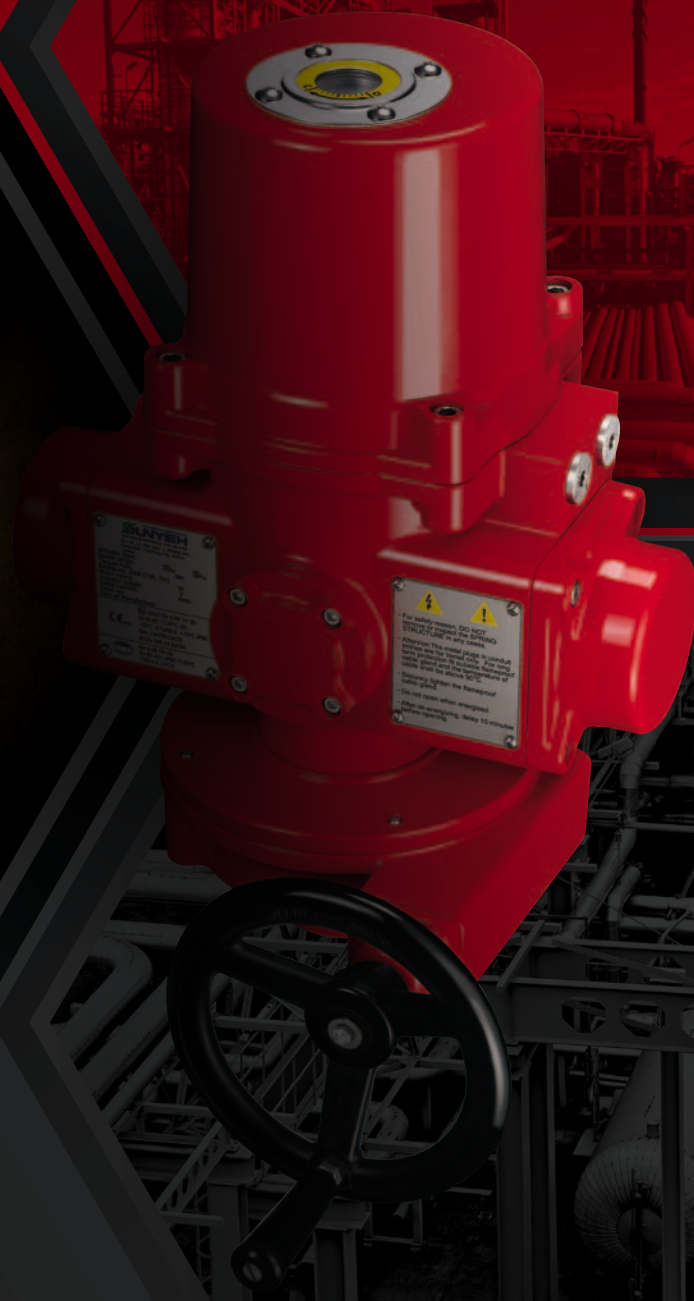




EXPLOSION-PROOF ELECTRIC VALVE ACTUATORS



Service Unique Nice Youthful Energy Honesty
SUNYEH

SE / LE / OME series
www.sunyeh.com

Perfect Solution





COMPANY PROFILE

Sun Yeh Electrical Ind. Co., Ltd. was founded in 1986. We always strive for technical excellence, innovation and the highest quality standards in everything we do. Sun Yeh is committed to providing products conforming to market demands and first class support.

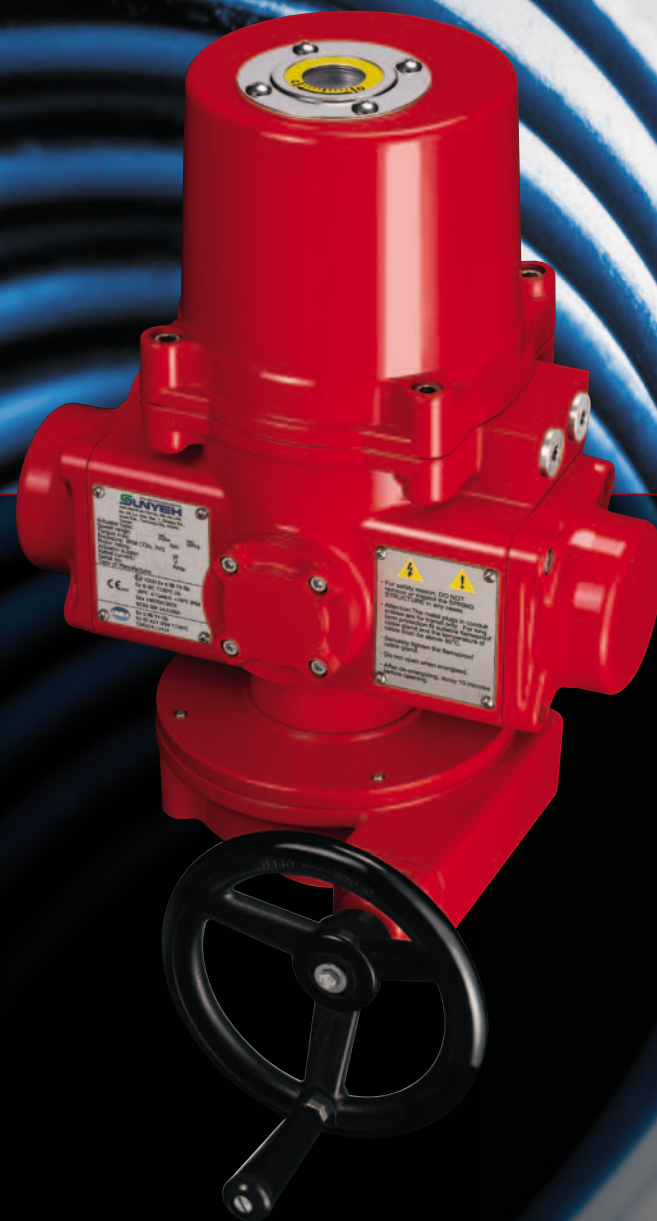
We continue to expand our product ranges to include quarter-turn electric actuators, spring return fail-safe electric actuators, linear electric actuators, and explosion-proof electric actuators. Sun Yeh offers various products, which are widely applied to control flow in various industries, water treatment, HVAC, chemical engineering, food processing, etc.

Sun Yeh electric valve actuators are of high quality and have been certified with SIL, CE, CSA, CCC, TS, ATEX, IECEx, and CNEx approvals, meeting RoHS, REACH and China RoHS environmental regulations, in addition to ISO 9001, ISO 14001, OHSAS 18001, and AEO standards.



SE series

**Explosion-proof
Spring Return Fail-safe
Electric Valve Actuators**



PRODUCT OVERVIEW

Explosion-proof spring return fail-safe electric actuators, in addition to normal function (floating control, On / Off control, modulating control) are designed for fail-safe positioning of valves and dampers upon loss of power supply. A mechanical spring set is utilized to position the controlled device to either the fully OPEN or fully CLOSED position, without any external power source. For On / Off type actuator, a mechanical BUFFER is employed at the end of the spring stroke, in order to reduce the dynamic effects of the spring return system. Manual override is optional for manual positioning of the controlled device.

SE series explosion-proof spring return fail-safe electric actuators are structured as flame-proof and combustible dust-proof. The directive and standards marking is II 2 GD Ex db IIB T4 Gb, Ex tb IIIC T130°C Db where it is classified as Zone 1 or Zone 2, containing Group IIA and Group IIB gases, Zone 21 or Zone 22, containing the combustible dust atmospheres or a mixture of explosive gas atmospheres and combustible dust atmospheres. Temperature group T1 to T4.

SE series

Explosion-proof
Spring Return Fail-safe Electric Valve Actuators

PRODUCT FEATURES

- Enclosure conforms to IP68 (7 m / 72 hrs) with explosion protection.
- Controls: On / Off, floating (optional), modulating (optional).
- Clutch-less manual override (optional).
- ISO 5211 mounting flange.
- Built-in motor thermal protection.

STANDARD SPECIFICATIONS

- Available supply voltages: 24VAC, 24VDC, 110VAC, 120VAC, 220VAC, 240VAC, 220V / 3PH, 240V / 3PH, 380V / 3PH, 440V / 3PH.
- Dry powder coated aluminum alloy housings.
- Standard 50% duty cycle (In accordance with IEC standard).
- Continuous mechanical position indicator.
- 2 limit switches for operation, fail clockwise spring return and On / Off control are provided as standard.
- Relative humidity: 30 to 95%
- Ambient temperature: -30°C to +70°C (-22°F ~ +158°F)



