

DATASHEET - EU1H-SWD-2XD-1



SWD module for 3-way hydraulic valve IP65

Part no. EU1H-SWD-2XD-1
Catalog No. 191090
Alternate Catalog No. EU1H-SWD-2XD-1

Delivery program

Product range		SmartWire-DT slave
Basic function		Digital modules
Function		For connecting digital 3-way switching valves
Short Description		with supply
Connection to SmartWire-DT		yes

Technical data

General

Standards		IEC/EN 61131-2 EN 50178_x
Approvals		
Approvals		UL
Dimensions (W x H x D)	mm	44.7 x 77.4 x 51.9
Weight	kg	0.09
Mounting		Can be screwed onto valve connector in conformity with DIN EN 175301-803
Mounting position		As required

24 V DC supply for output supply

Power supply			
Power loss	P	W	2.5

Climatic environmental conditions

Air pressure (operation)		hPa	795 - 1080
Ambient temperature			
Operation	θ	°C	-25 - +70 (observe derating)
Storage / Transport	θ	°C	-40 - +85
Relative humidity			
Condensation			permissible
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 - 95

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP65
Vibrations (IEC/EN 61131-2:2008)			
Constant amplitude 3,5 mm		Hz	5 - 8.4
Constant acceleration 1 g		Hz	8.4 - 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 30 g/11 ms		Impacts	9
Drop to IEC/EN 60068-2-31	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	0.3

Electromagnetic compatibility (EMC)

Overvoltage category			II
Pollution degree			3
Electrostatic discharge (IEC/EN 61131-2:2008)			
Air discharge (Level 3)		kV	8
Contact discharge (Level 2)		kV	4
Electromagnetic fields (IEC/EN 61131-2:2008)			
80 - 1000 MHz		V/m	10
1.4 - 2 GHz		V/m	3
2 - 2.7 GHz		V/m	1
Radio interference suppression (SmartWire-DT)			EN 55011 Class A

Burst (IEC/EN 61131-2:2008, Level 3)			
Supply cable		kV	2
SmartWire-DT cables		kV	1
Surge (IEC/EN 61131-2:2008, Level 1)			
Surge power cables		kV	1
Radiated RFI (IEC/EN 61131-2:2008, Level 3)		V	10

SmartWire-DT network

Station type			SmartWire-DT slave
Setting the baud rate			automatic
Baud rate (data transfer speed)		kbps	maximum 125/250/500/1000/2000
Status SmartWire-DT		LED	Green
SWD-IN			M12 plug (A-keyed), 5 pole
SWD-OUT			M12 plug (A-keyed), 5 pole
Current consumption (24V, without sensor and without I/O supply)		mA	
Current consumption (24 V SWD supply)		mA	50
Sensor supply			
Overload and short-circuit proof			yes, with diagnostics

Connection supply and I/O

Terminal for I/O sensor			
Connection type			DIN-A valve connector, M12 socket (A-keyed), 4 pole

Digital semi-conductor outputs

Quantity			2
Output current		A	1.6 (at 60°C), 1.3 (at 70°C)
Overload proof			yes, with diagnostics
Maximum switching frequency		Hz	1
Status display outputs		LED	yellow

Supply voltage U_{Aux}

Rated operational voltage	U_{Aux}	V	24 V DC (-15/+20%)
Permissible range			20.4 - 28.8 V DC
Siemens MPI, (optional)			yes
Short-circuit rating			Not relevant
Potential isolation			Galvanically isolated from the SmartWire-DT network

Potential isolation

Outputs to SmartWire-DT			Yes
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Design verification as per IEC/EN 61439

