

GOTT ETHERNET SYSTEM TRAINER

Model Number : GOTT-ETHERNET-900



DESCRIPTION :

The GOTT-ETHERNET-900 Bus Coupler connects Ethernet with the modular, extendable electronic terminal blocks. One unit consists of one Bus Coupler, any number from 1 to 64 terminals and one end terminal. The Bus Couplers recognize the terminals to which they are connected, and perform the assignment of the inputs and outputs to the words of the process image automatically. The GOTT-ETHERNET-900 Bus Coupler supports 10 Mbit/s and 100 Mbit/s Ethernet. Connection is through normal RJ 45 connectors. The IP address is set on the DIP switch (offset to a freely selectable start address). In networks with DHCP (a service for the allocation of the logical IP address to the physical node address (MAC-ID) the Bus Coupler obtains its IP address from the DHCP server. Supports ADS TwinCAT system communication. TwinCAT I/O makes available configuration tools and Windows NT/2000/XP drivers for programs in any desired high-level language (DLLs) and for Visual Basic applications (ActiveX). Applications with OPC interfaces can access ADS via an OPC server, a simple master/slave protocol based on TCP/IP in wide application. Optionally, the Bus Terminals can also be controlled by the control system. Via function blocks (FBs), the programmable logic controller (PLC) or the PC or IPC handles configuration of the complete periphery during the start up phase. The controller carries out the desired setting automatically after switching on.

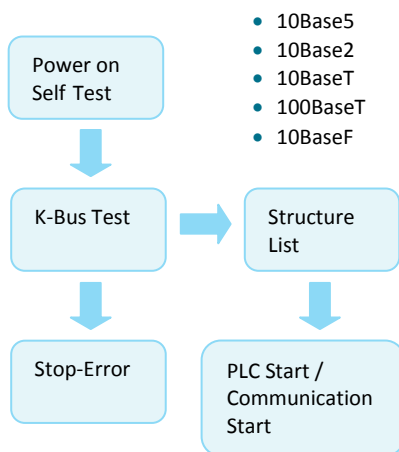
GENERAL SPECIFICATION

Operation Conditions	0 TO 45°C, 85% or Less (R.H.)
Input Power	AC 220V, 50/60Hz 1-Phase

SYSTEM DATA ETHERNET TCP/IP

- System data Ethernet TCP/IP
- Number of I/O modules only limited by IP addresses
- Number of I/O points depending on controller
- Data transfer medium 4 x 2 twisted pair copper cable
- Category 5 (100 Mbaud)
- Cable length 100 m between hub/switch and Bus Coupler
- Data transfer rate 10/100 Mbaud
- Topology star wiring

ETHERNET CABLE TRANSMISSION STANDARD



- 10Base5
- 10Base2
- 10BaseT
- 100BaseT
- 10BaseF

MECHANICAL FORMATION SET-UP

Thought and action in network systems

It is becoming more and more common for specialists and engineers to be responsible for operation and maintenance of complex automated production systems. This requires the seamless interaction of all the technologies involved. GOTT-FMS-1A forms the basis for general technological training using practical problems from actual operational applications. It provides the perfect platform for analyzing, understanding and mastering the interaction of mechanics, pneumatics, engineering, control technology and communication interfaces – all absolutely critical for proper and successful management of networked systems.

Besides the MAIN PANEL, there are 5 other stations, such as :

1. Distribution Station
2. Testing & Inspection Station
3. Handling & Assembly Station
4. Processing & Analyze Station
5. Sorting Station & Positioning Control

CONTROL SYSTEM FORMATION SET-UP

Network system operation – communication is key

GOTT-ETHERNET-900 systems are of modular design, with the modules or subsystems featuring powerful communication interfaces, such as the I/O coupling and Ethernet similar to those used in typical practical applications.

The control concept

Each station is equipped with its own controls. The only exception to this is the motion positioning station; in this case the servo controller also controls the position & communicates with the transport system via I/Os. Communication between the transport system & the GOTT-ETHERNET-900 of the stations also takes place via a straightforward I/O interface. This simple and clear structure facilitates quick and easy combination of the individual stations into a networked system.

