DIGICONTROL

A well thought out concept down to the smallest detail

Highest quality down to the smallest detail eliminates every flaw. Compliance with the VDE standards as well as the guidelines of VDI and VDMA, the CE mark and the quality certificate DIN EN ISO 9001 are a matter of course.

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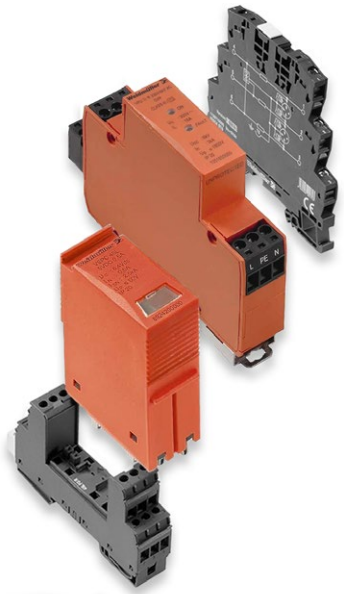
Overvoltage protection class III for automation stations



Overvoltage protection for automation stations in the areas of
- Data
- Measuring / controlling
- Energy distribution

Models:
- 1, 2- or 4-channel
- With or without remote signalling contact
- Assembly directly on mounting rail TS 35 or pluggable for usage in connection with respective base element

TECHNICAL DATA

Degree of pollution	2
Overvoltage category	III
Protection class	IP20
Storage temperature	-40...+80 °C
Operating temperature	-40...+70 °C
Ambient humidity	5...96 % rh.

TYPE LIST

TYPE	NO. OF CHANNELS	RSC	LEAKAGE CURRENT	CONNECTION	MOUNTING
VDATACAT6	1	no	5 kA	Ethernet	Mounting rail TS 35
VSPCRS4852CHR	2	yes	2.5 kA	RS485	pluggable on base
VSSC6RS485	1	no	2.5 kA	RS485	Mounting rail TS 35
VSPC2CLHF12VDC	2	no	2.5 kA	CAN bus	pluggable on base
VSPC2CLHF12VDCR	2	yes	2.5 kA	CAN bus	pluggable on base
VPUIIIR230/6	1	yes	3 kA	230 V AC	Mounting rail TS 35
VSPCMOV2CH24VR	2	yes	1 kA / 2.5 kA	24 V AC/DC signal	pluggable on base
VSSC6SLFGLD2405	2	no	2.5 kA	24 V AC/DC signal	Mounting rail TS 35
VSSC4SLFG24/0.5	1	no	2.5 kA	24 V AC/DC signal	Mounting rail TS 35
VSPCMOV2CH230VR	2	yes	1 kA / 2.5 kA	230 V AC	pluggable on base
VSPC1CL24VDCR	1	yes	2.5 kA	M bus	pluggable on base
VSSC6CLFG24/0.5	1	no	2.5 kA	M bus 0...10 V DC	Mounting rail TS 35

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TYPE LIST

TYPE	NO. OF CHANNELS	RSC	LEAKAGE CURRENT	CONNEC-TION	MOUNTING
VSPC2CL24VDCR	2	yes	2.5 kA	0...10 V DC 0...20 mA	pluggable on base
VSPC3/4WIRE24	1	no	2.5 kA	Pt1000	pluggable on base
VSSC6RTD	1	no	2.5 kA	Pt1000	Mounting rail TS 35
VSPC2SL24VDCR	2	yes	2.5 kA	24 V DC	pluggable on base
VSPC4SL24VDCR	4	yes	2.5 kA	24 V DC	pluggable on base
VSPC2SL24VACR	2	yes	2.5 kA	24 V AC	pluggable on base
VSSC6MOV24V	1	no	1 kA	24 V AC/DC	Mounting rail TS 35
VSSC6MOV240V	1	no	1.5 kA	230 V AC/DC	Mounting rail TS 35

ACCESSORY

TYPE	DESCRIPTION
VSPCBASE24CHFGR	Base element for assembling on the mounting rail TS 35 for overvoltage protection plug of types: VSPC MOV 2CH 24V R, VSPC MOV 2CH 230V R, VSPC RS485 2CH R
VSPCBASE2CLFG	Base element for assembling on the mounting rail TS 35 for overvoltage protection plug of types: VSPC 2CL HF 12VDC
VSPCBASE2CLFGR	Base element for assembling on the mounting rail TS 35 for overvoltage protection plug of types: VSPC 2CL 24VDC R, VSPC 2CL HF 12VDC R
VSPCBASE1CLFGR	Base element for assembling on the mounting rail TS 35 for overvoltage protection plug of types: VSPC 1CL 24VDC R
VSPCBASE24CHFG	Base element for assembling on the mounting rail TS 35 for overvoltage protection plug of types: VSPC 3/4WIRE 24VDC
VSPCBASE2SLFGR	Base element for assembling on the mounting rail TS 35 for overvoltage protection plug of types: VSPC 2SL 24VDC R, VSPC 2SL 24VAC R
VSPCBASE4SLFGR	Base element for assembling on the mounting rail TS 35 for overvoltage protection plug of types: VSPC 1CL 24VDC R

Voltage supply for automation stations

Switch-mode power supplies

PRO ECO 72 W 24 V 3 A | ...120 W 24 V 5 A | ...240 W 24 V 10 A | ...480 W 24 V 20 A

The switched-mode power supply units of the PRO ECO series provide all basic functions and convince with impressively high performance and flexibility. They feature a compact design, high efficiency and are extremely easy to service. They can be universally used thanks to temperature protection, short-circuit resistance and overload protection. They also have extensive safety functions and can be easily combined with the capacity module CP M CAP and the USP control unit CP DC UPS 24 V 20 A/10 A (in conjunction with the battery modules CP A BATTERY 24 V DC7.2 AH, CP A BATTERY 24 V DC12 AH) to provide redundant power supply. The power supply units are mounted horizontally on the TS 35 mounting rail.