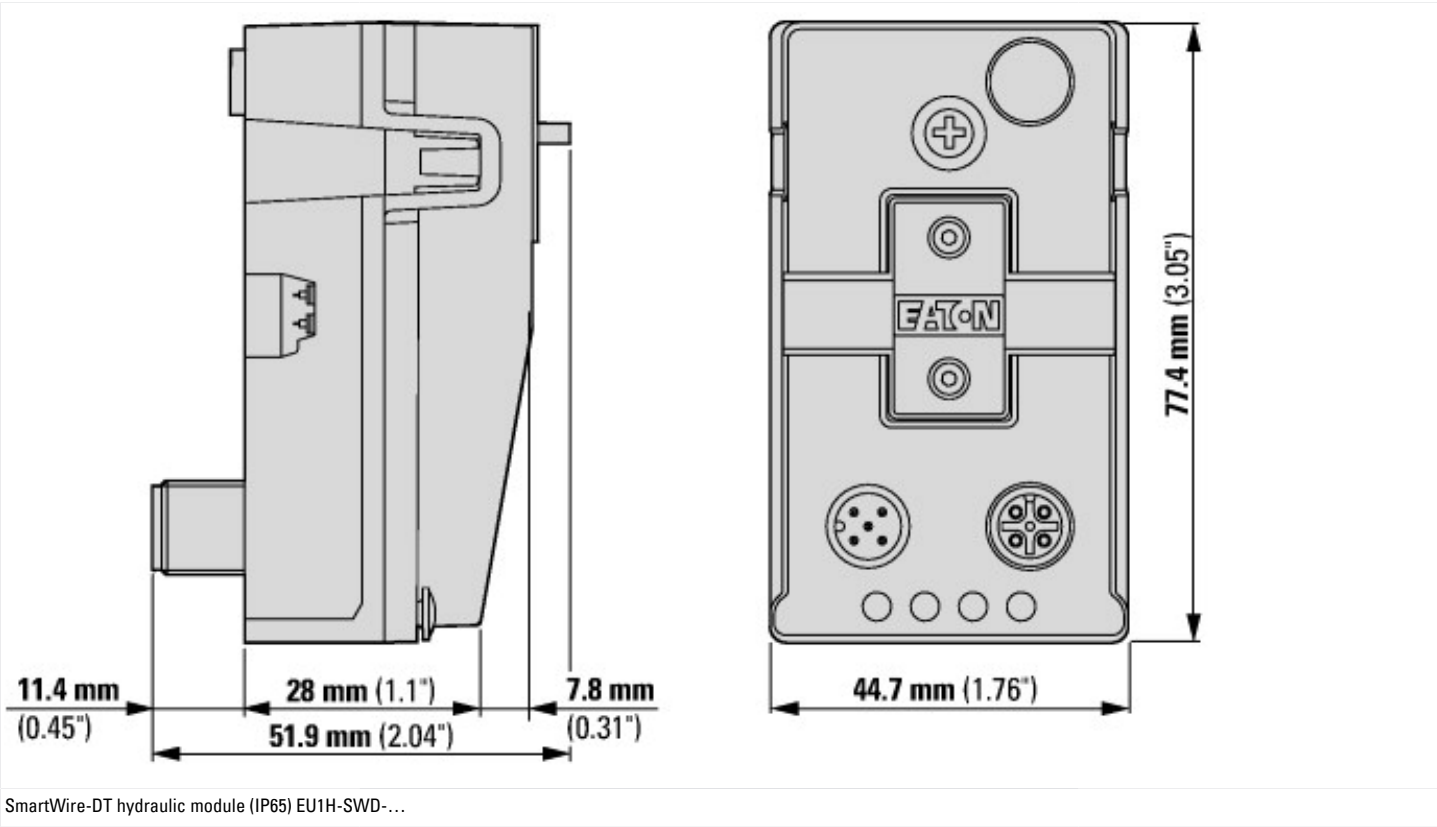
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	1.6
Equipment heat dissipation, current-dependent	P_{vid}	W	1
Static heat dissipation, non-current-dependent	P_{vs}	W	1.5
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
Degree of Protection			IP65
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.

Approvals

UL File No.		E205091
North America Certification		UL listed
Specially designed for North America		No

Dimensions



Assets (links)

Declaration of CE Conformity
00003025

Manuals
MN05006002Z_DE (German)
MN05006002Z_EN (English)
MN120006_DE (German)
MN120006_EN (English)

Additional product information (links)

Instruction leaflet SWD I/O modules EU1H-SWD-... IL120007Z	
Instruction leaflet SWD I/O modules EU1H-SWD-... IL120007Z	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL120007ZU.pdf
Manual SmartWire-DT, SWD module IP6x MN120006	

Handbuch SmartWire-DT, SWD-Modul IP6x MN120006 - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN120006_DE.pdf
Manual SmartWire-DT, SWD module IP6x MN120006 - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN120006_EN.pdf
MN05006002Z SmartWire-DT manual, The System	
MN05006002Z Handbuch SmartWire-DT, Das System - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_DE.pdf
MN05006002Z SmartWire-DT manual, The System - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_EN.pdf
MN05006002Z Manuale SmartWire-DT, il sistema - italiano	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_IT.pdf
f1=1457&f2=1181&f3=1188;SWD-ASSIST	http://applications.eaton.eu/sdlc?LX=11&f1=1457&f2=1181&f3=1188
Product overview WEB)	http://www.eaton.eu/swd