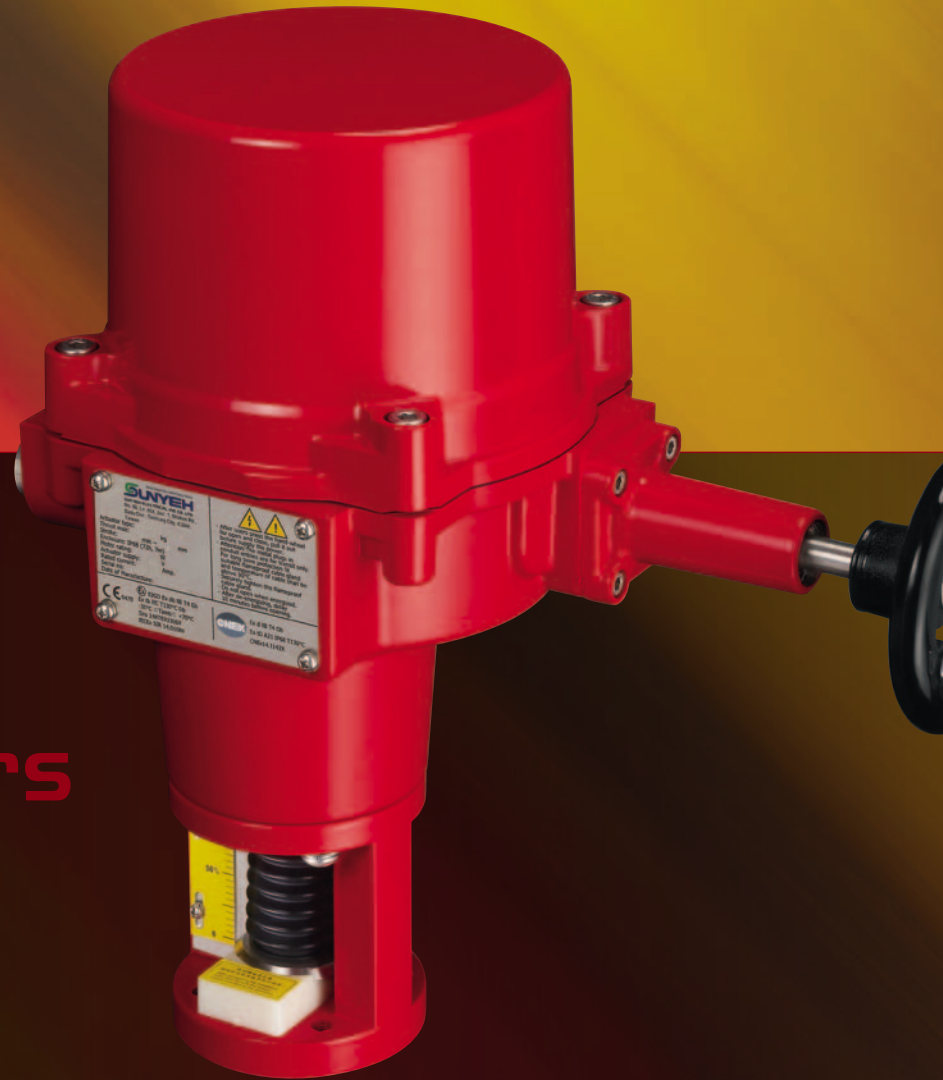
TECHNICAL INFORMATION

Model		Torque		Nominal Motor Power	Running Time	Spring Return Time	Weight				Flange Type	Shaft (A)		Depth of Shaft (B)	
		N•m	in•lb	Watt	(Sec / 90°)	(Sec / 90°)	Standard		W/ Manual Override		ISO 5211	mm	inch	mm	inch
							kg	lb	kg	lb					
SE-500		50	445	50	7	3	28	62	38	84	F07	17	0.669	30	1.181
SE-1300		130	1150	130	7	8	59	130	76	168	F10	22	0.866	41	1.614
SE-2000		200	1770	130	11	12	97	214	137	302	F12	27	1.063	45	1.772
SE-2600		260	2300	130	14	12	97	214	137	302	F12	27	1.063	45	1.772

- Note: Motor power is based on 110VAC @60Hz, 50% duty cycle, On / Off control.
- Motors are class F insulated.

LE series

Explosion-proof Linear Electric Valve Actuators





PRODUCT OVERVIEW

Explosion-proof linear electric actuators provide thrust ranges of 250 to 2,000 kgf (550 to 4410 lbf). All models are equipped with modulating controllers and are suitable for globe valves, gate valves and linear travel devices. They can be applied to HVAC and industrial processes, especially for steam and high temperature employments.

LE series explosion-proof linear electric actuators are structured as flame-proof and combustible dust-proof. The directive and standards marking are II 2 GD Ex db IIB T4 Gb, Ex tb IIIC T130°C Db. They are control devices for valves and can be used in places, classified as Zone 1 or Zone 2, containing Group IIA and Group IIB gases, Zone 21 or Zone 22, containing combustible dust atmospheres or explosive gas atmospheres and combustible dust atmospheres. Temperature group T1 to T4.

LE series

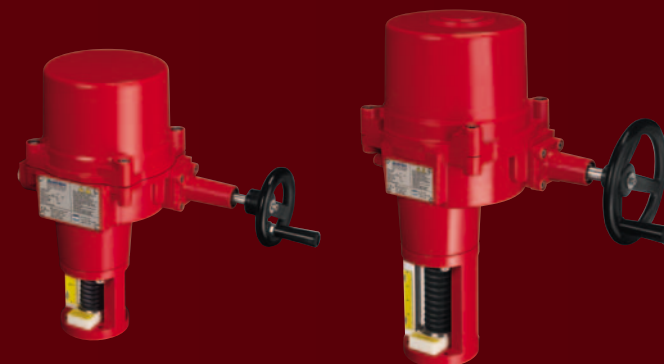
Explosion-proof Linear Electric Valve Actuators

PRODUCT FEATURES

- Enclosure conforms to IP68 (7m / 72 hrs) with explosion protection.
- DC motor equipped.
- External stem position indicator.
- Low-power consumption.
- Manual operation can be applied in case of power outage.
- Built-in motor thermal protection.
- All models are equipped with analog feedback.

STANDARD SPECIFICATIONS

- Available supply voltages: 24VAC, 24VDC, 110VAC, 120VAC, 220VAC, 240VAC.
- Dry powder coated aluminum alloy housings.
- The actuator will shut off to prevent overload when the output thrust is overrated.
- 2 limit switches for operation are provided as standard.
- Allows adjustment of actuator stroke to match valve stem travel.
- Relative humidity: 30 to 95%
- Ambient temperature: -30°C to +70°C (-22°F ~ +158°F)



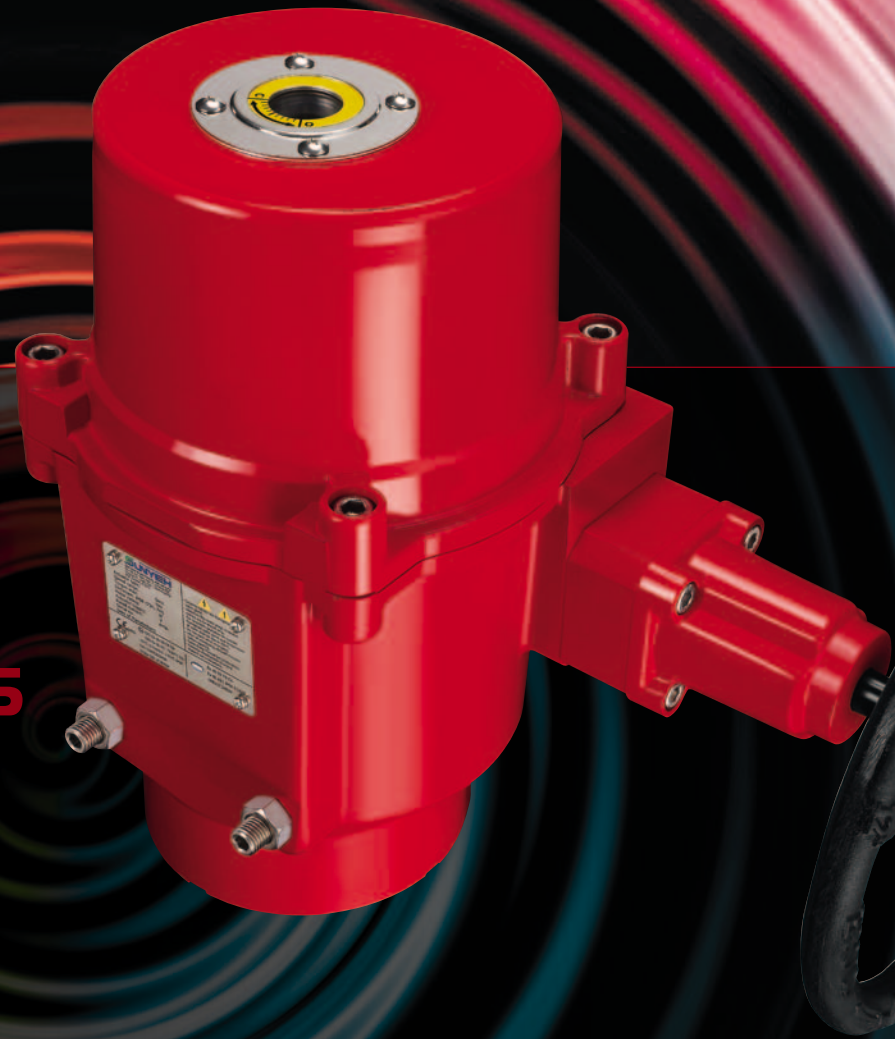
TECHNICAL INFORMATION

Model	Thrust			Weight		Nominal Motor Power	Running Speed		Flange Type	Max. Stroke	
	kgf	lbf	N	kg	lb	Watt	mm / sec	inch / sec	ISO 5210	mm	inch
LE-250	250	550	2450	9.5	21	15	0.46	0.018	F07	50	2
LE-500	500	1100	4900	9.5	21	15			F07	50	2
LE-1000	1000	2205	9805	31	68	35			F10	100	4
LE-2000	2000	4410	19615	31	68	35			F10	100	4

- Note: Motor power is based on 110VAC @60Hz.
- Motors are class F insulated.

OME series

**Explosion-proof
Quarter-turn
Electric Valve Actuators**





PRODUCT OVERVIEW

Explosion-proof quarter-turn electric actuators offer torque ranges from 35 N•m to 1,500 N•m (310 in•lb to 13,280 in•lb). All models are with ISO 5211 compliant flange and are equipped with a visual position indicator. The manual operation (except OME-A) can be operated without brake and clutch upon power cut. This could increase the mechanical reliability.