TECHNICAL DATA

Floating contact	Yes
Insulation voltage	Input / Output: 3 kV
Protection against overheating	Yes
Relay	Output voltage > 21.6 V / < 20.4 V
Outputs	Voltage 24 V DC +/- 1 %
Inputs	Voltage 100...240 V AC
Leakage current	Max. 1 mA
Residual ripple	< 50 mV @ 24 V DC
Frequency band	47...63 Hz
Current consumption	@ 230/115 V AC: 0.6/1.1 A (...3 A); 1.2/2.4 A (...5 A); 1.2/2.4 A (...10 A); 2.4/4.8 A (...20 A)
Contact load	No contact: max. 30 V DC / 0.5 A
Mounting	Horizontal on mounting rail TS 35
Protection class	IP00
Protection class	I, with PE connection
Pollution degree	2
Operating temperature	-40...+85 °C
Ambient humidity	5...95 % relative humidity
Standards/rules/guidelines/ approvals	For use with electronic equipment according to EN50178 / VDE0160 Electrical machine equipment: according to EN60204 Protection against dangerous shock currents according to E0106-101 Safety extra-low voltage: SELV according to EN60950, PELV according to EN60204 Protective separation, protection against electrical shock: VDE0100-410 / according to DIN57100-410 Safety transformers for switched-mode power supply units: according to EN61558-2-17 eClass 6.2: 27-04-90-04 Limitation of mains voltage harmonic currents according to EN61000-3-2 Vibration resistance IEC 60068-2-6 : 1 g according to EN50178 Shock resistance IEC 60068-2-27: 15 g in all directions EN55022: Klasse B EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (Burst), EN 61000-4-5 (Surge), EN 61000-4-6 (conducted), EN 61000-4-8 (Fields), EN 61000-4-11 (Dips)

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TYPE LIST

TYPE	NOMINAL CURRENT	POWER CONSUMPTION	WEIGHT	DIMENSIONS
PROECO72/24/3	3 A	72 W	0.5 kg	34 x 125 x 100 mm
PROECO120/24/5	5 A	120 W	0.6 kg	40 x 125 x 100 mm
PROECO240/24/10	10 A	240 W	1.0 kg	60 x 125 x 100 mm
PROECO480/24/20	20 A	480 W	1.6 kg	100 x 125 x 120 mm

Voltage supply for automation stations

UPS - control unit

CP DC UPS 24 V 20 A/10 A

The UPS control unit CP DC UPS 24 V 20 A/10 A, the associated battery modules CP A BATTERY 24 V DC7.2/12 AH and the power supply units of the PRO ECO series form a complete DC UPS system. The input voltage from the UPS control unit is directly connected to the load in normal operation. The system immediately switches to battery operation in case of mains failure (drop of DC input voltage). As soon as the mains supply has been restored, the system switches back to the normal operating mode and the battery is fully recharged by means of the integrated charger. Three relay outputs, three additional active transistor outputs and a control input for locking battery operation provide full remote control via SPS or DCS control. Multiple operating modes and a comfortable status display provide fast fault diagnosis and optimum customisation to the application. It is installed horizontally on the mounting rail TS 35 in the control cabinet.

TECHNICAL DATA

Voltage	24 V
Parallel connection option	■ Battery: yes, max. 2 ■ Output: yes, max. 2; yes, with diode module
Floating contact	Yes
Overload protection	Yes
Outputs	Voltage 24 V DC +/- 1 %
Memory	Battery: 1.3/3.4/7.2/12/17 Ah; selectable with rotary switch
Nominal current	20 A @ 60 °C A
Residual ripple	< 50 mV @ 24 V DC
Current consumption	■ DC: max. 200 mA (without battery), max. 0.5 A (with fully charged battery) ■ typ. 55 mA @24 V DC / PoE Class 1 (0.44 - 3.84 W)
LED display	Three-colour LED battery capacity (max. load)
Weight	0.98 kg
Dimensions	66 x 130 x 150 mm
Protection class	IP00
Protection class	III, without PE connection, for SELV
Over-voltage category	III
Pollution degree	2
Operating temperature	-25...+70 °C
Ambient humidity	5...95 % rh., without condensation
Standards/rules/guidelines/ approvals	EN50178 / VDE0160; EN60204; VDE0106-101; VDE0100-410 / nach DIN57100-410

TYPE

CPDCUPS24/20-10

Voltage supply for automation stations

Battery modules for UPS control unit

CP A BATTERY 24 V DC7.2 AH | ...12 AH

The battery modules CP A BATTERY 24 V DC7.2/12 AH are used in conjunction with the UPS control unit CP DC UPS 24 V 20 A/10 A. They consist of high-quality Panasonic batteries. These are sealed, maintenance-free lead-fleece batteries. The battery modules are equipped with a temperture sensor to ensure optimum battery charging and battery life. This enables temperature-compensated charging of the batteries. The clear design and plug-in-connectors for the battery connection and the temperature probe allow a safe and quick installation of the batteries.

