# **EV400SU-317 Technical Data Sheet**

Stainless Steel Ball, ANSI 125 Flange





Copen loop/steam not allowed)   Flow characteristic	Technical Data	
Flow characteristic equal percentage or linear GPM Range 95-317  Valve Size [mm] 4" [100] Pipe connector pattern to mate with ANSI 125 flange Housing Cast iron - GG 25 Flow measuring pipe Ductile cast iron - GGG50  Ball stainless steel Stem stainless steel Stem seal EPDM (lubricated) Seat PTFE O-ring EPDM (lubricated) Characterized disc stainless steel Package EPDM Body Pressure Rating ANSI Class 125, standard class B ANSI Class 125 Number of Bolt Holes 8 Differential Pressure Range 550 psi or 150 psi see flow reductions chart in tech doc Close-off pressure \( \Delta \) psi Ambient temperature -22122°F [-3050°C] Inlet Length to Meet Specified Measurement Accuracy Ambient humidity max. 95% r.H., non-condensing Measuring accuracy flow ±2%* Control accuracy ±5% Flow Measurement Repeatability ±0.5% Sensor Technology ultrasonic with glycol and temperature compensation Temperature Sensors Pt1000 insertion sensors with thermal well Temperature Measurement According to Pt1000 DIN EN60751 Class Incompany accuracy flow according to Pt1000 DIN EN60751 Class Incompany accuracy flow according to Pt1000 DIN EN60751 Class Incompany accuracy flow according to Pt1000 DIN EN60751 Class Incompany accuracy flow according to Pt1000 DIN EN60751 Class Incompany accuracy flow according to Pt1000 DIN EN60751 Class Incompany accuracy flow according to Pt1000 DIN EN60751 Class Incompany accuracy flow accuracy flow accuracy flow accuracy flow accuracy flow flow of Temperature Sensor flow of Temper		chilled or hot water, up to 60% glycol max
GPM Range       95-317         Valve Size [mm]       4" [100]         Pipe connector       pattern to mate with ANSI 125 flange         Housing       Cast iron - GG 25         Flow measuring pipe       Ductile cast iron - GGG50         Ball       stainless steel         Stem       stainless steel         Stem seal       EPDM (lubricated)         Seat       PTFE         O-ring       EPDM (lubricated)         Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Aps       1.75 psi         Ambient temperature Δps       1.75 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified       5X nominal pipe size (NPS)         Measurement Accuracy       4x°         Ambient humidity       max. 95% r.H., non-condensing         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation </td <td></td> <td></td>		
Valve Size [mm]       4" [100]         Pipe connector       pattern to mate with ANSI 125 flange         Housing       Cast iron - GG 25         Flow measuring pipe       Ductile cast iron - GGG50         Ball       stainless steel         Stem       stainless steel         Stem seal       EPDM (lubricated)         Seat       PTFE         O-ring       EPDM (lubricated)         Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Range       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified       5X nominal pipe size (NPS)         Measurement Accuracy       42%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Sensors       P11000 insertion sensors with thermal well         Temperature Measurement According to Pt1000 DIN EN	Flow characteristic	equal percentage or linear
Pipe connector         pattern to mate with ANSI 125 flange           Housing         Cast iron - GG 25           Flow measuring pipe         Ductile cast iron - GGG50           Ball         stainless steel           Stem         stainless steel           Stem seal         EPDM (lubricated)           Seat         PTFE           O-ring         EPDM (lubricated)           Characterized disc         stainless steel           Package         EPDM           Body Pressure Rating         ANSI Class 125, standard class B           ANSI Class         125           Number of Bolt Holes         8           Differential Pressure Aps         1.50 psi or 150 psi see flow reductions chart in tech doc           Close-off pressure Δps         175 psi           Ambient temperature         -22122°F [-3050°C]           Inlet Length to Meet Specified         5X nominal pipe size (NPS)           Measurement Accuracy         5X nominal pipe size (NPS)           Measuring accuracy flow         ±2%*           Control accuracy         ±5%           Flow Measurement Repeatability         ±0.5%           Sensor Technology         ultrasonic with glycol and temperature compensation           Temperature Measurement         According to Pt1000	GPM Range	
