## CONFIGURATION PARAMETERS – MODULE (PAGE 1)

| | | | | | |
|---|---|---|---|---|---|
| 101 | Contrast | 0 (%) | 118 | Disable CAN Speed Control | On (1), Off (0) |
| 102 | Fast Loading Enabled | On (1), Off (0) | 119 | Auto Light Control In Manual | On (1), Off (0) |
| 103 | All Warnings Latched | On (1), Off (0) | 120 | Manual Light Sequence Control Display | On (1), Off (0) |
| 104 | Lamp Test At Startup | On (1), Off (0) | 121 | Manual Individual Light Control Display | On (1), Off (0) |
| 105 | Power Save Mode Enable | On (1), Off (0) | 122 | Manual All Light Control Display | On (1), Off (0) |
| 106 | Deep Sleep Mode Enable | On (1), Off (0) | 123 | Generator Volt Display | On (1), Off (0) |
| 107 | Protected Start Enable | On (1), Off (0) | 124 | Generator Hz Display | On (1), Off (0) |
| 108 | Event Log Display Format | On (1), Off (0) | 125 | Current Display | On (1), Off (0) |
| 109 | Power Up Mode | 0 (Power Up Mode) | 126 | kW Display | On (1), Off (0) |
| 110 | DTC String Enable | On (1), Off (0) | 127 | kvar Display | On (1), Off (0) |
| 111 | Pin Protected Maintenance Reset | On (1), Off (0) | 128 | kV A Display | On (1), Off (0) |
| 112 | Stop Button Cooldown | On (1), Off (0) | 129 | pf Display | On (1), Off (0) |
| 113 | Use Module Oil Pressure | On (1), Off (0) | 130 | kW h Display | On (1), Off (0) |
| 114 | Use Module Coolant Temp | On (1), Off (0) | 131 | kvar h Display | On (1), Off (0) |
| 115 | Use Module Engine Hours | On (1), Off (0) | 132 | kV A h Display | On (1), Off (0) |
| 116 | Use Module RPM | On (1), Off (0) | 133 | Mains Supply Voltage Display | On (1), Off (0) |
| 117 | Use Module Charge Alt | On (1), Off (0) | 134 | Mains Supply Hz Display | On (1), Off (0) |

## CONFIGURATION PARAMETERS – CAN APPLICATION (PAGE 2)

| | | | | | |
|---|---|---|---|---|---|
| 201 | CAN Alternative Engine Speed | On (1), Off (0) | 203 | CAN ECU Data Fail Action | 0 (Action) |
| 202 | CAN ECU Data Fail Enable | On (1), Off (0) | 204 | CAN ECU Data Fail Delay | 0 s |

