

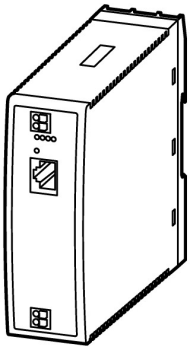
Control relay,24 V DC,SWD,4I,2Q,easyNet

Part no. EASY806-DC-SWD

Article no. 152902

Powering Business Worldwide™

Delivery programme



Product range			Control relays easyRelay
Product range			SmartWire-DT control relay easy800
Basic function			easy800 with SmartWire-DT
Description			Combines the functionality of an easy800 with direct connection to switchgear communication system for SmartWire-DT Up to 99 SmartWire-DT modules with a total of up to 166 inputs/outputs can be connected via a SmartWire-DT line
Inputs			
Digital input count			digital: 4
Digital			4
Of which can be used as outputs			2
SmartWire-DT			83
Outputs			
Type			Transistor
Quantity of outputs			Transistor: 2
Outputs		Number	2
Transistor			2
SmartWire-DT			83
Additional features			
Display			without display, without keypad
Expansions			SmartWire-DT Networkable (easyNet)
Supply voltage			24 V DC
Software			EASY-SOFT-PRO

Notes

Depending on the hardware, such as integrated analog input/output not supported

Count functions: 2 x incremental value counter up/down (per 2 inputs); 4 x high-speed counter single-channel (per 1 input);

4 x frequency counters (per 1 input)

2 x pulse-width modulated outputs (2 counter inputs omitted)

Approvals

NA Certification	Request filed for UL and CSA

General

Standards			EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27
Dimensions (W x H x D)		mm	35 x 110 x 125.5 (2 PE)
Weight		kg	0.16

Mounting			Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)

Terminal capacities

Solid		mm^2	0.2/1.5 (AWG 24 - 16)
Flexible with ferrule		mm^2	0.2/1.5 (AWG 24 - 16)

Climatic environmental conditions

Operating ambient temperature		°C	In accordance with IEC 60068-2-1, -25 - +55
Condensation			Take appropriate measures to prevent condensation
LCD display (clearly legible)		°C	0 - 55
Storage		°C	In accordance with IEC 60068-2-1, -2, -14 -40 - +70
relative humidity		%	nach IEC 60068-2-30, IEC 600068-2-78 5 - 95
Air pressure (operation)		hPa	795 - 1080

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP20
Vibrations		Hz	nach IEC 60068-2-6 konstante Amplitude 0.15 mm: 10 - 57 konstante Beschleunigung 2 g: 57 - 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Impacts	18
Drop to IEC/EN 60068-2-31	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	0.3
Mounting position			Vertical or horizontal

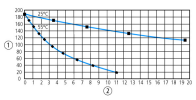
Electromagnetic compatibility (EMC)

Overvoltage category/pollution degree			III/2
Electrostatic discharge (ESD)			
applied standard			according to IEC EN 61000-4-2
Air discharge		kV	8
Contact discharge		kV	6
Electromagnetic fields (RFI), to IEC EN 61000-4-3		V/m	0.8 - 1.0 GHz: 10 1.4 - 2 GHz: 3 2.0 - 2.7 GHz: 1
Radio interference suppression			EN 55011 Class B
Burst			according to IEC/EN 61000-4-4 Supply cables: 2 Signal cables: 2 easyNet: 2 SWD lines: 2
power pulses (Surge)			according to IEC/EN 61000-4-5 1 kV (supply cables, symmetrical)
Immunity to line-conducted interference to (IEC/EN 61000-4-6)		V	10

Insulation resistance

Clearance in air and creepage distances			EN 50178, UL 508, CSA C22.2, No. 142
Insulation resistance			EN 50178

Back-up of real-time clock

Back-up of real-time clock			
			① Backup time (hours) with fully charged double layer capacitor ② Service life (years)
Accuracy of real-time clock to inputs		s/ day	typ. ± 2 (± 0.2 h/year)
			depending on ambient air temperature fluctuations of up to ± 5 s/day (± 0.5 h/year) are possible

Repetition accuracy of timing relays

Accuracy of timing relays (of values)		%	± 0.02
Resolution			
Range “S”		ms	5
Range “M:S”		s	1
Range “H:M”		min	1

Retentive memory

Write cycles of the retentive memory			10^{14} (read/write cycles)

Power supply

Rated operational voltage	U_e	V	24 DC (-15/+20%)
Permissible range			20.4 - 28.8 V DC
Residual ripple		%	≦ 5
Siemens MPI, (optional)			yes
Input current			normally 900 mA at U_e
Einschaltstrom- und dauer		A	12.5 für 6 ms
Voltage dips		ms	≤In accordance with IEC 61131-2 ≤ 10
Fuse		A	≧ 3 A (T) (e.g FAZ C3)