TECHNICAL DATA

Voltage	24 V DC
Parallel connection option	Yes
Battery type	Maintenance-free AGM lead-acid battery
Charging current	Max. 1.08 A (DC7.2 AH) / 1.80 A (DC12 AH)
Buffer time	■ 10 A: 26.5 min (DC7.2 AH) / 51 min (DC12 AH) ■ 20 A: 11.5 min (DC7.2 AH) / 22.7 min (DC12 AH) ■ 40 A: 5 min (DC7.2 AH) / 9.2 min (DC12 AH)
Protection against inverse voltage	Yes
Outputs	Electricity max. 50 A
Lifespan	At 20 °C: 9...12 years (DC7.2 AH) / 6...9 years (DC12 AH)
Storage temperature	-15...+40 °C
Operating temperature	0...+40 °C
Ambient humidity	5...95 % relative humidity
Standards/rules/guidelines/ approvals	Shock wall acc. to IEC 68-2-27: 30 g Vibration DIN rail/wall acc. to IEC 68-2-6: -/2.3 g eClass 6.2: 27-04-06-03
Other remarks	Series switching capability: No Latest commissioning: 9 months Temperature sensor NTC 100kΩ

TYPE LIST

TYPE	WEIGHT	TRICAL CHARGE	DIMENSIONS
CPABATT24/7.2	5.90 kg	7.2 Ah	162 x 155 x 134 mm
CPABATT24/12	9.22 kg	12.0 Ah	229 x 155 x 134 mm

Voltage supply for automation stations

Capacity module

CP M CAP

Redundant power supply systems increase the availability and consequently the operating time of machinery. The capacitance module CP M CAP enables safe power supply even during peak times (e.g. when the engine is started) and the specific triggering of circuit breakers. It can be installed in addition to the power supply at any time.
The relay module monitors the 24 V supply voltage. A quick and subsequent installation on the switched-mode power supply units of the PRO ECO series can be performed by means of a simple click-on assembly. It will be installed horizontally on the mounting rail TS 35 in the control cabinet.

TECHNICAL DATA

Voltage	24 V DC
Floating contact	Yes
Recovery time for the capacitor	Approx. 1 s
Insulation voltage	0.5 kV input/output housing
Switching thresholds	21.6 V DC, relay on for power good, 20.4 V DC, relay off for power fail
Voltage monitoring	Yes
Peak current output	Load-dependent (typ. 40 A for 1 ms)
Mounting	Horizontal on mounting rail TS 35
Lifespan	>500.000 h according IEC 1709 (SN29500)
Protection class	IP00
Protection class	III, without PE connection, for SELV
Pollution degree	2
Storage temperature	-40...+85 °C
Operating temperature	-25...+70 °C
Ambient humidity	5...95 % rh., without condensation
Standards/rules/guidelines/ approvals	Vibration resistance IEC 60068-2-5: 1 g according to EN´50178 Shock resistance IEC 60068-2-27: 15 g in all directions eClass 6.2: 27-04-92-01 eClass 7.1: 27-04-92-01 EN50178 / VDE0160; EN60204; SELV according to EN60950, PELV according to EN60204 EN55022: Class B EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (Burst), EN 61000-4-5 (Surge), EN 61000-4-6 (conducted), EN 61000-4-8 (Fields), EN 61000-4-11 (Dips)

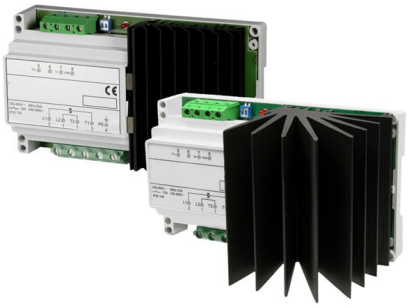
TYPE

CPMCAP

Electronic power controller

DIGICONTROL DC-ESL...

Data sheet number 52121



For quasi-continuous power control of ohmic loads, such as the heating elements in air heaters, steam generators, fan convectors etc. Suitable for all controllers with a control signal of 0...10 V, 2...10 V, 0...20 mA or 4...20 mA. Housing with heat sink and integrated circuit; for panel mounting on rails as per DIN/EN 50022. DIP switches for selecting the control signal. LED for displaying the switching status. Screw terminals for electric wires of 1 mm² (for control signals) and 4 mm² (power signals).