OME series explosion-proof quarter-turn electric actuators are structured as flame-proof and combustible dust-proof. The directive and standards marking are II 2 GD Ex db IIB T4 Gb, Ex tb IIIC T130°C Db. They are classified as Zone 1 or Zone 2, containing Group IIA and Group IIB gases, Zone 21 or Zone 22, containing combustible dust atmospheres or explosive gas atmospheres and combustible dust atmospheres. Temperature group T1 to T4.

OME series

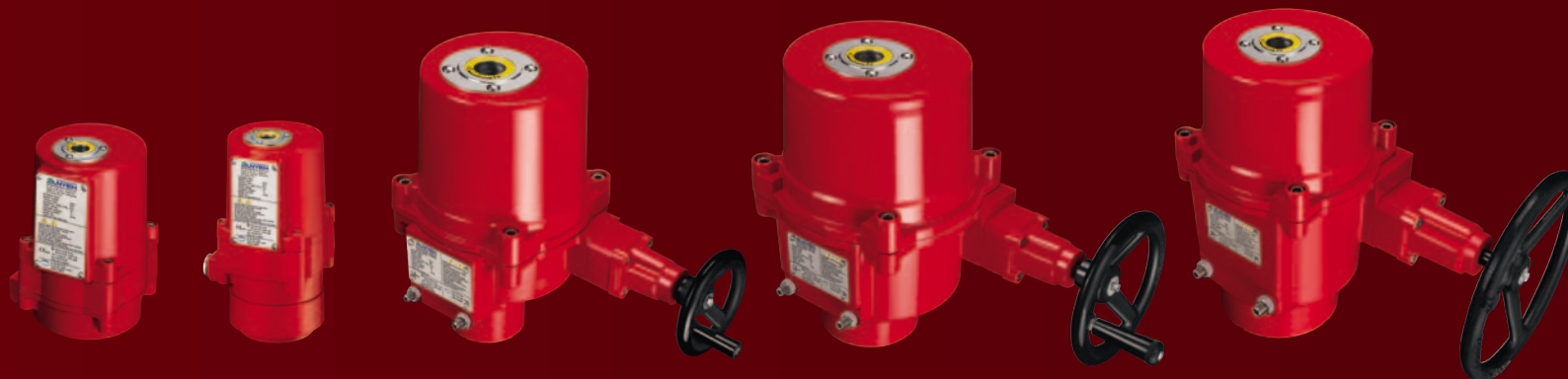
Explosion-proof
Quarter-turn Electric Valve Actuators

PRODUCT FEATURES

- Enclosure conforms to IP68 (7m / 72hrs) with explosion protection.
- Self-locking gear system.
- Clutch-less manual override for OME-2 to OME-8.
- Externally adjustable mechanical stops for OME-2 to OME-8.
- Continuous mechanical position indicator.
- Built-in motor thermal protection.
- All models are equipped with torque switches (except OME-1, OME-A and OME-AM).

STANDARD SPECIFICATIONS

- Available supply voltages: 24VAC, 24VDC, 110VAC, 120VAC, 220VAC, 240VAC.
- Dry powder coated aluminum alloy housings.
- Standard 30% duty cycle.
- 2 limit switches for operation, torque switches and floating control are provided as standard.
- Relative humidity: 30 to 95%
- Ambient Temperature: -30°C to +70°C (-22°F ~ +158°F)



TECHNICAL INFORMATION

Model		Torque		Weight		Nominal Motor Power	Running Time	Manual Override	Flange Type	Shaft (A)		Depth of Shaft (B)	
		N•m	in•lb	kg	lb	Watt	(Sec / 90°)		ISO 5211	mm	inch	mm	inch
OME-1		35	310	2	4	10	11	Lever	F03 / F05	14	0.551	17	0.669
OME-A		50	445	3	7	10	21	N / A	F07	17	0.669	20	0.787
OME-AM		50	445	3	7	10	21	Lever	F07	17	0.669	20	0.787
OME-2		90	800	18	40	40	18	Hand-wheel	F07	22	0.866	30	1.181
OME-3		150	1330	18	40	40	28		F07	22	0.866	30	1.181
OME-4		400	3540	32	71	80	20		F10	36	1.417	48	1.889
OME-5		500	4430	32	71	80	27		F10	36	1.417	48	1.889
OME-6		650	5755	32	71	80	36		F10	36	1.417	48	1.889
OME-7		1000	8855	46	101	120	52		F12 or F14	36	1.417	50	1.968
OME-8		1500	13280	46	101	120	54		F12 or F14	36	1.417	50	1.968

- The motor power and speed data are based on 110VAC @ 60Hz, 30% duty cycle, floating control.
- Motors are class F insulated.

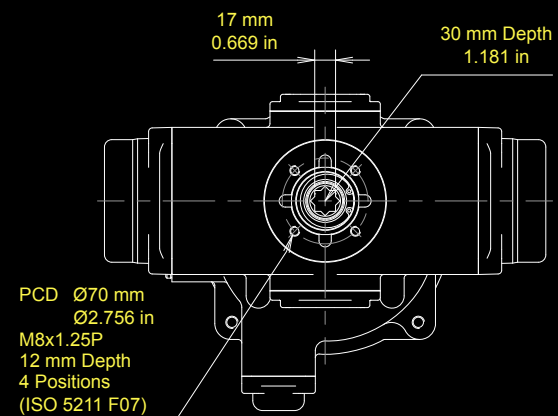
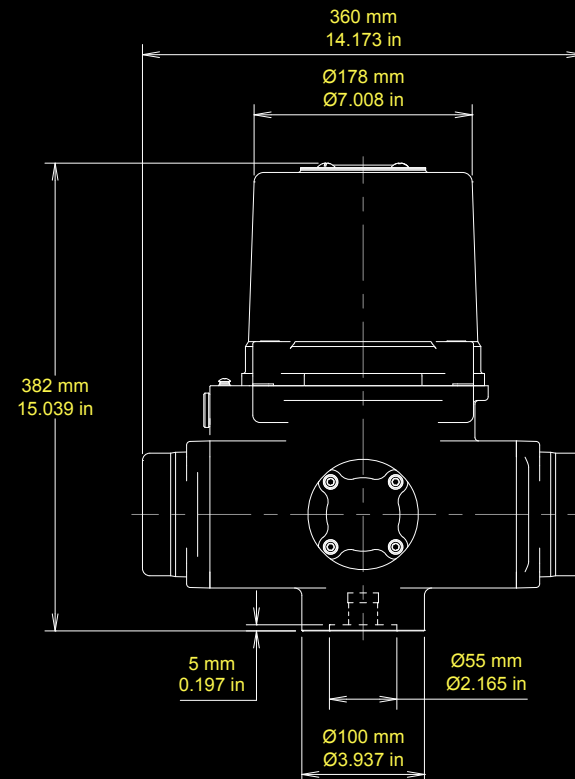
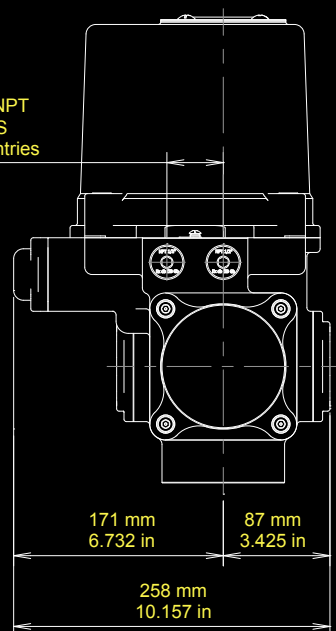
SE series

PHYSICAL DIMENSION



SE-500

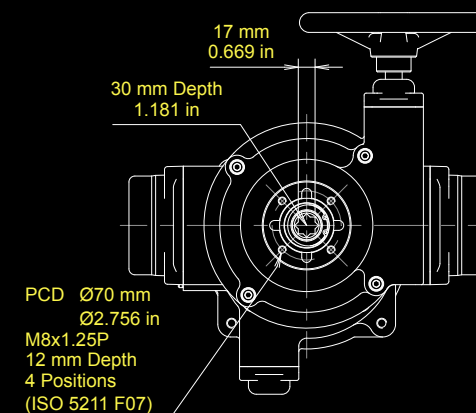
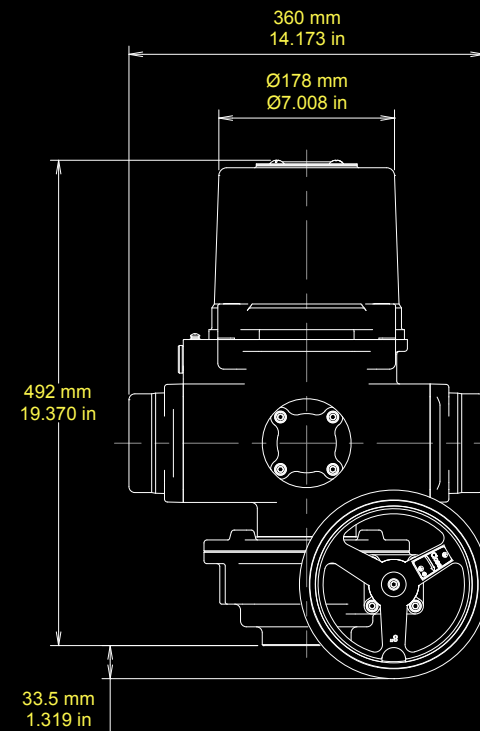
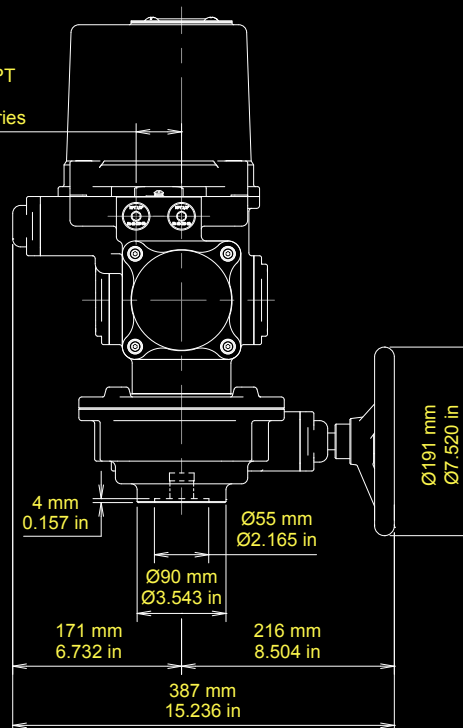
2 of 1/2"NPT
46 CTS
Conduit Entries





