q7055C Building Network Adapters
BNA-1C/2CS

FEATURES

- **Controller bus interface to Ethernet LAN.**
- **TCP/IP network capable.**
- **Offers wide range of network connectivity options.**
- **Easy configurable network interface.**
- **Online system diagnostic support.**
- **Communications panel mounting ears included.**
- **Cost effective replacement for dial-up connections.**
- **Preloaded with application software and default network address.**

APPLICATION

The Q7055C series Building Network Adapter (BNA) provides connection of a Honeywell Controller Communication Bus to an industry standard 10/100BaseT Ethernet LAN. It delivers exceptional price/performance to meet the requirements of both building owners and service providers.

With its combination of scalable performance, density and low per-port pricing, the BNA allows network-layer capabilities to be extended to a much wider range of network configurations and environments. Customers can now gain the advantages of high-performance network and services, including traffic management, to more locations throughout the network.

The Q7055C1009 BNA-1C provides a single RS-485 DC coupled C-Bus-compatible communication channel for Excel 800 and Excel 5000® family devices with up to 76.8 kbps and C-Bus compatible Excel IRC and Excel EMC devices with up to 9600 kbps.

The Q7055C1017 BNA-2CS provides two RS-485 DC coupled C-/S-Bus-compatible communication channels for Excel IRC, Excel Classic, and Excel EMC devices with up to 9.6 kbps, and Excel 800 and XL5000 family devices with up to 76.8 kbps.

The BNA uses the LAN connection to provide a seamless communication to the requesting device.

Status information, like *LAN communication activity*, *field bus traffic communication* and *system heartbeat* of the BNA is indicated by LEDs on the device front. See Fig.1.

SPECIFICATIONS

Models:
Q7055C1009 Building Network Adapter BNA-1C.
Q7055C1017 Building Network Adapter BNA-2CS.

Electrical Ratings:
Supply Voltage: 24 VAC, 50 to 60 Hz, 24 VDC (external power supply required).
Power Consumption: 8 VA.

Temperature Ratings:
Operating: 32° F to 122° F (0° C to 50° C).
Storage: -13° F to +185° F (-25° C to +85° C).

Humidity Ratings:
5 to 93% RH, non-condensing.

System Data:
Processor: 32-bit high-speed microprocessor.
Data Transfer: 10/100 Mbit/sec., 802.3 Ethernet.
LAN Interface: 10/100BaseT (RJ-45).
Field Bus: RS-485 DC coupled XL5000, C-/S-Bus.
Device Interface: Serial RS-232.
Memory Type: SDRAM, NOR & NAND Flash.
MTBF: > 100,000 hours.

Safety:
Protection Standard: IP20 according to EN60529.
Protection Class: II according to EN60730-1.
Flame Retardant: V0 according to UL 94.

Dimensions (W x H x D): 8-13/16 in. (224 mm) x 2-13/16 in. (72 mm) x 7-13/16 in. (199 mm).

Weight: 2.0 lb (0.9 kg).

Approvals:
BNA-1C/2CS:

Electromagnetic Compatibility (EMC): EN50081-1 and EN50082-2.

Electromagnetic Emission (EME): FCC Class A.

Energy Management: UL 916. PAZX.

Fire Protection and Smoke Control: UL 864, UUKL; Miscellaneous Signaling UL2017 QVAX.
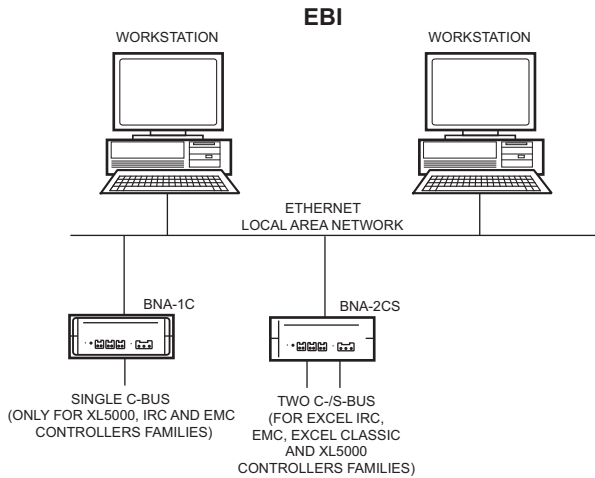
Additional Equipment:
DC Power Supply: 50017367-001 Jameco® Model No. DDU240050, 120 VAC, 60 Hz input, 24 VDC, 0.500 A output, wall mounted power cube Class 2 (included).

AC Power Supply: 120 VAC/50 to 60 Hz input, 24 VAC output, 14507287 series.

Mounting: 14006090-555151 Series Communication Panels.

14507678-004 Ditek Ethernet Port Surge Protector.

14502412-014 Lightning Protector.

SYSTEM OVERVIEW

Fig. 1 shows an application example of the BNA family devices in a Building Management System.

Fig. 1. Application block diagram.

Typical characteristics of the BNA components are as follows (see Fig. 2):
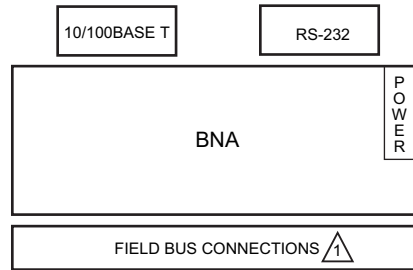
BNA: The BNA contains a high-speed state-of-the-art 32-bit microprocessor including a communication coprocessor designed for maximum performance. It is designed for reliable and robust operation under a wide range of operating conditions.

10/100BaseT: 10/100BaseT RJ-45 Ethernet LAN connector meets the requirements of ANSI/TIA/EIA 586 Category 5 for unshielded twisted pair connections.

RS-232: 9-pin SUB-D male RS-232 connector, electrically isolated, PC pin compatible, protected against spikes.

Field Bus: Depluggable connectors for field bus connection (channels 1 and 2) electrically isolated, meets the EMC and FCC requirements.

Power: 3-pole Phoenix power connector for 24 VAC/DC power supplies

Fig. 2. BNA components.

ORDERING INFORMATION

Model No.	Description	Shipping Wt.
Q7055C1009	BNA-1C Building Network Adapter supporting a single RS-485 DC coupled C-Bus.	3.0 lb. (1.4 kg)
Q7055C1017	BNA-2CS Building Network Adapter supporting two RS-485 DC coupled C-Buses.	

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