TECHNICAL DATA

Voltage	230...400 V~ +/- 20 %, 50...60Hz
Tolerance in power supply	± 20 %, 50...60 Hz
Activation	Control signal y: 0/2...10 V, Ri > 100 kΩ 0/4...20 mA, Ri < 170 Ω
Power consumption	Max. 5 VA
cos phi	> 0.95
Weight	0.5 kg
Protection class	IP20
Protection class	II
Over-voltage category	II
Storage temperature	-25...+65 °C
Operating temperature	0...+65 °C
Ambient humidity	0...95 % rh. (without condensation)
Standards/rules/guidelines/ approvals	CE Conformity EMC immunity EN 61000-6-1; 2 EMS Irradiation EN 61000-6-3; 4 Safety EN 60730-1

TYPE LIST

TYPE	SWITCHING POWER	NOMINAL CURRENT	SWITCHING	NUMBER OF ESL
DC-ESL116-3,7	3.7 kW	16 A	Single-phase	1
DC-ESL116-6,4	6.4 kW	16 A	Two-phase	1
DC-ESL116-11	11.0 kW	16 A	Y, Δ connection	2
DC-ESL116-19	19.0 kW	16 A	Δ connection	3

Electronic active energy consumption meters, single-phase, direct measuring

DIGICONTROL W-WLZ1D-M-Bus | W-WLZ1D-Modbus

The electronic single-phase energy meters with M bus/Modbus RTU interface enable reading of all relevant data, such as energy (total and partial) current, voltage, active and reactive power.

General specifications

- Single-phase energy meter, 230 V AC, 50 Hz
- Direct measurement up to 32 A
- Display of energy, active power, voltage and current
- M-Bus/Modbus interface for retrieving data
- Reactive power and cosφ available via interface
- Up to 250 (M-Bus) / 247 (Modbus) meters can be connected to the interface
- 7-digit LCD display
- Can be sealed with sealing cap (accessory)
- 1 tariff
- MID version

TECHNICAL DATA

Voltage	230 V AC, 50 Hz, -20/+15 %
Reference/maximal current	Iref = 5 A, Imax = 32 A
Starting/minimum current	Ist = 20 mA, Imin = 0.25 A
Version	Direct measuring meter up to 32 A Single-tariff meter Can be sealed with sealing cap (accessory)
Power consumption	0.4 W
Display	7-digit LCD (backlit, 5 mm high digits)
Electrical connection	■ Main circuit conductor cross-section max. 6 mm² ■ Control circuit conductor cross-section max. 2.5 mm²
Accuracy	Class B according EN50470-3 Class 1 according IEC62053-21
Mounting	Top hat rail 35 mm according EN60715
Counting range	00`000.00...99`999.99 100`000.0...999`999.9
Pulses per kWh	2000
Protection class	II
Insulation characteristics	4 kV / 50 Hz test according to VDE0435 for energy meters 6 kV 1.2 / 50 µs surge voltage according to IEC255-4 2 kV / 50 Hz test according to VDE0435 for interface
Storage temperature	-30...+85 °C
Operating temperature	-25...+55 °C
Ambient humidity	Max. 75 % rh. (without condensation)
Environment	Mechanical M2 Electromagnetic E2

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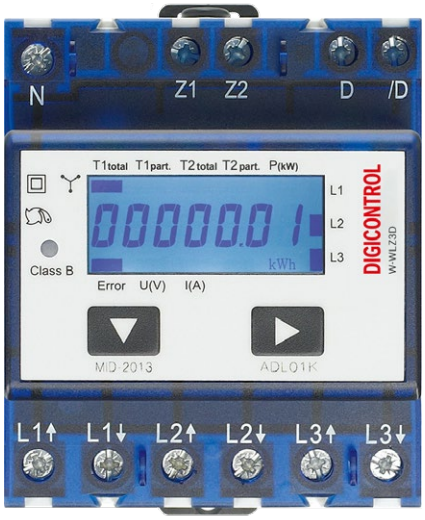
Standards/rules/guidelines/ approvals	Surge voltage according to IEC61000-4-5: At main circuit 4 kV At bus interface 1 kV Burst voltage according to IEC61000-4-4: At main circuit 4 kV At bus interface 1 kV ESD according to IEC61000-4-2: Contact 8 kV MID approved

TYPE LIST

TYPE	DATA SHEET	INTERFACES
W-WLZ1D-M-Bus	83430	M bus
W-WLZ1D-Modbus	83431	Modbus

Electronic active energy consumption meters, three-phase, direct measuring

DIGICONTROL WLZ3D-M-Bus | WLZ3D-Modbus



The electronic three-phase energy meters with M-Bus/Modbus RTU interface allow reading of all relevant data, such as energy (total and partial) current, voltage, active and reactive power.

General specifications

- Three-phase energy meter, 3x230/400 V AC, 50 Hz
- Direct measurement up to 65 A
- Display of energy, active power, voltage and current for each phase
- Display of total active power
- M-Bus/Modbus interface to query data
- Reactive power for each phase or total, available via interface
- Up to 250 (M-Bus) / 247 (Modbus) meters can be connected to the interface
- 7-digit LCD display
- Can be sealed with sealing cap (accessory)
- 2 tariffs
- MID version

