Ignition Box
FCE60 for Temperature Control Systems

With a FCE60 Ignition Box you have both ignition and flame control, all in one box using only one electrode.

The FCE60 Ignition Box controls the gas supply and ignites the gas, and monitors the flame throughout operation. Any accidental blow-out of the flame is immediately detected by the Ignition Box and will trigger re-ignition. In case of re-ignition failure, the FCE60 will shut off the gas supply to prevent accidents caused by gas seepage, and send out an error signal.

The FCE60 Ignition Box is compact in size, and very easy to install. As a simple, plug'n'play solution, it has no settings or required software setup. It is extremely robust, designed for use in the roughest environmental conditions.

The FCE60 Ignition Box is certified to EN 298:2012 and ensures compliance to all gas safety requirements as specified by EU law for gas burner systems on road machinery in Machinery Directive 2006/42/EC and Gas Appliances Regulation 2016/426 (GAR).

Tested to EN 13309 it is CE marked and in full compliance of EMC Directive 2014/30/EU.

The FCE60 Ignition Box is backwards compatible with the former non-certfied FCE24 Ignition Box, for systems with up to 4 Ignition Boxes.

EN 298:2012 Certified

FCE60 Ignition box with High Tension Cord and Spark Plug

Product Specifications

Power Supply	12/24 Volt DC System
Power Consumption	Typical at 24 VDC 120 mA Max. 400 mA
Operating Temperature	-10°C to 70°C / 14°F to 158°F
Flame Failure Response Time	<10 Sec.

Product

Part no.	Product	Dimension
S-51590	FCE60 Ignition Box	105x70x40 mm

Ignition Box
FCB24 and FCE24 for Temperature Control Systems

With a FCB24/FCE24 Ignition Box you have both ignition and flame control, all in one box using only one electrode.
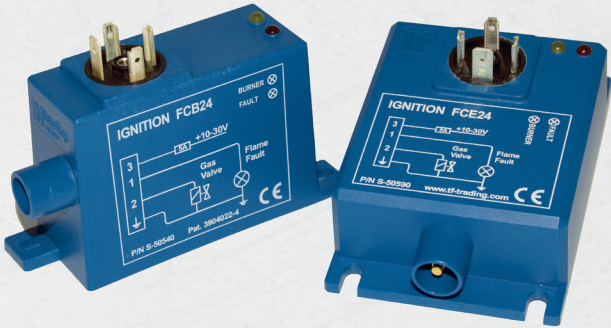
The FCE60 Ignition Box controls the gas supply and ignites the gas, and monitors the flame throughout operation. Any accidental blow-out of the flame is immediately detected by the Ignition Box and will trigger re-ignition. In case of re-ignition failure, the FCE60 will shut off the gas supply to prevent accidents caused by gas seepage, and send out an error signal.

The status of the burner is easily viewed with red and yellow indicator lamps, and the print on the front makes it easy to install the FCB24/FCE24 Ignition Box correctly.
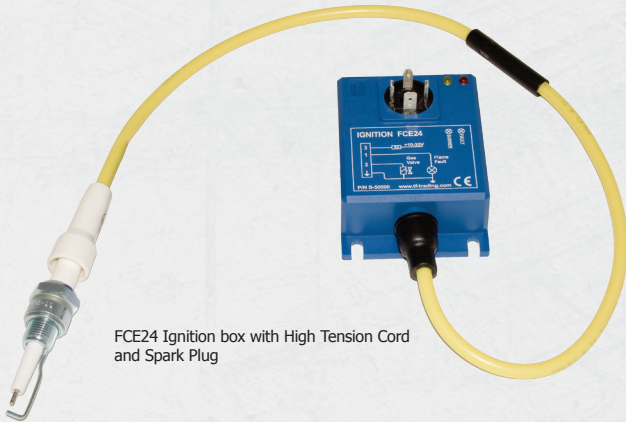
The FCB24 and FCE24 Ignition Boxes are identical with regards to electrical specifications, function and connectivity, but differ by their physical dimensions to suit different preferences for installation.

The FCB24 and FCE24 Ignition Boxes are fully backwards compatible with older model series FCA12V, FCA24V and FCA30V.

NB! The FCE24 and FCB24 are CE marked based on compliance with EMC Directive 2014/30/EU, but DO NOT comply with the gas safety requirements specified by EU law for gas burner systems on road machinery in Machinery Directive 2006/42/EC, and/or Gas Appliances Regulation 2016/426 (GAR)

S-50540 FCB24 and S-50590 FCE24 Ignition Boxes

FCE24 Ignition box with High Tension Cord and Spark Plug

Product Specifications

Power Supply	12/24 Volt System (10-30 VDC)
Power Consumption	Typical at 24 VDC 100 mA Max. 200 mA
Int. Power Consumption	145 mA @ 12V 100 mA @ 24V
Operating Temperature	-10°C to 85°C / 14°F to 185°F
Flame Error Timeout	7 sec.