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THE TRAINING AIMS

The multitude of stations and the technologies contained in them permit an investigation of almost all relevant areas of control and automation technology.

- Construction of pneumatic and electro-pneumatic circuits
- Learning about various sensors and actuators
- Application and TwinCat programming software
- Application of various handling devices and grippers
- Application of Pick & Place technology
- Application of various electrical drives
- Construction of a positioning control
- Networking of sensors and actuators
- Mode of object identification
- Technology of Human Machine Interface (HMI)
- Application of Touch Screen panel control and programming

The Training provides up to 10 individual stations for working in small groups of students – providing invaluable benefits for the practical side of training. Each station focuses on something different and offers various levels of complexity. The stations can be gradually brought together once the stationspecific training aims have been achieved.

Working station consist learning of :

- Object identification
- Valve terminal technology
- Networking technology
- HMI interface technology
- GOTT-ETHERNET-900 controller
- AC Servo drive system
- EMERGENCY-STOP
- I/O port for station
- Positioning controller
- Gripper for work pieces
- Control panel set-up
- Interface to the conveyor system
- Multi user access via TCP/IP Ethernet
- Overall Dimensions : 3000 x 500 mm

Optional Item :

- Barcode Scanner
- PC#1 to PC#5 in not included in this trainer

Manuals :

- (1) All manuals are written in English.
- (2) Model Answer
- (3) Teaching Manuals

General Terms :

- (1) Accessories will be provided where applicable.
- (2) Manuals & Training will be provided where applicable.
- (3) Designs & Specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

Warranty :

2 Years

Main control station specification

- Master computer with IP identification address
- 15" touch panel LCD screen
- TwinCat license software ready
- Windows OS pre-install
- Base 10/100 16 point Ethernet terminal Network Switch
- Network connection enable
- Wireless communication access

Sub station 1 ~ 3 specification

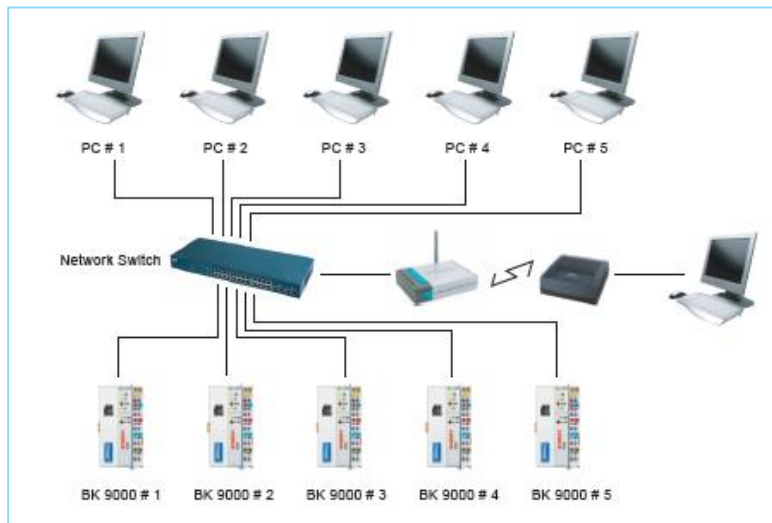
- Self operating system computer with network ready
- Individual IP configuration identification address
- TwinCat license software ready
- Windows OS pre-install
- Network connection enable

Sub station 4

- Self operating system computer with network ready
- Individual IP configuration identification address
- TwinCat license software ready
- Windows OS pre-install
- Serial connection Barcode scanner
- Network connection enable

Sub station 5

- Self operating system computer with network ready
- Individual IP configuration identification address
- TwinCat license software ready
- Windows OS pre-install
- Serial connection Servo controller
- Network connection enable



ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
GOTT ETHERNET TRAINING SYSTEM	GOTT-ETHERNET-900	1086-620

*Proposed design only, subject to changes without any notice.