TECHNICAL DATA

Voltage	3x 230/400 V AC, 50 Hz, -20/+15 %
Reference/maximal current	Iref = 10 A, Imax = 65 A
Starting/minimum current	Ist = 40 mA, Imin = 0.5 A
Version	Direct measuring meter up to 65 A Single- or two-tariff meter Can be sealed with sealing cap (accessory)
Power consumption	0.4 W per phase
Display	■ 7-digit LCD (backlit, 6 mm high digits) ■ Without mains voltage capacitor-aided LCD, maximum 2 times during 10 days
Electrical connection	■ Control circuit conductor cross-section max. 2.5 mm² ■ Main circuit conductor cross-section 1.5 - 16 mm²
Accuracy	Class B according EN50470-3 Class 1 according IEC62053-21
Mounting	Top hat rail 35 mm according EN60715
Counting range	00`000.00...99`999.99 100`000.0...999`999.9
Pulses per kWh	1000
Protection class	II
Insulation characteristics	4 kV / 50 Hz test according to VDE0435 for energy meters 6 kV 1.2 / 50 µs surge voltage according to IEC255-4 2 kV / 50 Hz test according to VDE0435 for interface
Storage temperature	-30...+85 °C
Operating temperature	-25...+55 °C
Ambient humidity	Max. 75 % rh. (without condensation)
Environment	Mechanical M2 Electromagnetic E2

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Standards/rules/guidelines/ approvals	Surge voltage according to IEC61000-4-5: At main circuit 4 kV At bus interface 1 kV Burst voltage according to IEC61000-4-4: At main circuit 4 kV At bus interface 1 kV ESD according to IEC61000-4-2: Contact 8 kV MID approved

TYPE LIST

TYPE	DATA SHEET	INTERFACES
W-WLZ3D-M-Bus	83440	M bus
W-WLZ3D-Modbus	83441	Modbus

Electronic active energy consumption meters, three-phase, transducer measuring

DIGICONTROL WLZ3W-M-Bus | WLZ3D-Modbus

The electronic three-phase energy meters with M bus/Modbus RTU interface enable the reading of all relevant data like energy (total and partial), current, voltage and active and reactive power.

General specifications

- 3-phase energy meter, 3x230/400 V AC, 50 Hz
- Measurement through a transformer 5...1500 A
- Display of energy, effective power, voltage and current per phase
- Display of total active power
- M-Bus/Modbus interface to retrieve the data
- Reactive power per phase or total, available via interface
- Up to 250 (M-Bus) / 247 (Modbus) meters can be connected with one interface
- 7-digit LCD display
- Can be sealed with sealing cap (accessory)
- 1 tariff
- MID version

TECHNICAL DATA

Voltage	3x 230/400 V AC, 50 Hz, -20/+15 %
Reference/maximal current	Iref = 5 A, Imax = 6 A
Starting/minimum current	Ist = 10 mA, Imin = 0.05 A
Converter ratio	5 : 5 / 50 : 5 / 100 : 5 / 150 : 5 / 200 : 5 / 250 : 5 / 300 : 5 / 400 : 5 / 500 : 5 / 600 : 5 / 750 : 5 / 1000 : 5 / 1250 : 5 / 1500 : 5
Version	Meter for transformer connection 5...1500 A Single-tariff meter Can be sealed with sealing cap (accessory)
Power consumption	0.4 W per phase
Display	■ 7-digit LCD (backlit, 6 mm high digits) ■ Without mains voltage capacitor-aided LCD, maximum 2 times during 10 days
Electrical connection	■ Control circuit conductor cross-section max. 2.5 mm² ■ Main circuit conductor cross-section 1.5 - 16 mm²
Accuracy	Class B according EN50470-3 Class 1 according IEC62053-21
Mounting	Top hat rail 35 mm according EN60715
Counting range	000`000.0...999`999.9 1`000`000...9`999`999
Pulses per kWh	10
Protection class	II
Insulation characteristics	4 kV / 50 Hz test according to VDE0435 for energy meters 6 kV 1.2 / 50 µs surge voltage according to IEC255-4 2 kV / 50 Hz test according to VDE0435 for interface
Storage temperature	-30...+85 °C
Operating temperature	-25...+55 °C
Ambient humidity	Max. 75 % rh. (without condensation)
Environment	Mechanical M2 Electromagnetic E2

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Standards/rules/guidelines/ approvals	Surge voltage according to IEC61000-4-5: At main circuit 4 kV At bus interface 1 kV Burst voltage according to IEC61000-4-4: At main circuit 4 kV At bus interface 1 kV ESD according to IEC61000-4-2: Contact 8 kV Air 15 kV MID approved

TYPE LIST

TYPE	DATA SHEET	INTERFACES
W-WLZ3W-M-Bus	83450	M bus
W-WLZ3W-Modbus	83451	Modbus

Carrier protocol converter

DIGICONTROL DC-COM-Serv

Data sheet number 51030

The DC-COM-Serv is used as carrier protocol converter for converting a standard M-Bus or Modbus to Ethernet TCP/IP. The serial interface of the server can be switched between the standards RS232, RS422 and RS485. 1x Com-Server Highspeed Industry and 1x product CD are included in the scope of delivery.

