



**Control relay, 24 V DC, SmartWire-DT**

**Part no.** EASY802-DC-SWD  
**Catalog No.** 152901  
**Alternate Catalog No.** EASY802-DC-SWD  
**EL-Nummer (Norway)** 4520980



**Delivery program**

Product range		SmartWire-DT coordinators
Basic function		easy800 with SmartWire-DT
Description		Combines the functionality of an easy800 with direct connection to SmartWire-DT communication system Up to 99 SmartWire-DT modules with a total of up to 166 digital inputs/outputs and/or up to 128 analog inputs/outputs can be connected via a SmartWire-DT line
<b>Inputs</b>		
SmartWire-DT		83
<b>Outputs</b>		
SmartWire-DT		83
<b>Additional features</b>		
Real time clock		#
Expansions		SmartWire-DT
Supply voltage		24 V DC
Software		EASY-SOFT-PRO
Connection type		screw terminal
<b>Notes</b>		
Depending on the hardware, such as high-speed counter, PWM output, integrated analog input/output are not supported		

**Technical data**

<b>General</b>		
Standards		EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27
Approvals		CSA UL EAC
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 <sup>2</sup>	0.2/1.5 (AWG 24 - 16)
Flexible with ferrule	mm <sup>2</sup>	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
Storage	9	°C In accordance with IEC 60068-2-1, -2, -14 -40 - +70
relative humidity	%	in accordance with IEC 60068-2-30, IEC 60068-2-78 5 - 95
Air pressure (operation)	hPa	795 - 1080

**Ambient conditions, mechanical**

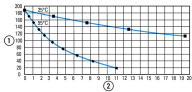
Protection type (IEC/EN 60529, EN50178, VBG 4)		IP20
Vibrations	Hz	In accordance with IEC 60068-2-6 constant amplitude 0.15 mm: 10 - 57 constant acceleration 2 g: 57 - 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms	Impacts	18
Drop to IEC/EN 60068-2-31	Drop height	mm 50
Free fall, packaged (IEC/EN 60068-2-32)	m	0.3

Mounting position			Vertical or horizontal
<b>Electromagnetic compatibility (EMC)</b>			
Overvoltage category/pollution degree			III/2
Electrostatic discharge (ESD)			
applied standard			nach 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		kV	according to IEC/EN 61000-4-4 Supply cables: 2 Signal cables: 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			
			<p>① Backup time (hours) with fully charged double layer capacitor</p> <p>② Service life (years)</p>
Accuracy of the real-time clock		s/day	typ. $\pm 2$ ( $\pm 0.2$ h/Year)
			depending on ambient air temperature fluctuations of up to $\pm 5$ s/day ( $\pm 0.5$ h/year) are possible

### Repetition accuracy of timing relays

Accuracy of timing relays (of values)		%	$\pm 0.02$
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)
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### Power supply

Rated operational voltage	$U_e$	V	24 DC (-15/+20%)
Permissible range	$U_e$		20.4 - 28.8 V DC
Residual ripple		%	$\leq 5$
Protection against polarity reversal			yes
Input current			normally 500 mA at $U_e$
Inrush current and length		A	12.5 for 6 ms
Voltage dips		ms	$\leq$ In accordance with IEC 61131-2 $\leq 10$
Fuse		A	$\geq 3$ A (T) (e.g. FAZ C3)
Power loss	P	W	Normally 1
Note on heat dissipation			Current consumption at 24 V DC

### Supply voltage $U_{Aux}$

Rated operational voltage	$U_{Aux}$	V	24 V DC (-15/+20%)
Permissible range			20.4 - 28.8 V DC
Output voltage SWD-OUT			$U_e - 0.3$ V
Protection against polarity reversal			yes
Residual ripple on the input voltage		%	$\leq 5$
Max. current	$I_{max}$	A	3 (IEC) 2 (UL)
Short-circuit rating			no
Heat dissipation			type. 1 W at 24 V DC

Potential isolation			from power supply POW: yes to COM interface: yes to SmartWire-DT: yes
Power loss	P	W	1
<b>SmartWire-DT supply voltage</b>			
Rated operating voltage	$U_e$	V	14.5 ± 3 %
max. current	$I_{max}$	A	0.4
Short-circuit rating			Yes
Potential isolation			from power supply POW: no to COM interface: yes to AUX: yes

### SmartWire-DT network

Station type			Master
Number of SmartWire-DT slaves			Max. 99
Baud Rates		kBd	125/250
Address allocation			Automatically (via Configuration button)
Status indication			SWD-LED: orange/green/red Config. LED: green/red
Connections			Plug, 8-pole
Plug connector			Blade terminal SWD4-8MF2
Bus termination			Integrated in the device SmartWire-DT line end with SWD4-RC8-10

## Design verification as per IEC/EN 61439

Technical data for design verification			
Static heat dissipation, non-current-dependent	$P_{vs}$	W	5
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			
			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			
			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			
			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			
			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			
			Meets the product standard's requirements.
10.2.5 Lifting			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			
			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			
			Meets the product standard's requirements.
10.4 Clearances and creepage distances			
			Meets the product standard's requirements.
10.5 Protection against electric shock			
			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			
			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			
			Is the panel builder's responsibility.
10.8 Connections for external conductors			
			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			
			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			
			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			
			Is the panel builder's responsibility.
10.10 Temperature rise			
			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			
			Is the panel builder's responsibility.
10.12 Electromagnetic compatibility			
			Is the panel builder's responsibility.
10.13 Mechanical function			
			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## Technical data ETIM 7.0

PLC's (EG000024) / Logic module (EC001417)
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / Logic module (ecl@ss10.0.1-27-24-22-16 [AKE539014])

