

Chicago Valves & Controls



SERIES CVE

ELECTRIC ACTUATORS

ELECTRIC ACTUATOR

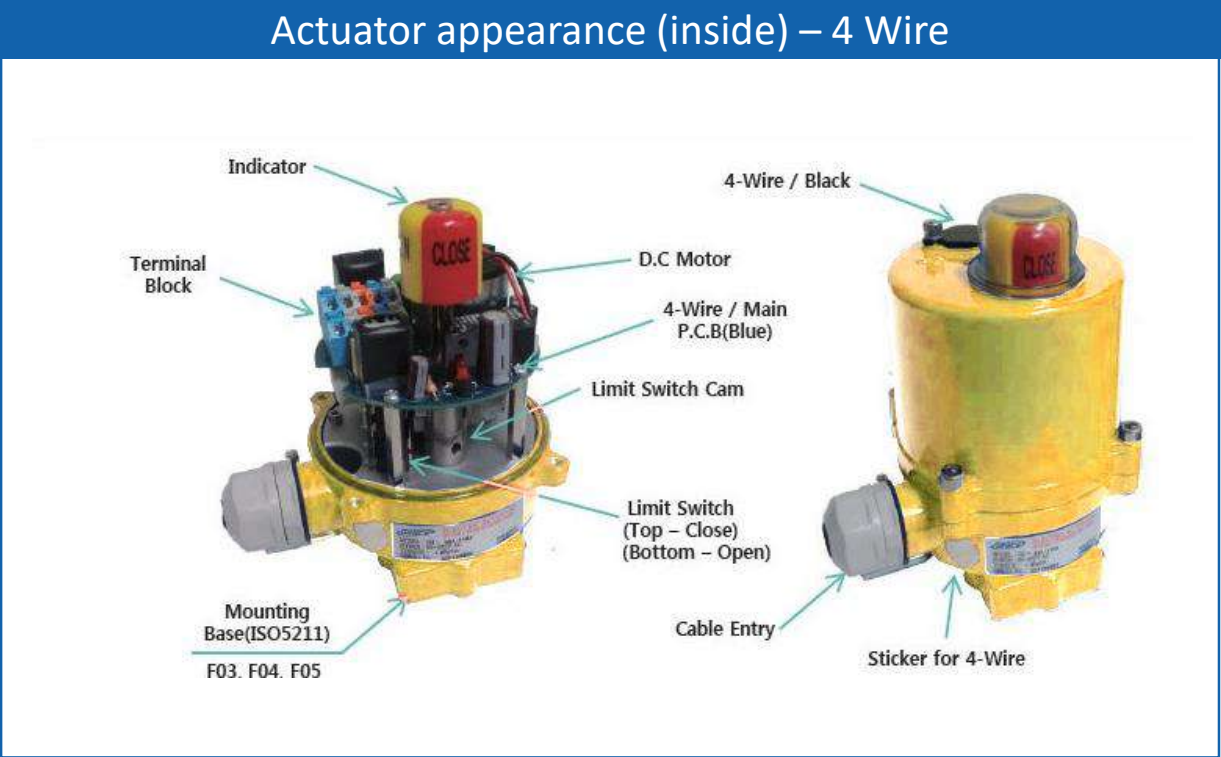
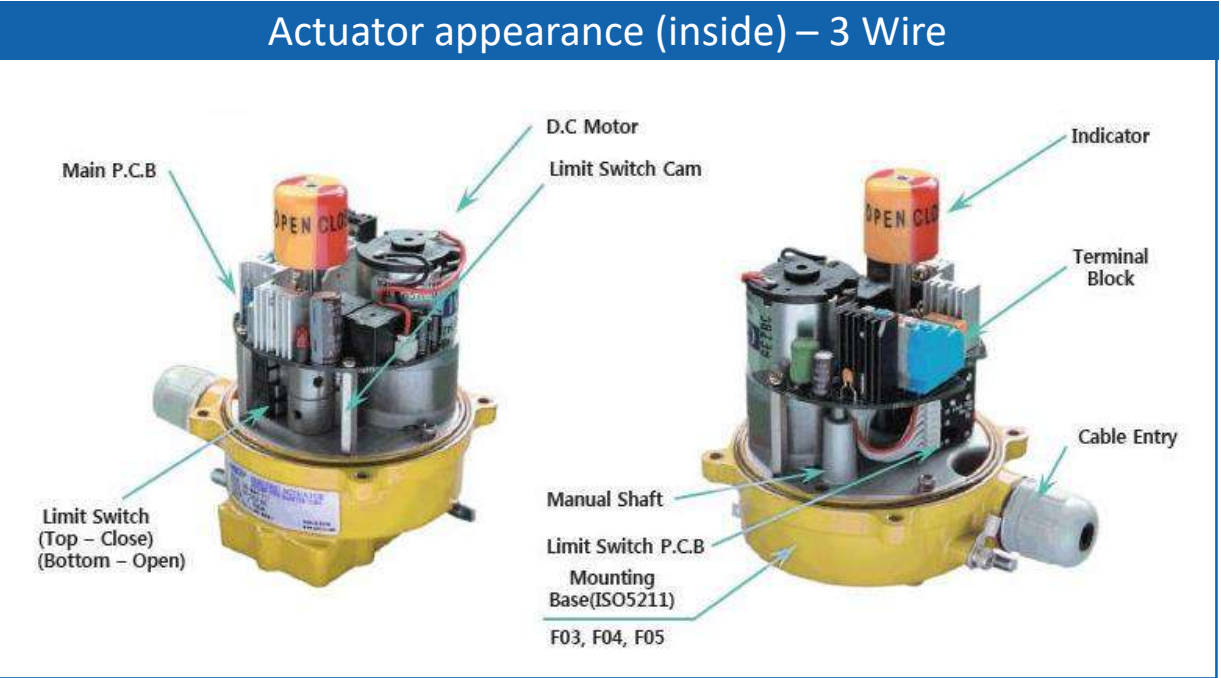
QUARTER TURN TYPE

CVE series electric actuator is specially designed for quarter turn operating. Applications such as Ball, Butterfly, Plug Valves, Dampers and similar usages.

FEATURES

- Compact and light due to high grade Aluminum alloyed housing.
- Hard anodizing for High corrosion resistance.
- Various output torque from 176 in-Lbs – 79,200 in-Lbs (20Nm to 9000Nm).
- Wide range of Voltage.
- Self locking function in the transmission.
- Manual operation Hand-Wheel engaged by Manual / Auto lever arranged for power drive folding Handle. (Space-Saving & Protection from Impact)
- ISO 5211 Mounting.
- Standard 4 limit switches. 2 for operation, 2 for extra Dry contacts.
- Torque switches. (CVE-016 ~ 300)
- Space heater with thermostat for preventing overheat.
- Removable drive bushing with under hung for easy machining and tight connection.