TECHNICAL DATA

Voltage	PoE or DC 24 V...48 V (+/- 10 %) bzw. AC 18 Veff...30 Veff (+/- 10 %)
Current consumption	typ. 55 mA @24 V DC / PoE Class 1 (0.44 - 3.84 W)
Electrical connection	Pluggable screw terminal
Interfaces	1xRS232-, RS422-interface, DB9 plug, switchable
Baud rate	50 ro 230.400 Baud
Data format	7.8 Data bit, 1.2 Stop bit No, Even, Odd, Mark, Space Parity
Flow control	Hardware handshake, XON-/XOFF-protocol of deselectable
Galvanic isolation	Min. 1500 Volt
Network	10/100 BR autosensing
Lifespan	637.767 h @25 °C gem. MIL-HDBK-217
Weight	Approx. 200 g
Housing	Plastic compact housing for top-hat rail mount
Dimensions	105 x 75 x 22 mm
Storage temperature	-40...+70 °C
Operating temperature	0...+60 °C
Ambient humidity	0...95 % rh. (without condensation)

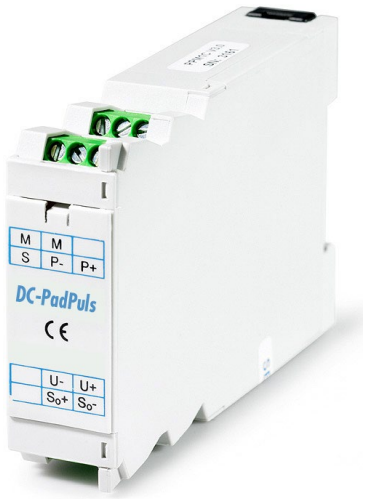
TYPE	INTERFACES
DC-COM-Serv	1xRS232-, RS422-interface, DB9 plug, switchable

Pulse adapter

DIGICONTROL DC-PadPuls

Data sheet number 83160

Single-channel pulse adapter DC-PadPuls used in consumption meters with pulse generators as appropriate M-Bus slaves. This way the consumption data of a simple water meter or an electric meter can be logged centrally by data telecommunication via the M-Bus.



Technical data

- Operation without an external power supply, power supply via M-Bus or built-in battery
- Full metering function also in battery mode (battery backup in case of bus failure)
- Connection: potential-free pulse generator (reed contact, optocoupler)
- Alternative connection of pulse generators with S0 interface according to DIN 43864 (external 24 V DC power supply unit necessary!)
- Maximum pulse frequency: 20 Hz; debouncing of pulse signals
- Adjustable pulse value and unit
- M-Bus protocol addcording to EN 1434-3
- Complete parameterizationvia the bus with write protection feature
- Mounting on DIN top hat rail

TYPE

DC-PadPuls

M-Bus Converter

DIGICONTROL PW...

The M-Bus converters of the series DC-PW are level converters / masters for the operation of M-Bus networks with up to 250 standard devices.

TYPE LIST

TYPE	DATA SHEET	MAX. NUMBER OF TERMINAL-DEVICES	INTERFACES
DC-PW3	51021	3	RS232 / M-Bus
DC-PW20	51022	20	RS232 / M-Bus
DC-PW60	51023	60	RS232 / M-Bus
DC-PW250-RS232	51024	250	RS232 / M-Bus
DC-PW250-RS485	51024	250	RS485 / M-Bus

Frequency converter 0.75 - 250kW | IP21

DIGICONTROL DC-ACH580-01-...

Data sheet number 61100

Frequency converter for building technology, for continuously variable speed control of three-phase asynchronous motors, permanent magnet synchronous motors and synchronous reluctance motors. It is used for fan-, pump- and compressor applications.With plain text display in different languages, manual-off-auto-function, help button for full-text search, backup and parameter copy function, alphanumerical and graphical representation of data, integrated real-time clock for diagnosis and control funcions, navigation buttons for simple operation, USB interface for parametrisation and operation via PC/ laptop. The operating panel can be removed without any tools.

TECHNICAL DATA

Outputs	■ 2 analogue outputs ■ Voltage signal 0 to 10 V, Rload: > 100 kΩ ■ Current signal 0 to 20 mA, Rload: > 500 Ω ■ Internal auxiliary voltage 24 V DC +/- 10 %, max. 250 mA ■ Max. switching voltage 250 V AC/30 V DC, max. continuous current 2 A eff.
Inputs	■ 2 analogue inputs ■ Selection of the current/voltage input mode via the operating panel ■ Voltage signal 0 (2) to 10 V, Rin > 200 kΩ ■ Current signal 0 (4) to 20 mA, Rin = 100 Ω ■ Potentiometer set point value 10 V +/- 1 % max. 20 mA ■ 6 digital inputs ■ 12 to 24 V DC, 24 V AC, connectivity of PTC sensors supported by a single digital input; PNP or NPN connector
Mains connection	Voltage and power range: three-phase, 380 to 480 Volts, +10/-15 %, automatic detection of supply voltage Frequency: 48 to 63 Hz Power factor of the fundamental oscillation: 0.98 Efficiency at rated output: 98 %
Sensor	■ Each analogue input and the digital input 6 can be configured for PTC with up to 6 transmitters. ■ Both analogue outputs can be used for the supply of the PT 100 sensors.
Electrical connection	Voltage: three-phase, from 0 up to supply voltage Frequency: 0 to 500 Hz
Slots	■ One slot for optional field bus modules: BACnet IP (2 ports), Profibus DP, Ethernet (EtherNet/IP, Modbus TCP, LonWorks ■ One slot for optional I/O extensions: external 24 V AC/DC, 2x RO/1xDO or 6xDI 115/230 V, 2xRO
Interfaces	■ Standard protocols (EIA 485): BACnet MS/TP, Modbus RTU and N2 ■ Available as external option: Ethernet-adapter for remote monitoring ■ Also available as pluggable options: BACnet/IP LonWorks, Modbus TCP etc.
Protection class	IP21
Storage temperature	-40...+70 °C
Operating temperature	-15...+50 (no frost allowed) °C
Ambient humidity	0...95 % rh. (without condensation)