Housing       Cast iron - GG 25         Flow measuring pipe       Ductile cast iron - GGG50         Ball       stainless steel         Stem       stainless steel         Stem seal       EPDM (lubricated)         Seat       PTFE         O-ring       EPDM (lubricated)         Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Ange       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified       5X nominal pipe size (NPS)         Measurement Accuracy       5X nominal pipe size (NPS)         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Sensors       P11000 insertion sensors         with thermal well         Temperature Measurement Tolerance       According to Pt1000 DIN EN60751 Class In acc	Valve Size [mm]	4" [100]
Flow measuring pipe Ball stainless steel Stem stainless steel Stem seal EPDM (lubricated) Seat PTFE O-ring EPDM (lubricated) Characterized disc stainless steel Body Pressure Rating ANSI Class 125, standard class B ANSI Class 125 Number of Bolt Holes 8 Differential Pressure Range 550 psi or 150 psi see flow reductions chart in tech doc Close-off pressure \Delta ps 175 psi Ambient temperature -22122°F [-3050°C] Inlet Length to Meet Specified Measurement Accuracy Ambient humidity max. 95% r.H., non-condensing Measuring accuracy flow ±2%* Control accuracy ±5% Flow Measurement Repeatability ±0.5% Sensor Technology ultrasonic with glycol and temperature compensation Temperature Sensors Pt1000 insertion sensors with thermal well Temperature Measurement According to Pt1000 DIN EN60751 Class Internace Resolution of Temperature Sensor Rated impulse voltage supply actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV Rangeability Sv 100:1 Degree of Protection NEMA 1, UL Enclosure Type 1 Weight 93 lb [42 kg] Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Pipe connector	pattern to mate with ANSI 125 flange
Ball       stainless steel         Stem       stainless steel         Stem seal       EPDM (lubricated)         Seat       PTFE         O-ring       EPDM (lubricated)         Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Range       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified       5X nominal pipe size (NPS)         Measurement Accuracy       5X nominal pipe size (NPS)         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Sensors       Pt1000 insertion sensors with thermal well         Temperature Measurement According to Pt1000 DIN EN60751 Class International Control of Temperature Sensor       0.18°F [0.1°C]         Rated impulse voltage supply       accurator/sensor: 0.8 kV (in accordance with EN60730-1) kV	Housing	Cast iron - GG 25
Stem       stainless steel         Stem seal       EPDM (lubricated)         Seat       PTFE         O-ring       EPDM (lubricated)         Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Range       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified Measurement Accuracy       5X nominal pipe size (NPS)         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Measurement Tolerance       According to Pt1000 DIN EN60751 Class International propertion sensors with thermal well         Temperature Measurement Tolerance       According to Pt1000 DIN EN60751 Class International propertion sensor in the propertion of Temperature Sensor         Rated impulse voltage supply       actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV         Rangeability Sv       100:1	Flow measuring pipe	Ductile cast iron - GGG50
Stem seal EPDM (lubricated)  Seat PTFE  O-ring EPDM (lubricated)  Characterized disc stainless steel  Package EPDM  Body Pressure Rating ANSI Class 125, standard class B  ANSI Class 125  Number of Bolt Holes 8  Differential Pressure Range 550 psi or 150 psi see flow reductions chart in tech doc  Close-off pressure Δps 175 psi  Ambient temperature -22122°F [-3050°C]  Inlet Length to Meet Specified 5X nominal pipe size (NPS)  Measurement Accuracy  Ambient humidity max. 95% r.H., non-condensing  Measuring accuracy flow ±2%*  Control accuracy ±5%  Flow Measurement Repeatability ±0.5%  Sensor Technology ultrasonic with glycol and temperature compensation  Temperature Sensors Pt1000 insertion sensors with thermal well  Temperature Measurement Tolerance  Resolution of Temperature Sensor 0.18°F [0.1°C]  Rated impulse voltage supply actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV  Rangeability Sv 100:1  Degree of Protection NEMA 1, UL Enclosure Type 1  Weight 93 lb [42 kg]  Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Ball	stainless steel
Seat       PTFE         O-ring       EPDM (lubricated)         Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Range       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified Measurement Accuracy       5X nominal pipe size (NPS)         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Sensors       Pt1000 insertion sensors with thermal well         Temperature Measurement Tolerance       According to Pt1000 DIN EN60751 Class International Control of Temperature Sensor         Resolution of Temperature Sensor       0.18°F [0.1°C]         Rated impulse voltage supply       actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV         Rangeability Sv       100:1         Degree of Protection       NEMA 1, UL Enclosure Type 1         Weight	Stem	stainless steel
