

940 Series Heavy Duty Control Valve

CONTROL VALVES

Actuator
(shown with
optional
positioner)

Valve
Body



▶ Diaphragm Actuated

▶ 14" & 17"
Actuator Sizes

▶ Heavy Duty Die Cast
Housing and Yoke

▶ 1/2" – 8" Valve Sizes

The Trerice **940 Series** Pneumatic Control Valve offers extreme quality and maximum valve performance. The Series 940 is available in a variety of 2-way and 3-way valve styles for industrial, demanding HVAC and commercial process applications. The 940 Actuator can be furnished with a 14" or 17" diaphragm and includes a rugged, die cast aluminum diaphragm chamber.

For optimal performance, the service conditions (medium, flow, temperature, inlet and outlet pressures) of the application must be considered when selecting a valve. Please refer to the Valve Selection Section of this catalog. Consult the Valve Selection tables for the capabilities of a particular valve/actuator assembly. A positioner may be required to maximize the close-off capability of the valve. Improper application may cause failure of the valve, resulting in possible personal injury or property damage.

For replacement or service parts please see Accessories and Replacement Parts in the Regulators and Control Valves section of the list price sheet.

940B shown

HOW TO ORDER

Sample Order Number: **940B-K84-760P**

Actuator Models	Valve Body Number	Positioner Model
940B 940C	Refer to pages 250-257	760P Pneumatic 760E Electropneumatic Omit if None

1. **Determine** the valve size, style and material required by the application.
2. **Consult** the Valve Selection table to determine the required Valve Model.
3. **Refer** to the maximum close-off pressure columns to determine the Actuator (with or without positioner) needed to provide the close-off pressure required by your application.
4. **Specify** the Actuator Model.
5. **Specify** the Valve Body Number.
6. **Specify** the Positioner Model (if required).

Valve Body Selection

(for 940 Series Heavy Duty Control Valve)

CAST IRON

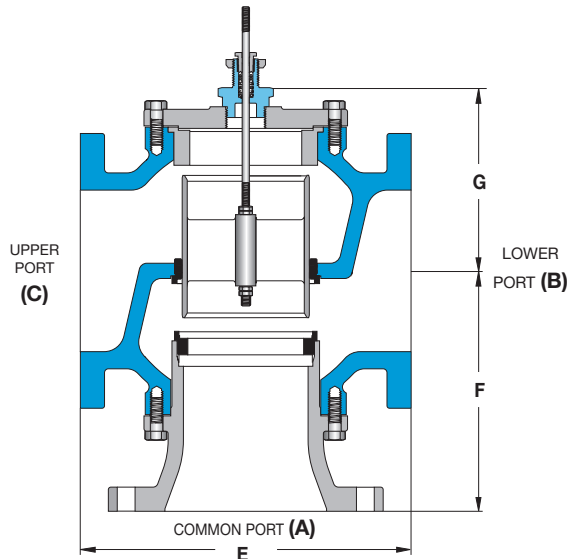
3-WAY • 2 1/2" – 8"



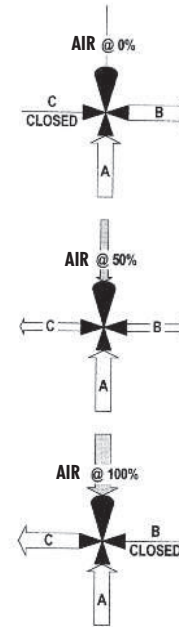
All dimensions are nominal. Dimensions in [] are in millimeters.

CONTROL VALVES

Diverting



DIVERTING FLOW DIAGRAM



Diverting Size	Class 125			Class 250		
	E	F	G	E	F	G
2 1/2"	9.0 [229]	7.1 [180]	5.5 [140]	9.6 [244]	7.4 [188]	5.5 [140]
3"	10.0 [254]	8.0 [203]	6.1 [155]	10.8 [274]	8.4 [213]	6.1 [155]
4"	13.0 [330]	9.9 [251]	7.1 [180]	13.6 [345]	10.3 [262]	7.1 [180]
5"	12.0 [305]	10.5 [267]	7.5 [191]	12.9 [328]	11.0 [279]	7.5 [191]
6"	14.1 [358]	11.1 [282]	8.1 [206]	14.5 [368]	11.5 [292]	8.1 [206]
8"	16.3 [414]	11.8 [300]	9.2 [234]	N/A	N/A	N/A

Trerice 3-Way Valves are not designed for use in steam applications.