SE-500 W/ MANUAL OVERRIDE

2 of 1/2"NPT
46 CTS
Conduit Entries



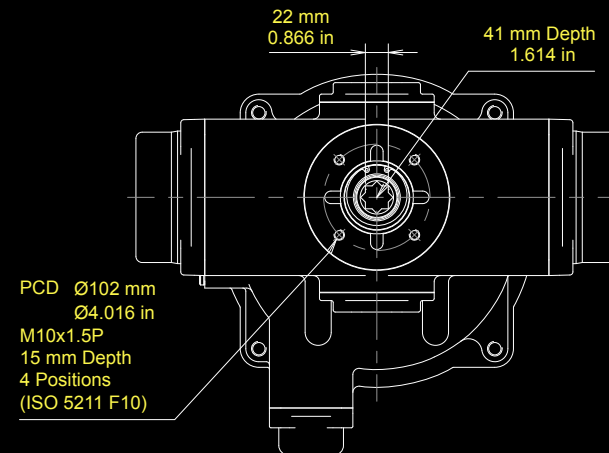
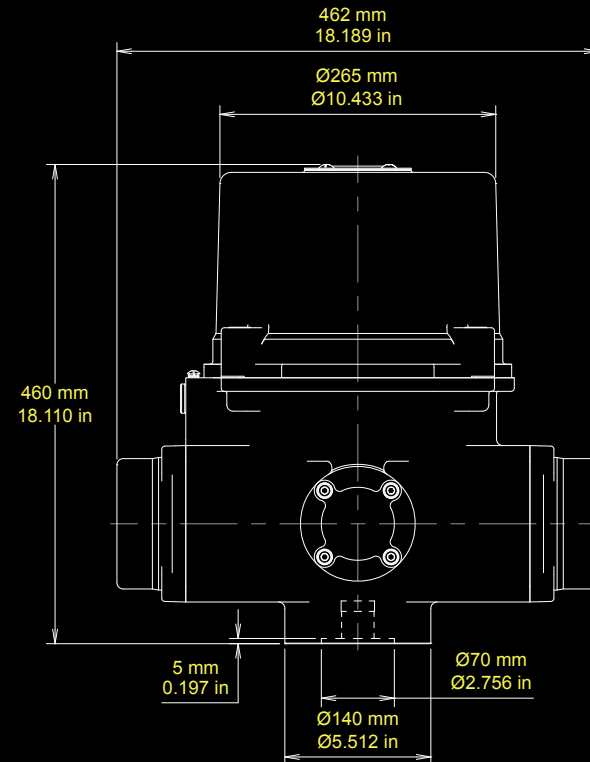
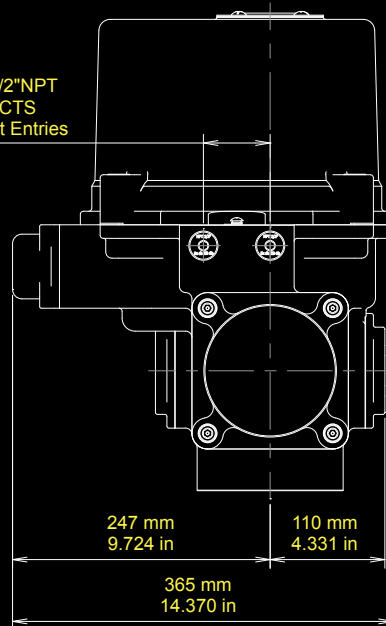
SE series

PHYSICAL DIMENSION



SE-1300

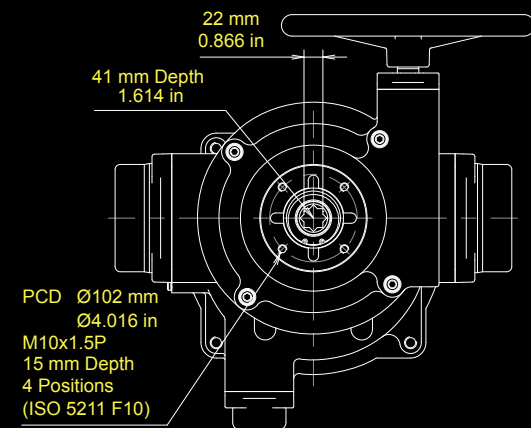
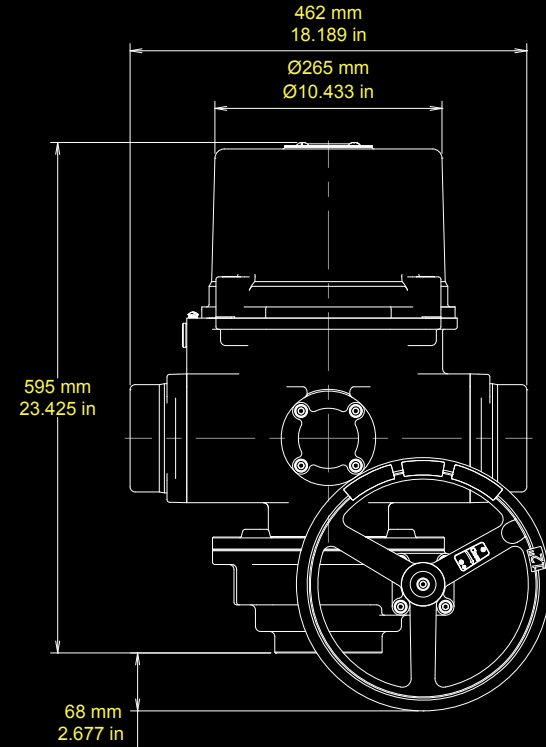
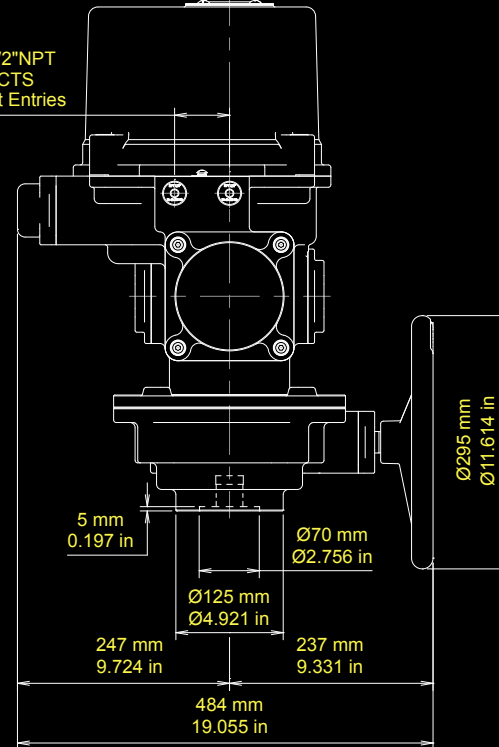
2 of 1/2"NPT
64 CTS
Conduit Entries





SE-1300 W/ MANUAL OVERRIDE

2 of 1/2"NPT
64 CTS
Conduit Entries



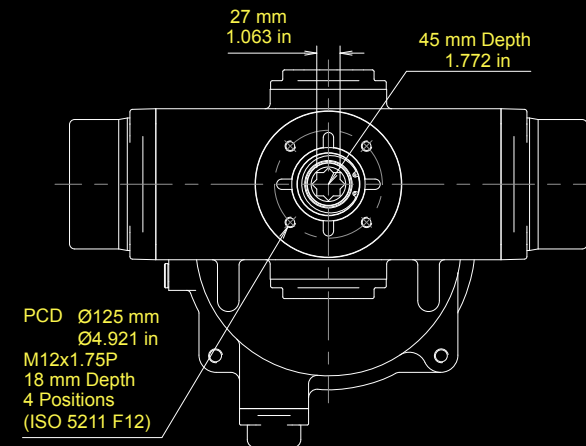
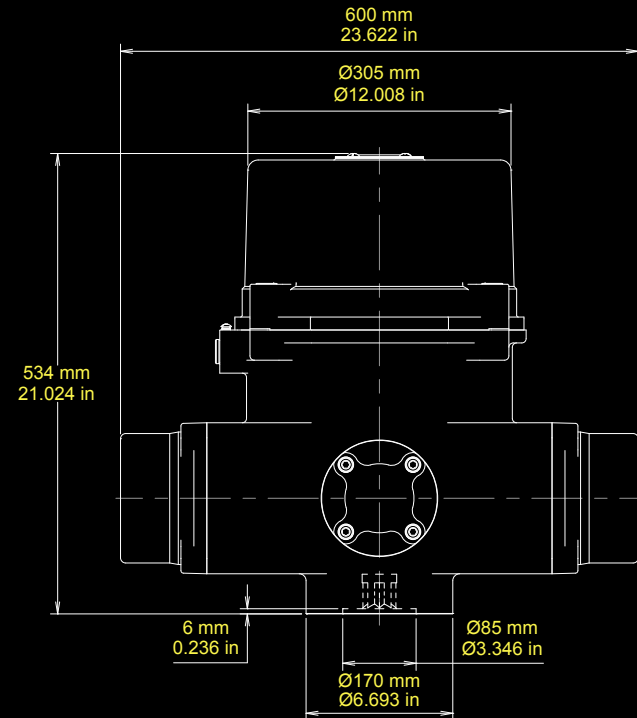
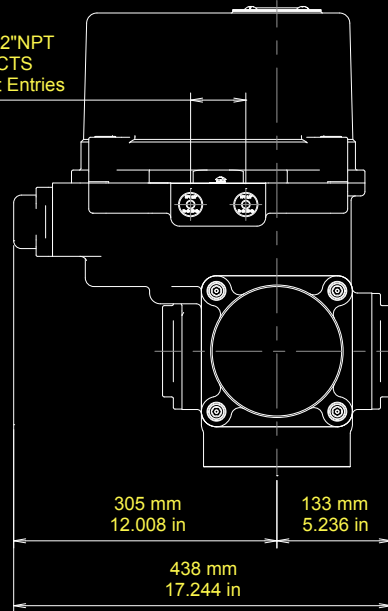
SE series

