



Certification Record

CUSTOMER	CLASS	FILE
Altronic Inc. 712 Trumbull Ave, Girard OH 44420 USA	<u>9098-01</u> MISCELLANEOUS-For Hazardous Locations	034525_0_000
Refer to Class Description for program details		

Class I, Groups A, B, C and D:

- Tachometer, Model PT-2100; and Tachometer/Hourmeter, Model PTH-2100; intrinsically safe when powered from magnetic pick-ups 691118 Series or 691120 Series.

Class I, Division 1, Groups A, B, C and D:

- Model DPG-aaaa and Model DPG-6644-aabbb intrinsically safe Digital/Bargraph Pressure Gauge, battery operated using one Tadiran Lithium cell, P/N TL 5920, size 'C', rated 3.6 Volts; T4 at 85° C ambient.

Note: Suffixes 'aaaa' and 'aa' denote variations in pressure ranges, 'bbb' in mechanical configurations.

- Model G481560 Digital Tachometer powered by an Altronic magnetic pickup P/N 691118 Series; Temperature code rating T6 at 80°C ambient; Intrinsically Safe when installed per Installation drawing G481560 II.

Note: The Model G481560 Digital Tachometer is Certified as a component only and is required to be installed in a suitable enclosure where the final combination is subjected to approval by the local inspection authority having the jurisdiction.

Class I, Groups C and D:

- Digital pyrometer, Models DPY-4109C and F (9-point), Models DPY-4118C and F (18-point); battery operated (three 6V lithium batteries, "Sanyo" 2CR-1/3N or "Duracell" PX28L), having terminals for connection of thermocouples. Pyrometer intrinsically safe when installed per "Altronic" installation instructions ADPY-II.
- Digital temperature scanners Model DMS-43820DUS and DSM-43920DUS, intrinsically safe when installed per installation instructions form DSM43820 II 9-00 and DSM43920DUS II 06-02 per "Wiring Diagram Altronic Annunciator System", "Magnetic Pickup - "Pulsed Pickup" or "External Contact Closure - "Dry Contact" wiring diagrams, operating 85C, temperature code T4.

Note: Pyrometers, DPY-4000 series, are certified for mounting in suitable cabinets, acceptance of the final combination is to be determined by CSA International or Inspection Authority having jurisdiction.

LIQUID LEVEL SWITCH P/N 690050-1:

- Contact rating 125 top 277V ac/11A res./4A ind. Or 125V dc/0.5A. Max op. press. 1500 psig (10.3Mpa); Max Liquid temp. 125 Deg C (257F).

Class I, Division 1, Groups C and D:

- Model DPS -1591DP-aaaa and Model DPG-67544-aabbb Digital/Bargraph Pressure Gauge, loop-powered via CSA Certified barrier, battery back-up power using one Tadiran Lithium cell, P/N TL 5920, size C, rated 3.6 Volts; T4 at 40°C ambient, T3A at 85°C ambient; intrinsically Safe when installed per installation instructions Form DPS-1591 II and Form DPG-6700.

Note: Suffixes 'aaaa' and 'aa' denote variations in pressure ranges, 'bbb' in mechanical configurations.

- Model DHTO-1201 and Model DHTO-3201 Digital Tachometer, battery back-up power using one Tadiran Lithium cell, P/N TL5903, size 'AA', rated 3.6 Volts; which provides connection to an Altronic magnetic pick up series 691118; Temperature Code T3 at 80°C ambient; intrinsically safe when installed per installation Form DTHO II.
- Gas shut off valve, P/N 690040-X, rated 24V dc, 1A or 100 to 400V (CD Ignition Pulse).