Specifications

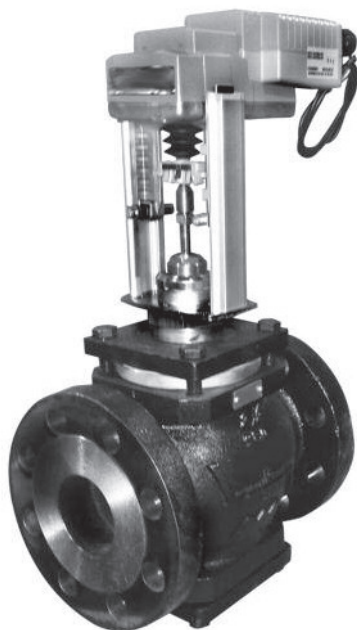
Body Material	Trim Material	Trim Style	Close-off	Connection	Pressure & Temperature Rating
Cast-iron	Bronze	Linear	Class II	Class 125 flanged Class 250 flanged	140 PSI @ 300°F (149°C) 310 PSI @ 300°F (149°C)

Valve Body Selection

Diverting					Maximum Close-Off Pressure (psid)					
Valve Body Number		Size		C _v	Actuator				Approximate Shipping Wt.	
Class 125	Class 250	Connection (Flanged)	Nominal Port		940B	940B w/Positioner	940C	940C w/Positioner	Class 125	Class 250
K75	L75	2½	2½"	68	x	110	x	x	59 lbs [26.8 kg]	73 lbs [33.1kg]
K80	L80	3	3"	85	x	108	x	x	78 lbs [35.4 kg]	94 lbs [42.6 kg]
K85	L85	4	4"	160	x	106	x	111	138 lbs [62.6 kg]	164 lbs [74.4 kg]
K90	L90	5	5"	195	x	104	x	108	152 lbs [68.9 kg]	213 lbs [96.6 kg]
K95	L95	6	6"	270	x	102	x	106	203 lbs [92.1 kg]	284 lbs [128.8 kg]
K100	N/A	8	8"	425	x	x	x	104	316 lbs [143.3 kg]	N/A

940E Series Electric Motor Control Valve

CONTROL VALVES



940E-25 shown

- ▶ Fail Open or Closed
- ▶ Cast Aluminum Construction
- ▶ 1/2" – 6" Valve Sizes

The Trerice **940E Series** Control Valve uses a 24 Volt power supply (AC or DC) to proportionally stroke the valve via an electric motor drive actuator. The actuator will drive the valve stem up or down (to open or close the valve) in relation to a factory set 2-10 Vdc input signal (field switchable to 4-20 mA) from a controller. These electric motors can be specified to "fail-open" or "fail-closed" should a loss of control signal or actuator supply power occur. Actuators are available in two sizes: "25" for standard applications and "26" which provides for increased close-off capabilities and is required for use on some larger size valves.

For optimal performance, the service conditions (medium, flow, temperature, inlet and outlet pressures) of the application must be considered when selecting a valve. Please refer to the Valve Selection Section of this catalog. Consult the Valve Selection tables for the capabilities of a particular valve/actuator assembly. Improper application may cause failure of the valve, resulting in possible personal injury or property damage.

For replacement or service parts please see Accessories and Replacement Parts in the Regulators and Control Valves section of the list price sheet.