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Standards/rules/guidelines/ approvals	Low-voltage directive 2006/95/EG EMV Guideline 2004/108/EG Quality assurance system ISO 9001 and environmental protection system in accordance with ISO 14001 CE-, UL-, cUL- and EAC authorisations Standards and guidelines: Potential separation in accordance with PELV RoHS (Limitation of hazardous substances) EN 61800-5-1:2007; IEC/EN 61000-3-12; EN 61800-3:2004 + A1:2012 category C2 (first Environment, restricted availability) Safe torque shut-off (EN 61800-5-2) EMV (in compliance with (EN 61800-3): Class C2 (first Environment, restricted availability) Harmonics: IEC/EN 61000-3-12

TYPE LIST

TYPE	I-OUTPUT	P-MOTOR	WEIGHT	DIMENSIONS
DC-ACH580-01-02A7-4	2.6 A	0.75 kW	4.5 kg	303 x 125 x 210 mm
DC-ACH580-01-03A4-4	3.3 A	1.1 kW	4.5 kg	303 x 125 x 210 mm
DC-ACH580-01-04A1-4	4.0 A	1.5 kW	4.5 kg	303 x 125 x 210 mm
DC-ACH580-01-05A7-4	5.6 A	2.2 kW	4.5 kg	303 x 125 x 210 mm
DC-ACH580-01-07A3-4	7.2 A	3 kW	4.6 kg	303 x 125 x 223 mm
DC-ACH580-01-09A5-4	9.4 A	4 kW	4.6 kg	303 x 125 x 223 mm
DC-ACH580-01-12A7-4	12.6 A	5.5 kW	4.6 kg	303 x 125 x 223 mm
DC-ACH580-01-018A-4	17 A	7.5 kW	7.5 kg	394 x 125 x 227 mm
DC-ACH580-01-026A-4	25 A	11 kW	7.5 kg	394 x 125 x 227 mm
DC-ACH580-01-033A-4	32 A	15 kW	14.9 kg	454 x 203 x 228 mm
DC-ACH580-01-039A-4	38 A	18.5 kW	14.9 kg	454 x 203 x 228 mm
DC-ACH580-01-046A-4	45 A	22 kW	14.9 kg	454 x 203 x 228 mm
DC-ACH580-01-062A-4	62 A	30 kW	19 kg	600 x 203 x 257 mm
DC-ACH580-01-073A-4	73 A	37 kW	19 kg	600 x 203 x 257 mm
DC-ACH580-01-088A-4	88 A	45 kW	34 kg	732 x 203 x 295 mm
DC-ACH580-01-106A-4	106 A	55 kW	34 kg	732 x 203 x 295 mm

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TYPE LIST

TYPE	I-OUTPUT	P-MOTOR	WEIGHT	DIMENSIONS
DC-ACH580-01-145A-4	145 A	75 kW	45 kg	726 x 252 x 369 mm
DC-ACH580-01-169A-4	169 A	90 kW	55 kg	880 x 284 x 370 mm
DC-ACH580-01-206A-4	206 A	110 kW	55 kg	880 x 284 x 370 mm
DC-ACH580-01-246A-4	246 A	132 kW	70 kg	965 x 300 x 393 mm
DC-ACH580-01-293A-4	293 A	160 kW	70 kg	965 x 300 x 393 mm
DC-ACH580-01-363A-4	363 A	200 kW	98 kg	955 x 380 x 418 mm
DC-ACH580-01-430A-4	430 A	250 kW	98 kg	955 x 380 x 418 mm

ACCESSORY

TYPE	DESCRIPTION
FBIP-21	Adapter module BACnet/IP (2-port)

Frequency converter 0.75 - 250kW | IP55

DIGICONTROL DC-ACH580-01-...

Data sheet number 61100

Frequency converter for building technology, for continuously variable speed control of three-phase asynchronous motors, permanent magnet synchronous motors and synchronous reluctance motors. It is used for fan-, pump- and compressor applications.With plain text display in different languages, manual-off-auto-function, help button for full-text search, backup and parameter copy function, alphanumerical and graphical representation of data, integrated real-time clock for diagnosis and control functions, navigation button for simple operation, USB interface for parametrisation and operation via PC/ laptop. The operating panel can be removed without any tools.