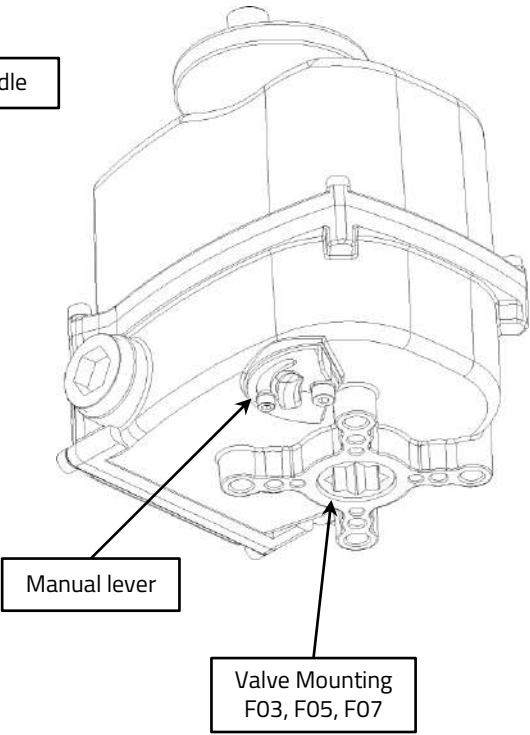
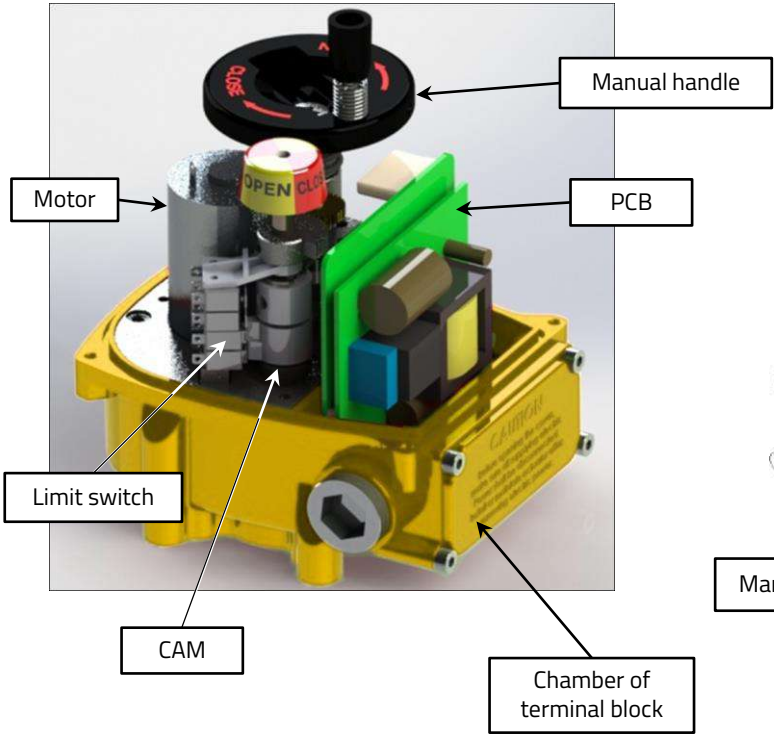
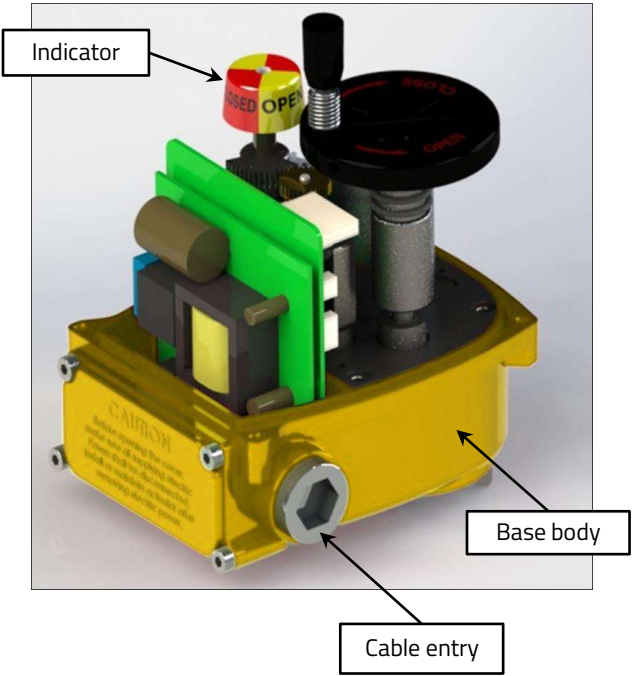


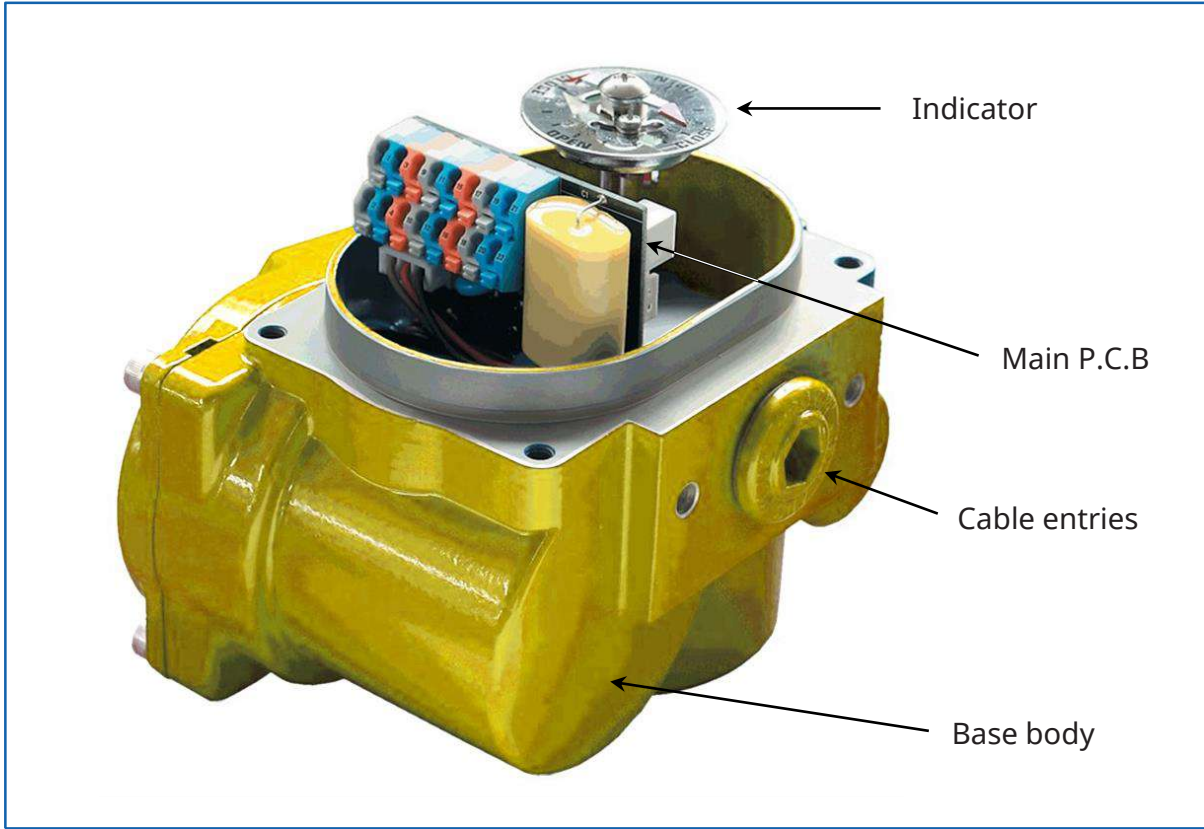
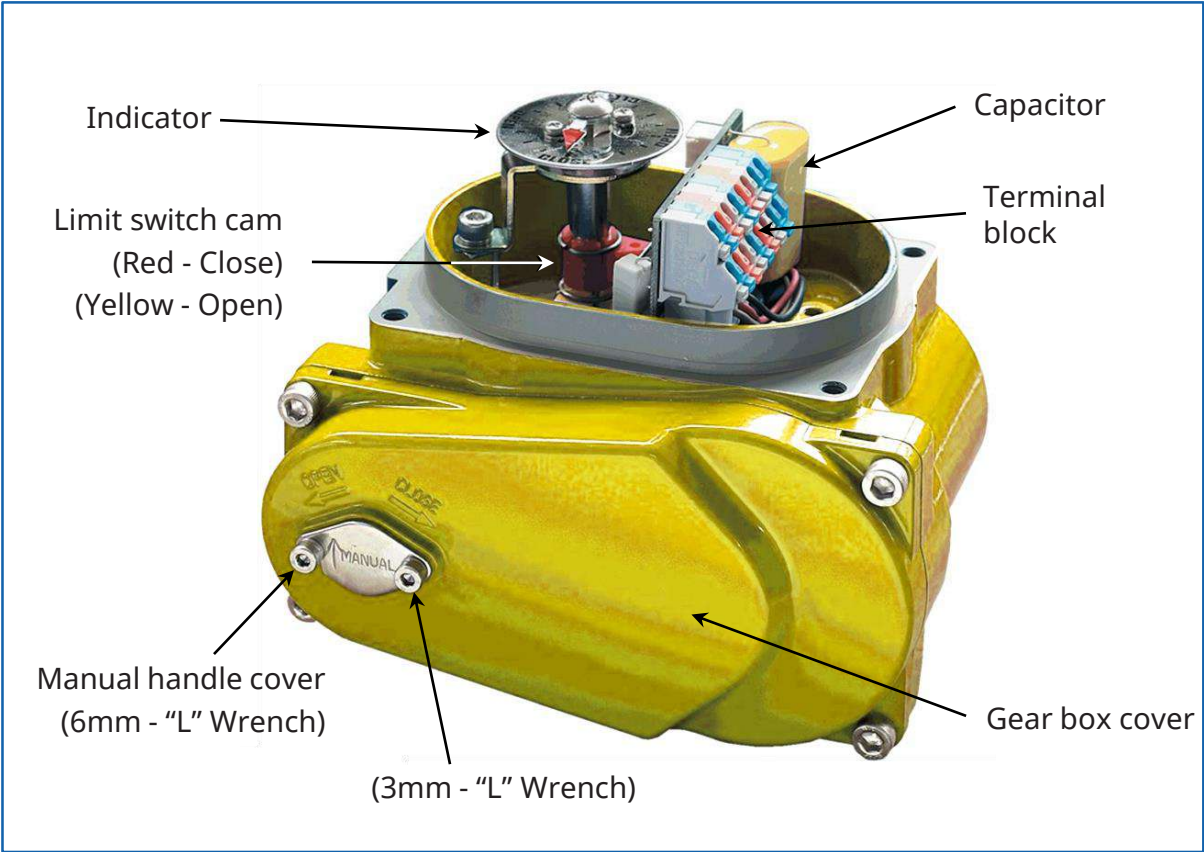