Product

Part no.	Product	Dimension
S-50540	FCB24 Ignition Box	105x35x70 mm
S-50590	FCE24 Ignition Box	105x70x40 mm

Pt-100 Temperature Sensor
For Temperature Control Systems

The Pt-100 Sensor is a temperature input sensor for the SC5-96, STC1600, TC30b and Temperature Controllers.

The sensor is a platinum RTD (resistance temperature detector) sensor, which measures temperature by correlating the resistance of the RTD element with temperature.

The advantages of platinum resistance temperature sensors include:
- High accuracy
- Low drift
- Wide operating range
- Suitability for precision applications

The unit is specifically designed to withstand the tough working conditions of the construction industry.

Pt-100 Temperature Sensor

Product Specifications

Application	Temperature sensor for paving screeds
Operating Temperature	-25°C to 200°C / -13°F to 392°F
Storage Temperature	-40°C to 200°C / -40°F to 392°F
Maximum Deviation	+/- 1°C / 33.8°F
Sensor Type	Pt-100 DIN B

Gas Solenoid Valves and Spark Plugs
For Temperature Control Systems

S-50053, S-50054

Spark plugs and electromagnetic valves for controlling gas flow with the FCE60, FCE24 and FCB24 Ignition Boxes in gas burner systems.

Only the CE marked Gas Solenoid Valves S-50042, S-50043, S-50044 and S-50045 can be used with the FCE60 Ignition Box for a system compliant with EU legislation - Machinery Directive (MD) and Gas Appliances Directive (GAD) compliant systems. Two gas valves per burner are required for MD and GAD compliance.

Thread type of all Gas Solenoid Valves is G1/4i.
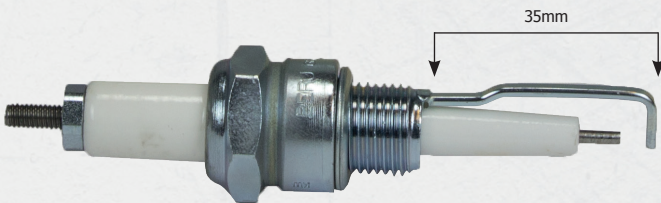
Gas Solenoid Valve, 0-4 Bar, 12/24V
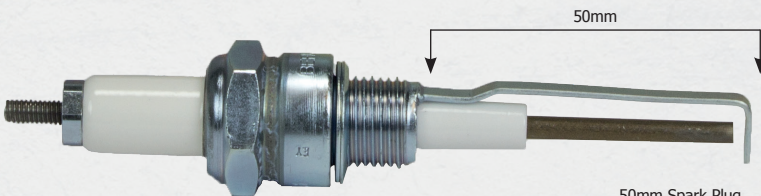
S-50042, S-50043

Gas Solenoid Valve, 0-5 Bar, 12/24V

S-50044, S-50045

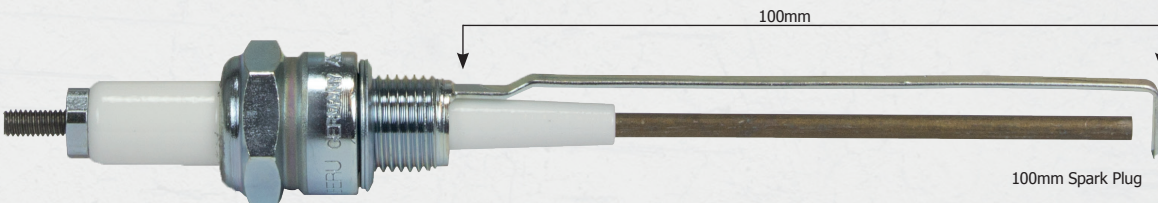Gas Solenoid Valve, 0-3 Bar, 12/24V

35mm
35mm Spark Plug

50mm
50mm Spark Plug

100mm
100mm Spark Plug

Product

Part no.	Product	Connector
S-50015/1,2	Pt-100 Temperature Sensor, 1,2 m	T-plug
S-50015/1,5	Pt-100 Temperature Sensor, 1,5 m	T-plug
S-50015/2,1	Pt-100 Temperature Sensor, 2,1 m	T-plug
S-50015/2,5	Pt-100 Temperature Sensor, 2,5 m	T-plug
S-50015/3,0	Pt-100 Temperature Sensor, 3,0 m	T-plug
S-50015/5,0	Pt-100 Temperature Sensor, 5,0 m	T-plug
S-50019/0,7	Pt-100 Temperature Sensor, 0,7 m	No Plug
S-50019/3,0	Pt-100 Temperature Sensor, 3,0 m	No Plug
S-50019/5,0	Pt-100 Temperature Sensor, 5,0 m	No Plug
S-50019/6,5	Pt-100 Temperature Sensor, 6,5 m	No Plug
S-50124/0,6	Pt-100 Temperature Sensor, 0,6 m	AMP plug
S-50124/1,2	Pt-100 Temperature Sensor, 1,2 m	AMP plug
S-50124/1,5	Pt-100 Temperature Sensor, 1,5 m	AMP plug