Class I, Group D:

- Tachometer with overspeed trigger, Model PTO-2100; and Tachometer/Hourmeter with overspeed trigger, Model PTHO-2100; intrinsically safe when powered from magnetic pick-ups 691118 Series or 691120 Series and when the overspeed circuit is connected to the No 40 Sensor input of the certified Altronic DA Series annunciator.
- Tachometers Models DT-1200, DTO-1200, DTH-1200 and DTHO-1200 (output connected to Certified Altronic DA series annunciator), intrinsically safe when connected through 690-107/-108 Certified Altronic barrier and connected per Installation Instructions form DTH012 II 1-90.
- Digital temperature switch and gauge DPYH-1301, ignition powered (100-400V dc), intrinsically safe when connected through 690-107/-108 Certified Altronic barrier with output connected to Certified Altronic DA Series annunciator per Installation Instructions form DPYH13 II 11-86.
- Digital temperature switch and gauge DPYH-1352, ignition powered (100-400V dc), intrinsically safe when connected through 690-107/-108 Certified Altronic barrier with output connected to Certified Altronic DA Series annunciator per Installation Instructions form DPYH52 II 2-87.
- Digital temperature switch and gauge Model DPYH-1392, ignition powdered (100-400V dc), intrinsically safe when connected through 690-107/-108 Certified Altronic barrier with output connected to Certified Altronic DA or DD Series annunciator per Installation Instruction form DPYH92 II. Temperature Code T4.
- Digital pyrometer DPYH-1309, ignition powered (100-400V dc), intrinsically safe when connected through 690-107/-108 Certified Altronic barrier with output connected to Certified Altronic DA Series annunciator per Installation Instructions form DPYH09 II 2-87.
- Digital pyrometer Models DPYH-4304 (4-point) and DPYH-4319 (19-point): intrinsically safe when connected through 690-107/108 Certified Altronic barrier.
- Digital pressure switch and gauge DPHL-1501, ignition powered (100-400V dc), intrinsically safe when connected through 690-107/-108 Certified Altronic barrier with output connected to Certified Altronic DA Series annunciator per Installation Instructions form DPHL01 II 2-87.
- Digital Pyrometer, Model DPY-4118U-A, battery operated (three 6V lithium batteries). Intrinsically safe when used with "Sanyo" 2CR-1/3N or "Duracell" PX28L batteries and input terminals connected to thermocouples per Installation Instructions DPY41UAI. Maximum ambient 80 deg C. Temperature code T3 (200 deg C).

Note: Device is Certified for mounting in suitable enclosures as acceptable to the local authority having jurisdiction.

- Digital Pyrometers, Models DPYH-4354U and DPYH-4320U. Ignition (100-400V) or dc (12-48V) powered. Intrinsically safe when connected through Altronic 690107 or 690108 barrier or CSA Certified Zener barrier, rated 30V max/120 ohms min and with output connected to Certified Altronic annunciator per Installation Instructions Form DPYH 43 II. Temp Code T3A (180C). Max ambient 85C.
- Digital Pyrometers, Model DPYH-1301U and DPYH-1392U. Ignition (100-400V) or dc (12-48V)

powered; intrinsically safe when connected through "Altronic" 690 107/108 barrier or CSA Certified Zener Barrier rated 30V max, 120 ohms min as per Installation Instructions Form DPYH13U 11 1-94.

- Digital Pyrometer, Model DPYH-1379U. Ignition (100-400V) or dc (12-48V) powered. Intrinsically safe when connected through CSA Certified Altronic 690 107 or 690 108 barrier or DC powered from a CSA Certified zener barrier, rated 30V dc max, 120 ohms min as per Installation Instructions Form DPYH1379UII. Temp Code T3A (180C). Max ambient 85C.

Note: Device is Certified for mounting in suitable enclosures as acceptable to the local authority having jurisdiction.

- Digital Setpoint Gauge, Model DSG-1601DU, DSG-1601 DUP, DSG-1601DU-BL, DSG-1601DUP-BL, DSG-1601DUS and DSG-1601DUS-BL, rated input 12 to 36V dc, 50mA, output 4-20mA; intrinsically safe when connected through CSA Certified Zener Barrier, rated 30V max, 120 ohms min and with outputs connected to Altronic Pressure and Temperature transducers and outputs connected to CSA Certified Altronic Annunciator per Installation Instructions Form DSG1601 II. Temp Code T1 (450C). Max Ambient 85C.

Note: Device is Certified for mounting in suitable enclosure as found acceptable to the local authority having jurisdiction.