## CONFIGURATION PARAMETERS – DIGITAL INPUTS (PAGE 3)

| | | |
|---|---|---|
| 301 | Low Fuel Shutdown Light Output 1 Enable | On (1), Off (0) |
| 302 | Low Fuel Shutdown Light Output 1 Level | 0 % |
| 303 | Low Fuel Shutdown Light Output 1 Timer | 0 s |
| 304 | Low Fuel Shutdown Light Output 2 Enable | On (1), Off (0) |
| 305 | Low Fuel Shutdown Light Output 2 Level | 0 % |
| 306 | Low Fuel Shutdown Light Output 2 Timer | 0 s |
| 307 | Low Fuel Shutdown Light Output 3 Enable | On (1), Off (0) |
| 308 | Low Fuel Shutdown Light Output 3 Level | 0 % |
| 309 | Low Fuel Shutdown Light Output 3 Timer | 0 s |
| 310 | Low Fuel Shutdown Light Output 4 Enable | On (1), Off (0) |
| 311 | Low Fuel Shutdown Light Output 4 Level | 0 % |
| 312 | Low Fuel Shutdown Light Output 4 Timer | 0 s |
| 313 | Digital Input A Source | 0 (Input Source) |
| 314 | Digital Input A Polarity | 0 (Polarity) |
| 315 | Digital Input A Action (If Source = User Config) | 0 (Action) |
| 316 | Digital Input A Arming (If Source = User Config) | 0 (Arming) |
| 317 | Digital Input A Activation Delay (If Source = User Config) | 0 s |
| 318 | Digital Input B Source | 0 (Input Source) |
| 319 | Digital Input B Polarity | 0 (Polarity) |
| 320 | Digital Input B Action (If Source = User Config) | 0 (Action) |
| 321 | Digital Input B Arming (If Source = User Config) | 0 (Arming) |
| 322 | Digital Input B Activation Delay (If Source = User Config) | 0 s |
| 323 | Digital Input C Source | 0 (Input Source) |
| 324 | Digital Input C Polarity | 0 (Polarity) |
| 325 | Digital Input C Action (If Source = User Config) | 0 (Action) |
| 326 | Digital Input C Arming (If Source = User Config) | 0 (Arming) |
| 327 | Digital Input C Activation Delay (If Source = User Config) | 0 s |
| 328 | Digital Input D Source | 0 (Input Source) |
| 329 | Digital Input D Polarity | 0 (Polarity) |
| 330 | Digital Input D Action (If Source = User Config) | 0 (Action) |
| 331 | Digital Input D Arming (If Source = User Config) | 0 (Arming) |
| 332 | Digital Input D Activation Delay (If Source = User Config) | 0 s |
| 333 | Digital Input E Source | 0 (Input Source) |
| 334 | Digital Input E Polarity | 0 (Polarity) |
| 335 | Digital Input E Action (If Source = User Config) | 0 (Action) |
| 336 | Digital Input E Arming (If Source = User Config) | 0 (Arming) |
| 337 | Digital Input E Activation Delay (If Source = User Config) | 0 s |
| 338 | Digital Input F Source | 0 (Input Source) |
| 339 | Digital Input F Polarity | 0 (Polarity) |
| 340 | Digital Input F Action (If Source = User Config) | 0 (Action) |
| 341 | Digital Input F Arming (If Source = User Config) | 0 (Arming) |
| 342 | Digital Input F Activation Delay (If Source = User Config) | 0 s |
| 343 | Analogue Input A (Set As Digital) Source | 0 (Input Source) |
| 344 | Analogue Input A (Set As Digital) Polarity | 0 (Polarity) |
| 345 | Analogue Input A (Set As Digital) Action (If Source = User Config) | 0 (Action) |
| 346 | Analogue Input A (Set As Digital) Arming (If Source = User Config) | 0 (Arming) |
| 347 | Analogue Input A (Set As Digital) Activation Delay (If Source = User Config) | 0 s |
| 348 | Analogue Input B (Set As Digital) Source | 0 (Input Source) |
| 349 | Analogue Input B (Set As Digital) Polarity | 0 (Polarity) |
| 350 | Analogue Input B (Set As Digital) Action (If Source = User Config) | 0 (Action) |
| 351 | Analogue Input B (Set As Digital) Arming (If Source = User Config) | 0 (Arming) |
| 352 | Analogue Input B (Set As Digital) Activation Delay (If Source = User Config) | 0 s |
| 353 | Analogue Input C (Set As Digital) Source | 0 (Input Source) |
| 354 | Analogue Input C (Set As Digital) Polarity | 0 (Polarity) |
| 355 | Analogue Input C (Set As Digital) Action (If Source = User Config) | 0 (Action) |
| 356 | Analogue Input C (Set As Digital) Arming (If Source = User Config) | 0 (Arming) |
| 357 | Analogue Input C (Set As Digital) Activation Delay (If Source = User Config) | 0 s |

| ALARM ACTION | | FLEXIBLE SENSOR ALARM ACTION | | POWER UP MODE | |
|---|---|---|---|---|---|
| Index | Action | Index | Action | Index | Mode |
| 0 | Electrical Trip | 0 | None | 0 | Stop |
| 1 | Shutdown | 1 | Shutdown | 1 | Manual |
| 2 | Warning | 2 | Electrical Trip | 2 | Auto |

## CONFIGURATION PARAMETERS – OUTPUTS (PAGE 4)

| | | | | | |
|---|---|---|---|---|---|
| 401 | Digital Output A Source | 0 (Output Source) | 411 | Digital Output F Source | 0 (Output Source) |
| 402 | Digital Output A Polarity | 0 (Output Polarity) | 412 | Digital Output F Polarity | 0 (Output Polarity) |
| 403 | Digital Output B Source | 0 (Output Source) | 413 | Digital Output G Source | 0 (Output Source) |
| 404 | Digital Output B Polarity | 0 (Output Polarity) | 414 | Digital Output G Polarity | 0 (Output Polarity) |
| 405 | Digital Output C Source | 0 (Output Source) | 415 | Digital Output H Source | 0 (Output Source) |
| 406 | Digital Output C Polarity | 0 (Output Polarity) | 416 | Digital Output H Polarity | 0 (Output Polarity) |
| 407 | Digital Output D Source | 0 (Output Source) | 417 | Digital Output I Source | 0 (Output Source) |
| 408 | Digital Output D Polarity | 0 (Output Polarity) | 418 | Digital Output I Polarity | 0 (Output Polarity) |
| 409 | Digital Output E Source | 0 (Output Source) | 419 | Digital Output J Source | 0 (Output Source) |
| 410 | Digital Output E Polarity | 0 (Output Polarity) | 420 | Digital Output J Polarity | 0 (Output Polarity) |