ELECTRIC ACTUATOR

QUARTER TURN TYPE

CONSTRUCTION CVE-04N



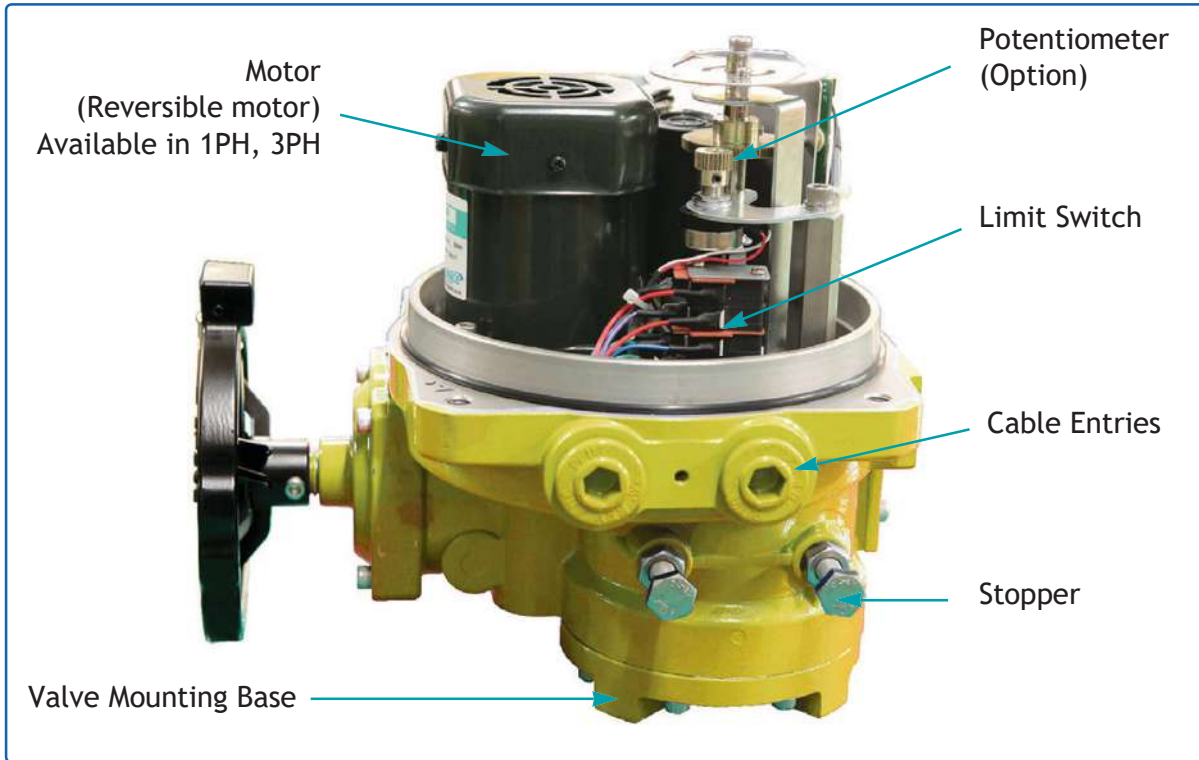
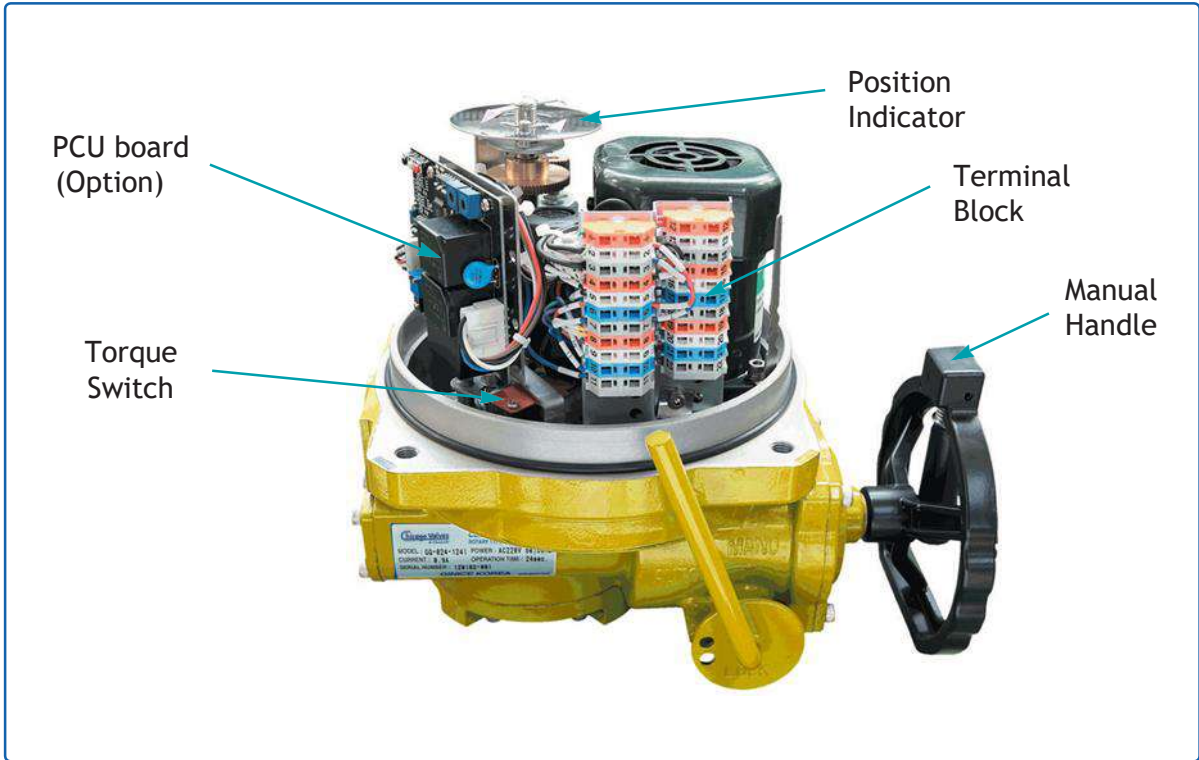