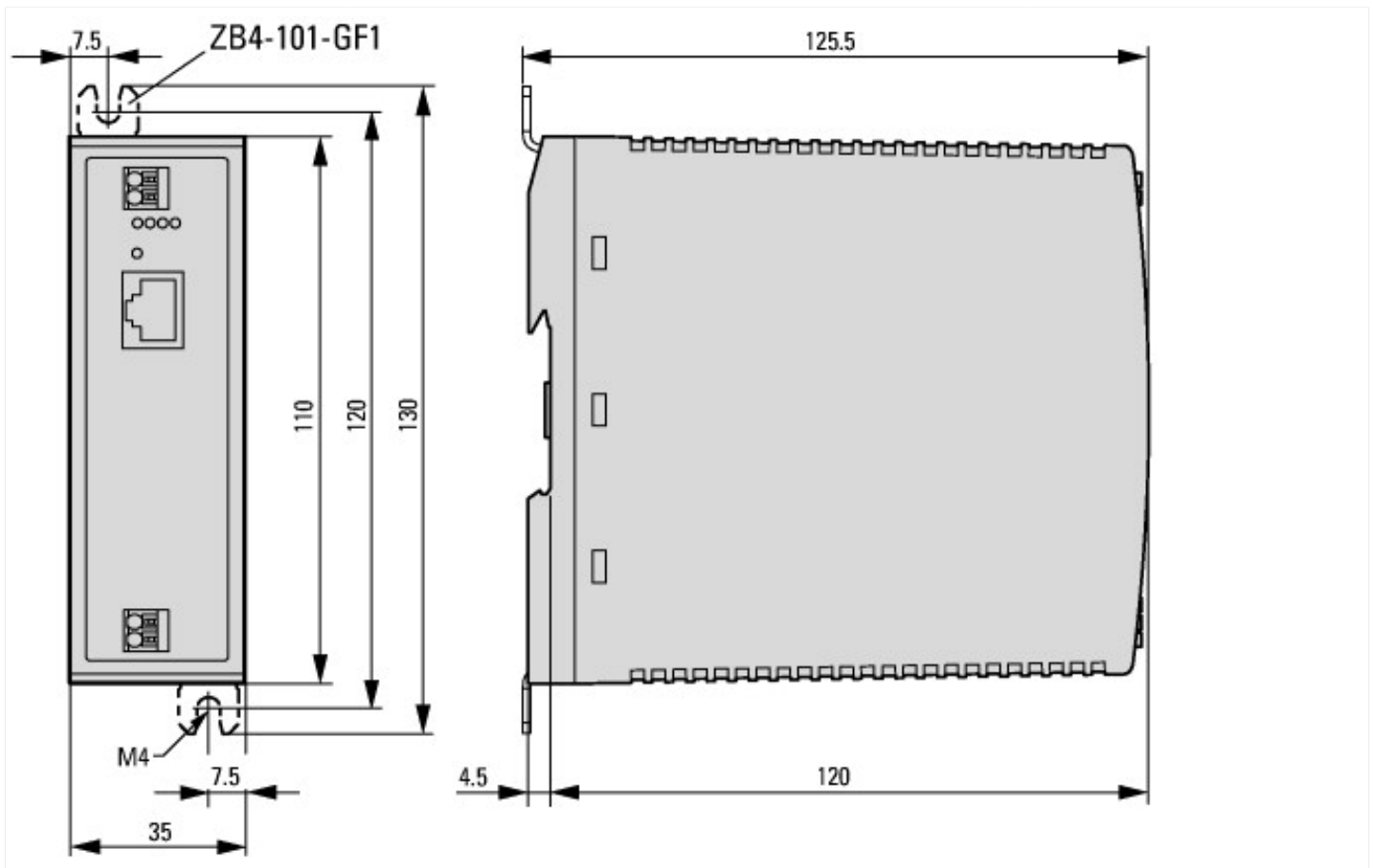
Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	20.4 - 28.8
Voltage type of supply voltage		DC
Switching current	A	0
Number of analogue inputs		0
Number of analogue outputs		0
Number of digital inputs		0
Number of digital outputs		0
With relay output		No
Number of HW-interfaces industrial Ethernet		0
Number of interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		0
Number of HW-interfaces parallel		0
Number of HW-interfaces Wireless		0
Number of HW-interfaces other		3
With optical interface		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
Redundancy		No
With display		No
Degree of protection (IP)		IP20
Basic device		Yes
Expandable		Yes
Expansion device		No

With timer		Yes
Rail mounting possible		Yes
Wall mounting/direct mounting		Yes
Front build in possible		No
Rack-assembly possible		No
Suitable for safety functions		No
Category according to EN 954-1		None
SIL according to IEC 61508		None
Performance level acc. EN ISO 13849-1		None
Appendant operation agent (Ex ia)		No
Appendant operation agent (Ex ib)		No
Explosion safety category for gas		None
Explosion safety category for dust		None
Width	mm	35
Height	mm	110
Depth	mm	125.5

## Approvals

Product Standards		IEC/EN see Technical Data; UL508; CSA C22.2 No. 142-M1987
UL File No.		E135462
UL Category Control No.		NRAQ, NRAQ7
CSA File No.		UL report applies to both US and Canada
CSA Class No.		2252-01 + 2258-02
North America Certification		UL listed, certified by UL for use in Canada
Degree of Protection		IEC: IP20, UL/CSA Type: -

## Dimensions



## Additional product information (links)

SmartWire-DT product range catalog	<a href="http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=12">http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=12</a>
Technical data	<a href="http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=54">http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=54</a>

