Doepke

DATA SHEET
DKG 20
Article number 09501188

Function

Central control devices process input signals and set output signals depending on their configured function. They also frequently offer interfaces for display. The DKG 20 and DKG 21-GSM channel generators are central units of the Dupline installation system. They provide the following main functions:Generating the bus signal for all other components connected to the Dupline bus; Supplying power to decentral components; Controlling the outputs in accordance with the inputs of the Dupline bus; Interface between Dupline bus and Modbus communication, e.g. memory-programmable controls or visualisation components; Transmitting and receiving SMSs for remote monitoring (DKG 21-GSM only).The configuration software ProLineNG, available free-of-charge, enables all parameters for the above-mentioned functions to be set. It can be downloaded without a licence fee from our homepage http://www.doepke.de. The configuration file provided will be permanently stored with ProLineNG in the channel generator and can also be saved on hard disk. You can also at any time retrieve, and modify, the configuration permanently stored in the DKG. The channel generators support a total of 128 functions (addresses), which can be assigned to a wide range of easy to set automation functions for buildings and industry. In addition, more complex functions can be set up with the aid of the logic connectives. The DKGs also support the operation of meter modules so that - when using workstations with appropriate software, e.g. the Doepke DPCamp interface software - the energy consumption can be recorded and analysed in accounting programmes and energy management systems. The automatic time synchronisation via the DCF signal and the possibility to set or read addresses by means of SMS (DKG 21-GSM only) bring down the possible applications to a round figure.

Features

Channel generator for a Dupline bus with 128 channels, Predefined objects: push-button function, timer, time switch, proximity detector, sensor, central and group command, shutter control, alarm systems (ISA, fire, break-in, water), Configuration software ProLineNG available free-of-charge, Logic connectives (AND, OR, XOR) to set up combined automation functions, LEDs for indicating operating voltage, bus signal, COM ports and GSM activity (DKG 21-GSM only), Interfaces/ports: 1 x Dupline, 1 x RS232 for configuration via ProLineNG, 1 x RS232 for connecting e.g. touch panel, PC and radio modems, baud rate selectable, 1 x RS485 for interlinking up to 32 DKG 20s/DKG 21-GSMs, 4 digital inputs, 4 digital outputs, Input for optional active DCF antenna for reception of the DCF signal from Rugby, Interconnection: Setting up a distributed Dupline system with the aid of radio modems, type Satel, or connecting up to 32 DKG 20s/DKG 21-GSMs with automatic data exchange and synchronisation of time, DKG 21-GSM: Dual band GSM modem (EGSM900/GSM1800) with external optional, Power supply 115/230 V AC

Mounting

quick fastening to mounting rail, any installation position

Applications

The channel generators are used in conjunction with other components of the Dupline bus system for the automation of buildings and processes, such asin private and commercially used buildings for controlling lighting, roller shutters, room temperature and for triggering alarms if a break-in occurs or a fire breaks out, for example;, in schools for saving energy through automated lighting and temperature control;, in shipyards for fire alarm during assembly;, in industrial facilities for reporting faults and controlling processes.

Notes

Due to the architecture of the COM port, operation with USB-to-RS-232 converters is usually not possible. If your PC or notebook does not have a COM/RS-232 interface, we recommend using our PCMCIA adaptor DCI 1 or similar, The number of channels cannot be extended by combining the bus lines of two or more DKG devices. Dupline bus lines of different channel generators must not be connected to each other.

Accessories

Cables DKK, Antennas DDA

Technical Data

Technical Data	DKG 20
Series	DKG 20
min. Switching threshold voltage	1.5 V
design	Dupline
min. IF Bus cycle time	24 ms
max. IF Bus cycle time	136 ms
IF Bus short-circuit protection available	true
Serial IF IF1 Specification	RS 232-C
Serial IF IF1 Protocols	Modbus I-RTU
Serial IF IF1 Transmission rate	115000 bit/s
Serial IF IF1 Transmission parameters	8 bit, no parity, 1 stop bit
max. Serial IF IF1 Cable length	3 m
Serial IF IF2 Specification	RS 232-C
Serial IF IF2 Protocols	Modbus I-RTU
Serial IF IF2 Transmission rate	2400 bit/s, 4800 bit/s, 9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, 115200 bit/s
Serial IF IF2 Transmission parameters	8 bit, no parity, 1 stop bit
max. Serial IF IF2 Cable length	3 m
Serial IF IF3 Specification	RS 485
Serial IF IF3 Protocols	Modbus I-RTU
Serial IF IF3 Transmission rate	2400 bit/s, 4800 bit/s, 9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, 115200 bit/s
max. Serial IF IF3 Cable length	1000 m
Accuracy clock time	1 min
Buffer time real-time clock	48 h
Operating voltage (AC)	115 V, 230 V (97.75 V ... 264.5 V)
Operating frequency	45 Hz ... 65 Hz
Internal consumption	max. 7 W
	Display Supply voltage
Type	LED (green)
	Display Bus signal
Type	LED (yellow)
Type	LED (red)
	Semiconductor input
number	4
Rated voltage (AC)	6 V ... 30 V
Rated voltage (DC)	6 V ... 30 V
Rated current	max. 6 mA
	Semiconductor output
Specification	Semiconductor
Number	4
Rated voltage (DC)	max. 35 V
	Screw-type terminal top (Bus connection)
Clamping area	0.4 mm² ... 2.5 mm²
General data description	General data
Operating position	any
Ambient temperature	0 °C ... 50 °C
Permissible humidity	max. 80 %
Housing type	Distributor housing

Technical Data	DKG 20
Mounting type	Mounting rail
Housing material	Polycarbonate (PC)
Protection class	IP20
Width	144 mm
Height	78 mm
Depth	75 mm
Width (modules)	8
Design requirements/Standards	EN 60664

Dimensions
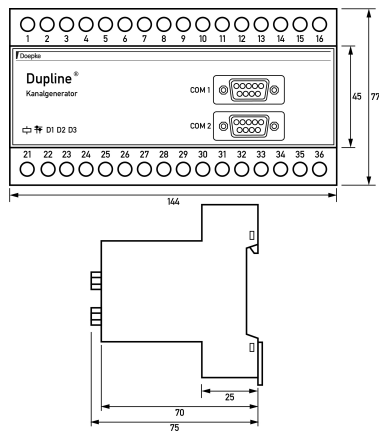
Dimensional drawing Group view