## CONFIGURATION PARAMETERS – TIMERS (PAGE 5)

| | | | | | |
|---|---|---|---|---|---|
| 501 | Start Delay | 513 | Generator Transient Delay | 525 | Light Re-Strike Timer 4 |
| 502 | Preheat Timer | 514 | Light Start-Up Timer 1 | 526 | Mast Up Timer |
| 503 | Crank Time | 515 | Light Start-Up Timer 2 | 527 | Mast Down Timer |
| 504 | Crank Rest Time | 516 | Light Start-Up Timer 3 | 528 | Power Save Mode Delay |
| 505 | Smoke Limiting | 517 | Light Start-Up Timer 4 | 529 | Deep Sleep Mode Delay |
| 506 | Smoke Limiting Off | 518 | Light Shutdown Timer 1 | 530 | Page Timer |
| 507 | Safety On Delay | 519 | Light Shutdown Timer 2 | 531 | Cooldown Idle Time |
| 508 | Warm Up Time | 520 | Light Shutdown Timer 3 | 532 | Delay Crank |
| 509 | Return Delay | 521 | Light Shutdown Timer 4 | 533 | Mains Supply Transient Delay |
| 510 | Cooling Time | 522 | Light Re-Strike Timer 1 | 534 | Audible Alarm Timer Enable |
| 511 | ETS Solenoid Hold | 523 | Light Re-Strike Timer 2 | 535 | Audible Alarm Timer Delay |
| 512 | Failed To Stop Delay | 524 | Light Re-Strike Timer 3 | | |

## CONFIGURATION PARAMETERS – GENERATOR (PAGE 6)

| | | | | | |
|---|---|---|---|---|---|
| 601 | Alternator Fitted | On (1), Off (0) | 633 | Low Current Alarm Enable | On (1), Off (0) |
| 602 | Alternator Poles | 0 | 634 | Low Current Alarm Action | 0 (Action) |
| 603 | Under Voltage Shutdown Enable | On (1), Off (0) | 635 | Low Current Alarm Percentage | 0% |
| 604 | Under Voltage Shutdown Trip | 0 V | 636 | Low Current Alarm Delay | 0 s |
| 605 | Under Voltage Warning Enable | On (1), Off (0) | 637 | Light 1 Current Rating | 0.0 A |
| 606 | Under Voltage Warning Trip | 0 V | 638 | Light 2 Current Rating | 0.0 A |
| 607 | RESERVED | | 639 | Light 3 Current Rating | 0.0 A |
| 608 | Loading Voltage | 0 V | 640 | Light 4 Current Rating | 0.0 A |
| 609 | Over Voltage Warning Enable | On (1), Off (0) | 641 | Mains Low Voltage Alarm Enable | On (1), Off (0) |
| 610 | Over Voltage Warning Return | 0 V | 642 | Mains Low Voltage Alarm Trip | 0 V |
| 611 | Over Voltage Warning Trip | 0 V | 643 | Mains Low Voltage Alarm Return | 0 V |
| 612 | Over Voltage Shutdown Trip | 0 V | 644 | Mains Low Voltage Warning Enable | On (1), Off (0) |
| 613 | Under Frequency Shutdown Enable | On (1), Off (0) | 645 | Mains Low Voltage Warning Trip | 0 V |
| 614 | Under Frequency Shutdown Trip | 0.0 Hz | 646 | Mains Low Voltage Warning Return | 0 V |
| 615 | Under Frequency Warning Enable | On (1), Off (0) | 647 | Mains High Voltage Warning Enable | On (1), Off (0) |
| 616 | Under Frequency Warning Trip | 0.0 Hz | 648 | Mains High Voltage Warning Return | 0 V |
| 617 | Loading Frequency | 0.0 Hz | 649 | Mains High Voltage Warning Trip | 0 V |
| 618 | Nominal Frequency | 0.0 Hz | 650 | Mains High Voltage Alarm Enable | On (1), Off (0) |
| 619 | Over Frequency Warning Enable | On (1), Off (0) | 651 | Mains High Voltage Alarm Return | 0 V |
| 620 | Over Frequency Warning Return | 0.0 Hz | 652 | Mains High Voltage Alarm Trip | 0 V |
| 621 | Over Frequency Warning Trip | 0.0 Hz | 653 | Mains Low Frequency Alarm Enable | On (1), Off (0) |
| 622 | Over Frequency Shutdown Enable | On (1), Off (0) | 654 | Mains Low Frequency Alarm Trip | 0.0 Hz |
| 623 | Over Frequency Shutdown Trip | 0.0 Hz | 655 | Mains Low Frequency Alarm Return | 0.0 Hz |
| 624 | AC System | 0 (AC System) | 656 | Mains Low Frequency Warning Enable | On (1), Off (0) |
| 625 | CT Enable | On (1), Off (0) | 657 | Mains Low Frequency Warning Trip | 0.0 Hz |
| 626 | CT Primary | 0 A | 658 | Mains Low Frequency Warning Return | 0.0 Hz |
| 627 | Full Load Rating | 0 A | 659 | Mains High Frequency Warning Enable | On (1), Off (0) |
| 628 | Immediate Over Current Enable | On (1), Off (0) | 660 | Mains High Frequency Warning Return | 0.0 Hz |
| 629 | Delayed Over Current Alarm Enable | On (1), Off (0) | 661 | Mains High Frequency Warning Trip | 0.0 Hz |
| 630 | Delayed Over Current Alarm Action | 0 (Action) | 662 | Mains High Frequency Alarm Enable | On (1), Off (0) |
| 631 | Over Current Delay Time | 0 s | 663 | Mains High Frequency Alarm Return | 0.0 Hz |
| 632 | Over Current Trip | 0 % | 664 | Mains High Frequency Alarm Trip | 0.0 Hz |

