Design:
3-way solenoid valve, internally piloted, normally closed (Circuit function C) or normally open (Circuit function D).

Seal Materials and Fluids handled:
See Table1.

Fluid and Ambient Temperature:
For Hazardous Locations Div. 1 (T4 rated)
Max. Ambient Temperature 104 °F (40 °C)
Max. Fluid Temperature 194 °F (90 °C)

For Hazardous Locations Div. 2 and Ordinary Locations:
See Table1.

Pressure Range:
Minimum pressure differential between inlet and outlet port is 7 PSI.
Maximum inlet pressure see label on valve.

Installation:
Before installing valve ensure that piping etc. is free of foreign matter (metal fillings, seal material, welding scale etc.). PTFE tape is recommended for sealing ports. Arrow on valve body gives flow direction. Installation as required but preferable with coil uppermost. Installation in this position tends to prevent foreign matter remaining in pilot valve (increased life). A strainer upstream of valve, protects against effects of foreign matter. Do not put any loads on coil unit. Pipework should be supported such that valve body is not under strain. Do not allow a pipe-end or sealing material to block the pilot bore within the valve outlet. Inlet and outlet of valve must be fullbore and pipework unrestricted.

Table 1		Seal material
Fluid	**Temperatures [°F]**	Buna „N‰ (B)
Air	Fluid T. Ambient	+ 14 to + 194 + 14 to + 130
Water	Fluid T. Ambient	+ 50 to + 194 + 32 to + 130
Neutral gas	Fluid T. Ambient	+ 14 to + 194 + 14 to + 130
Light oil	Fluid T. Ambient	+ 50 to + 194 + 14 to + 130

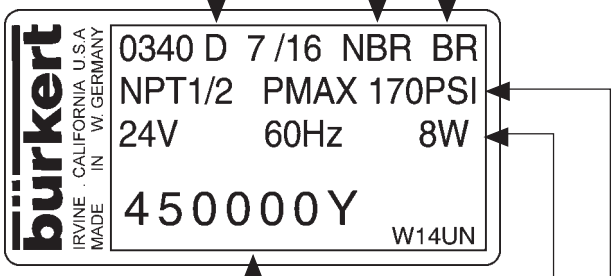
Voltage 12V or 24V
UL / UR valid with
class 2 power supply only

Marking (example):

Body Material
BR = Brass

Seal Material
NBR = NBR

Circuit Function
C = Normally Closed
D = Normally Open



Recorder No.

Voltage / Frequency / Power Consumption

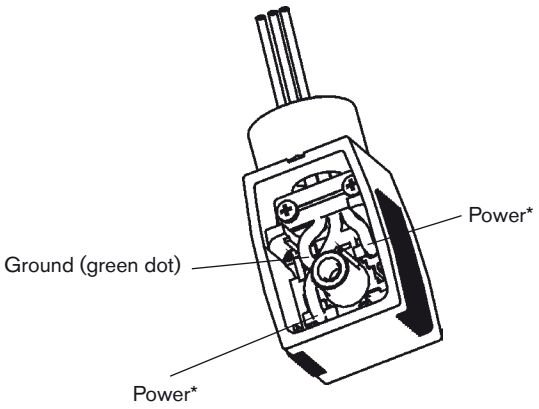
Maximum Pressure

Approvals
The valve is either approved as
General Purpose valve for Hazardous Locations
Class I, Division 1, Group A, B, C, D
Class II, Division 1, Group E, F, G
Class III, Division 1 and 2
Operating Temperature T 4
or
FM approved as
Nonincendive for Hazardous Locations
Class I, Division 2, Group A, B, C, D
Class II, Division 2, Group F, G
Class III, Division 1 and 2
Operating Temperature T 4A
UL listed for Ordinary locations
CSA approved for Ordinary locations
See label on the valve.

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Wiring Diagram

Electrical Connection Type 2509



* Orientation is not important

Electrical Connection:
Ensure supply voltage/frequency corresponds with that on label.
Voltage tolerance is ± 10 %.
Available Electrical Connections see “Marking”.
Wiring diagram see above.

For this product to be considered UL-listed and CSA approved for General Purpose and FM approved for Hazardous Locations Division 2, it must be in conjunction with the type 2509 cable plug connector (Electrically Operated Valves Parts, YSYI2).
The connector and gasket must be assembled to the valve with the screw provided after the connection of the wire leads. This valve and connector assembly is delivered together and is to be used as one unit.

For valves to be used in Intrinsically Safe Applications the positive pole is identified by a “+” on the pin or wire No. 1 has to be connected to the “+”.
See Control Drawing for the Rules of Interconnection.

Warning:
All valves to be used in Intrinsically Safe Applications must be clearly marked as Intrinsically Safe Apparatus.

Trouble-Shooting:
Check port connections, minimum operating pressure differential if required and supply voltage. Ensure pilot hole in piston is clear and pilot bore in the valve outlet is not abstracted. If core does not pull in, check for short circuit, coil burn-out or foreign matter impeding core movement. A jammed or missing core causes the coil to overheat in the case of AC supply.

Warning:
These products are designed to operate in a wide variety of applications, it is the user’s responsibility to select a model that is appropriate for the application. This product is designed to be installed only by suitably qualified and trained personnel. Specifications should not be exceeded under any circumstances.

The torque for the terminal screw on type 2509 is 0,5 Nm (4,4 lbf-in.).

Changes made to this product will render any applicable warranty null and avoid.

Specifications subject to change without notice.

Any questions? Please call Bürkert Contromatic Technical Service at (949) 223 31 00.

MAN 1000010135 EN Version: I Status: RL (released | freigegeben) printed: 19.04.2013

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