- Digital Setpoint Gauge, Model DSG-1301DU, DSG -1301DUP, DSG-1301DUS and DSG-1301DUS-BL, rated input 12 to 36V dc, 50mA, output 4-20mA; intrinsically safe when connected through CSA Certified zener barrier, rated 30V max, 120 ohms min and with outputs connected to CSA Certified Altronics Annunciator per Installation Instructions Form DSG1301IIX-94 or DSG1301 II 12-97. Temp Code T3 (200C). Max ambient 85C.

Note: Device is Certified for mounting in suitable enclosure as found acceptable to the local authority having jurisdiction.

- Digital Setpoint Gauge, Models DSG-1201DU and DSG-1201DUP, input 12 to 36V dc, 50mA, output 4-20mA; intrinsically safe when connected through CSA Certified zener barrier, rated 30V max, 120 ohms min and with outputs connected to CSA Certified Altronics Annunciator per Installation Instructions Form DSG1201III6-95. Temp Code T3 (200C). Max ambient 25C.

Note: Device is Certified for mounting in suitable enclosure as found acceptable to the local authority having jurisdiction.

- Digital set point gauge, Model DSG1401-DU/DUP and DSG1401-DU/DUP-BL, input 12 to 36V dc, 50mA, output 4-20mA; intrinsically safe when connected through CSA Certified zener barrier, rated 30V max, 120 ohm min and with outputs connected to CSA Certified Altronic annunciator per Installation Instructions Form DSG1401 II 11-95. Temp Code T3 (200C). Max ambient 85C.
- Digital Pyrometer, Model DSM-4388DUS, and DSM-4378DUS, rated 12-30Vdc, 70 mA max; intrinsically safe when connected through CSA Certified zener barrier, rated 30V dc max, 120 ohms min. Temp code T3. Max ambient 85 C.
- Digital Monitor, Models DSM-4678DUS, DSM-4688DUS and DSM-4689DUS, rated 12-30V dc, 70mA max; intrinsically safe when connected through CSA Certified zener barrier, rated 30V dc max, 120 ohms min. Temp Code T3. Max ambient 85C.
- Digital Pyrometer, Models DPYH-4396U and DPYH-4398U. Ignition (100-400V) or DC (12-48V) powered. Intrinsically safe when connected through CSA Certified zener barrier rated 30V dc max, 120 ohms min as per installation instructions Form DPYH-4390II. Temp Code T3A (180C). Max Ambient 85C.

Note: Device is Certified for mounting in a suitable enclosure acceptable to the local inspection authority having jurisdiction.

Class I, Division 1, Group D:

- Model DPS -1591DP-aaaa and Model DPG-67544-aabbb Digital/Bargraph Pressure Gauge, loop-powered via CSA Certified barrier, battery back-up power using one Tadiran Lithium cell, P/N TL 5920, size 'C', rated 3.6 Volts; with optional connection to explosion proof 690 Series power supply (having up to 4 barriers, rated 9.0 Volts/150 Ohm each) that provides intrinsically safe circuits to DA or DD Series annunciator; T4 at 40°C ambient, T3A at 85°C ambient; intrinsically Safe when installed per installation instructions Form DPS-1591 II and Form DPG-6700.

Note: Suffixes 'aaaa' and 'aa' denote variations in pressure ranges, 'bbb' in mechanical configurations.

- Model DHTO-1201 and Model DTHO-3201 Digital Tachometer, battery back-up power using one Tadiran Lithium cell, P/N TL5903, size 'AA', rated 3.6 Volts; which provides connection to a DA or DD Series annunciator with an explosion proof 690 Series power supply (having up to 4 barriers, rated 9.0 Volts/150 Ohm each) and to an Altronic barrier P/N 609108 (+160V/75100) or P/N 609107 (-160V/7510 Ohm); Temperature Code T3 at 80°C ambient; intrinsically safe when installed per installation Form DTHO II.