O-ring       EPDM (lubricated)         Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Range       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified Measurement Accuracy       5X nominal pipe size (NPS)         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Sensors       Pt1000 insertion sensors with thermal well         Temperature Measurement Tolerance       According to Pt1000 DIN EN60751 Class In accuration of Temperature Sensor         Rated impulse voltage supply       actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV         Rangeability Sv       100:1         Degree of Protection       NEMA 1, UL Enclosure Type 1         Weight       93 lb [42 kg]         Remote Temperature Sensor       Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4 <td>Stem seal</td> <td>EPDM (lubricated)</td>	Stem seal	EPDM (lubricated)
Characterized disc       stainless steel         Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Range       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified Measurement Accuracy       5X nominal pipe size (NPS)         Measurement Accuracy       max. 95% r.H., non-condensing         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Sensors       Pt1000 insertion sensors with thermal well         Temperature Measurement Tolerance       According to Pt1000 DIN EN60751 Class International Control of Temperature Sensor         Rated impulse voltage supply       actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV         Rangeability Sv       100:1         Degree of Protection       NEMA 1, UL Enclosure Type 1         Weight       93 lb [42 kg]         Remote Temperature Sensor       Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 1	Seat	PTFE
Package       EPDM         Body Pressure Rating       ANSI Class 125, standard class B         ANSI Class       125         Number of Bolt Holes       8         Differential Pressure Range       550 psi or 150 psi see flow reductions chart in tech doc         Close-off pressure Δps       175 psi         Ambient temperature       -22122°F [-3050°C]         Inlet Length to Meet Specified Measurement Accuracy       5X nominal pipe size (NPS)         Measurement Accuracy       max. 95% r.H., non-condensing         Measuring accuracy flow       ±2%*         Control accuracy       ±5%         Flow Measurement Repeatability       ±0.5%         Sensor Technology       ultrasonic with glycol and temperature compensation         Temperature Sensors       Pt1000 insertion sensors with thermal well         Temperature Measurement Tolerance       According to Pt1000 DIN EN60751 Class International Control of Temperature Sensor         Rated impulse voltage supply       actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV         Rangeability Sv       100:1         Degree of Protection       NEMA 1, UL Enclosure Type 1         Weight       93 lb [42 kg]         Remote Temperature Sensor       Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	O-ring	EPDM (lubricated)
Body Pressure Rating ANSI Class 125 Number of Bolt Holes 8 Differential Pressure Range 550 psi or 150 psi see flow reductions chart in tech doc Close-off pressure Δps 175 psi Ambient temperature -22122°F [-3050°C] Inlet Length to Meet Specified Measurement Accuracy Ambient humidity max. 95% r.H., non-condensing Measuring accuracy flow ±2%* Control accuracy ±5% Flow Measurement Repeatability ±0.5% Sensor Technology ultrasonic with glycol and temperature compensation Temperature Sensors Pt1000 insertion sensors with thermal well Temperature Measurement According to Pt1000 DIN EN60751 Class International Control accuracy accuracy accuracy flow in the management According to Pt1000 DIN EN60751 Class International Control accuracy a	Characterized disc	stainless steel
ANSI Class Number of Bolt Holes  Differential Pressure Range  Differential Pressure Range  Substitute 175 psi  Ambient temperature  Inlet Length to Meet Specified Measurement Accuracy Ambient humidity  Measuring accuracy flow  Control accuracy  Flow Measurement Repeatability  Sensor Technology  Temperature Sensors  Resolution of Temperature Sensor  Rangeability Sv  Degree of Protection  NEMA 1, UL Enclosure Type 1  Weight  Passor Specifical Substitute 1.5 psi or 150 psi see flow reductions chart in tech doc  175 psi  550 psi or 150 psi see flow reductions chart in tech doc  175 psi  550 psi or 150 psi see flow reductions chart in tech doc  175 psi  550 psi or 150 psi see flow reductions chart in tech doc  175 psi  5x nominal pipe size (NPS)  5x nominal pipe size (NPS)  4x 2%*  Control accuracy  ±5%  Flow Measurement Repeatability  ±0.5%  Sensor Technology  ultrasonic with glycol and temperature compensation  Pt1000 insertion sensors  with thermal well  According to Pt1000 DIN EN60751 Class in the properties of the prop	Package	EPDM