ELECTRIC ACTUATOR

QUARTER TURN TYPE

CONSTRUCTION

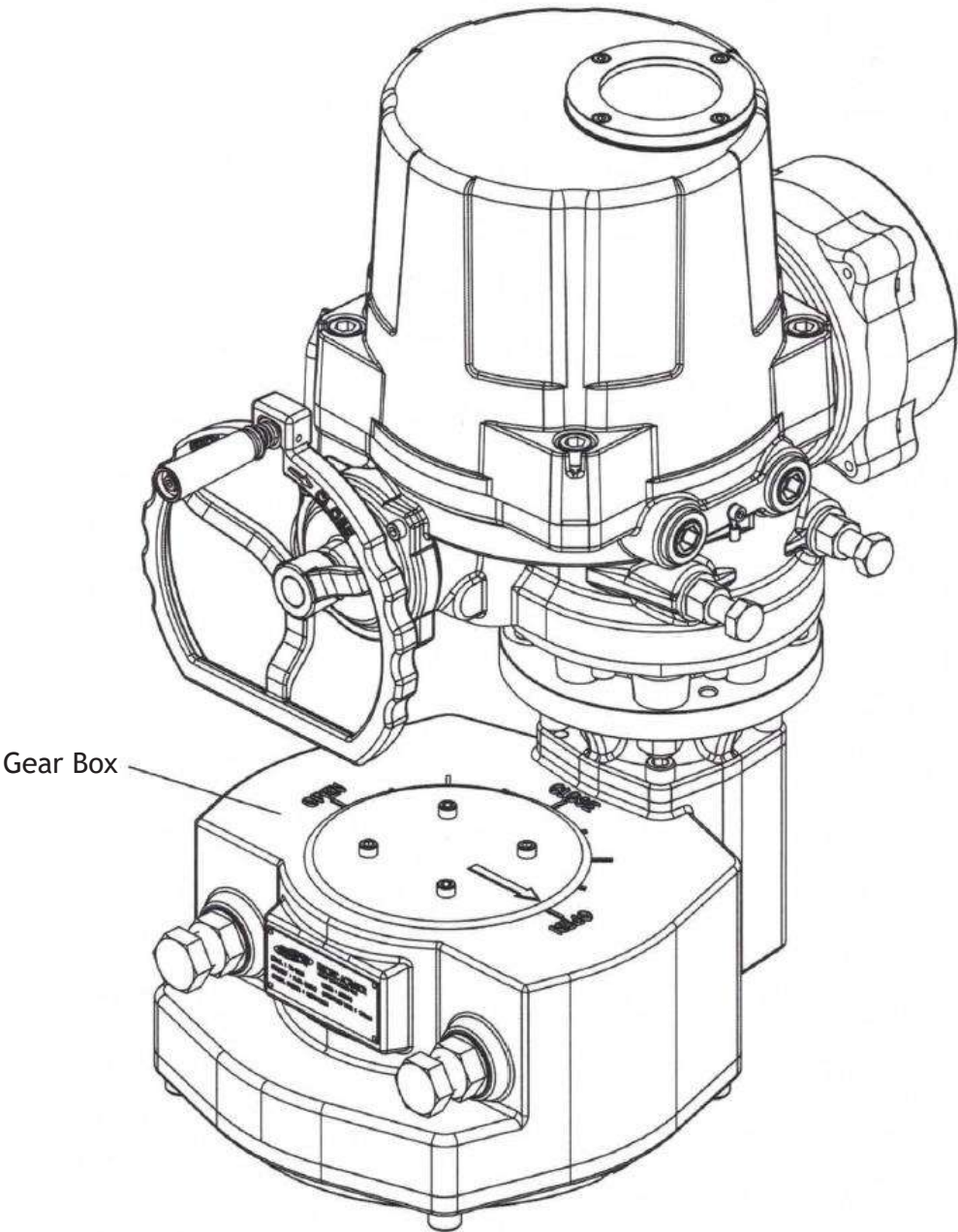
CVE-010~300



Quarter-turn Actuator

CVE-600, 900

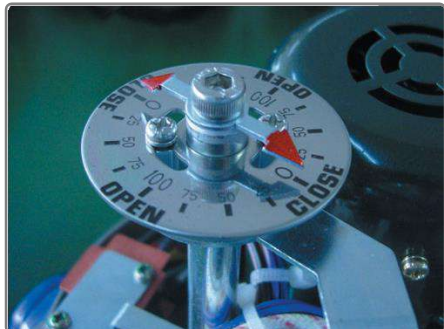
with Gear Box



ELECTRIC ACTUATOR

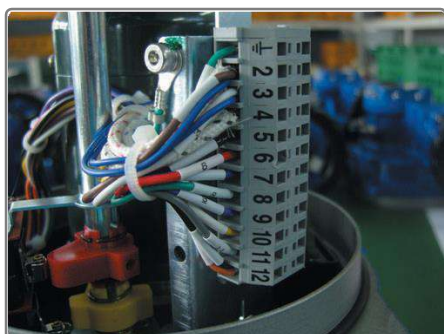
QUARTER TURN TYPE

STANDARD CONFIGURATION



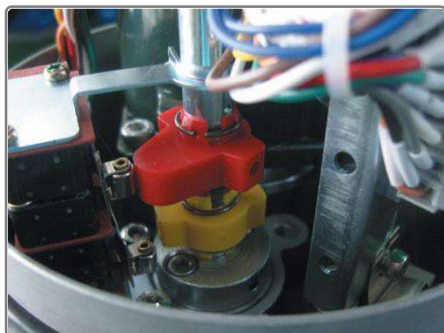
Indicator

- Visual indicator
- Simple & easy setting by adjustment of bolt on the top.



Terminal Block

- Spring loaded push type terminal for tight wiring
- Rated voltage / current : 300V / 10A
- Solid and stranded wire : 16~28 AWG
- Wire strip length : 8~10mm
- Insulating with stand voltage : 6KV



Limit Switch

- Open / Close SPDT switch
- Easy "Setting" by "L- Wrench" & Small screw-driver
- Manual Setting