Class I, Division 2, Group D:

Altronic Ignition Systems for internal combustion engines:

- Altronic I series.
- Altronic II series (Standard and High Energy) with: Wiring Harness 293 001, 293 022 and 293 025 series.
- Altronic II-CPU series with: Wiring Harness 293 023, 293 024, 293 026, 293 027 series.
- Altronic III series (Standard and High Energy) with: Wiring Harness 393 013, 393 014, 393 021 series; Electronic Timing Units 381 601-1, 2, 3 and 381 610.
- Altronic III - CPU series with harness 593 043, 593 047.
- Altronic III - CPU (Caterpillar) series with Harness 593 043, 593 047.
- Altronic V series (Standard and High Energy) with: Wiring Harness 593 044 and 593 046 series; Electronic Timing Units 581 603-1, 2 with harness 593 052.
- DISN Unit P/N 791 4**-xxx, 791 816-0xx, 791 816-1xx, rated 12-28V dc, 30W max with Power/Pick-up cable 793 013 Series, Wiring Harness 793 014 Series and 793 015 Series, Timing and control Harness 793 044 Series, and Pick-up Sensor 791 050-2 with Cable 593 052. Connect per installation instructions form DISN IT. Temp. Code T4.

Note: ** = no. of outputs 1-16; xxx = firing pattern designation.

- Shielded wiring harness for Altronic II ignition system. Part number 693141. Temperature code T6; Ambient temperature -40°C to 50°C

Notes:

- 1) For use only with Altronic ignition systems.
- 2) The suitability of the wiring harness within the end-use system is subject to investigation by the local Authority Having Jurisdiction at the time of installation.

- CEC ignition system, rated 12-28V dc, 30W (max), Temp. Code T4, comprised of the following:

1. CEC Ignition Module P/N EC91005-XXX or EC91012-XXX.
2. Input Cable (EC93002 Series, EC93006 Series, EC93009 Series, EC93014 Series, EC93016 Series, EC93019 Series).
3. Output Cable EC93017 Series, EC93018 Series, EC93021 Series, EC93024 series, 793046 series and 793053 series..
4. Pickup Cable (EC93017 Series, or EC93015 Series).
5. Control Cable (Optional) EC93011 Series, ECEC93020 Series, EC93022 Series, or EC93023 Series).
6. Hall-effect pickup sensor P/N 791050-XX with cable P/N 593052 Series.

7. Junction box - customer supplied, CSA Approved.
8. 4-16 shielded primary cables (593022 Series, or 593027 Series) each with an integral coil (591007, 591011A, or 591011B) or shielded coil (501061-S, or 591010-S) and a shielded spark plug lead (593020, or 593030) and a CSA Certified spark plug.
9. Integral Ignition Coil, P/N 591011X, where X represents the length of coil.
 - CPU-90 Unit P/N 791 9**-XXX, rated 12-28V dc, 30W max, with: Wiring Harness 793 015, 793 022, 793 023, and 793 024 series, Magnetic Pick-up 691 118 series with Cable 593 048 series, and Hall-effect Pick-up 591 014 series with Cable 593 052 series. Connect per Installation Instructions Form CPU-90 II. Temperature Code T4.

Note: ** = No. of outputs 1-16; XXX = features designation. Ignition Coils/Adaptors as follows:

- 291 001-S and 591 008 for use with Altronic II and II-CPU.
- 501 061-S, 591 010-S, 591 007, 591 011A and 591 011B for use with Altronic I, III and V.
- 593 120 and 593 130 series Adaptors for use with 591 007 and 591 008 coils.
- 593 140-6 Adaptor for use with 591 007 coil. Cable Assemblies as follows:
- 593 020 and 593 030 series for use with 291 001-S, 501 061-S and 591 010-S coils. -593 022, 593 023, 593 027, 593 035 and 593 036 series for use with 291 001-S, 501 061-S, 591 010-S, 591 007, 591 008, 591 011A and 591 011B coils. Altronic Instruments:
- Tachometer Models DT-1200, DTO-1200, DTH-1200 and DTHO-1200, rated 400V dc, powered from C.D. ignition systems and connected per Installation Instructions form DTHO12 II 1-90.
- Tachometer, Models DT-3200/DTO-3200, DT-3200-S/DTO-3200-S, DT-2200/DTO-2200, DT-2200-S/DTO-2200-S, DT-1000/DTO-1000 and DT-1000-S/DTO-1000-S, rated 400V.
- Combined Tachometer/Hourmeter, Models DTH-2100, DTH-2100-S, DTHO-2100, DTHO-2100-S, rated 250V and DTH-3200 rated 400V.
- Overspeed Trip, Model DO-3300, rated 400V.
- Hourmeter Models DH-100, DH-100-S, DH-100A, rated 440V.
- Digital temperature switch and gauge DPYH-1301, ignition powered (100-400V dc), solid state output switch rated 0.1A, 400V dc; and DPYH-1301D, input 12-125V dc, 3mA, solid state output switch rated 1.0A, 120V dc when connected per Installation Instructions form DPYH13 II 11-86.
- Digital temperature switch and gauge DPYH-1352, ignition powered (100-400V dc), solid state output switch rated 0.1A, 400V dc; and DPYH-1352D, input 12-125V dc, 3mA, solid state output switch rated 1.0A, 120V dc when connected per Installation Instructions form DPYH52 II 2-87.
- Digital pyrometer DPYH-1309, ignition powered (100-400V dc), solid state output switch rated 0.1A, 400V dc; and DPYH-1309D, input 12-125V dc, 3mA, solid state output switch rated 1.0A, 120V dc when connected per Installation Instructions form DPYH09 II 2-87.
- Digital pyrometer Models DPYH-4304 (4-point) and DPYH-4319 (19-point).
- Digital pressure switch and gauge DPHL-1501, ignition powered (100-400V dc), solid state output switch rated 0.1A, 400V dc; and DPHL-1501D, input 12-125V dc, 3mA, solid state output switch rated 1.0A, 120V dc when connected per Installation Instructions form DPHL01 II 2-87.
- Digital annunciator units DB-17R-O (powered from 12-24V dc), DB-17N-O (powered from C.D. ignition system - negative ground only) and cable assembly 693-107-1. Cable sensor inputs are suitable for connection to passive switch devices located in Class I, Group D, Div 2 hazardous locations.

Notes:

1. Above devices (except 12-24V dc and 12-125V dc powered models) may be connected to any Certified C.D. ignition system when connected in accordance with the applicable Altronic installation instructions.
2. Final installation of the above devices are subject to the local Inspection Authority having jurisdiction.

THE FOLLOWING EQUIPMENT COMPLIES WITH THE APPLICABLE REQUIREMENTS OF

C22.2 NO 213:

Class I, Div. 2, Groups C and D:

- RTD Converter, P/N 691126, rated 5 to 30V dc, 50mA max input, four 0 to 5V dc output; Temp Code T4; 80 Deg C ambient.

Note: Device is Certified for mounting in suitable enclosure as found acceptable to the local authority having jurisdiction.

- CPU-2000 Ignition System; consisting of a logic, output and diagnostics module, rated 16-30V dc, 0.5A max. Temp. Code T4.
- DIGITAL TEMPERATURE SCANNER DSM-43820DUS, DSM-43920DUS and DSM-439XX; rated 12 to 30V dc, 0.1A max, Temp. Code T4, ambient 85 Deg C.
Note: Devices are Certified for mounting in suitable enclosures as found suitable to the local authorities having jurisdiction.
- VARISPARK Ignition System, rated 24 to 30V dc, 2.5A max; Temp Code T4, ambient 65 Deg C.
- CPU-95 Ignition System consisting of Ignition Module P/N 79195*-xx, (where * is a number 0 to 7 representing different CPU-95 versions and xx represents the number of output cylinders), input rated 20- 32Vdc, 5A max; output 5-20mA; SSR output rated 100Vac/dc, 75mA max. (res) with or without optional display module P/N 791902-x, or 791908-x, or enhanced display module 791909-x (were x is a numeric digit indicating software options), input rated 20-32Vdc, 250mA max. Temp. Code T4, Max ambient 85 deg. C.
- CPU-95 Ignition System consisting of Ignition Module P/N791958-xx (Varispark), (where xx is the number of output cylinders), input rated 24-28Vdc, 6A max.; output 4-20mA; SSR output rated 100Vac/dc, 75mA max.(res).Temp. Code T3C, Max.ambient 70deg.C.
- Cummins GCIM Ignition System consisting of Ignition Module P/N 791959-xx (were xx is the number of output cylinders), input rated 20-32Vdc, 5A max; output 4-20mA; SSR output rated 100Vac/dc, 75mA max. (res). With or without optional display module P/N 791040-x (were x is a numeric digit indicating software options), input rated 20-32Vdc, 250mA max. Temp Code T4. Max ambient 85 deg. C.