PHYSICAL DIMENSION



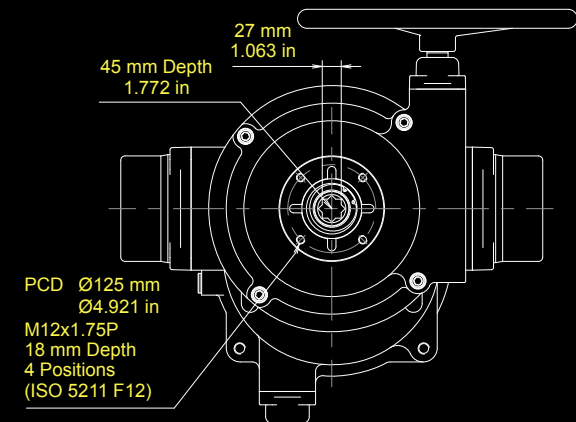
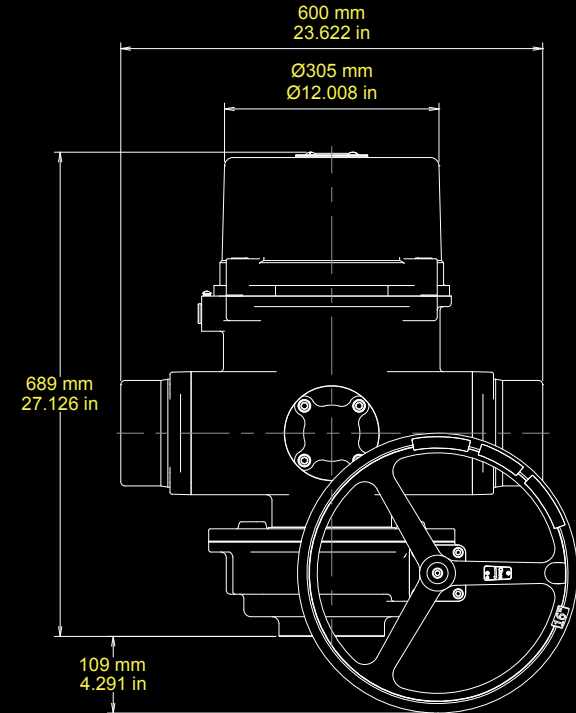
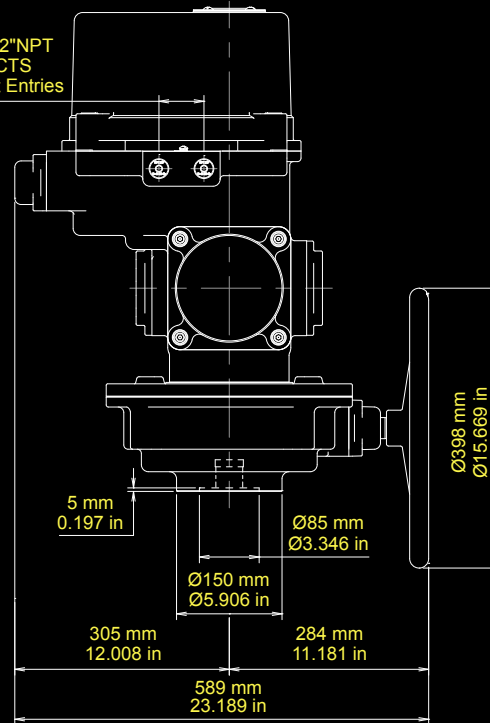
SE-2000 / 2600

2 of 1/2"NPT
64 CTS
Conduit Entries





2 of 1/2"NPT
64 CTS
Conduit Entries



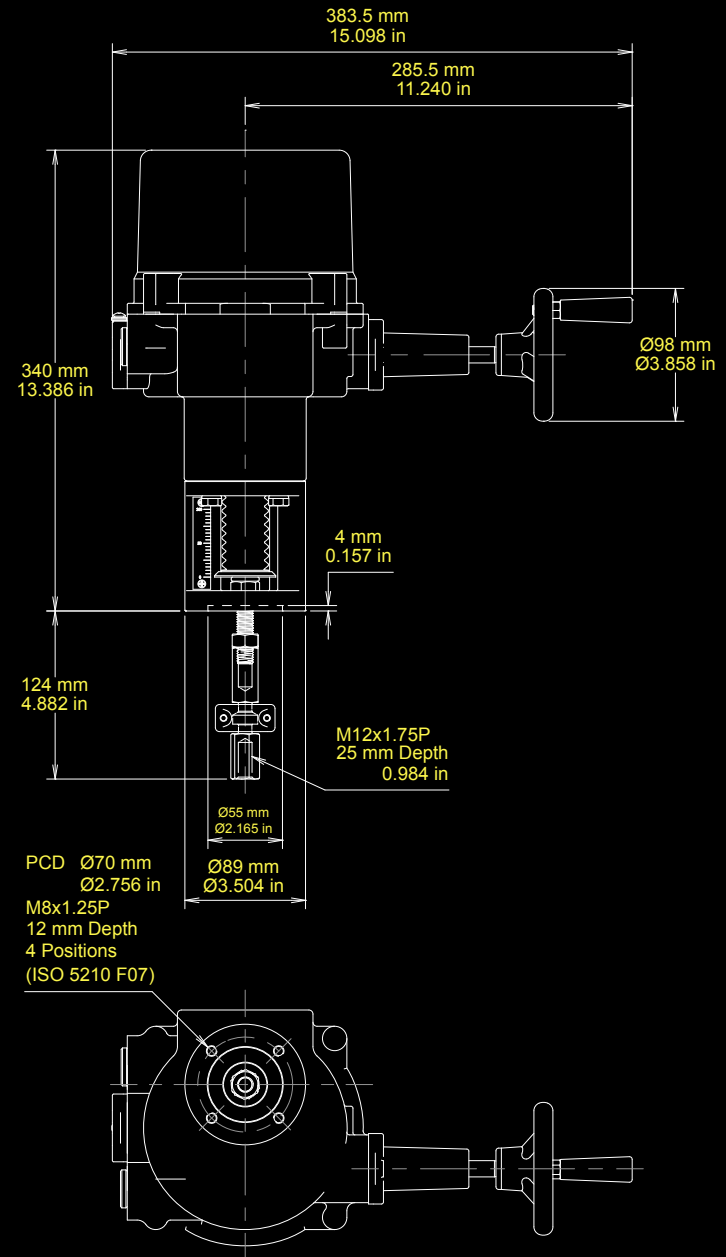
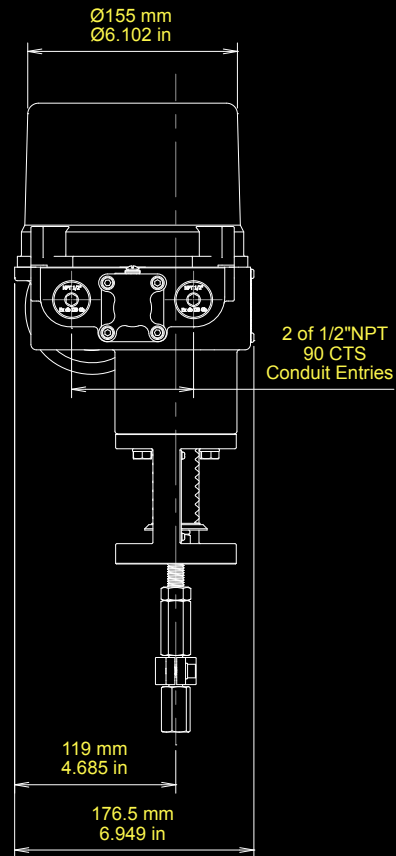
SE-2000 / 2600 W/ MANUAL OVERRIDE