Specifications

Model
940E

Actuators
25, 26

Construction
Aluminum Die-Cast Yoke,
Plastic Housing

Power Supply
24 VAC, $\pm 20\%$ 50/60 Hz, 21 VA or
24 Vdc, $\pm 10\%$, 21 VA

Input Signal
2-10 Vdc
(field switchable to 4-20 mA)

Fail Position
Stem-Out (open),
Stem-In (closed)
Manual Over-ride Feature included
with all models

Stroke Time (no Load)
Controlled Stroke: 90 seconds
Fail-Safe Stroke: 35 seconds

Protection
NEMA 2 (indoor only)

Maximum Temperature
Ambient: +32 to +122°F (0-50°C)
Process Flow: See specific valve

Humidity
Maximum: 95% RH

Approximate Shipping Weight
Actuator:
25: 4.5 lbs [2 kg]
26: 8.5 lbs [3.9 kg]

Valve Body:
see Valve Selection tables

HOW TO ORDER

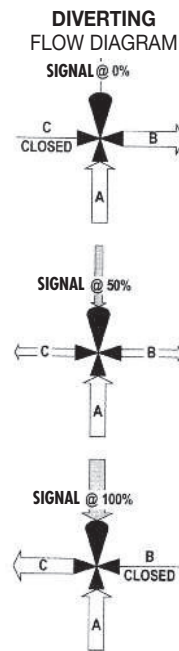
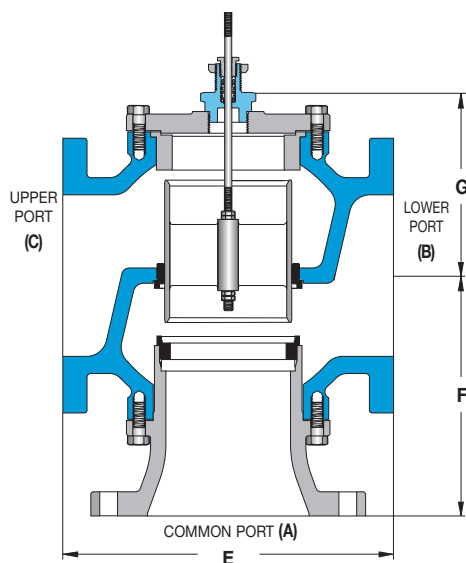
Sample Order Number: **940E-25-J36-17**

Model	Actuator Size	Valve Body Number	Power Supply	Fail Position
940E	25 26	Refer to pages 260-268	1 24 VAC/Vdc (universal)	6 Stem-Out (open) 7 Stem-In (closed)

1. **Determine** the valve size, style and material required by the application.
2. **Consult** the Valve Selection table to determine the required Valve Body.
3. **Refer** to the maximum close-off pressure columns to determine the Actuator Size needed to provide the close-off pressure required by your application.
4. **Specify** the Model and Actuator Size.
5. **Specify** the Valve Body Number.
6. **Specify** the Power Supply and Fail Position codes.



Diverting



CONTROL VALVES

Size	Class 125			Class 250		
	E	F	G	E	F	G
2 1/2"	9.0 [229]	7.1 [180]	5.5 [140]	9.6 [244]	7.4 [188]	5.5 [140]
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Trerice 3-Way Valves are not designed for use in steam applications.

Specifications

Body Material	Trim Material	Trim Style	Connection	Pressure & Temperature Rating
Cast-iron	Bronze	Linear	Class 125 flanged Class 250 flanged	140 PSI @ 300°F (149°C) 310 PSI @ 300°F (149°C)

Valve Body Selection

					Maximum Close-Off Pressure (psid)*			
Valve Body Number		Size		C _v	Actuator Size 26		Approximate Shipping Wt.	
Class 125	Class 250	Connection (Flanged)	Nominal Port		Class III	Class IV	Class 125	Class 250
K75	L75	2 1/2	2 1/2"	68	125	x	59 lbs [26.8 kg]	73 lbs [33.1 kg]
K80	L80	3	3"	85	125	x	78 lbs [35.4 kg]	94 lbs [42.6kg]
K85	L85	4	4"	160	Consult Factory		138 lbs [62.6 kg]	157 lbs [71.2 kg]
K90	L90	5	5"	195	Consult Factory		152 lbs [68.9 kg]	213 lbs [96.6 kg]

*Close-Off is Class II