Notes:

- 1) The display is OPEN type equipment that must be used within a suitable end-use system enclosure, the interior of which is accessible only through the use of a tool. The suitability of the enclosure is subject to investigation by the local Authority Having Jurisdiction at the time of installation.
 - 2) Wiring to or from the display, which enters or leaves the system enclosure, must utilize wiring methods suitable for Class I, Division 2 Hazardous Locations, as appropriate for the installation.
 - 3) USB connection to the display (where provided) is intended for temporary connection of programming or diagnostic equipment and may be used only when the area is known to be nonhazardous.
- Model DPS -1591DP-aaaa and Model DPG-67544-aabbb Digital/Bargraph Pressure Gauge, input rated 10-32Vdc, 20mA max. with back-up battery power using one Tadiran Lithium cell, P/N TL 5920, size 'C', rated 3.6 Volts; T4 at 85°C ambient.

Notes:

1. Suffixes 'aaaa' and 'aa' denote variations in pressure ranges, 'bbb' in mechanical configurations.
 2. Model DPS is certified as a component only and is required to be installed in a suitable enclosure where the suitability of the combination subject to the local inspection authority having jurisdiction.
- Model DTHO-1201 and Model DTHO-3201 Digital Tachometer , battery back-up power using one Tadiran Lithium cell, P/N TL5903, size 'AA', rated 3.6 Volts; T3 at 80°C ambient.

Note:

Model DTHO-1201 and Model DTHO-3201 are certified as a component only and is required to

be installed in a suitable enclosure where the suitability of the combination subjects to the acceptance by the local inspection authority having the jurisdiction.

- ETM-40US Temperature Scanner rated 100 to 250V ac; 50/60Hz, 10W max; 10 to 36V dc, 4W max; Temp Code T5; Max ambient 80°C

Note: Panel mount equipment. The final installation to be approved by local authorities having jurisdiction.

- Hyper Fuel Valve System rated 20 to 32V dc, 7A max.
- RC 2000 Computer Control System, rated 24V dc, 2A.
- COBRA 1 Computer Control System, rated 24V dc, 2A.
- Exacta series XI Computer Control System, rated 24V dc, 2A.
- Exacta 21 Computer Control System, rated 24V dc, 2A.

Note: Panel mount system. The final installation to be approved by local authorities having jurisdiction.

- CD200 Ignition Module 791 080-x rated 12 to 24Vdc, 3.5A; max; T.Code T3.
- Stepper Motor Controller, P/N 691156-X rated 12 to 32V dc, 1 A max.

Note: Panel mount equipment. The final installation to be approved by local authorities having jurisdiction.

- Save Air System, rated 20-32 Vdc., 7A max. consisting of a Logic Module (291 300-xx), Output Module (291 301-xxx), Display Module (291 302-x), Display Cable Assy. (293 034-xx), Logic Cable Assy. (293 031-xx), Solenoid Valve (690 017-x) and Output Cable Assy. (293 026-xx).
- Digital Bargraph/ Setpoint Gauges, Model DSG - 1611DUPS/ DSG - 1692DUS, rated 12 to 36Vdc/ 0.25A.
Maximum ambient 85 Deg.C.
- Detonation Sensing Monitor, rated 10 to 32Vdc, 0.3A max. Output solid state switches rated 200V, 0.2A max; T code T4.
- EZRail Ignition System, rated 300V max.