| SENSOR TYPE | | AC SYSTEM | | DIGITAL INPUT ALARM ARMING | |
|---|---|---|---|---|---|
| Index | Type | Index | Type | Index | Arming |
| 0 | None | 0 | 2 Phase 3 Wire (L1-L2) | 0 | Always |
| 1 | Digital Input | 1 | 2 Phase 3 Wire (L1-L3) | 1 | From Safety On |
| 2 | Percentage Sensor | 2 | 3 Phase 3 Wire | 2 | From Starting |
| 3 | Pressure Sensor | 3 | 3 Phase 4 Wire | 3 | Never |
| 4 | Temperature Sensor | 4 | 3 Phase 4 Wire Delta (L1-N-L2) | | |
| | | 5 | 3 Phase 4 Wire Delta (L1-N-L2) | | |
| | | 6 | 3 Phase 4 Wire Delta (L1-N-L2) | | |
| | | 7 | Single Phase 2 Wire | | |
| | | 8 | Single Phase 3 Wire (L1-L2) | | |
| | | 9 | Single Phase 3 Wire (L1-L3) | | |

## CONFIGURATION PARAMETERS – ENGINE (PAGE 7)

| | | | | | |
|---|---|---|---|---|---|
| 701 | Start Attempts | 0 | 717 | High Battery Voltage Enable | On (1), Off (0) |
| 702 | Gas Choke Timer (Gas Engine Only) | 0 s | 718 | High Battery Voltage Return | 0.0 V |
| 703 | Gas On Delay (Gas Engine Only) | 0 s | 719 | High Battery Voltage Trip | 0.0 V |
| 704 | Gas Ignition Off Delay (Gas Engine Only) | 0 s | 720 | High Battery Voltage Delay | 0 s |
| 705 | Crank Disconnect On Oil Pressure Enable | On (1), Off (0) | 721 | Charge Alt Shutdown Enable | On (1), Off (0) |
| 706 | Check Oil Pressure Prior To Starting | On (1), Off (0) | 722 | Charge Alt Shutdown Trip | 0.0 V |
| 707 | Crank Disconnect On Oil | 0.00 Bar | 723 | Charge Alt Shutdown Delay | 0 s |
| 708 | Crank Disconnect On Frequency | 0.0 Hz | 724 | Charge Alt Warning Enable | On (1), Off (0) |
| 709 | Crank Disconnect On Engine Speed | 0 RPM | 725 | Charge Alt Warning Trip | 0.0 V |
| 710 | Under Speed Enable | On (1), Off (0) | 726 | Charge Alt Warning Delay | 0 s |
| 711 | Under Speed Trip | 0 RPM | 727 | Low Battery Engine Start Arming | On (1), Off (0) |
| 712 | Over Speed Trip | 0 RPM | 728 | Low Battery Engine Start Threshold | 0.0 V |
| 713 | Low Battery Voltage Enable | On (1), Off (0) | 729 | Low Battery Engine Start Delay | 0 s |
| 714 | Low Battery Voltage Trip | 0.0 V | 730 | Low Battery Engine Start Run Time | 0 s |
| 715 | Low Battery Voltage Return | 0.0 V | 731 | Auto Retry For Start Attempt Enable | On (1), Off (0) |
| 716 | Low Battery Voltage Delay | 0 s | 732 | Auto Retry For Start Attempts | 0 |

## CONFIGURATION PARAMETERS – ALTERNATE CONFIGURATION (PAGE 8)

| | |
|---|---|
| 800-867 | For information on this section, refer to DSE Publication: 057-221 DSEL401 MKII Operators Manual |

