

Dupline® Field- and Installationbus Dupline® Ethernet Modbus/TCP Gateway Type G 3891 0052



User Manual

- Built-in Dupline® channel generator
- Modbus/TCP Slave
- 10 and 100 Mbit operation, full or half duplex
- Twisted pair cables
- Read/control 128 Dupline® inputs/outputs
- Split-I/O mode selectable (128 inputs and 128 outputs)
- Support of 3 1/2 digit BCD and AnaLink analog formats
- For mounting on DIN-rail (EN 50 022)
- LED indicators for supply, Dupline® carrier and fault
- LED indicators for Ethernet link, module status and activity
- AC power supply

Product Description

Dupline® Channel Generator with the function of an Ethernet Modbus/TCP slave. This means that digital as well as analog Dupline® I/O's can be read/controlled from Mod-

bus/TCP masters (PC's, PLC's etc.). The unit supports both Analink and Multiplexed analog signals. Several Dupline® gateways can be connected to the same Ethernet network.

Type Selection

Supply	Ordering no.
115/230 VAC	G 3891 0052 230

Input/Output Specifications

Ethernet Protocol Connector Communication Speed IP address setting	Modbus/TCP RJ45 (standard) 10 or 100 Mbit operation via DIP-switches or PC (arp command)
Dielectric voltage Ethernet – Dupline®	≥ 4 kVAC (rms)
Dupline® Output voltage Output current Short-circuit protection All channels ON detector Output impedance Sequence time	8.2 V ≤ 100 mA Yes Yes ≤ 15 Ω 132.3 ms (@ 128 channels)
Adjustments 1 x 16 pos. rotary switch	No. of Dupline® channels 8 .. 128 in steps of 8
DIP-switch 1 DIP-switch 2 DIP-switch 3 DIP-switch 4 DIP-switch 5-12	Dupline® mode (Normal/Split I/O) Dupline® analog Analog input protocol Analog output protocol IP address
Approvals Electrical safety	UL (pending)
CE-marking	Yes

Ordering Key

G 3891 0052 230

Type: Dupline®
H8-Housing
Type no.
Supply

General Specifications

Power ON delay	< 2.5 s until start of Dupline® carrier. < 40 s until correct reading of AnaLink values
Indication for Supply ON Dupline® carrier Fault Ethernet Link Ethernet Module Status Ethernet Activity	LED, green LED, yellow LED, red LED, green LED, green/red LED, green
Environment Degree of protection Pollution degree Operating temperature Storage temperature	IP 20 3 (IEC 60664) 0° to +50°C (+32° to +122°F) -20° to +85°C (-4° to +185°F)
Humidity (non-condensing)	20 to 80% RH
Mechanical resistance Shock Vibration	15 G (11 ms) 2 G (6 to 55 Hz)
Dimensions	H8-housing
Material	(see Technical information)
Weight	540 g



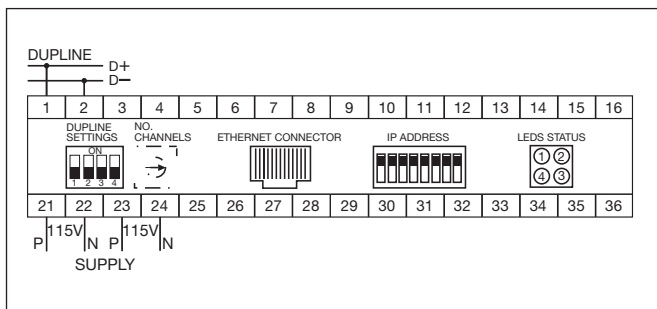
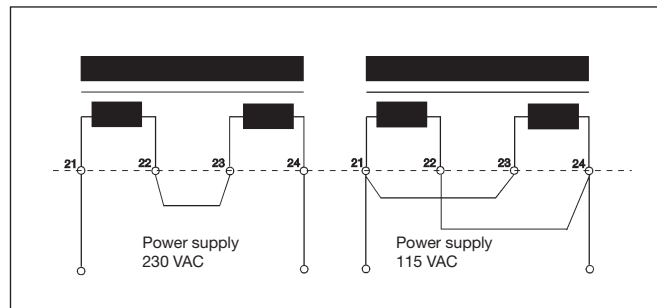
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Supply Specifications

Power supply	Overvoltage cat. III (IEC 60664)
Rated operational voltage through term. 21, 22, 23 & 24	See wiring diagram
230	230 VAC ± 15% (IEC 60038)
115	115 VAC ± 15% (IEC 60038)
Frequency	45 to 65 Hz
Rated operational power	11 VA
Rated impulse withstand voltage	4 kV
230	2.5 kV
115	
Dielectric voltage	
Supply - Dupline®	≥ 4 kVAC (rms)
Supply - RS 485	≥ 4 kVAC (rms)

Wiring Diagrams



Switch Settings

Number of Dupline Channels
 A: Group A 8 channels
 B: Groups A..B 16 channels
 P: Groups A..P 128 channels

<p>1: Dupline Operation Mode OFF: Normal (Peer-to-Peer) ON: Split I/O mode</p> <p>2: Dupline Data Transfer mode OFF: Digital only ON: Digital + Analog</p>	<p>3: Analog Input protocol OFF: AnaLink ON: Multiplex</p> <p>4: Analog Output protocol OFF: AnaLink ON: Multiplex</p>
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IP Address	Set DIP 8
arp	00000000
192.168.0.1	00000001
192.168.0.2	00000010
192.168.0.253	11111101
192.168.0.254	11111110
192.168.0.255	11111111

Ethernet LED Indicators (right hand side of the module)

	ON	OF	Blinking
LED 1	The module has a link	The module has no link	
LED 2	IP address set via arp cmd		IP address set via switches
LED 4			Blinks when a packet is received or transmitted