Digital inputs 24 V DC

Number			4
Status Display			LED
Potential isolation			from power supply: no between digital inputs: no from the outputs: no to COM interface: yes to easyNet: yes to AUX: yes to SmartWire-DT: no
Rated operational voltage	U_e	V DC	24
Input voltage		V DC	Signal 0: ≦ 5 (I1 - I4) Signal 1: ≧ 15 (I1 - I4)
Input current at signal 1		mA	I1 - I4: 3.9
Deceleration time		ms	20 (0 -> 1/1 -> 0, Debounce ON) normally 0.025 (0 -> 1/1 -> 0, Debounce OFF)
Cable length		m	100 (unshielded)
Frequency counter			
Number			4 (I1, I2, I3, I4)
Counter frequency		kHz	≦ 5
Pulse shape			Square
Pulse pause ratio			1:1
Cable length		m	≦ 20 (screened)
Incremental counter			
Number of counter inputs			2 (I1 + I2, I3 + I4)
Counter frequency		kHz	≦ 5
Pulse shape			Square
Signal offset			90°
Pulse pause ratio			1:1
Rapid counter inputs			
Number			4 (I1, I2, I3, I4)
Cable length		m	≦ 20 (screened)
Counter frequency		kHz	< 5
Pulse shape			Square
Pulse pause ratio			1:1

Transistor outputs

Number			2
Potential isolation			from power supply: no From the inputs: yes: no to COM interface: yes to easyNet: yes to AUX: yes
Rated operational current at signal „1" DC per channel	I_e	A	max. 0.1
Lamp load without R_v per channel		W	1.2
Residual current on 0 signal per channel		mA	< 0.1

Max. output voltage		V	2.5 (signal 0 at external load < 10 MΩ) U = U_e - 2 V (signal 1 at I_e = 0.1 A)
Short-circuit protection			Yes, electronic (Q1 - Q2)
Short-circuit tripping current for R_a ≦ 10 mΩ		A	0.15 - 0.35 per output depending on number of active channels and their load
Peak short-circuit current		A	10 A/80 ms (on short-circuit) 10 A/20 ms (on attempted restart of device after 10s)
Thermal cutout			no
Output status indication			LED

Supply voltage U_{Aux}

Rated operational voltage		V	24 V DC (-15/+20%)
Permissible range			20.4 - 28.8 V DC
Output voltage SWD-OUT			U_e - 0.3 V
Siemens MPI, (optional)			yes
Residual ripple on the input voltage		%	≦ 5
Max. current	I_{max}	A	3 (IEC) 2 (UL)
Short-circuit rating			no
Heat dissipation		W	Normally 1 W at 24 V DC
Potential isolation			from power supply POW: yes From the inputs: yes from the outputs: yes to COM interface: yes to easyNet: yes to SmartWire-DT: yes

SmartWire-DT supply voltage

Rated operating voltage	U_e	V	14.5 ± 3 %
max. current	I_{max}	A	0.7
Short-circuit rating			Yes
Potential isolation			from power supply POW: no From the inputs: yes: no from the outputs: no to COM interface: yes to easyNet: yes to AUX: yes