Manual Override

- Lever, Wrench or Handle
- Space-Saving & Protection from impact

STANDARD SPECIFICATION

Quarter-turn Actuator CVE-002 ~ CVE-9000

Item	Specifications
Enclosure	Weatherproof enclosure NEMA 4, 4X / IP67
Power supply	12V DC 50/60Hz (CVE-002, 004) 24VAC/DC 1 Phase 50/60Hz (CVE-002 - 035) 120/220VAC 1 Phase 50/60Hz, 10% (CVE-002 - 900) 120/220VAC 1 Phase, 380/440VAC 3 Phase 50/60Hz, 10% (CVE-016 ~ 900)
Control power supply	120/220VAC 1 Phase 50/60Hz, 10% (CVE-002 ~ 900)
Duty cycle (on off)	S2, Max 30Min (CVE-001 ~ 900)
Duty cycle (modulating)	S4, 70% Max 300~1,600 start / hour (CVE-002, 04N, 006~080) S4, 50% Max 300~1600 start / hour (CVE-110-900)
Motor	DC Motor (for CVE-002 - 004 and ADC Power option) Induction Motor (Reversible motor) (CVE-006 - 900)
Limit Switches	Open / close, SPDT, 250VAC 3A~16A rating
Additional Limit Switches	Open / close, SPDT, 250VAC 3A~16A rating
Torque Switches	Open / close, SPDT, 250VAC 16A rating (Except for CVE-002 - 010)
Stall protection/operating temp.	Built-on thermal protection, open 302°F + 40°F/ close 207°F + 60°F (Except for CVE-002 - ~ 004 and ADC Power option etc)
Travel adjustment	90° + 5° (0 - 100°)
Indicator	Dome type Mechanical Indicator (CVE-002 - 008) Continuous mechanical indicator with arrow (CVE-010 - 900)
Manual override	By wrench directly to the spur or worm gear (CVE-002 ~ 008) Declutching Mechanism (CVE-010 ~ 900)
Self locking	Provided by Reducer(CVE-002~004) Provided by one or double worm gearing (CVE-006 ~ 900)
Mechanical Stopper	2 each external adjustable screws (Except for CVE-002 ~ 010)
Space Heater	2W (110 or /220VAC) anti-condensation (CVE-002 ~ 008) 5W (110/220VAC) anti-condensation (CVE-010) 10W (110/220VAC) anti-condensation (CVE-010 - 900)
Cable entries	PG11 (CVE002 ~ 004), PF 1/2"x 2 (CVE006 ~ 008), PF 3/4" tap x 3 (CVE010 ~ 900),
Lubrication	Grease Moly (EP type)
Terminal Block	Terminal Block type (CVE-002~008), Spring loaded lever push type (CVE-010 - 900)
Materials	Aluminum Alloy, Steel, Al bronze, Polycarbonate
Ambient Temperature	-4°F ~ +158°F (except option electronic board)
Ambient Humidity	90% RH Max. (non-condensing)
Anti vibration	X, Y, Z 9g, 0.2~34Hz, 30min
Global Certification	TUV sud, CE, ISO

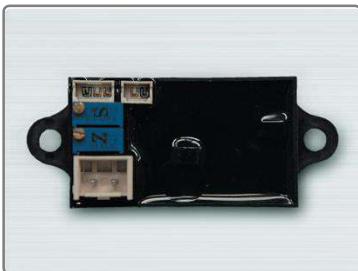
OPTION SPECIFICATION

WE	Watertight enclose actuator. (IP68, 10m 100hour)
PU	Potentiometer unit. (1k Ω)
PTM	Position transmitter. (Output 4 - 20mA)
PCU	Proportional control unit. (Input / Output 4 - 20mA or 0 - 10VDC or 1- 5VDC)
ALS	Additional limit switches. (SPDT X 2EA 250V AC 10A Rating)
ATS	Additional torque switches.
LCU	Local Control Unit. (Remote / Local, Open / Stop / Close Selector Switch with Lamps)
EX	Extension 120°, 135°, 180°, 270° turn.
Exd	Explosion proof (Ex d II BT4)
APD	Auto phase discriminator



Potentiometer Unit

- Compact size
- Range : 0 - 1k Ω
- Metal gear



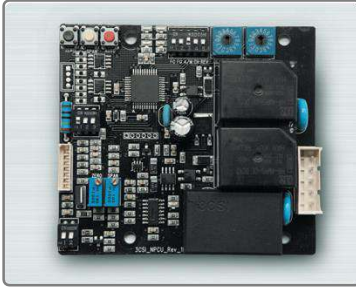
Position Transmitter

- Compact & reliable performance
- Input : AC/DC 24V, AC 110/220V
- Output : 4 - 20mA
- Zero, span setting



Auto Phase discriminator

- Simple auto phase controller
- Reverse-phase protection
- Open-phase protection
- In case of reverse connection, phase is switched automatically.
- Fault indicator



Proportional Control Unit

- Power : 85 ~ 280VAC $\pm 10\%$, 50/60Hz $\pm 2\%$ / 24VDC
- 4VA Max - Changeable by DIP switch
- Input signal: 4-20mADC, 1-5VDC, 2-10VDC, 0-5VDC, 0-10VDC
- Output signal: 4-20mADC, 1-5VDC, 2-10VDC, 0-5VDC, 0-10VDC
- Auto setting, dead band, delay time setting etc.



LCU (Local Control Unit)

- Compact unit that is mounted to the actuator to operate the valve at local.
- Local / Remote switch
- Open / Stop / Close selector switches with lamps
- Auto-Phase discriminator

OPTION SPECIFICATION

Model	Heater (W)	Temperature (°F/°C)	Additional Limit SW	ON-OFF	PU	PTM	PCU	LCU
CVE-002	2	-	SPDT 250V 3A	3 or 4wire	-	-	-	-
CVE-004	2	-	SPDT 250V 3A	3 or 4wire	-	-	-	-
CVE-04N	2	-	SPDT 250V 3A	-	-	-	O	-
CVE-006	5	266°F (130°C)	SPDT 250V 3A, Dry Contact	O	O	O	O	-
CVE-008	5	266°F (130°C)	SPDT 250V 3A, Dry Contact	O	O	O	O	-
CVE-009	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	-
CVE-010	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	-
CVE-016	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-020	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-024	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-035	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-050	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-080	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-110	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-200	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O
CVE-300	10	302°F (150°C)	SPDT 250V 16A, Dry Contact	O	O	O	O	O

PU : Potentiometer Unit

PTM : Position Transmitter

PCU : Proportional Control Unit

LCU : Local Control Unit

ELECTRIC ACTUATOR

QUARTER TURN TYPE

ELECTRIC DATA

Model	Phase	Vol. [V]	Freq. [Hz]	Consumption Power [VA]
CVE-002 ~ CVE-004		12	-	7.6
		24	-	8.6
	1 PH	110	50	39.6
			60	39.6
		220	50	79.2
			60	79.2
CVE-006 ~ CVE-008	1 PH	24	50	62.2
			60	53.3
		110	50	64.9
			60	55
		220	50	79.2
			60	55
CVE-010	DC	24	0	72
	1 PH		50	72
				60
		110	50	154
			60	154
		120	50	117.6
			60	117.6
	220	50	123.2	
		60	123.2	
	CVE-016 ~ CVE-024	DC	24	50
60		72		
1 PH		110	50	132
			60	143
		120	50	169.2
			60	176.4
		220	50	140.8
			60	132
		240	50	153.6
			60	144
3 PH		220	50	189.2
			60	180.4
		380	50	98.8
			60	76
		440	50	176
			60	110

Model	Phase	Vol. [V]	Freq. [Hz]	Consumption Power [VA]
CVE-035 ~ CVE-050	DC	24	50	72
	1 PH		60	72
		110	50	196.9
			60	220
		120	50	214.8
			60	240
		220	50	200.2
			60	264
		240	50	200.2
	60		264	
	3 PH	220	50	110
			60	121
		380	50	87.4
			60	72.2
440		50	242	
		60	149.6	
CVE-080 ~ CVE-110	1 PH	110	50	407
			60	542.3
		120	50	444
			60	591.6
		220	50	242
			60	242
	3 PH	220	50	321.2
			60	255.2
		380	50	380
			60	380
CVE-200 ~ CVE-300	1PH	110	50	ready
			60	ready
		220	50	422.4
			60	422.4
	3PH	220	50	517.0
			60	451.0
		380	50	684.0
			60	570.0
440	50	572.0		
	60	528.0		

