FieldServer Protocol Driver Sheet
KNX

FS-8700-146 Version: 1.05 / Rev. 2.B

1 DESCRIPTION

The KNX driver allows the FieldServer to transfer data to and from devices using KNX protocol. The Fieldbus connection is included with the FieldServer. The FieldServer can emulate a Passive Client.

The KNX driver enables data access from KNX networks to other FieldServer protocols. Most KNX data point types are supported, allowing communication to almost any kind of KNX device in the installation, such as temperature sensors, shutters, light switches, actuators, alarms etc. This allows BMS systems to access a KNX network using direct read and write of KNX configured groups. This setup does not require the use of ETS4 to configure the QuickServer KNX gateway.

The KNX protocol is a connectionless protocol and therefore supports multiple clients and multiple servers.

The QuickServer is intended to act as a Passive Client on the KNX bus and make information available to other protocols.

1.1 Connection Facts

FieldServer Mode	Nodes	Comments
Client	255	Maximum number in a KNX bus zone

2 FORMAL DRIVER TYPE

Fieldbus

Passive Client

3 COMPATIBILITY

FieldServer Model	Compatible
FS-B35 Series	No
ProtoNode/ProtoAir	No
QuickServer FS-QS-10xx	No
QuickServer FS-QS-12xx	Yes
QuickServer FS-QS-20xx	No
QuickServer FS-QS-22xx	Yes

4 CONNECTION INFORMATION

Connection Type:	KNX
Baud Rates:	9600[1]
Data Bits:	8
Stop Bits:	1
Parity:	Odd Only
Hardware Interface:	KNX TP
Multidrop Capability:	Yes

5 DEVICES TESTED

Device	Tested (FACTORY, SITE)
UP562/11 Siemens Binary Relay Output	FACTORY
UP220/21 Siemens Pushbutton Interface	FACTORY
E981.03 Elmos KNX Temperature, Pushbutton & Dimmer Demoboard	FACTORY
RMU720B/RMU730B Siemens Universal Controllers	SITE
Input MTN649908	SITE
Switch MTN6174xx	SITE

[1] The FieldServer uses a baud rate of 19200 to communicate to the KNX modem that is installed in the FieldServer.

6 COMMUNICATIONS OPTIONS SUPPORTED

6.1 Data Types Supported

KNX Datapoint Name	Description	Recommended Data Array Value
DPT1	1-bit Binary Switch	BYTE
DPT2	2-bit Step Control	BYTE
DPT3	4-bit Dimming	BYTE
DPT4	8-bit Set	BYTE
DPT5	8-bit Unsigned Value	BYTE
DPT6	8-bit Signed Value	SINT16
DPT7	16-bit Unsigned Value	UINT16
DPT8	16-bit Signed Value	SINT16
DPT9	16-bit Floating point value	FLOAT
DPT12	32-bit Unsigned Value	UINT32
DPT13	32-bit Signed Value	SINT32
DPT14	32-bit Float	FLOAT
DPT15	32-bit Access	UINT32
DPT17	8-bit Scene Number	BYTE
DPT18	8-bit Scene Control	BYTE
DPT20	8-bit Enum Value	BYTE

6.2 Read Operations Supported

FieldServer as a Client	FieldServer as a Server
Request Group Address Values	Respond to Group Requests
	Store Group Address Values

6.3 Write (Control) Operations Supported

FieldServer as a Client	FieldServer as a Server
Broadcast Group Address Values	Broadcast Group Address Values

6.4 Unsupported Functions and Data Types

Function	Reason
Programming messages	FieldServer is a data transfer device so programming messages are not required

6.5 Functions Described

The communication nature on a KNX network are best described using ARS, RDBX and WRBX functions as opposed to RDBC and WRBC functions.

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