Notes:

1. Panel Mount equipment. Final installation to be approved by Local Authorities having jurisdiction.
2. Detonation sensors cables are considered non- incendeive and have to be routed separate from any other cables.
 - MORIS Power Module (MPM) rated 24V dc, 24A input max., 185V dc, 2.5A output.

Note: Panel Mount equipment. Final installation to be approved by Local Authorities having jurisdiction.

- Lubrication Sensor Adaptor, rated 12 to 24V dc or CD Ignition Pulse (100 to 400V).

Class I, Div. 2, Group D:

- Digital Temperature Scanner, ETS series, rated 110V ac, 60Hz, 10VA, or 24V dc, 10W; solid state relay outputs rated 60V dc, 2A, 24-280V ac, 2A, or 5-200V dc, 0.67A; optional 4-20mA output.
- Engine Performance Controller, EPC series, rated 110V ac, 60Hz, 20VA or 24V dc, 20W; solid state relay outputs rated 60V dc, 2A, 24-280V ac, 2A or 5-200V dc, 0.67A; two 4-20mA outputs.
- 24V dc converter, Part No 281550-2, input rated 24V dc, 3A; output rated 400V dc; Temp. Code T3.
- Starting booster, Part No 581605, input rating 24V dc, 5W; output rated 300V; Temp. Code T3.
- Digital annunciators, Models DC-8N-0, -24-0, rated 400V dc, 25mA, and DC-8R-0, -24R-0, rated 12-24V dc, 53.1mA max.

Note: Installation of these panel-mounted devices is subject to acceptance by the local inspection authorities having jurisdiction.

- Digital Tachometer DTO-1201P, input rated 12-36V dc, 3mA, solid state output switch rated

- 0.1A, 400V dc, proportional output rated 4-20mA, 10V max, when connected per Installation Instructions form P II 10-87.
- Digital Temperature Switch and Gauge DPYH-1301DxP, input rated 12-36V dc, 3mA, solid state output switch rated 1.0A, 125V dc, proportional output rated 4-20mA, 10V max, when connected per Installation Instructions form P II 10-87.
 - Digital Pressure Switch and Gauge DPHL-1501DxP, input rated 12-36V dc, 3mA, solid state output switch rated 1.0A, 125V dc, proportional output rated 4-20mA, 10V max, when connected per Installation Instructions form P II 10-87.
 - Digital temperature switch and gauge, Model DPYH-1392, ignition powdered (100-400V dc) with solid state output switch rated 0.1A, 400V dc and Model DPYH-1392D, input 12-125V dc, 3mA, with solid state output, switch rated 0.75A, 120V dc when connected per Installation Instruction form DPYH-1392 II.
 - Detonation Sensing Module rated 8 to 32V dc input Temp-Code T4.
 - EPC-100 Air/Fuel Controller Series, p/n EPC-1a0bb-x, rated 16 to 30V dc max with suffixes as follows:
 - a is the target engine package, ie EPC-150 for large lean burn engines, EPC-100 for large rich burn engines and EPC-110 for small rich burn engines,
 - bb is the software feature set, ie EPC-100E being an enhanced feature version of EPC-100,
 - x is the number of banks (valves) used on the engine, ie 1 for single bank, 2 for dual bank, and
 - Caterpillar Air/Fuel Controller, p/n 691128-x, where x is the software feature set in use.
 - EPC-120 Air/Fuel Controller, rated 16 to 30V dc max.

Note: Equipment must be used in conjunction with either Altronic manufactured Piston Valve assembly, p/n690154-x, where x is the piston length to be matched to the engine type or the Altronic manufactured Butterfly Valve assembly (p/n 6902aa-x, where aa is the valve pipe thread size). (ie 20 for 2", 25 for 2.5" or 30 for 3" thread size).

Equipment to be connected as per Installation Instruction EPC1a0bb II or EPC1a0bbOM.