## CONFIGURATION PARAMETERS – SCHEDULER (PAGE 9)

| | | |
|---|---|---|
| 901 | Enable Scheduler | On (1), Off (0) |
| 902 | Scheduler Period | Weekly(0), Monthly(1), Daily (2) |
| 903, 908, 913, 918, 923, 928, 933, 938 | Schedule Mode (Entry 1-8) | Off Load (0), On Load (1), Lights Only (2) |
| 904, 909, 914, 919, 924, 929, 934, 939 | Start Time (Entry 1-8) | 0:00:00 |
| 905, 910, 915, 920, 925, 930, 935, 940 | Day (Entry 1-8) | 0 (1=Monday) |
| 906, 911, 916, 921, 926, 931, 936, 941 | Week (Entry 1-8) | 1, 2, 3 or 4 |
| 907, 912, 917, 922, 927, 932, 937, 942 | Duration (Entry 1-8) | 0 s |

## CONFIGURATION PARAMETERS – DATE AND TIME (PAGE 10)

| | | | | | |
|---|---|---|---|---|---|
| 1001 | Time of Day | 0:00:00 | 1003 | Month of Year | 1-12 |
| 1002 | Day of Month | 1-31 | 1004 | Year | 0-99 |

## CONFIGURATION PARAMETERS – MAINTENANCE ALARMS (PAGE 11)

| | | | | | |
|---|---|---|---|---|---|
| 1101 | Oil Maintenance Alarm Enable | On (1), Off (0) | 1106 | Air Maintenance Alarm Engine Hours | 0 h |
| 1102 | Oil Maintenance Alarm Action | 0 (Action) | 1107 | Fuel Maintenance Alarm Enable | On (1), Off (0) |
| 1103 | Oil Maintenance Alarm Engine Hours | 0 h | 1108 | Fuel Maintenance Alarm Action | 0 (Action) |
| 1104 | Air Maintenance Alarm Enable | On (1), Off (0) | 1109 | Fuel Maintenance Alarm Engine Hours | 0 h |
| 1105 | Air Maintenance Alarm Action | 0 (Action) | | | |

| DIGITAL INPUT POLARITY | | OUTPUT POLARITY | | FUEL SENSOR UNITS | |
|---|---|---|---|---|---|
| Index | Polarity | Index | Polarity | Index | Units |
| 0 | Close to Activate | 0 | Energise | 0 | Litres |
| 1 | Open to Activate | 1 | De-Energise | 1 | Imperial Gallons |
| | | | | 2 | US Gallons |

| PRESSURE SENSOR LIST | | TEMPERATURE SENOR LIST | | PERCENTAGE SENSOR LIST | |
|---|---|---|---|---|---|
| Index | Type | Index | Type | Index | Type |
| 0 | Not used | 0 | Not Used | 0 | Not Used |
| 1 | Dig Closed for Alarm | 1 | Dig Closed for Alarm | 1 | Dig Closed for Alarm |
| 2 | Dig Open for Alarm | 2 | Dig Open for Alarm | 2 | Dig Open for Alarm |
| 3 | VDO 5 Bar | 3 | VDO 120 ℃ | 3 | VDO Ohm (10-180) |
| 4 | VDO 10 Bar | 4 | Datcon High | 4 | VDO Tube (90-0) |
| 5 | Datcon 5 Bar | 5 | Datcon Low | 5 | US Ohm (240-33) |
| 6 | Datcon 10 Bar | 6 | Murphy | 6 | GM Ohm (0-90) |
| 7 | Datcon 7 Bar | 7 | Cummins | 7 | GM Ohm (0-30) |
| 8 | Murphy 7 Bar | 8 | PT100 | 8 | Ford (73-10) |
| 9 | CMB812 | 9 | Veglia | 9 | User Defined |
| 10 | Veglia | 10 | Beru | | |
| 11 | User Defined | 11 | User Defined | | |