ANSI Class Number of Bolt Holes  Differential Pressure Range  Differential Pressure Range  Substitute 175 psi  Ambient temperature  Inlet Length to Meet Specified Measurement Accuracy Ambient humidity  Measuring accuracy flow  Control accuracy  Flow Measurement Repeatability  Sensor Technology  Temperature Sensors  Resolution of Temperature Sensor  Rangeability Sv  Degree of Protection  NEMA 1, UL Enclosure Type 1  Sensor, 1.50 psi see flow reductions chart in tech doc  Substitute 1.50 psi see flow reductions chart in tech doc  Substitute 1.50 psi see flow reductions chart in tech doc  Substitute 1.50 psi see flow reductions chart in tech doc  Substitute 1.50 psi see flow reductions chart in tech doc  Substitute 1.50 psi see flow reductions chart in tech doc  Inter to doc  Substitute 1.50 psi see flow reductions chart in tech doc  Substitute 1.50 psi see flow reductions chart in tech doc  Substitute 1.50 psi see flow reductions chart in tech doc  Inter to doc  Substitute 1.50 psi see flow reductions chart in tech doc  Inter to doc  Inter the doc  Inter t	Body Pressure Rating	ANSI Class 125, standard class B
Differential Pressure Range  Close-off pressure Δps  Ambient temperature  Inlet Length to Meet Specified Measurement Accuracy  Ambient humidity  Measuring accuracy flow  Control accuracy  Flow Measurement Repeatability  Sensor Technology  Temperature Sensors  Resolution of Temperature Sensor  Rangeability Sv  Degree of Protection  Differential Pressure Range  550 psi or 150 psi see flow reductions chart in tech doc	ANSI Class	125
chart in tech doc  Close-off pressure $\Delta$ ps	Number of Bolt Holes	8
Close-off pressure \( \Delta ps \)  Ambient temperature \( -22122^{\circ} F \) [-3050^{\circ} C]  Inlet Length to Meet Specified Measurement Accuracy  Ambient humidity \( \text{max. 95\% r.H., non-condensing} \)  Measuring accuracy flow \( \pm 22\%^* \)  Control accuracy \( \pm 5\% \)  Flow Measurement Repeatability \( \pm 0.5\% \)  Sensor Technology \( \text{ultrasonic with glycol and temperature compensation} \)  Temperature Sensors \( \text{Pt1000 insertion sensors with thermal well} \)  Temperature Measurement \( \text{Tolerance} \)  Resolution of Temperature Sensor \( \text{0.18\%F} [0.1\%c] \)  Rated impulse voltage supply \( \text{accurator/sensor: 0.8 kV (in accordance with EN60730-1) kV} \)  Degree of Protection \( \text{NEMA 1, UL Enclosure Type 1} \)  Weight \( \text{93 lb [42 kg]} \)  Remote Temperature Sensor \( \text{Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4} \)	Differential Pressure Range	550 psi or 150 psi see flow reductions
Ambient temperature -22122°F [-3050°C] Inlet Length to Meet Specified Measurement Accuracy Ambient humidity max. 95% r.H., non-condensing Measuring accuracy flow ±2%* Control accuracy ±5% Flow Measurement Repeatability ±0.5% Sensor Technology ultrasonic with glycol and temperature compensation  Temperature Sensors Pt1000 insertion sensors with thermal well  Temperature Measurement According to Pt1000 DIN EN60751 Class Internation Temperature Sensor O.18°F [0.1°C]  Rated impulse voltage supply actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV  Rangeability Sv 100:1  Degree of Protection NEMA 1, UL Enclosure Type 1  Weight 93 lb [42 kg]  Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Close-off pressure Aps	
Inlet Length to Meet Specified Measurement Accuracy Ambient humidity Measuring accuracy flow Econtrol accuracy Flow Measurement Repeatability Sensor Technology Temperature Sensors Temperature Measurement Tolerance Resolution of Temperature Sensor Rated impulse voltage supply Temperature Sensors Rangeability Sv Degree of Protection NEMA 1, UL Enclosure Type 1 Weight Ramour Max. 95% r.H., non-condensing ### ### ### ### ### ### ### ### ### ##		
Measurement Accuracy Ambient humidity  Measuring accuracy flow  £2%*  Control accuracy  #5%  Flow Measurement Repeatability  Sensor Technology  ultrasonic with glycol and temperature compensation  Temperature Sensors  Pt1000 insertion sensors  with thermal well  Temperature Measurement  Tolerance  Resolution of Temperature Sensor  Rated impulse voltage supply  actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV  Rangeability Sv  Degree of Protection  NEMA 1, UL Enclosure Type 1  Weight  93 lb [42 kg]  Remote Temperature Sensor  Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4		,
