# Disclaimer. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

# analog output module MSA141 for Sepam series 20, 40, 60, 80



59647

# Main

Module Type	Analog output	
Range Of Product	Sepam series 80 NPP	
	Sepam series 20	
	Sepam series 80	
	Sepam series 48	
	Sepam series 40	
	Sepam series 60	
Device Short Name	MSA141	

# Complementary

Complementary	
Type Of Measurement	Apparent power ( 0.1 kVA )
	Remote setting via communication link
	Temperature ( 1 °C )
	Active power ( 0.1 kW )
	Frequency ( 0.01 Hz )
	Phase and residual current (0.1 A)
	Phase-to-neutral and phase-to-phase voltages ( 1 V )
	Power factor (0,01)
	Reactive power ( 0.1 kvar )
	Thermal capacity used ( 1 % )
Number Of Outputs	1 analog
Analogue Output Current	010 mA load impedance: < 600 Ohm (including wiring) accuracy: 0.5 %
	020 mA load impedance: < 600 Ohm (including wiring) accuracy: 0.5 %
	420 mA load impedance: < 600 Ohm (including wiring) accuracy: 0.5 $\%$
Mounting Mode	Fixed
Mounting Support	Symmetrical DIN rail
Height	88 mm
Width	144 mm
Depth	30 mm
Net Weight	0.2 kg
Mechanical Robustness	Earthquakes in operation (level: 2) : 1 Gn (vertical axes) conforming to IEC 60255-21-3
	Earthquakes in operation (level: 2) : 2 Gn (horizontal axes) conforming to IEC 60255-21-3
	Jolts de-energized (level: 2): 20 Gn/16 ms conforming to IEC 60255-21-2
	Shocks de-energized (level: 2): 27 Gn/11 ms conforming to IEC 60255-21-2
	Shocks in operation (level: 2): 10 Gn/11 ms conforming to IEC 60255-21-2
	Vibrations de-energized (level: 2): 2 Gn, 10 Hz150 Hz conforming to IEC
	60255-21-1
	Vibrations in operation (level: 2): 1 Gn, 10 Hz150 Hz conforming to IEC 60255-21-1
	Vibrations in operation (level: Fc) : 2 Hz13.2 Hz, a = +/- 1 mm conforming to IEC 60068-2-6

Auxiliary Connection Terminal	Analog output: screw-type connectors1 cable(s) wire 0.22.5 mm² Analog output: screw-type connectors2 cable(s) wire 0.21 mm² Earthing terminal: screw-type connectorscable 2.550 mm² Earthing terminal: screw-type connectorstinned copper braid 6100 mm²
Tightening Torque	Earthing terminal: 2.2 N.m

# Environment

### **Electromagnetic Compatibility**

1 MHz damped oscillating wave: (immunity tests-conducted disturbances), 2.5 kV CM, 1 kV DM, conforming to IEC 60255-22-1

1 MHz damped oscillating wave: (immunity tests-conducted disturbances), 2.5 kV CM, 2.5 kV DM, conforming to ANSI C37.90.1

100 kHz damped oscillating wave: (immunity tests-conducted disturbances), 2.5 kV CM, 1 kV DM, conforming to IEC 61000-4-12

Conducted disturbance emission: (emission tests), conforming to IEC 60255-25 Conducted disturbance emission: (emission tests), A, conforming to EN 55022 Disturbing field emission: (emission tests), conforming to IEC 60255-25 Disturbing field emission: (emission tests), A, conforming to EN 55022 Electrostatic discharge: (immunity tests-radiated disturbances), 8 kV air, 4 kV contact, conforming to ANSI C37.90.3

Electrostatic discharge: (immunity tests-radiated disturbances), 8 kV air, 6 kV contact, conforming to IEC 60255-22-2

Fast transient bursts: (immunity tests-conducted disturbances), 4kV, 2.5 kHz, conforming to ANSI C37.90.1

Fast transient bursts: (immunity tests-conducted disturbances), A and B, 4kV, 2.5 kHz/2 kV, 5 kHz, conforming to IEC 60255-22-4

Fast transient bursts: (immunity tests-conducted disturbances), IV, 4kV, 2.5 kHz, conforming to IEC 61000-4-4

Immunity to conducted RF disturbances: (immunity tests-conducted disturbances), III, 10 V, conforming to IEC 60255-22-6

Immunity to magnetic fields at network frequency: (immunity tests-radiated disturbances), IV, 30 A/m (continuous)-300 A/m (1-3 s), conforming to IEC 61000-4-8 Immunity to radiated fields: (immunity tests-radiated disturbances), 10 V/m, 80 MHz... 1 GHz. conforming to IEC 60255-22-3

Immunity to radiated fields: (immunity tests-radiated disturbances), 35 V/m, 25 MHz... 1 GHz, conforming to ANSI C37.90.2

Immunity to radiated fields: (immunity tests-radiated disturbances), III, 10 V/m, 80 MHz...2 GHz, conforming to IEC 61000-4-3

Surges: (immunity tests-conducted disturbances), III, 2 kV CM, 1 kV DM, conforming to IEC 61000-4-5

Voltage interruptions: (immunity tests-conducted disturbances), 100 % during 100 ms, conforming to IEC 60255-11

### Climatic Withstand

Influence of corrosion/gaz test 2 (in operation) : 21 days, 75 % RH, 25  $^{\circ}\text{C},\,0.5$  ppm H2S, 1 ppm S02 conforming to IEC 60068-2-60

Influence of corrosion/gaz test 4 (in operation) : 21 days, 75 % RH, 25 °C, 0.01 ppm H2S, 0.2 ppm S02, 0.2 ppm NO2, 0.01 ppm Cl2 conforming to IEC 60068-2-60 Continuous exposure to damp heat (in operation) : Cab: 10 days, 93 % RH, 40 °C conforming to IEC 60068-2-78

Continuous exposure to damp heat (in storage) : Cab: 56 days, 93 % RH, 40  $^{\circ}\text{C}$  conforming to IEC 60068-2-78

Continuous exposure to damp heat (in storage) : Db: 6 days, 95 % RH, 55  $^{\circ}\text{C}$  conforming to IEC 60068-2-30

Exposure to cold (in operation): Ad: - 25 °C conforming to IEC 60068-2-1 Exposure to cold (in storage): Ab: - 25 °C conforming to IEC 60068-2-1 Exposure to dry heat (in operation): Bd: 70 °C conforming to IEC 60068-2-2 Exposure to dry heat (in storage): Bb: 70 °C conforming to IEC 60068-2-2 Salt mist (in operation): Kb/2: 6 days conforming to IEC 60068-2-52

Temperature variation with specified variation rate (in storage) : Nb: - 25  $^{\circ}$ C to 70  $^{\circ}$ C, 5  $^{\circ}$ C/min conforming to IEC 60068-2-14

# Ambient Air Temperature For Operation

-25...70 °C

## **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.0 cm
Package 1 Width	12.3 cm
Package 1 Length	18.2 cm
Package 1 Weight	220.0 g

Unit Type Of Package 2	S02
Number Of Units In Package 2	8
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.0 kg

# Sustainability

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

# Well-being performance



Mercury Free



Rohs Exemption Information

Yes

# **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information