LE series

PHYSICAL DIMENSION

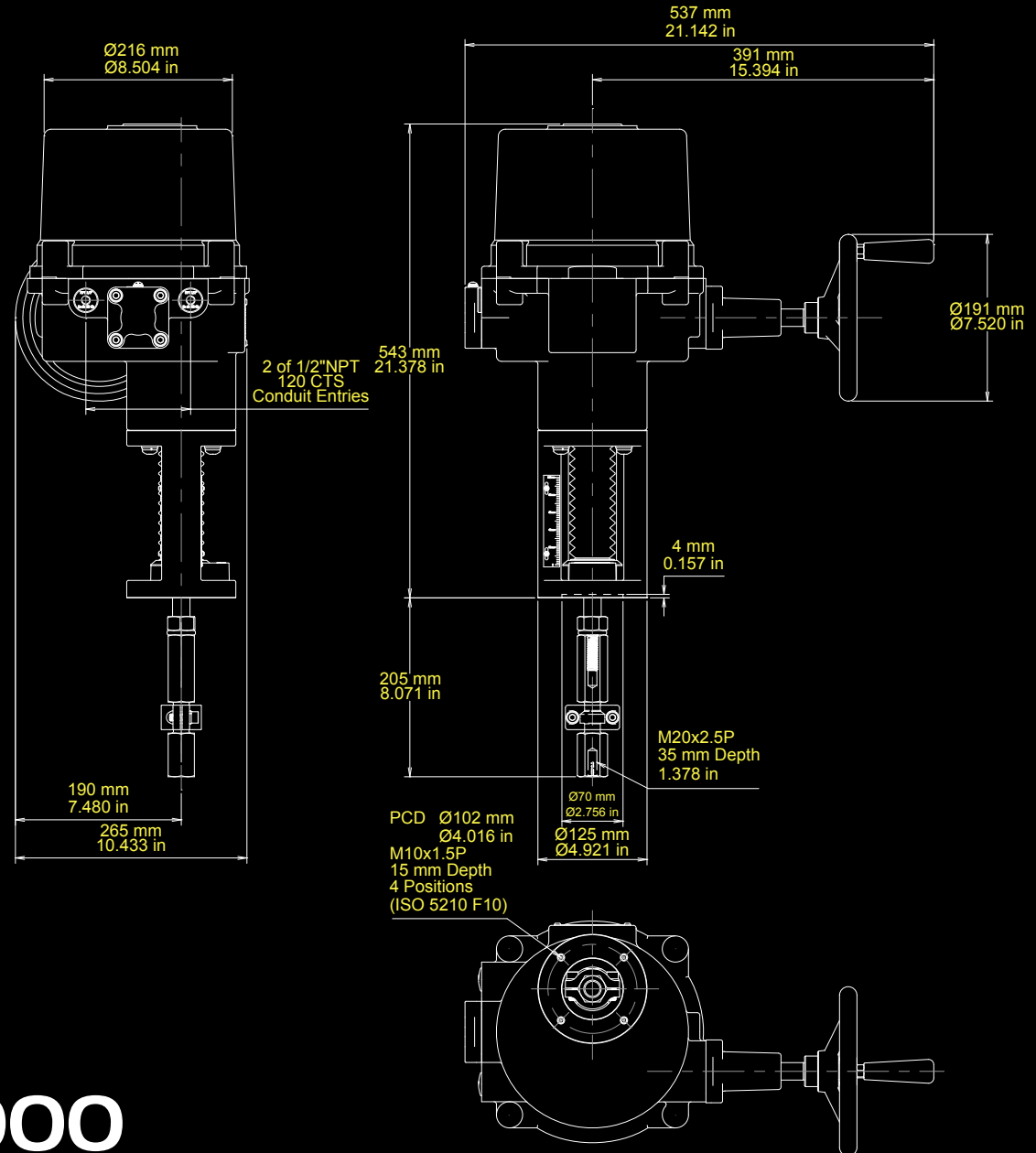


LE-250 / 500





LE-1000 / 2000

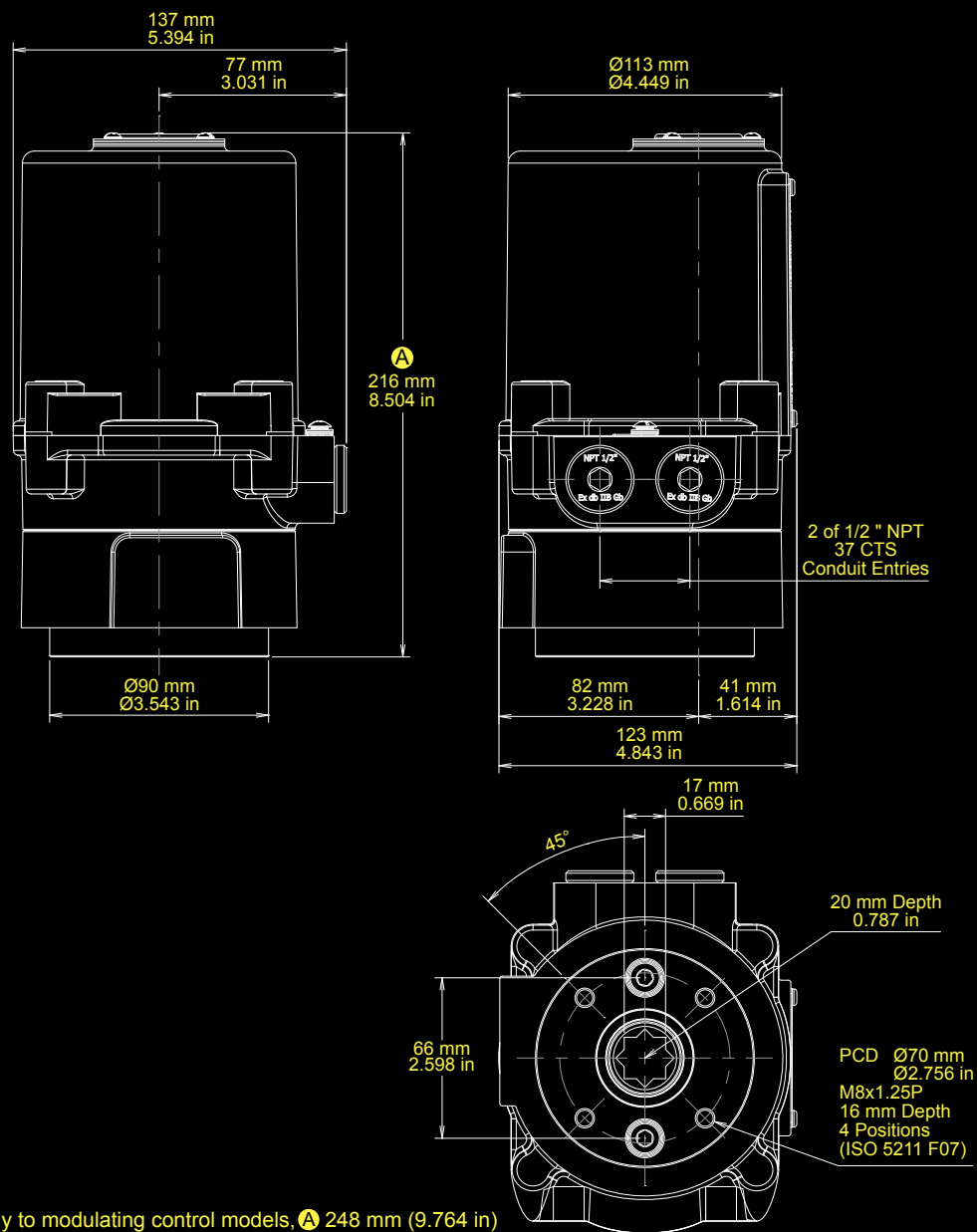


OME series

PHYSICAL DIMENSION



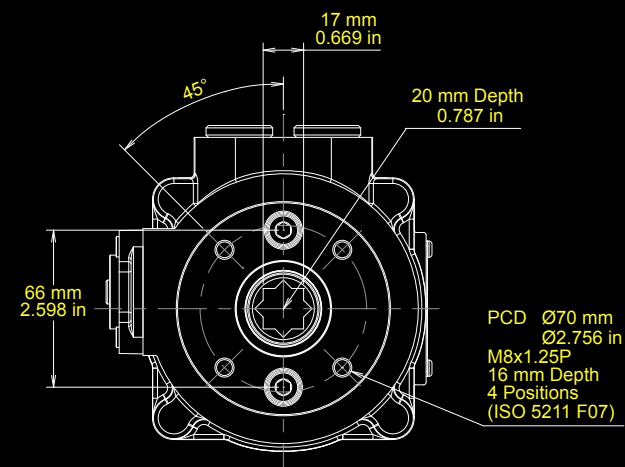
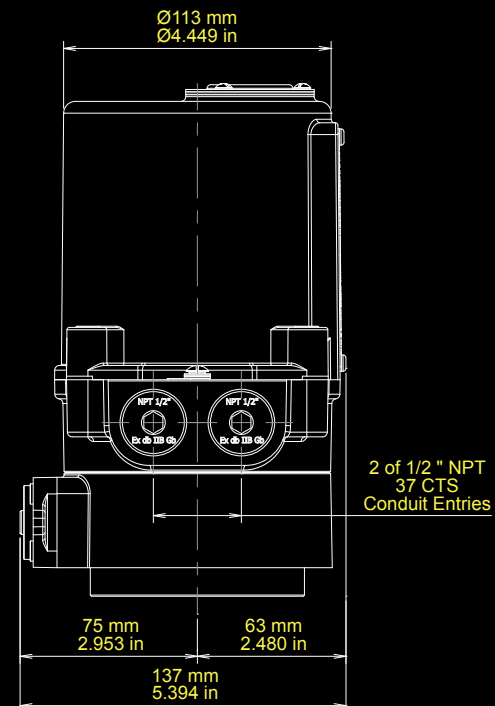
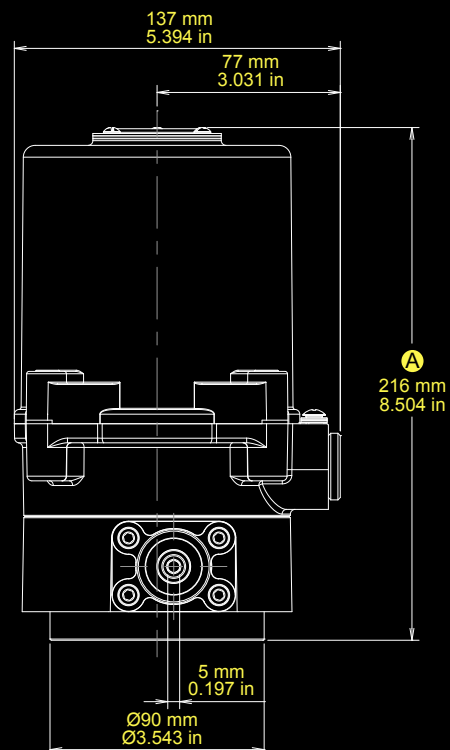
OME-A