Ambient humidity max. 95% r.H., non-condensing  Measuring accuracy flow ±2%* Control accuracy ±5% Flow Measurement Repeatability ±0.5% Sensor Technology ultrasonic with glycol and temperature compensation  Temperature Sensors Pt1000 insertion sensors with thermal well  Temperature Measurement According to Pt1000 DIN EN60751 Class I Tolerance Resolution of Temperature Sensor 0.18°F [0.1°C] Rated impulse voltage supply actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV  Rangeability Sv 100:1  Degree of Protection NEMA 1, UL Enclosure Type 1  Weight 93 lb [42 kg]  Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4		Ort   Ort
Control accuracy Flow Measurement Repeatability Eensor Technology  Interperature Sensors  Pt1000 insertion sensors With thermal well  Temperature Measurement Tolerance Resolution of Temperature Sensor Rated impulse voltage supply  Rangeability Sv  Degree of Protection  Weight  Pt000 insertion sensors With thermal well  According to Pt1000 DIN EN60751 Class II  10.1°C]  20.18°F [0.1°C]  20.18°F		max. 95% r.H., non-condensing
Flow Measurement Repeatability  Sensor Technology  Ultrasonic with glycol and temperature compensation  Temperature Sensors  Pt1000 insertion sensors with thermal well  Temperature Measurement Tolerance  Resolution of Temperature Sensor  Rated impulse voltage supply  actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV  Rangeability Sv  Degree of Protection  NEMA 1, UL Enclosure Type 1  Weight  93 lb [42 kg]  Remote Temperature Sensor  Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Measuring accuracy flow	±2%*
Sensor Technology  ultrasonic with glycol and temperature compensation  Temperature Sensors  Pt1000 insertion sensors with thermal well  Temperature Measurement Tolerance  Resolution of Temperature Sensor  Rated impulse voltage supply  actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV  Rangeability Sv  Degree of Protection  NEMA 1, UL Enclosure Type 1  Weight  93 lb [42 kg]  Remote Temperature Sensor  Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Control accuracy	±5%
compensation  Temperature Sensors Pt1000 insertion sensors with thermal well  Temperature Measurement Tolerance Resolution of Temperature Sensor Rated impulse voltage supply actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV  Rangeability Sv 100:1  Degree of Protection NEMA 1, UL Enclosure Type 1  Weight 93 lb [42 kg]  Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Flow Measurement Repeatability	±0.5%
Temperature Sensors  Pt1000 insertion sensors with thermal well  Temperature Measurement Tolerance Resolution of Temperature Sensor Rated impulse voltage supply Rangeability Sv  Degree of Protection  Weight  Pt1000 insertion sensors with thermal well  According to Pt1000 DIN EN60751 Class II  According to Pt1000 DIN EN6075	Sensor Technology	
with thermal well  Temperature Measurement Tolerance Resolution of Temperature Sensor Rated impulse voltage supply Rangeability Sv 100:1  Degree of Protection Weight Remote Temperature Sensor  with thermal well According to Pt1000 DIN EN60751 Class II According to Pt1000 DIN EN60751		
Temperature Measurement Tolerance Resolution of Temperature Sensor Rated impulse voltage supply Rangeability Sv Degree of Protection Weight Remote Temperature Sensor O.18°F [0.1°C] actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV 100:1 Degree of Protection NEMA 1, UL Enclosure Type 1 Weight 93 lb [42 kg] Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Temperature Sensors	
Tolerance Resolution of Temperature Sensor Rated impulse voltage supply Rangeability Sv 100:1  Degree of Protection Weight Remote Temperature Sensor O.18°F [0.1°C] actuator/sensor: 0.8 kV (in accordance with EN60730-1) kV 100:1  NEMA 1, UL Enclosure Type 1  Weight 93 lb [42 kg] Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Tomporatura Magaurament	
Resolution of Temperature Sensor		According to Pt1000 DIN EN60751 Glass B
with EN60730-1) kV  Rangeability Sv 100:1  Degree of Protection NEMA 1, UL Enclosure Type 1  Weight 93 lb [42 kg]  Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4		0.18°F [0.1°C]
Rangeability Sv 100:1  Degree of Protection NEMA 1, UL Enclosure Type 1  Weight 93 lb [42 kg]  Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Rated impulse voltage supply	
Degree of Protection NEMA 1, UL Enclosure Type 1 Weight 93 lb [42 kg] Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4	Rangeability Sv	
Weight 93 lb [42 kg] Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4		NEMA 1, UL Enclosure Type 1
Remote Temperature Sensor Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4		
Standard: 32.8 ft. [10m]	Remote Temperature Sensor Length	Optional: 4.9 ft. [1.5m], 9.8 ft. [3m], 16.4 ft. [5m]