TECHNICAL DATA

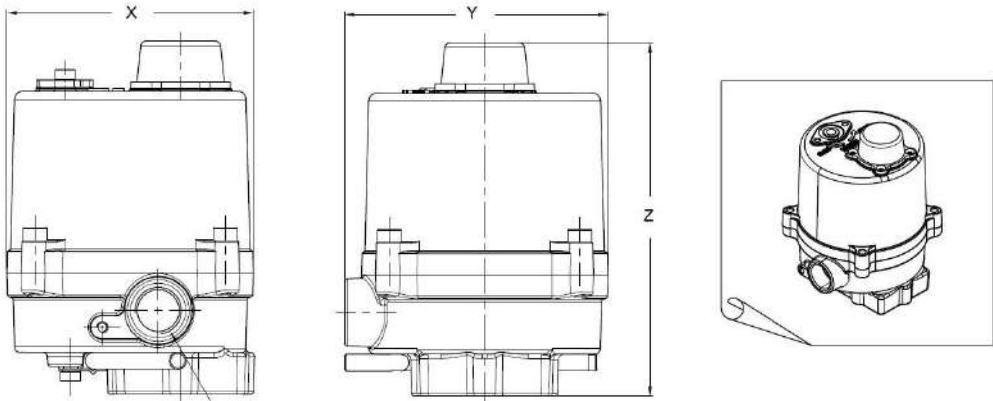
Model	Maximum Output torque	Operating Time(sec) 50/60Hz	Rated current(A) 50/60Hz									Duty Rate S4	N of Handle turn	Weight
			AC 1 Phase				AC 3Phase			DC				
	in-Lbs	90°	24V	110V	120V	220V	220V	380V	440V	12V	24V	%	N	Lbs
CVE-002	176	4/5	0.78/0.70	0.73/0.67	0.70/0.65	0.55/0.50	-	-	-	0.23	0.20	70	4.5	0.54
CVE-004	350	5/6	0.78/0.70	0.73/0.67	0.70/0.65	0.55/0.50	-	-	-	0.23	0.20	30	4.5	0.54
CVE-04N	350	12/13	0.58/0.55	0.29/0.25	0.29/0.25	0.20/0.13	-	-	-	-	0.22	70	17	0.54
CVE-006	530	15/17	0.58/0.55	0.29/0.26	0.29/0.26	0.20/0.14	-	-	-	-	0.22	70	7	1.59
CVE-008	700	15/17	2.59/2.22	0.72/0.59	0.72/0.59	0.27/0.25	-	-	-	-	0.35	70	7	1.59
CVE-009	790	18/21	3.50	1.00/0.97	1.00/0.97	0.60/0.50	-	-	-	-	3.50	70	10	3.17
CVE-010	880	18/21	3.50	1.00/0.97	1.00/0.97	0.60/0.50	-	-	-	-	3.50	70	10	3.17
CVE-016	1,400	21/25	3.50	1.50/1.37	1.30/1.20	0.84/0.73	0.37/0.28	0.37/0.28	0.59/0.36	-	3.00	70	12	6.8
CVE-020	1,760	21/25	3.50	1.60/1.50	1.40/1.30	0.86/0.77	0.37/0.28	0.37/0.28	0.59/0.36	-	3.00	60	12	6.8
CVE-024	2,100	21/25	3.50	1.60/1.50	1.40/1.30	0.86/0.77	0.37/0.28	0.37/0.28	0.59/0.36	-	3.00	70	12	6.8
CVE-035	3,080	26/31	3.50	1.60/1.40	1.60/1.30	1.10/1.00	0.33/0.27	0.33/0.27	0.55/0.34	-	3.00	70	14	9.06
CVE-050	4,400	26/31	3.50	1.60/1.40	1.60/1.30	1.20/1.10	0.33/0.27	0.33/0.27	0.55/0.34	-	3.00	70	14	9.06
CVE-080	7,040	32/29	-	4.93/3.59	4.93/3.59	2.20/1.80	0.83/0.61	0.83/0.61	1.10/0.67	-	-	70	17	11.33
CVE-110	9,680	32/39	-	4.93/3.59	4.93/3.59	2.20/1.80	0.83/0.61	0.83/0.61	1.10/0.67	-	-	50	17	11.33
CVE-200	17,600	50/59	-	-	-	2.20/1.90	1.30/1.20	1.30/1.20	1.30/1.10	-	-	50	23	31.71
CVE-300	26,400	50/59	-	-	-	2.20/1.90	1.30/1.20	1.30/1.20	1.30/1.10	-	-	50	23	31.71

ELECTRIC ACTUATOR

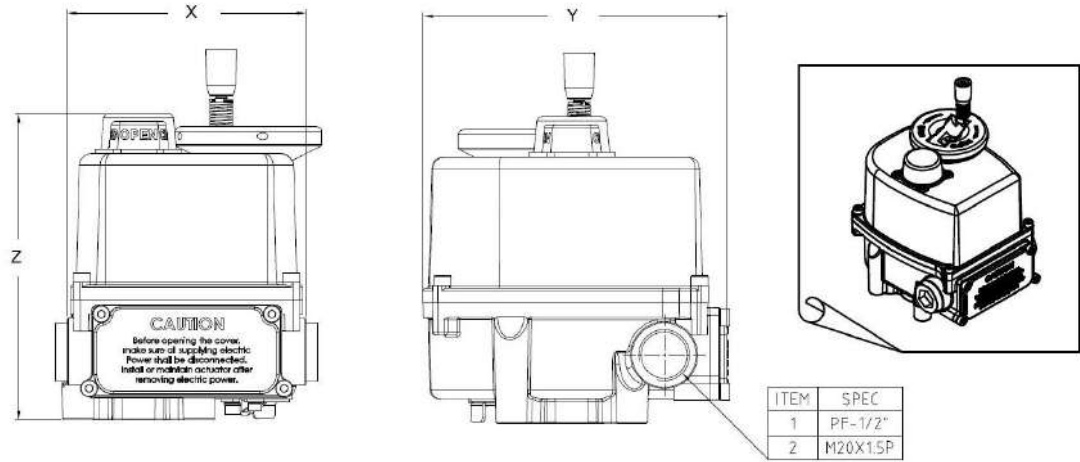
QUARTER TURN TYPE

BASIC DIMENSIONS

CVE-002~004



CVE-04N

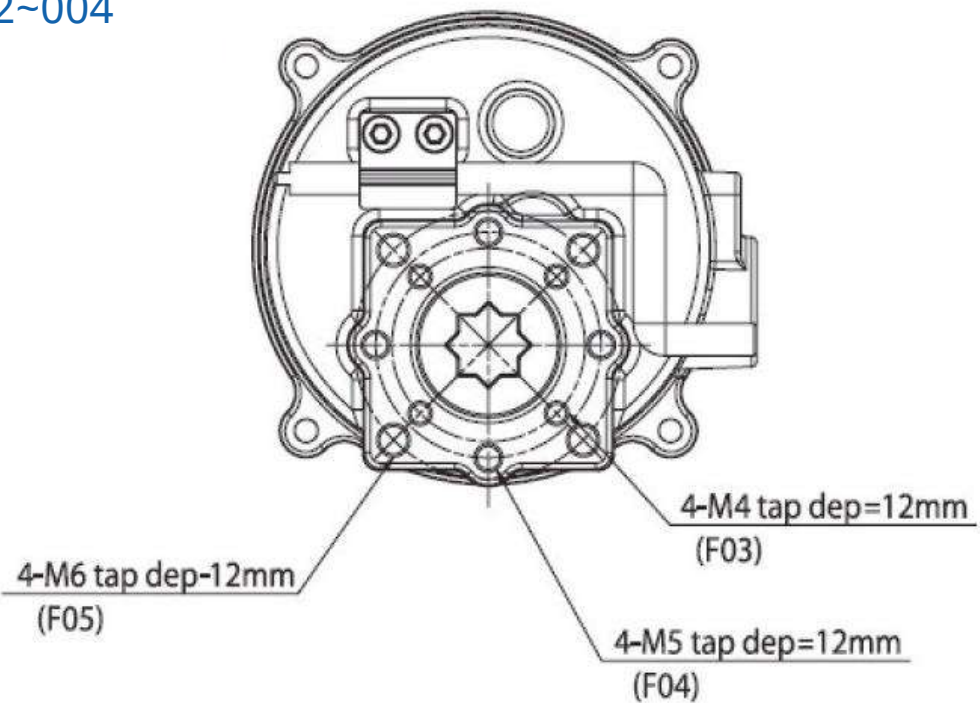


Units: inch

Model	ISO5211	X	Y	Z	Square Drive Diamond
CVE-002	F03/04/05	3.47	3.7	5.12	0.55
CVE-004	F03/04/05	3.47	3.7	5.12	0.55
CVE-04N	F03/F05/F07	3.86	4.92	4.96	0.55
CVE-006	F05/F07	4.84	6.22	6.54	0.55
CVE-008	F05/F07	4.84	6.22	6.54	0.55