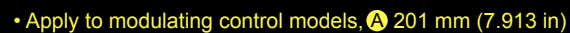


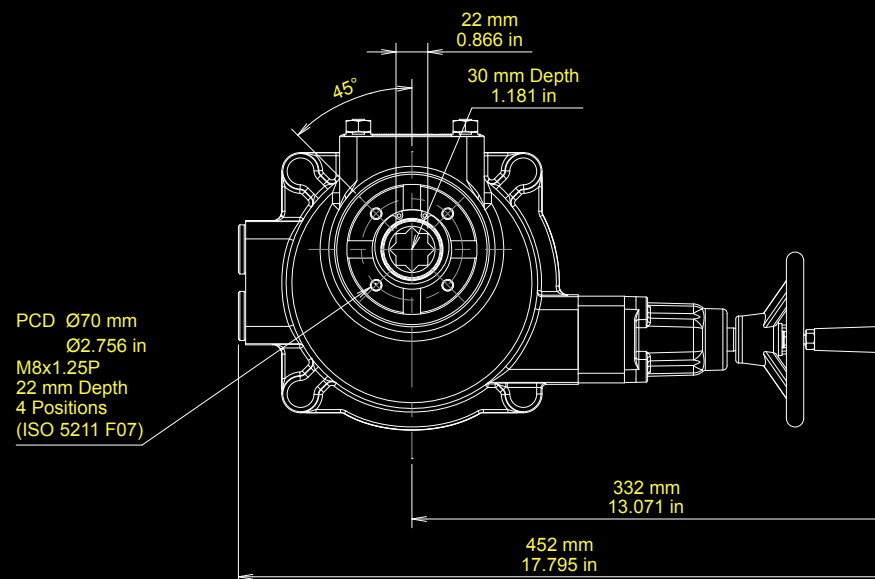
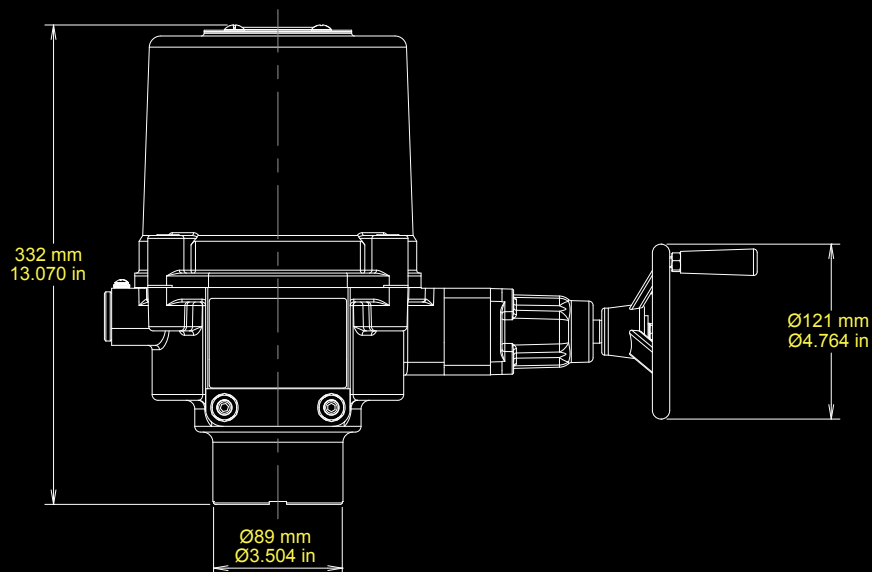
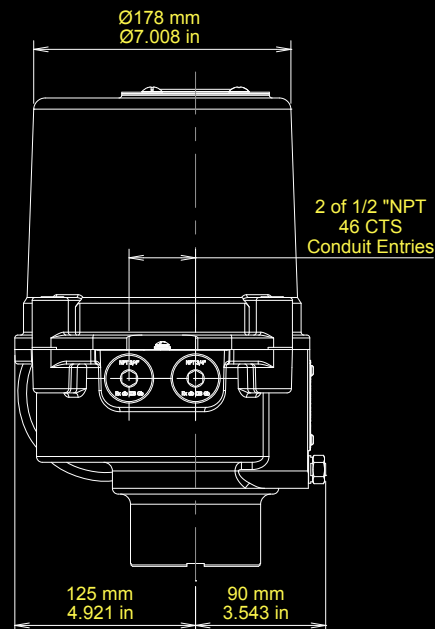


OME-AM

• Apply to modulating control models, Ⓐ 248 mm (9.764 in)







OME-2 / 3

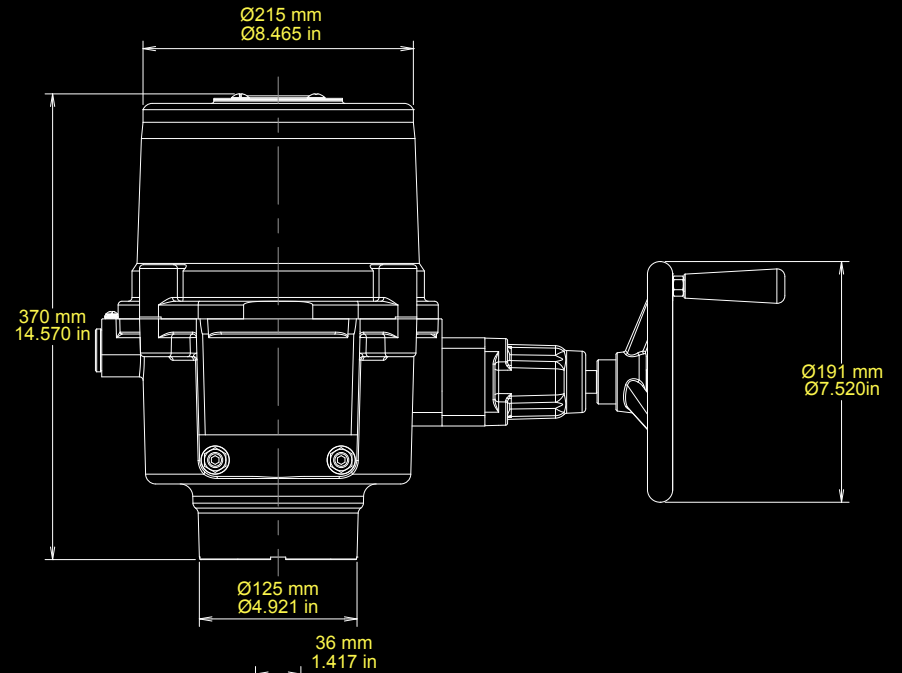
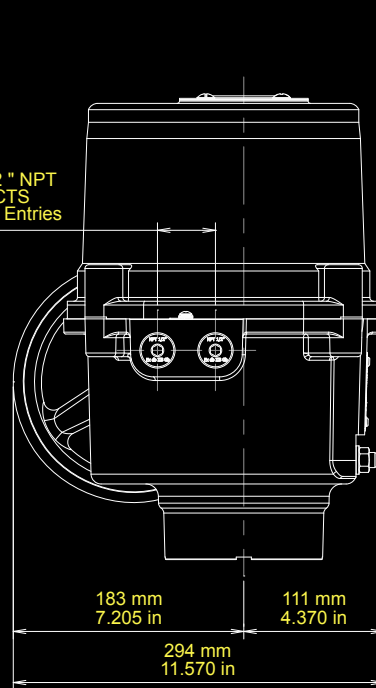
OME series