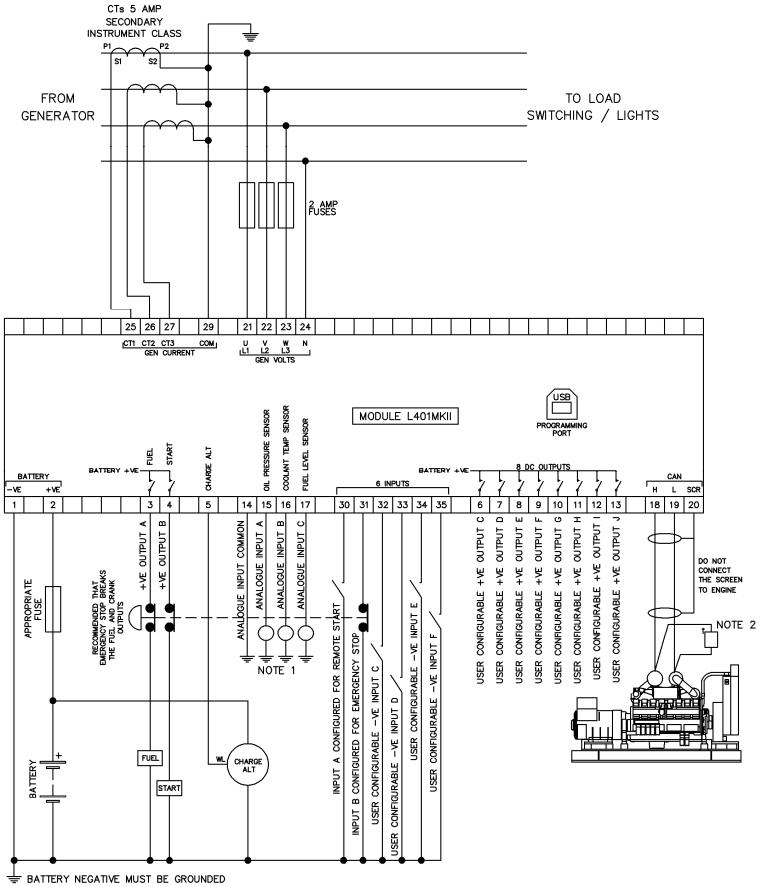
## INPUT SOURCES

| | | | | | |
|---|---|---|---|---|---|
| 0 | User Configured | 12 | Lamp Test | 24 | Simulate Auto Button |
| 1 | Alarm Mute | 13 | Light Output Activation 1 | 25 | Simulate Start Button |
| 2 | Alarm Reset | 14 | Light Output Activation 2 | 26 | Smoke Limiting |
| 3 | Alternative Configuration | 15 | Light Output Activation 3 | 27 | Maintenance Reset Oil |
| 4 | Auto Start Inhibit | 16 | Light Output Activation 4 | 28 | Maintenance Reset Air |
| 5 | Coolant Temperature Switch | 17 | Low Fuel Level Switch | 29 | Maintenance Reset Fuel |
| 6 | Emergency Stop | 18 | Oil Pressure Switch | 30 | Mast Fully Open |
| 7 | External Panel Lock | 19 | Override Fuel Shutdown | 31 | Mast Fully Closed |
| 8 | Inhibit Light Output 1 | 20 | Photocell Start | 32 | Holding Supports Open |
| 9 | Inhibit Light Output 2 | 21 | Remote Start Off Load | 33 | Controlled Stop |
| 10 | Inhibit Light Output 3 | 22 | Remote Start On load | 34 | Mains Supply Active |
| 11 | Inhibit Light Output 4 | 23 | Simulate Stop Button | | |

| CONFIGURATION PARAMETERS – ANALOGUE INPUTS (PAGE 12) | | |
|---|---|---|
| 1201 | Analogue Input A Sensor Type | 0 (Sensor Type) |
| 1202 | Analogue Input A Sensor Selection | 0 (Pressure Sensor List) |
| 1203 | Low Oil Pressure Enable | On (1), Off (0) |
| 1204 | Low Oil Pressure Trip | 0 Bar |
| 1205 | Oil Pressure Sensor Open Circuit | On (1), Off (0) |
| 1206 | Analogue Input B Sensor Type | 0 (Sensor Type) |
| 1207 | Analogue Input B Sensor Selection | 0 (Temperature Sensor List) |
| 1208 | High Engine Temperature Trip | 0.00 ℃ |
| 1209 | Temperature Sensor Open Circuit | On (1), Off (0) |
| 1210 | Analogue Input C Sensor Usage | Flexible Sensor (1), Fuel Level Sensor (0) |
| 1211 | Analogue Input C Sensor Type | 0 (Sensor Type) |
| 1212 | Analogue Input C Sensor Selection | 0 (Pressure / Temperature / Percentage Sensor List) |
| 1213 | Flexible Sensor C Arming | 0 (Arming) |
| 1214 | Flexible Sensor C Low Alarm Action | 0 (Action) |
| 1215 | Flexible Sensor C Low Alarm Trip | 0 % / Bar / °C |
| 1216 | RESERVED | |
| 1217 | Flexible Sensor C Low Pre-Alarm Enable | On (1), Off (0) |
| 1218 | Flexible Sensor C Low Pre-Alarm Trip | 0 % / Bar / ℃ |
| 1219 | Flexible Sensor C Low Pre-Alarm Return | 0 % / Bar / ℃ |
| 1220 | RESERVED | |
| 1221 | Flexible Sensor C High Pre-Alarm Enable | On (1), Off (0) |
| 1222 | Flexible Sensor C High Pre-Alarm Return | 0 % / Bar / ℃ |
| 1223 | Flexible Sensor C High Pre-Alarm Trip | 0 % / Bar / ℃ |
| 1224 | RESERVED | |
| 1225 | RESERVED | |
| 1226 | Flexible Sensor C High Alarm Action | 0 (Action) |
| 1227 | Flexible Sensor C High Alarm Trip | 0 % / Bar / ℃ |
| 1228 | RESERVED | |
| 1229 | RESERVED | |
| 1230 | Fuel Sensor C Low Shutdown Enable | On (1), Off (0) |
| 1231 | Fuel Sensor C Low Shutdown Trip | 0 % |
| 1232 | Fuel Sensor C Low Shutdown Delay | 0 s |
| 1233 | Fuel Sensor C Low Pre-Alarm Enable | On (1), Off (0) |
| 1234 | Fuel Sensor C Low Pre-Alarm Trip | 0 % |
| 1235 | Fuel Sensor C Low Pre-Alarm Return | 0 % |
| 1236 | Fuel Sensor C Low Pre-Alarm Delay | 0 s |
| 1237 | Fuel Sensor C High Pre-Alarm Enable | On (1), Off (0) |
| 1238 | Fuel Sensor C High Pre-Alarm Return | 0 % |
| 1239 | Fuel Sensor C High Pre-Alarm Trip | 0 % |
| 1240 | Fuel Sensor C High Pre Alarm Delay | 0 s |
| 1241 | RESERVED | |
| 1242 | Fuel Sensor C High Alarm Action | 0 (Action) |
| 1243 | Fuel Sensor C High Alarm Trip | 0 % |
| 1244 | Fuel Sensor C High Alarm Delay | 0 s |
| 1245 | Fuel Sensor Units | 0 (Fuel Sensor Units) |
| 1246 | Fuel Tank Size | 0 |