SmartWire-DT network

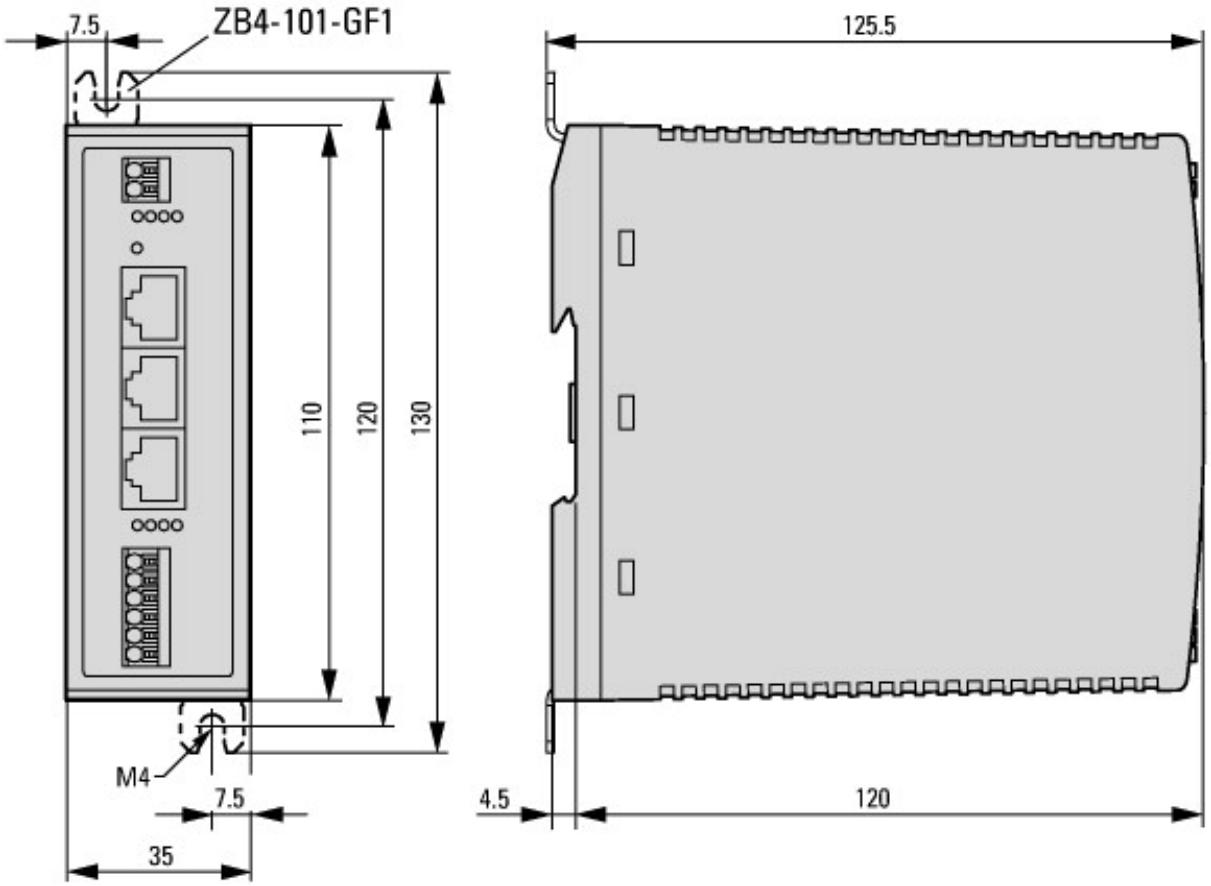
Station type			Master
Number of SmartWire-DT slaves			Max.600
Baud Rates		kBd	125/250
Address allocation			Automatically (via Configuration button)
Status indication		LED	SWD-LED: orange/green/red Config. LED: green/red
Connections			Plug, 8-pole
Plug connectors			Blade terminal SWD4-8MF2
Bus termination			Integrated in the device SmartWire-DT line end with SWD4-RC8-10

Netzwerk easyNet

Module		Count	Max.8
Data transfer rate/distance			1000 KBit/s, 6 m 500 KBit/s, 25 m 250 Kbit/s, 40 m 125 Kbit/s, 300 m 50 KBit/s, 300 m 20 KBit/s, 700 m 10 KBit/s, 1000 m Lengths from 40 m can be obtained only with cables with reinforced cross-section and terminal adapter.
Potential isolation			from power supply POW: yes From the inputs: yes from the outputs: yes to COM interface: yes to SmartWire-DT: yes to AUX: yes
Bus termination (first and last station)			ja
Anschlusstechnik			RJ45, 8-polig

Terminal capacity			up to 1000 m, < 16 mΩ/m: 1.5 (AWG: 16) up to 600 m, < 26 mΩ/m: 0.75 - 0.8 (AWG: 18) up to 600 m, < 26 mΩ/m: 0.5 - 0.6 (AWG: 20, 19) up to 400 m, < 40 mΩ/m: 0.34 - 0.5 (AWG: 22, 21, 20) up to 250 m, < 60 mΩ/m: 0.25 - 0.34 (AWG: 23, 22) up to 175 m, < 70 mΩ/m: 0.13 (AWG: 26) up to 40 m, < 140 mΩ/m: 1.5 (AWG: 16)

Dimensions



Additional product information (links)

IL05013041Z easy800-SWD	
IL05013041Z easy800-SWD	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013041Z2011_08.pdf
MN04902001Z-EN (AWB2528-1423) easy800 Control Relay	
MN04902001Z-DE (AWB2528-1423) Steuerrelais easy800 - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_DE.pdf
MN04902001Z-EN (AWB2528-1423) easy800 Control Relay - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_EN.pdf
BR05013001Z-EN, easy Family	http://www.moeller.net/binary/w_brochures/br05013001Z-en.pdf
Labeleditor	ftp://ftp.moeller.net/MFD/EASY-SOFT-PRO/labeleditor_206.exe

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