PHYSICAL DIMENSION

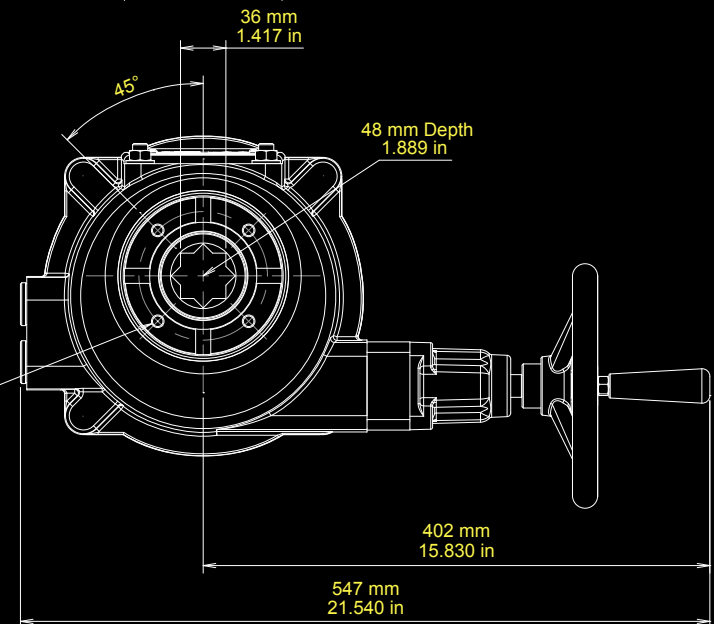


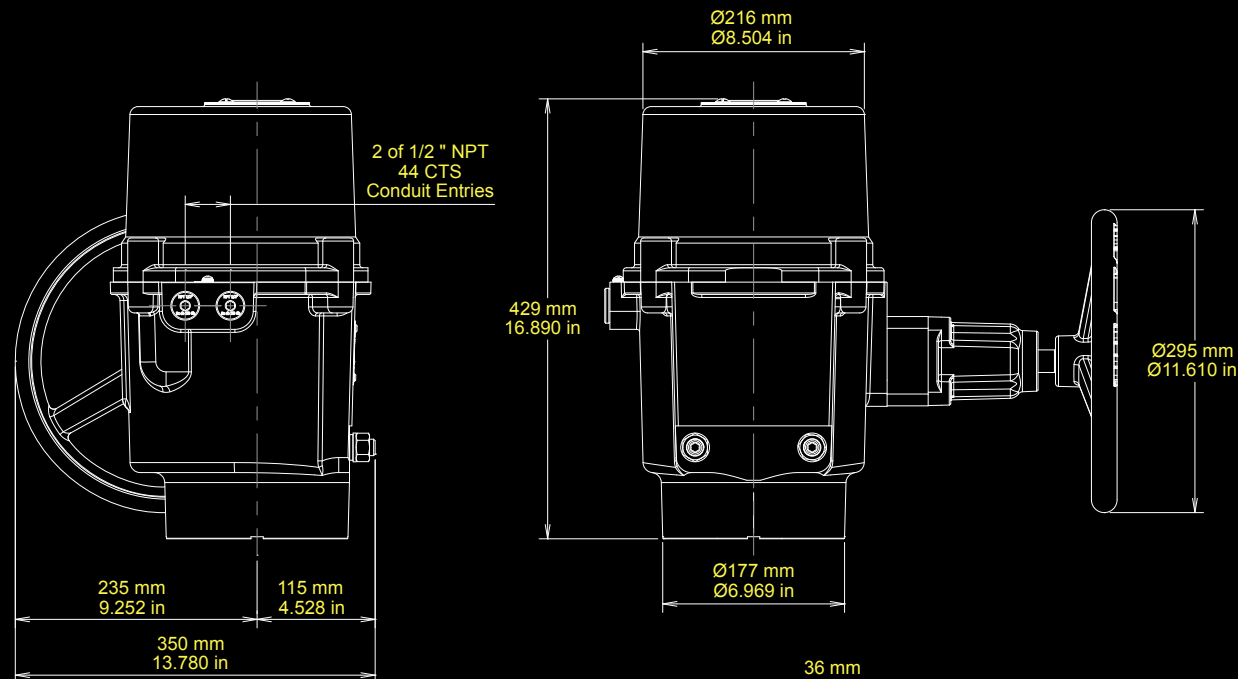
OME-4 / 5 / 6

2 of 1/2 " NPT
46 CTS
Conduit Entries

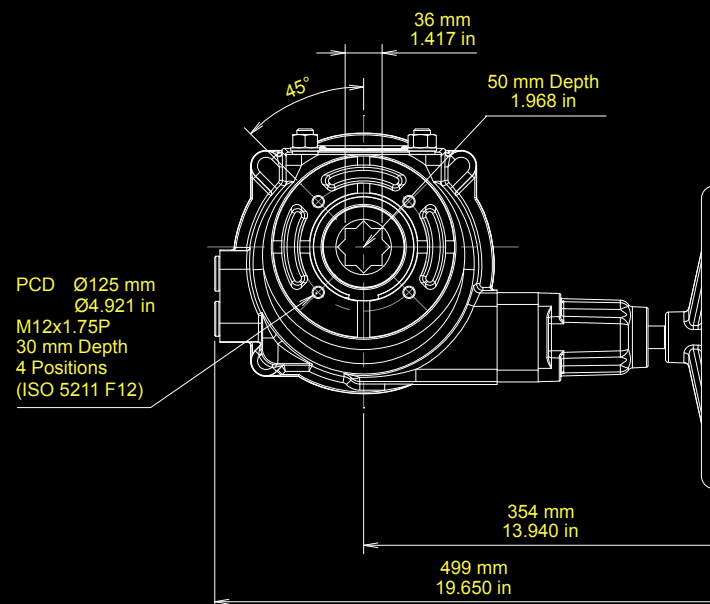


PCD Ø102 mm
Ø4.016 in
M10x1.5P
26 mm Depth
4 Positions
(ISO 5211 F10)





OME-7 / 8



OPTIONAL ITEMS

Enclosure Hazardous Area Enclosures

ATEX Certification

Directive	Group	Ambient Temperature
ATEX II 2 GD	Ex db IIB T4 Gb	-30°C to +70°C (-22°F to +158°F)
ATEX II 2 GD	Ex tb IIIC T130°C Db	-30°C to +70°C (-22°F to +158°F)
Standards: EN 60079-0, EN 60079-1, EN 60079-31		

IECEx International Certification

Group	Ambient Temperature
Ex db IIB T4 Gb	-30°C to +70°C (-22°F to +158°F)
Ex tb IIIC T130°C Db	-30°C to +70°C (-22°F to +158°F)
Standards: IEC 60079-0, IEC 60079-1, IEC 60079-31	

SE series

LE series

OME series



Enclosure Hazardous Area Enclosures

CSA Hazardous Area Certification

Zone	National Conformity	Class	Zone	Protection Method	Groups	T-Code	Ambient Temperature
	AEx / Ex	I	1	db	IIB, IIA	T4	-30°C to +70°C (-22°F to +158°F)
	AEx / Ex	II	21	tb	IIIC, IIIB, IIIA	T130°C	-30°C to +70°C (-22°F to +158°F)
	Standards: CAN / CSA-C22.2 No. 0-10, CAN / CSA-C22.2 No. 60079-0, CAN / CSA-C22.2 No. 60079-1, CAN / CSA-C22.2 No. 60079-31, UL 60079-0, UL 60079-1, UL 60079-31						
Division	Class		Division		Groups	T-Code	Ambient Temperature
	I		1		C, D	T4	-30°C to +70°C (-22°F to +158°F)
	II		1		E, F, G	T130°C	-30°C to +70°C (-22°F to +158°F)
	Standards: CAN / CSA-C22.2 No. 0-10, CSA C22.2 No. 30-M1986, CSA C22.2 No. 25-17, FM 3600, FM 3615, FM 3616						

SE series

LE series

OME series

OPTIONAL ITEMS

Manual Override

- The operator can drive the valve or damper to appropriate position by handwheel upon loss of power supply.
- When the electric motor is operating, for personal safety the handwheel won't rotate.

Operating Direction

- The spring return direction cannot be changed. The spring return direction must be configured by the manufacturer. Please select the fail action according to the required application, i.e. based on clockwise or counter-clockwise operation.
 - Standard: Fail clockwise spring return.
 - Optional: Fail counter-clockwise spring return.

SE series

LE series

OME series



Anti-condensation Heater

- A heater can increase internal temperatures and keep the inside of the actuator dry to avoid freezing of the lubricant and moisture causing actuator failure under low temperatures or high humidity.
- A heater is not recommended if the ambient temperature is over 35°C (95°F).
- When temperatures vary significantly from day to night or between summer and winter, a heater and thermostat 25±5°C (77±9°F) are recommended.

Heater Thermostat

- This option can switch the anti-condensation heater off when the temperature inside the actuator is over 25±5°C (77±9°F).

Auxiliary Limit Switches

- Actuators come standard with two limit switches, LS1 for fully-open and LS2 for fully-closed positioning. Two auxiliary limit switches are optional for fully-open and fully-closed position feedback.

SE series	LE series	OME series
●	●	●
●	●	●
●		●

OPTIONAL ITEMS

Modulating Control

- A proportional control unit that could efficiently control the flow via analog signal and position the valve to open / close in the system as well.

- Analog signal input: 4-20mA, 1-5V and 2-10V.
- Analog signal output: 4-20mA and 2-10V.

Floating Control

- The actuator can be controlled by an external signal to open, close or stop at any intermediate positions.
- SE series actuators will fail either clockwise or counter-clockwise to the end position on loss of power.

Analog Signal Output

- This option provides a signal output to a position indicator.
- Analog signal output: 0-20mA, 4-20mA, 0-5V, 0-10V, 1-5V and 2-10V.

SE series	LE series	OME series
●		●
●	●	
●		●

	SE series	LE series	OME series
Potentiometer Unit <ul style="list-style-type: none"> Recommended to use with an On / Off or floating control actuator to output signal for position indication. Two resistors, 1K ohm or 5K ohm are available for selection. 	●		●
Extended Duty Cycle Control (IEC standard) <ul style="list-style-type: none"> This option is suggested for extending duty cycle. 			●
Conduit Entries <ul style="list-style-type: none"> Standard: 2 x 1/2" NPT 	●	●	●
<ul style="list-style-type: none"> Optional: 2 x 3/4" NPT 	●	●	OME-2 to 8
<ul style="list-style-type: none"> Optional: 2 x M20 	●	●	●
<ul style="list-style-type: none"> Optional: 2 x M25 	●	●	OME-2 to 8



www.sunyeh.com



Service Unique Nice Youthful Energy Honesty

SUNYEH ELECTRICAL IND. CO., LTD.

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