# Product data sheet
## Characteristics

# TM5SAO4L
analog output module, Modicon TM5, 4O, +/-10V, 0 to 20mA, 12bits



## Main

| | |
|---|---|
| Range of product | Modicon TM5 |
| Product or component type | Analog output module |
| Product compatibility | Logic controller<br>Motion controller |
| Range compatibility | Modicon LMC058<br>Modicon M258 |
| Analogue output number | 4 |

## Complementary

| | |
|---|---|
| Measurement resolution | 4.882 mV, +/- 10 V<br>9.766 µA, 0...20 mA |
| Colour | White |
| Response time | <= 1 ms |
| Temperature coefficient | 0.015 %FS/°C, analogue output type: current<br>0.015 %FS/°C, analogue output type: voltage |
| Supply | Internal |
| [Us] rated supply voltage | 24 V DC -15...20 % |
| Sampling duration | 300 Ms |
| Analogue output type | Current: 0...20 mA<br>Voltage: +/- 10 V |
| Load impedance ohmic | 200...500 Ohm current |
| Response time on output | <= 1 ms |
| Type of cable | Shielded cable |
| Measurement error | < 0.08 % of full scale +/- 10 V +/- 10 V 25 °C<br>< 0.08 % of full scale 0...20 mA 0...20 mA 25 °C |
| Non-linearity | < 0.005 %FS, analogue output type: current<br>< 0.005 %FS, analogue output type: voltage |
| Typical current consumption | 2 MA at 5 V DC<br>63 MA at 24 V DC input/output |
| Power dissipation in W | 1.51 W |
| Isolation between channels | None |
| Isolation between channels and bus | 500 Vrms AC |
| Local signalling | 1 LED green for power supply<br>1 LED red for power supply<br>4 LEDs yellow for output status |
| Housing colour | White |
| Height | 99 Mm |
| Width | 12.5 Mm |
| Depth | 75 Mm |
| Net weight | 0.025 Kg |

## Environment

| | |
|---|---|
| IP degree of protection | IP20 |
| Marking | CE |
| Product certifications | CULus[RETURN]GOST-R[RETURN]CSA[RETURN]C-Tick |
| Standards | IEC 61131-2<br>CSA C22.2 No 213<br>UL 508<br>CSA C22.2 No 142 |
| Ambient air temperature for operation | 0…55 °C without derating (horizontal installation)<br>0…60 °C with derating factor (horizontal installation)<br>0…50 °C (vertical installation) |
| Ambient air temperature for storage | -25…70 °C |
| Relative humidity | 5…95 % without condensation |
| Operating altitude | 0...2000 m |
| Pollution degree | 2 |
| Vibration resistance | 1 gn (f = 8.4…150 Hz) on DIN rail<br>3.5 mm (f = 5…8.4 Hz) on DIN rail |
| Shock resistance | 15 gn for 11 ms |

## Packing Units

| | |
|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 2.000 Cm |
| Package 1 Width | 6.000 Cm |
| Package 1 Length | 11.000 Cm |
| Package 1 Weight | 39.000 G |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 97 |
| Package 2 Height | 15.000 Cm |
| Package 2 Width | 30.000 Cm |
| Package 2 Length | 40.000 Cm |
| Package 2 Weight | 4.471 Kg |

## Offer Sustainability

| | |
|---|---|
| Recyclability potential, in % | 0 |
| Total lifecycle Carbon footprint | 62 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 1.3128094835892783 |
| Carbon footprint of the manufacturing phase [A1 to A3] | 1 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 0.013655386248670175 |
| Carbon footprint of the distribution phase [A4] | 0 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0.026934615911367 |
| Carbon footprint of the installation phase [A5] | 0 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 60.910953263776626 |
| REACh free of SVHC | Yes |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 61 kg CO2 eq. |
| Toxic heavy metal free | Yes |
| Mercury free | Yes |
| Sustainable packaging | No |
| Carbon footprint of the end-of-life phase [C1 to C4] | 0.06221197119903745 |
| Carbon footprint of the end-of-life phase [C1 to C4] | 0.1 kg CO2 eq. |
| Environmental Disclosure | Product Environmental Profile |
| Total lifecycle Carbon footprint | 62 |
| Packaging made with recycled cardboard | No |
| Packaging without single use plastic | Yes |
| REACh Regulation | Free of Substances of Very High Concern above the threshold |

| | |
|---|---|
| EU RoHS Directive | Compliant By Exemption |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, w |
| PVC free | Yes |
| End of life manual availability | End Of Life Information |
| Take-back | No |
| WEEE Label | The product must be disposed on European Union markets following specific waste collection a |

## Contractual warranty

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|---|---|
| Warranty (in months) | 18 |

Product Life Status : Commercialised