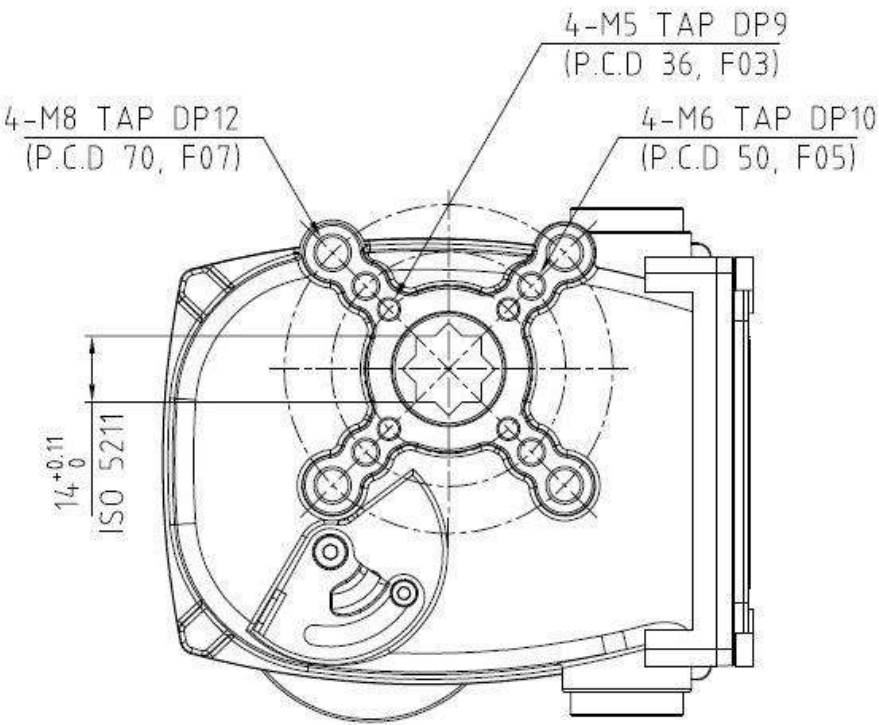
Valve Mounting (Base ISO 5211)

CVE-002~004



Valve Mounting (Base ISO 5211)

CVE-04N

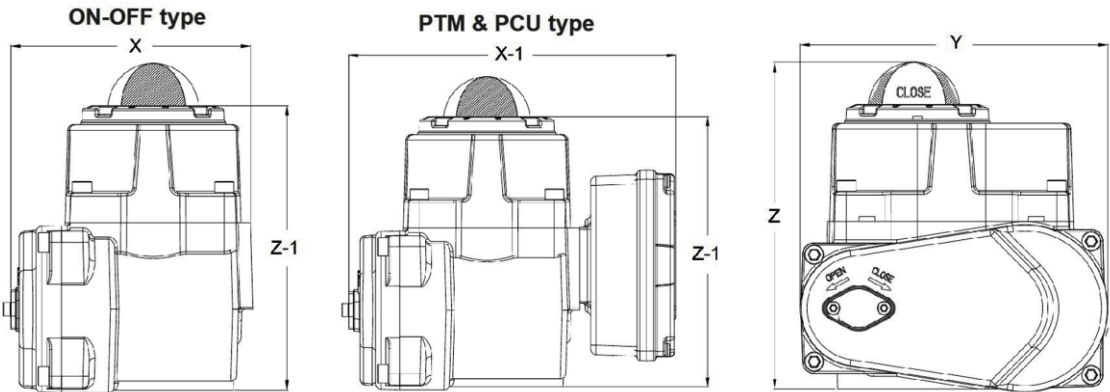


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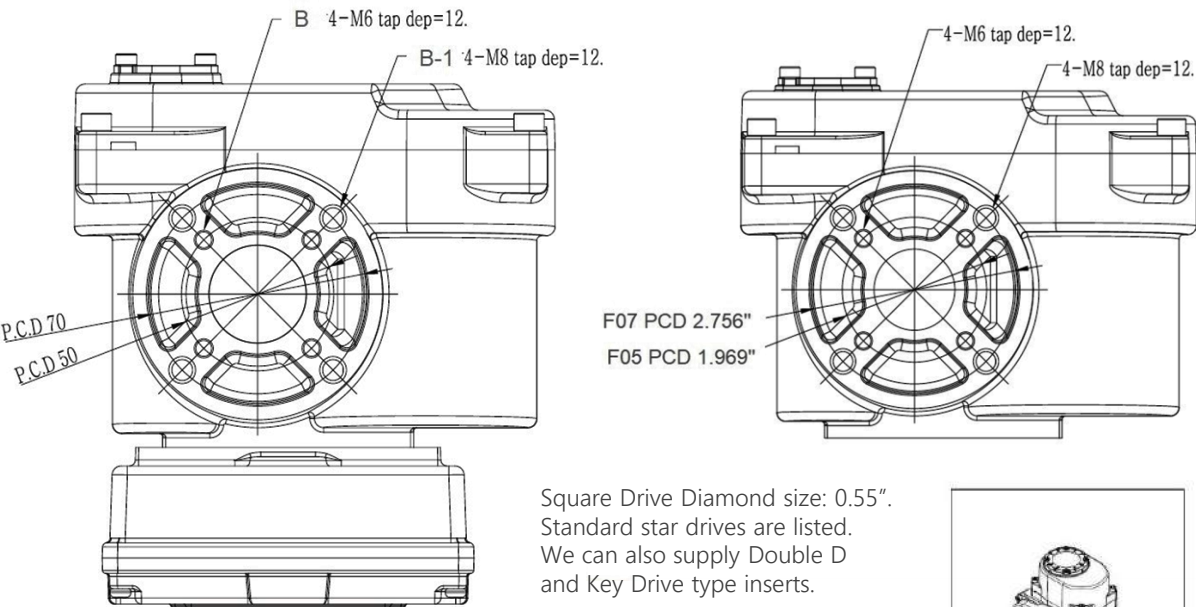
QUARTER TURN TYPE

BASIC DIMENSIONS

CVE-006, 008



Valve Mounting (Base ISO 5211)

