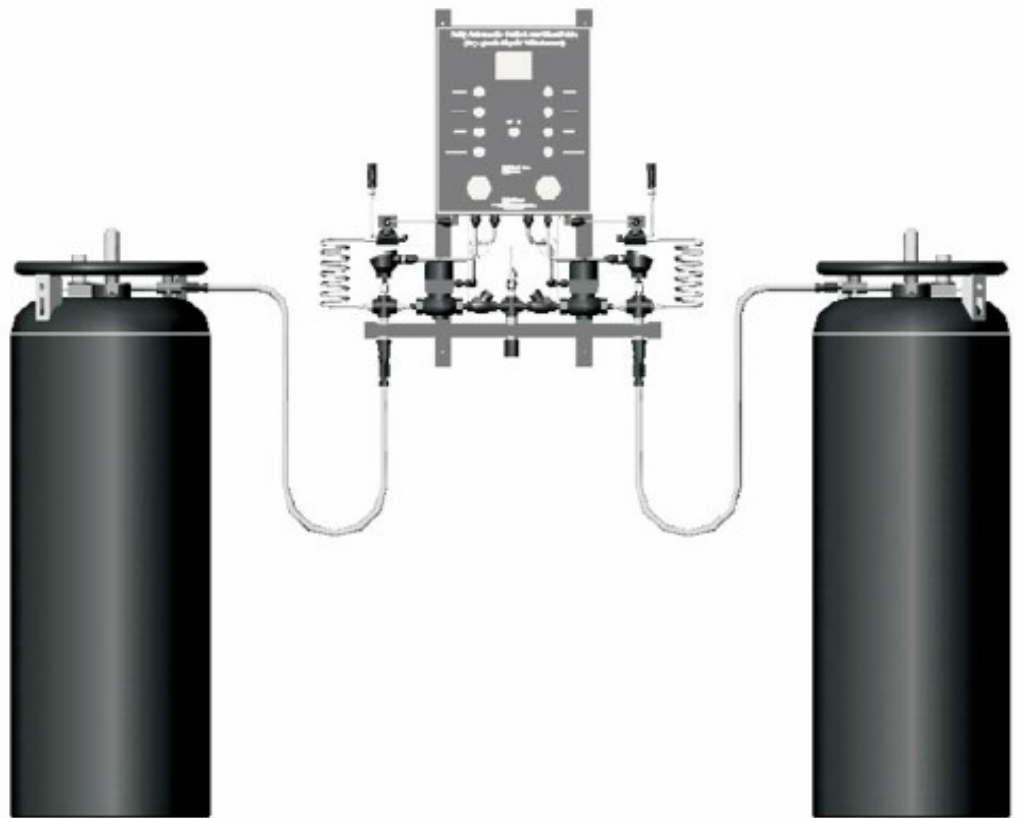


EQUIPMENT BROCHURE

*Fully Automatic
Switchover Manifolds for
Cryogenic Cylinders*

Liquid Withdrawal

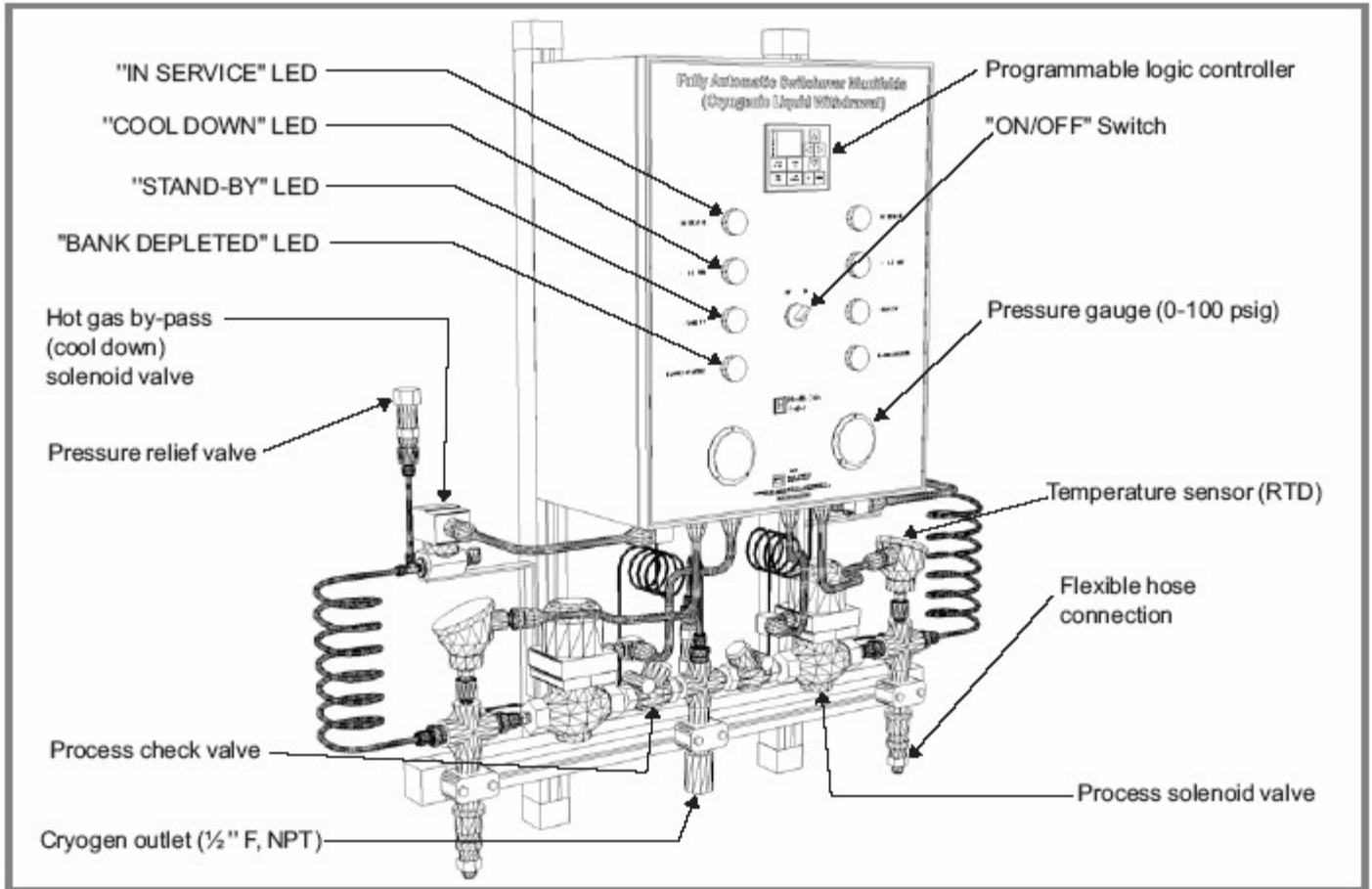


Helping our customers to become more effective



WESTERN INNOVATOR

CTM75 Series Fully Automatic Switchover Manifold for Liquid Cylinders (Liquid Withdrawal/Dispensing)



Description

The CTM75 Cryo Transfer Manifold assures a continuous supply of cryogenic liquid. It is set to transfer from the “in use” empty bank to the “reserve” full bank based on pressure and temperature.

This PLC-based system is continuously monitoring the pressure and temperature of both banks. In “read only” mode, the PLC screen indicates actual pressure and temperature of each bank and compared them to their switchover (target) settings. In “programming” mode, the PLC allows you to change the switchover settings.

The LEDs indicate the status of each bank at all times.

Standard Features

- Continuous cryogenic liquid supply.
- Automatic switchover from “depleted” bank to “stand-by” bank without operator’s involvement.
- Built-in “hot gas by-pass” for each manifold side.
- Audible (optional) and visual alarms indicating when a supply side is depleted.
- Two supply modes:
 - On Demand
 - Keep Full
- Use the entire amount of cryogenic gas in the liquid cylinders.
- Eliminates downtime due to empty cylinders.
- Easy field pressure and temperature settings to better meet your applications needs.