TECHNICAL DATA

Outputs	■ Internal auxiliary voltage 24 V DC +/- 10 %, max. 250 mA ■ 3 relay outputs ■ Voltage signal 0 to 10 V, Rload: > 100 kΩ ■ Current signal 0 to 20 mA, Rload: < 500 Ω ■ Max. switching voltage 250 V AC/30 V DC, max. continuous current 2 A eff. ■ 2 analogue outputs
Inputs	■ Selection of the current/voltage input mode via the operating panel ■ Voltage signal 0 (2) to 10 V, Rin > 200kΩ ■ 2 analogue inputs ■ 12 to 24 V DC, 24 V AC, connectivity of PTC sensors supported by a single digital input, PNP or NPN connector (5 DI with NPN connector) ■ 6 digital inputs ■ Potentiometer set point value 10 V +/- 1 % max. 20 mA ■ Current signal 0 (4) to 20 mA, Rin = 100 Ω
Mains connection	Voltage and power range: three-phase, 380 to 480 Volts, +10/-15% (from 0.75 to 250 kW), automatic detection of supply voltage Frequency: 48 to 63 Hz Power factor of the fundamental oscillation: 0.98 Efficiency at rated Output: 98%
Sensor	■ Each analogue input and the digital input 6 can be configured for PTC with up to 6 transmitters. ■ Both analogue outputs can be used for the supply of the PT 100 sensors.
Electrical connection	Voltage: three-phase, from 0 up to supply voltage Frequency: 0 to 500 Hz
Slots	■ One slot for optional I/O extensions: external 24 V AC/DC 2xRO/1xDO or 6xDI 115/230 V, 2XRO ■ One slot for optional field bus modules: BACnet IP (2-port), Profibus DP, Ethernet (EtherNet/IP, Modbus TCP, LonWorks
Interfaces	■ Available as external option: Ethernet-adapter for remote monitoring ■ Also available as pluggable options: BACnet/IP LonWorks, Modbus TCP etc. ■ Standard protocols (EIA 485): BACnet MS/TP, Modbus RTU and N2
Protection class	IP55
Storage temperature	-40...+70 °C
Operating temperature	-15...+50 (no frost allowed) °C
Ambient humidity	0...95 % rh. (without condensation)

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Standards/rules/guidelines/ approvals

Low-voltage directive 2006/95/EG
EMV guideline 2004/108/EG
Quality assurance system ISO 9001 and environmental protection system in accordance with ISO 14001
CE-, UL-, cUL- and EAC authorisations
Standards and guidlines:
Potential separation in accordance with PELV
RoHS (restriction of hazardous substances) EN 61800-5-1:2007; IEC/EN 61000-3-12; EN 61800-3:2004+A1:2012 category C2 (first Environment, restricted availability); Safe torque shut off (EN 61800-5-2)
EMV (in compliance with (EN 61800-3): Class C2 (first environment, restricted availability)
Harmonics: IEC/EN 61000-3-12

TYPE LIST

TYPE	I-OUTPUT	P-MOTOR	WEIGHT	DIMENSIONS
DC-ACH580-01-02A7-4+B056	2.6 A	0.75 kW	5.1 kg	303 x 125 x 222 mm
DC-ACH580-01-03A4-4+B056	3.3 A	1.1 kW	5.1 kg	303 x 125 x 222 mm
DC-ACH580-01-04A1-4+B056	4.0 A	1.5 kW	5.1 kg	303 x 125 x 222 mm
DC-ACH580-01-05A7-4+B056	5.6 A	2.2 kW	5.1 kg	303 x 125 x 222 mm
DC-ACH580-01-07A3-4+B056	7.2 A	3 kW	5.5 kg	303 x 125 x 233 mm
DC-ACH580-01-09A5-4+B056	9.4 A	4 kW	5.5 kg	303 x 125 x 233 mm
DC-ACH580-01-12A7-4+B056	12.6 A	5.5 kW	5.5 kg	303 x 125 x 233 mm
DC-ACH580-01-018A-4+B056	17 A	7.5 kW	7.8 kg	394 x 125 x 239 mm
DC-ACH580-01-026A-4+B056	25 A	11 kW	7.8 kg	394 x 125 x 239 mm
DC-ACH580-01-033A-4+B056	32 A	15 kW	15.1 kg	454 x 203 x 237 mm
DC-ACH580-01-039A-4+B056	38 A	18.5 kW	15.1 kg	454 x 203 x 237 mm
DC-ACH580-01-046A-4+B056	45 A	22 kW	15.1 kg	454 x 203 x 237 mm
DC-ACH580-01-062A-4+B056	62 A	30 kW	20 kg	600 x 203 x 265 mm
DC-ACH580-01-073A-4+B056	73 A	37 kW	20 kg	600 x 203 x 265 mm
DC-ACH580-01-088A-4+B056	88 A	45 kW	34 kg	732 x 203 x 320 mm
DC-ACH580-01-106A-4+B056	106 A	55 kW	34 kg	732 x 203 x 320 mm

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TYPE LIST

TYPE	I-OUTPUT	P-MOTOR	WEIGHT	DIMENSIONS
DC-ACH580-01-145A-4+B056	145 A	75 kW	46 kg	726 x 252 x 380 mm
DC-ACH580-01-169A-4+B056	169 A	90 kW	56 kg	880 x 284 x 381 mm
DC-ACH580-01-206A-4+B056	206 A	110 kW	56 kg	880 x 284 x 381 mm
DC-ACH580-01-246A-4+B056	246 A	132 kW	74 kg	965 x 300 x 452 mm
DC-ACH580-01-293A-4+B056	293 A	160 kW	74 kg	965 x 300 x 452 mm
DC-ACH580-01-363A-4+B056	363 A	200 kW	102 kg	955 x 380 x 477 mm
DC-ACH580-01-430A-4+B056	430 A	250 kW	102 kg	955 x 380 x 477 mm

ACCESSORY

TYPE	DESCRIPTION
FBIP-21	Adapter module BACnet/IP (2-port)