- Digital Pyrometer, Models DPYH-4354U and DPYH-4320U. Ignition (100-400V) or dc (12-48V) powered and having alarm contacts rated 400V dc max, 0.150A max.
- 24V dc Engine Driven Alternators (P/N 590 010, 590 011, 590 016, 590 017, 590 110, 590 111, 590 116, 590 117) rated 30V dc max, 4A max; Regulators (P/N 581 501 and 581 502) rated 30V dc max; Battery Pack (P/N 591 100) for use with Alternators P/N 590 010 and 590 016 only and shielded cable assemblies P/N 593 057 and 593 058. Temp-Code T4.

Note: These products can be produced under Waukesha Engine Custom Control with the following part numbers:

Generators P/N 740601, 740 602, 740 604, 740 605, 740 606, 740 607, 740 601A, 740 602A, 740 604A, 740 605A, 740 606A and 740 607A; Regulators P/N 740600A and 740600; Battery Pack P/N 740003.

- Digital Pyrometers, Model DPYH-1301U and DPYH-1392U. Ignition (100-400V) or dc (12-48V) powered, solid state relay contacts rated 48V dc, 0.5A and/or 400V dc, 0.1A.
- Digital Pyrometer, Model DPYH-1379U. Ignition (100-400V) or dc powered and having alarm contacts rated 400V dc, 0.2A max. Temp Code T3A (180C). Max ambient 85C.

Note: Device is Certified for mounting in suitable enclosure as found acceptable to the local authority having jurisdiction.

- Digital Setpoint Gauge, Models DSG-1301DU, DSG-1301DUP, DSG-1301DUS, DSG-1301DUS-BL, DSG-1601DU, DSG-1601DVP, DSG-1601DU-BL, DSG-1601DUP-BL, DSG-1601DUS and DSG-1601DUS-BL, rated input 12 to 36V dc, 50mA output 4-20mA and solid state output switches rated 200V dc, 200mA max. Max ambient 85C.

Note: Device is Certified for mounting in suitable enclosure as found acceptable to the local authority

having jurisdiction.

- Digital Setpoint Gauge, Models DSG-1201DU/DUP, DSG1401DU/DUP and DSG1401-DU/DUP-BL, input 12 to 36V dc, 50mA; output 4-20mA and solid state output switches rated 200V dc, 140mA max. Max ambient 85C.

Note: Device is Certified for mounting in suitable enclosure as found acceptable to the local authority having jurisdiction.

- CEC Air/Fuel Module, P/N EC91 003, rated 24-30V dc, 2.5A max with "Altronic" control valve assembly, P/N 690154. Temp Code T4.
- CPU-90 Interface Unit, P/N 791901 rated 12-24V dc, 50mA max interconnected per Installation Dwg No 709-945.
- Digital Pyrometer, Model DSM-4388DUS, and DSM-4378DUS, rated 12-30Vdc, 70 mA max; alarm contacts rated 200V dc, 0.2A max. Temp Code T3. Max ambient 85 C.
- Digital Models DSM-4678DUS, DSM-4688DUS and DSM-4689DUS, rated 12-30V dc, 70mA; alarm contacts rated 200V dc, 0.2A max. Temp. Code T3. Max ambient 85 C.
- Digital Pyrometer, Models DPYH-4396U and DPYH-4398U. Ignition (100-400V) or DC (12-48V) powered and having alarm contacts rated 50V dc, 0.1A max. Temp Code T3A (180C). Max Ambient 85C.

Note: Device is Certified for mounting in a suitable enclosure acceptable to the local inspection authority having jurisdiction.

- SIM Ignition Module, rated 10 to 32V dc, 3.5A max. Temp Code T4.

Note: Product to be labeled as Waukesha Engine Co.

- IPM-D Ignition Power Module, rated 10 to 32V dc; Temp Code T4, Max amb. 70 Deg C.
- Note: Product to be labeled as WAUKESHA ENGINE CO.
- Integral Ignition Coil, p/n 59101 8-x, where x represents the length of coil.
- Integral Ignition Coil, p/n 591021-x, where x represents the length of coil.
- Jenbacher Ignition coils type R and M.

Note: to be used with Ignition Cables only.

/ahf