| OUTPUT SOURCES | | | | | |
|---|---|---|---|---|---|
| 0 | Not Used | 31 | Fail To Stop | 62 | System In Stop Mode |
| 1 | Air Filter Maintenance | 32 | Fuel Filter Maintenance | 63 | Temperature Sender Open Circuit |
| 2 | Air Flap Relay | 33 | Fuel Relay | 64 | Generator Under frequency Shutdown |
| 3 | Audible Alarm | 34 | Fuel Sender Trip 1 | 65 | Under Speed Shutdown |
| 4 | System In Auto Mode | 35 | Fuel Sender Trip 2 | 66 | Generator Over Frequency Overshoot |
| 5 | Battery Over Volts Warning | 36 | Fuel Sender Trip 3 | 67 | Over Speed Overshoot |
| 6 | Battery Under Volts Warning | 37 | Fuel Sender Trip 4 | 68 | Low Current Alarm |
| 7 | CAN ECU Data Fail | 38 | Gas Choke On | 69 | Display Heater Fitted & Active |
| 8 | CAN ECU Error | 39 | Gas Ignition | 70 | Flexible Senor C High Shutdown |
| 9 | CAN ECU Fail | 40 | Generator Available | 71 | Flexible Senor C High Warning |
| 10 | CAN ECU Power | 41 | Generator Over Voltage Shutdown | 72 | Flexible Senor C Low Warning |
| 11 | CAN ECU Stop | 42 | Generator Under Voltage Shutdown | 73 | Flexible Senor C Low Shutdown |
| 12 | Charge Alternator Shutdown | 43 | Generator Over Current | 74 | Fuel Sensor High Shutdown |
| 13 | Charge Alternator Warning | 44 | Generator Delayed Over Current | 75 | Fuel Sensor High Warning |
| 14 | Common Alarm | 45 | High Coolant Temperature (Shutdown) | 76 | Fuel Sensor Low Warning |
| 15 | Common Electrical Trip | 46 | Light Output 1 | 77 | Fuel Sensor Low Shutdown |
| 16 | Common Shutdown | 47 | Light Output 2 | 78 | Mast Up |
| 17 | Common Warning | 48 | Light Output 3 | 79 | Mast Down |
| 18 | Cooling Down | 49 | Light Output 4 | 80 | Mains Supply High Frequency |
| 19 | Digital Input A | 50 | Low Oil Pressure (Shutdown) | 81 | Mains Supply Low Frequency |
| 20 | Digital Input B | 51 | System In Manual Mode | 82 | Mains Supply High Voltage |
| 21 | Digital Input C | 52 | Oil Filter Maintenance | 83 | Mains Supply Low Voltage |
| 22 | Digital Input D | 53 | Oil Pressure Open Circuit | 84 | Gen/Mains High Frequency |
| 23 | Digital Input E | 54 | Generator Over Frequency Shutdown | 85 | Gen/Mains High Voltage |
| 24 | Digital Input F | 55 | Over Speed Shutdown | 86 | Gen/Mains Low Frequency |
| 25 | Analogue Input A (Digital) | 56 | Preheat During Preheat Timer | 87 | Gen/Mains Low Voltage |
| 26 | Analogue Input B (Digital) | 57 | Preheat Until End of Crank | 88 | Combined Mains Supply Failure |
| 27 | Analogue Input C (Digital) | 58 | Preheat Until End of Safety Timer | 89 | Combined Gen/Mains Failure |
| 28 | Emergency Stop | 59 | Preheat Until End of Warming | 90 | Mains Supply Active |
| 29 | Energise To Stop | 60 | Smoke Limiting | | |
| 30 | Fail To Start | 61 | Start Relay | | |

