

12-24 VDC Gas Ignition DSI or IP Control



<http://capablecontrols.com>

Dual Voltage Ignition Control

- Matches standard connections
- High Spark Rate / High Spark Energy
- Reverse Polarity Protection
- Multicolor LED Indicator
- High Current Valve Switching Relays 10 Amp
- 12V / 24V operation
- Natural, LP, Manufactured Gasses

Product Overview:

The 12-24 control is designed for new OEM applications, and direct replacement of older 12 and 24VDC gas ignition controls. The 12-24 control is available in either a high impact resin housing or a circuit board with standoffs. An optional two pin header connection is offered for data communication. A 0.2 Amp. remote alarm output is available. Red/Green LEDs are included for enhanced status and troubleshooting. Reverse polarity protection, 12 or 24V operation is available. **Safety-Check** is standard, monitoring the flame safety circuit continuously during operation. With flame signal monitor pins, optional*

Features:

- High Spark Rate with increased output energy per spark.
- 12 or 24 VDC versions.
- Mounts in industry standard footprint.
- Operating and error mode display with bi color LED indicator. (green normal/red fault indication)
- All connections through standard 0.156in, 10pin or 6 pin header (optional)
- 0.5 Ampere protected Alarm Output.
- Listed to: ANSI Z21.20 - CAN/CSA 22.2- No. 60730 -1-2-5, CE

Power Requirement	12VDC -15%, +10%, or 24VDC -15%, +10%
Control Current	85mA typical. (Control only)
Power Consumption	2W nominal at 24VDC (not including valve current)
Valve Switching Current	4 Amperes Pilot and Main
Temperature	-40 to 176° F, -40 to 80°C.
Storage Temperature	-40 to 176° F, -40 to 80°C.
Spark Voltage	18 kVp typical.
Spark Rate	25Hz at nominal voltage and temperature.
Spark Energy	2.0 mJ per spark.
Flame Sensitivity	0.3uA minimum (remote or integral flame sensing)
Flame Fail Response	1.0 seconds
Humidity	5 to 90% non-condensing.
Spark Gap	0.20in. (5mm.) maximum. (Resistive wire recommended)
Trials for Ignition	1 - 10
Ignition Trial Time	1 - 90 seconds.
Pre and Interpurge Time	1 - 200 seconds
Dimensions (in)	1.80in. (45.7mm) high, 2.30in. (59.4 mm) wide, 4.00 (101.6mm) long.
Mounting Hole Pattern	3.65in (92.7mm), 1.95in (49.5mm).
Mounting method	0.425in standoffs (#6 or #8) screw. (Circuit board only)
Weight	2.4 ounces, (68 grams)

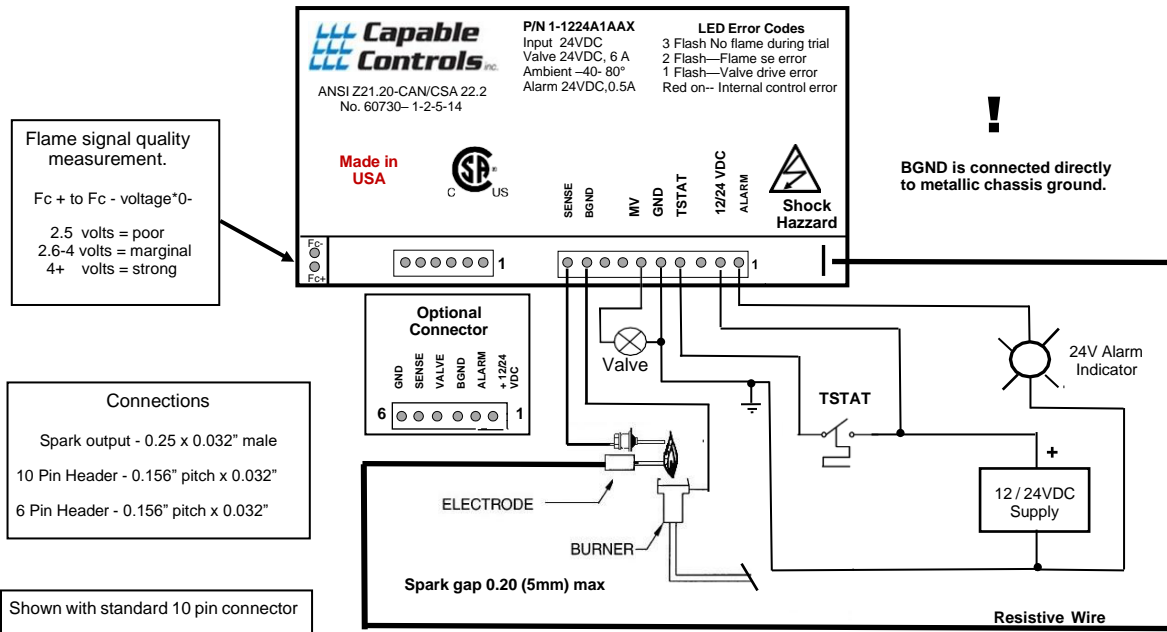
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12-24 data sheet r2

12-24, 11, 2020

Typical Control System Wiring for 12-24V Ignition Control

Wiring for a 24V DSI with separate flame sensor rod type shown



Part Numbering

HIGH VOLTAGE WIRE

The HV Ignition Cable should have a voltage rating of 25KV and an insulation rating of 200C. Resistive Suppression types, UL 3257 or SAE J2031 are recommended, with a maximum length of 3ft or less. Remote sense wire should not be longer than 3ft. With a voltage rating of 300V at 200°C.

MOUNTING AND WIRING

The 12-24 is not position sensitive, the control may be mounted on any surface and fastened with #6 or #8 sheet metal screws. Secure the control in an area with reduced vibration and temperature not exceeding the maximum ambient temperature rating of the control. All connections should be made with UL approved, 105°C rated, 18-gauge stranded wire with .054" minimum insulation thickness. Refer to the appropriate wiring diagram when connecting the 12-24 to other components in the system.

XX-X-X-X-XX-XX-XXX-X-X-X

12 or 24	A or B	A or B	1-9 or 0	00 - 99	00 - 99	003 - 250	Retry	Options	Special
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See 1224 Matrix for full description