How To Order - Part Number Matrix

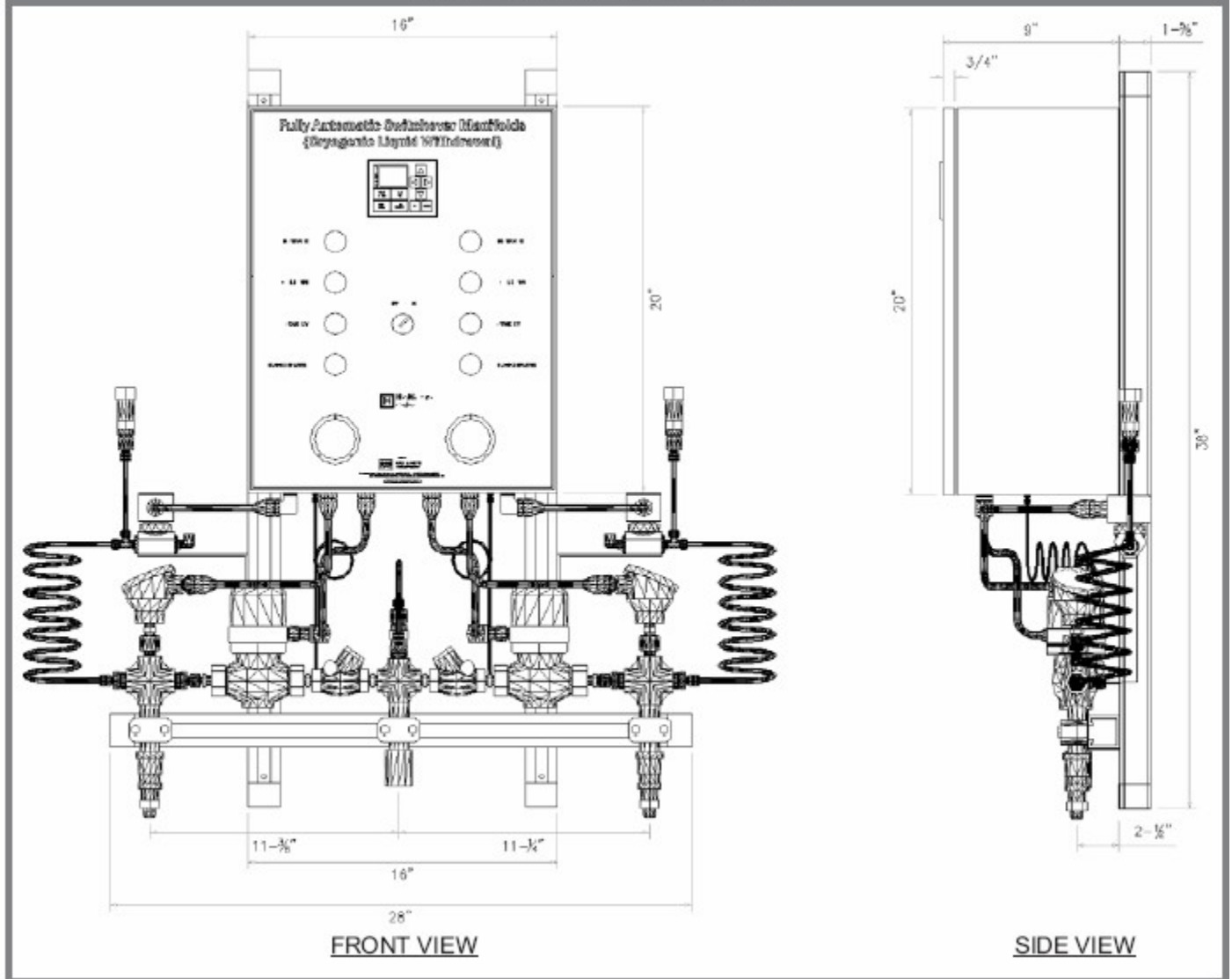
CTM75					
Basic Series	Service Gas	Qty. Of Cyl. (Max. 2 cylinders)	Qty. Of Cyl. (Max. 2 cylinders)	Application	Options
	Argon = Ar			Bio Medical = BM	Floor Stand = FS
	Nitrogen = N ₂			Laser = L	Audible Alarm = AA
	Oxygen =			Industrial = I	Flashing Beacon = FB
	O ₂			High Purity = HP	Vacuum Insulated
					Flexible Hose = VJH



**WESTERN
INNOVATOR**

**CTM75 Series
Fully Automatic Switchover
Manifold for Liquid Cylinders
(Liquid Withdrawal/Dispensing)**

DIMENSIONAL DRAWING



OPERATION MODE DESCRIPTION

ON - DEMAND

The "On - Demand" supply mode vents the "hot gas" coming from the liquid cylinders through the cool down solenoid valve before opening the process solenoid valve. The process solenoid valve will open only when receiving an external signal. The same process occurs during the switchover between the depleted "in use" side to the "full reserve" side.