## TYPICAL WIRING DIAGRAM




NOTE 1. THESE GROUND CONNECTIONS MUST BE ON THE ENGINE BLOCK AND TO THE SENSOR BODIES. THE GROUND WIRE TO TERMINAL 14 MUST NOT BE USED TO PROVIDE A GROUND CONNECTION TO ANY OTHER DEVICE

†NOTE 2. 120 R TERMINATING RESISTOR MAY BE REQUIRED EXTERNALLY, SEE ENGINE MANUFACTURERS LITERATURE.

**NOTE: A larger version of the typical wiring diagram is included in the products operator manual. Refer to DSE Publication:**
***057-221 DSEL401MKII Operators Manual***

## REQUIREMENTS FOR UL CERTIFICATION

| SPECIFICATION | DESCRIPTION |
|---|---|
| Screw Terminal Tightening Torque | • 4.5 lb-in (0.5 Nm) |
| Conductors | • Terminals suitable for connection of conductor size 24 AWG to 12 AWG (0.5 mm² to 2.0 mm²).<br>• Conductor protection must be provided in accordance with NFPA 70, Article 240<br>• Low voltage circuits (35 V or less) must be supplied from the engine starting battery or an isolated secondary circuit.<br>• The communication, sensor, and/or battery derived circuit conductors shall be separated and secured to maintain at least ¼" (6 mm) separation from the generator and mains connected circuit conductors unless all conductors are rated 600 V or greater. |
| Current Inputs | • Must be connected through UL Listed or Recognized isolating current transformers with the secondary rating of 5 A max. |
| Communication Circuits | • Must be connected to communication circuits of UL Listed equipment |
| Output Pilot Duty | • 0.5 A |
| Mounting | • Suitable for use in type 1 Enclosure Type rating with surrounding air temperature -22 ºF to +158 ºF (-30 ºC to +70 ºC)<br>• Suitable for pollution degree 3 environments when voltage sensing inputs do not exceed 300 V. When used to monitor voltages over 300 V device to be installed in an unventilated or filtered ventilation enclosure to maintain a pollution degree 2 environment. |
| Operating Temperature Without Heated Display | • -22 ºF to +158 ºF (-30 ºC to +70 ºC) |
| Operating Temperature With Heated Display | • -40 ºF to +158 ºF (-40 ºC to +70 ºC) |
| Storage Temperature | • -40 ºF to +176 ºF (-40 ºC to +80 ºC) |

# DEEP SEA ELECTRONICS PLC

**DSEL401MKII Installation Instructions**

## EDITING A PARAMETER

- Press the (-) and (✔) buttons together to enter the editor selection screen.
- Press the (up) or (down) buttons to change between (User) or (Configuration Editor) icons.
- Press the (✔) button to enter the required editor.
- Press the (up) or (down) navigation buttons to cycle through the front panel editor in increments of 100.
- Press the (+) or (-) navigation buttons to cycle through the front panel editor in increments of 1.
- When viewing the parameter to be edited, press the (✔) button, the value begins to flash.
- Press the (+) or (-) buttons to adjust the value to the required setting.
- Press the (✔) button the save the current value, the value ceases flashing.
- Press and hold the (✔) button to save and exit the editor.

**NOTE: Pressing and holding the (+) or (-) buttons give auto-repeat functionality. Values are changed quickly by holding the buttons for a prolonged period of time.**

**DIMENSIONS**
140 mm x 113 mm x 43 mm
(5.5" x 4.4" x 1.7")

**PANEL CUTOUT**
118 mm x 92 mm
(4.6" x 3.6")

**TERMINALS**
Tightening Torque: 0.5 Nm (4.5 lb-in)
Conductor Size: 0.5 mm² to 2.5 mm²
(AWG 24 to AWG 10)

**Deep Sea Electronics PLC**
Tel: +44 (0)1723 890099
Fax: +44 (0)1723 893303
Email: sales@deepseaplc.com
Web: www.deepseaplc.com

**Deep Sea Electronics Inc**
Tel: +1 (815) 316-8706
Fax: +1 (815) 316-8708
Email: sales@deepseausa.com
Web: www.deepseausa.com