Product

Part no.	Product	Installation Position	Power Consumption
S-50042	Gas Solenoid Valve, 0-5 bar, 12V	Arbitrary, but preferably upright	8 W
S-50043	Gas Solenoid Valve, 0-5 bar, 24V	Arbitrary, but preferably upright	8 W
S-50044	Gas Solenoid Valve, 0-5 bar, 12V	Arbitrary, but preferably upright	8 W
S-50045	Gas Solenoid Valve, 0-5 bar, 24V	Arbitrary, but preferably upright	8 W
S-50053	Gas Solenoid Valve, 0-4 bar, 12V	Arbitrary	5 W
S-50054	Gas Solenoid Valve, 0-4 bar, 24V	Arbitrary	5 W
S-50008	Gas spark plug TF-35	35mm	
S-50008/N	Gas spark plug TF-35 w/ nut	35mm	
S-50133	Gas spark plug TF-50	50mm	
S-50133/N	Gas spark plug TF-50 w/ nut	50mm	
S-50009	Gas spark plug TF-100	100mm	
S-50009/N	Gas spark plug TF-100 w/ nut	100mm	

High Tension Cord
For Temperature Control Systems

High Tension Cords to be used with FCB24, FCE24 and FCE60 Ignition Boxes in temperature control systems.

High Tension Cord with ceramic cap, noise resistor and BMW Connector with rubber cap

High Tension Cord with angle cap with built-in noise resistor and BMW Connector with rubber cap

Product

Part no.	Product
S-50007/0,4	High tension cord, 40 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/0,5	High tension cord, 50 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/0,8	High tension cord, 80 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/1,1	High tension cord, 110 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/1,2	High tension cord, 120 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/1,4	High tension cord, 140 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/1,5	High tension cord, 150 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/1,6	High tension cord, 160 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/1,7	High tension cord, 170 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/1,8	High tension cord, 180 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,0	High tension cord, 200 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,1	High tension cord, 210 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,2	High tension cord, 220 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,5	High tension cord, 250 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,6	High tension cord, 260 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,65	High tension cord, 265 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,8	High tension cord, 280 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/2,9	High tension cord, 290 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/3,0	High tension cord, 300 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/3,1	High tension cord, 310 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/3,4	High tension cord, 340 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/3,5	High tension cord, 350 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/4,0	High tension cord, 400 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/4,4	High tension cord, 440 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/4,5	High tension cord, 450 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/4,7	High tension cord, 470 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/5,0	High tension cord, 500 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/5,3	High tension cord, 530 cm, w/ ceramic cap, noise resistor and BMW connector
S-50007/5,85	High tension cord, 585 cm, w/ ceramic cap, noise resistor and BMW connector
S-50041/0,45	High tension cord, 45 cm, w/ angle cap and BMW connector
S-50041/0,9	High tension cord, 90 cm, w/ angle cap and BMW connector
S-50041/2,0	High tension cord, 200 cm, w/ angle cap and BMW connector
S-50041/3,0	High tension cord, 300 cm, w/ angle cap and BMW connector

Accessories
For Temperature Control Systems

Product

Part no.		Product
S-50070		**Connector with Gasket for Ignition Box** 4-Pin Connector with gasket for FCB24/FCE24 Ignition Boxes
S-50060		**BMW Connector** M4-thread connector for connection of High Tension Cable to FCE24/FCB24 Ignition Boxes. The BMW connector requires a specially made Crimping Tool for correct mounting on High Tension Cable. Please see S-50234
S-50113		**Rubber Cap** Rubber Cap for insulation of BMW Connector
S-50026		**Noise Resistor** 1kΩ noise resistor for use on High Tension Cable
S-50059/25		**High Tension Cable** High tension silicone cable. Coil of 25m
S-50234		**Crimping Tool for BMW Connector** Crimping Tool especially made for mounting BMW connector on High Tension Cable
S-50150		**Angle Cap** Spark Plug Cap angled at 90º with built-in 1kΩ noise resistor
S-50023		**Ceramic Cap** Woodscrew wire connection, 50mm long
S-50067		**Thread Mount** Thread Mount, Ø18mm