KEEP FULL

The "Keep Full" supply mode assures instant liquid withdrawal whether or not dispensing. The system monitors both pressure and temperature and keeps optimal conditions by opening and closing the cool down solenoid valves. By doing so, quality liquefied gas is maintained up to the process solenoid valves. Thus, the CTM75 will dispense cryogenic liquid within seconds. Because both sides are "Kept Full" at all times, the "reserve bank" will immediately supply cryogenic liquid as soon as the "in use" side is depleted. The end user must be aware that the "Keep Full" supply mode will vent product to atmosphere if the demand is low.



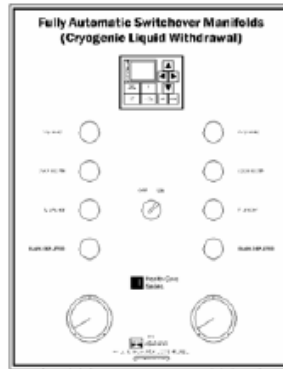
WESTERN INNOVATOR

CTM75 Series Fully Automatic Switchover Manifold for Liquid Cylinders (Liquid Withdrawal/Dispensing)

FLOW DIAGRAM & ELECTRICAL DATA

POWER REQUIREMENTS

110 VAC, 5 Amp

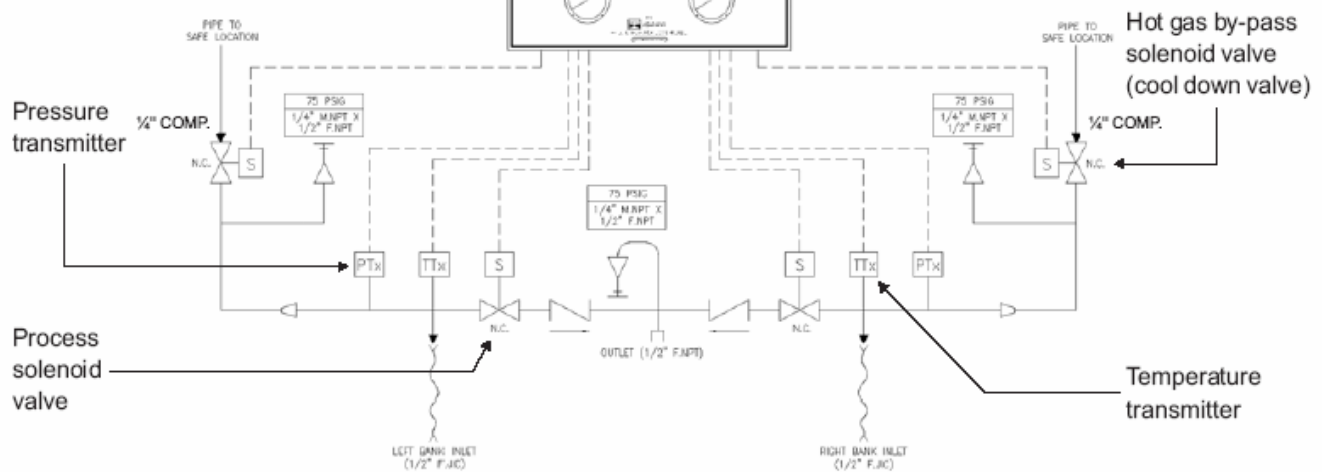


EXTERNAL SIGNAL ALLOWED

Dry contact: 24 VDC circuit

energized by the
CTM75

Electrical signal: 110 VAC circuit
energized by the
end user



STANDARD MATERIALS OF CONSTRUCTION

Part Description

Process solenoid valve	Body: cast brass - Plunger: 430 St. Stl. - Seal: Teflon
Temperature sensor	Well: 316 St. Stl.
Pressure transmitter	Body & diaphragm: 316 St. Stl.
Cool down solenoid valve	Body: brass
Fittings	304 St. Stl. - Brass: CDA 360
Relief valves	Body: brass - Spring: St. Stl. - Disc: fluorosilicone
Flexible hoses	Fittings: 316 St. Stl. - Innercore: 304 St. Stl. - Braiding: St. Stl.

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