#### **Application**

Water-side control of heating and cooling systems for AHUs and water coils. Equal Percentage/ Linear: heating and cooling applications.

### Operation

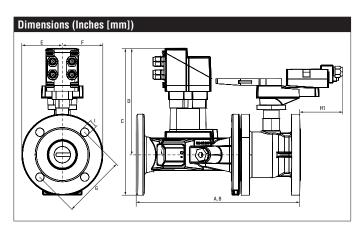
The Energy Valve is an energy metering pressure independent control valve that measures, documents and optimises water coil performance.

#### **Product Features**

The Energy Valve measures energy using its built-in electronic flow sensor and supply and return temperature sensors. Controls power with its Power Control logic providing linear heat transfer regardless of temperature and pressure variations. Manages Low Delta-T syndrome with its built in Delta-T manager. An IoT device utilizing cloud-based technology to optimize performance.

**Suitable Actuators** 

	Non-Spring	Electronic fail-safe			
EV400SU-317	GRB(X)	GKRB(X)			



Α	В	C	D	E	F	G	H1	
18.7"	[474]	13.9"	9.9"	4.5"	[114]	7.5"	1.8"	0.7"
		[354]	[251]			[191]	[46]	[19]

## Safety Notes

WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov



# EV400SU-317 Technical Data Sheet Stainless Steel Ball, ANSI 125 Flange

Fluid Temp Range (water)	14250°F [-10120°C]
Leakage rate	0%
Glycol Measurement Accuracy	±5%

<sup>\*</sup>All flow tolerances are at 68°F (20°C) & water.

# **GKRX24-EV Technical Data Sheet**









Technical Data	
Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, -10% /
Power consumption in operation	+20%   17 W
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Transformer sizing	29 VA (class 2 power source)
Electrical Connection	18 GA plenum cable and RJ45 socket (ethernet)
Overload Protection	electronic thoughout 090° rotation
Operating Range	210 V (default), 420 mA w/ ZG-R01 (500 $\Omega$ , 1/4 W resistor), VDC variable
Input Impedance	100 kΩ (0.1 mA), 500 Ω
Position Feedback	default 210 V, VDC variable
Angle of rotation	90°
Direction of motion motor	reversible with web view
Direction of motion fail-safe	reversible with switch
Position indication	Mechanically, pluggable
Manual override	external push button
Running Time (Motor)	90 s
Running time fail-safe	<35 s
Ambient humidity	max. 95% r.H., non-condensing
Ambient temperature	-22122°F [-3050°C]
Storage temperature	-40176°F [-4080°C]
Degree of Protection	IP54, NEMA 1, UL Enclosure Type 1
Housing material	UL94-5VA
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU
Noise level, motor	52 dB(A)
Noise level, fail-safe	61 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	5.51 lb [2.5 kg]
Communication	BACnet IP
	BACnet MS/TP
	Modbus RTU
	Modbus TCP   MP-Bus
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The Energy Valve is based on Belimo patent and patent pending technology, US-Patent 6,039,304: ball valve with modified characteristics, US-Patent Pending: 2011/0153089: HVAC actuator comprising a network interface, data store and a processor, US-Patent Pending: 2009/009115: control of sensor less and brushless DC-Motor.

The Energy Valve incorporates additional technology - powered by Optimum Energy TM.



## **GKRX24-EV Technical Data Sheet**

#### Wiring Diagrams



## X INSTALLATION NOTES



Actuators with appliance cables are numbered.



Actuators may be connected in parallel. Power consumption and input impedance must be observed.



Actuators may also be powered by 24 VDC.



Actuators with plenum cable do not have numbers; use color codes instead.



Meets cULus requirements without the need of an electrical ground connection.



### WARNING! LIVE ELECTRICAL COMPONENTS!

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