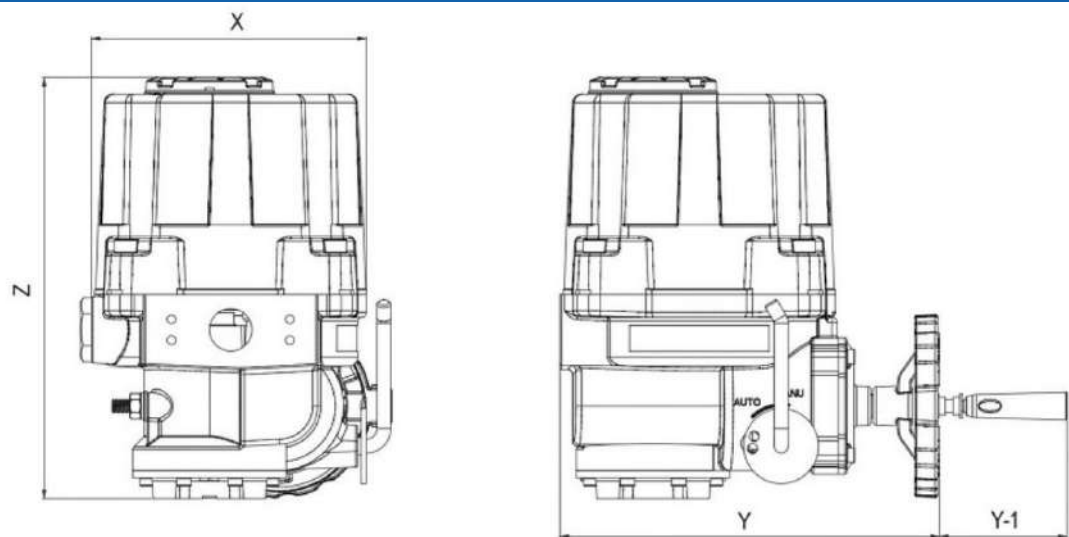


Units: inch

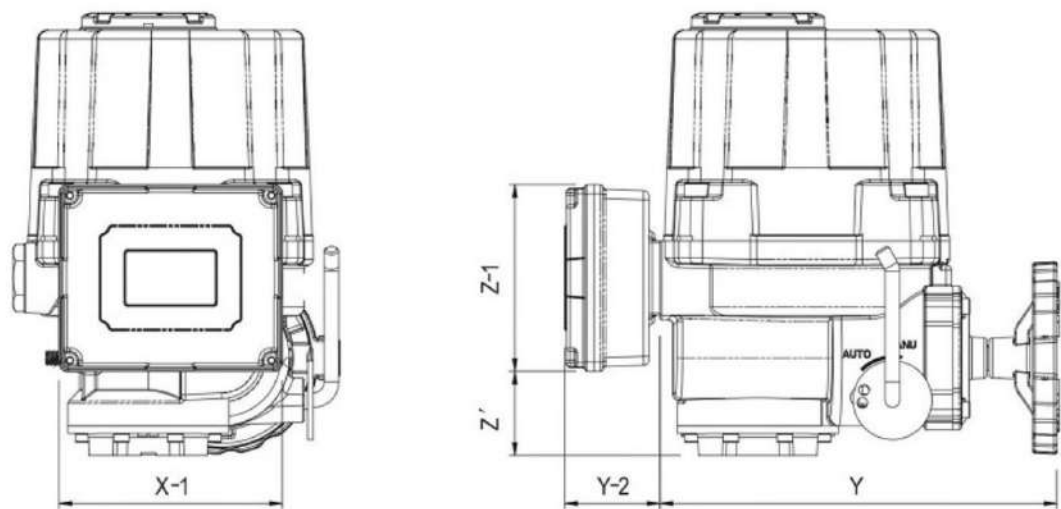
Model	ISO5211	ØA	ØA-1	B	B-1	X	X-1	Y	Z	Z-1
CVE-006	F05/F07	1.969	2.756	M6/12	M8/12	4.84	6.95	6.22	6.54	5.69
CVE-008	F05/F07	1.969	2.756	M6/12	M8/12	4.84	6.95	6.22	6.54	5.69

BASIC DIMENSIONS

CVE-10 (On/Off)



Modulating (with PCU)



Units: inch

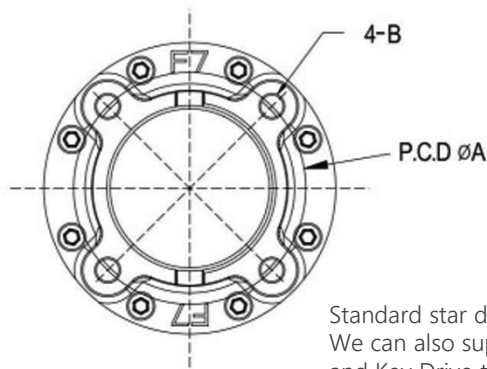
Model	Nm	In-Lbs	ISO5211	ØA
CVE-010	100	880	F07	2.756

B	X	X-1	Y	Y-1
M8/15	6.22	8.54	8.54	2.95

Y-2	Z	Z'	Z-1	SDD*
0.98	9.53	1.81	4.02	0.67

* SDD stands for Square Drive Diamond

Valve Mounting (Base ISO 5211)



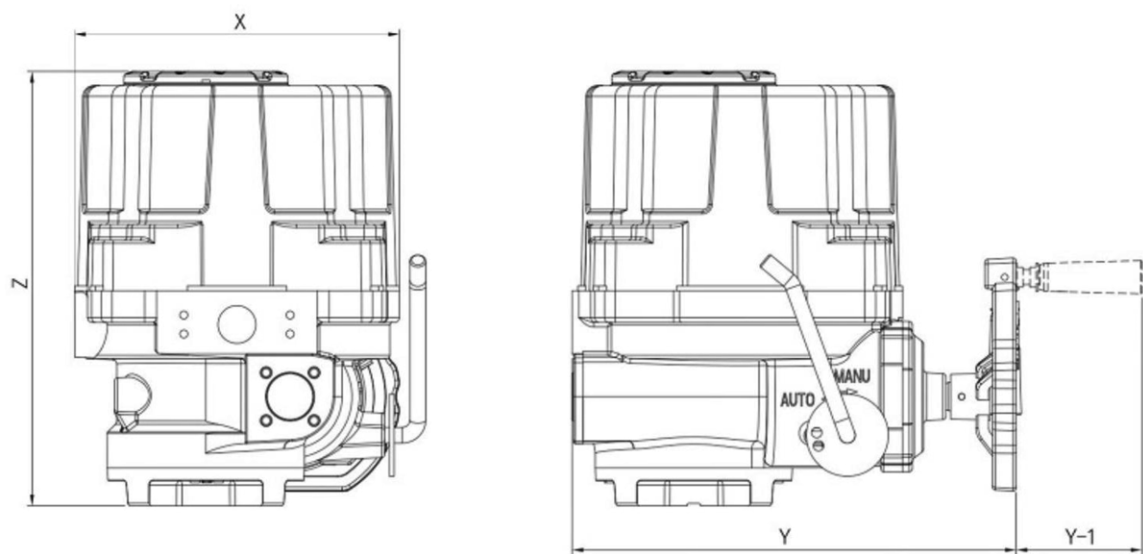
Standard star drives are listed.
We can also supply Double D
and Key Drive type inserts.

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QUARTER TURN TYPE

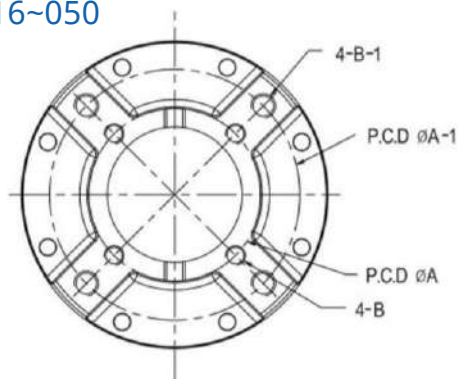
BASIC DIMENSIONS

CVE-016~300 On/Off, Modulating (with CPU)

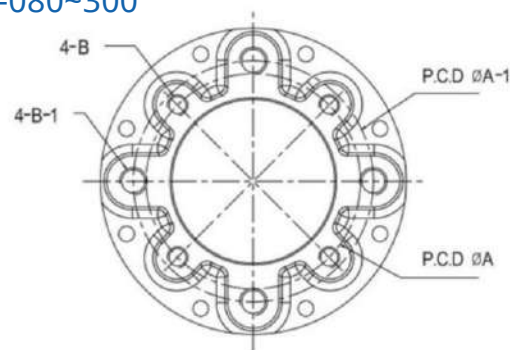


Valve Mounting (Base ISO 5211)

CVE-016~050



CVE-080~300

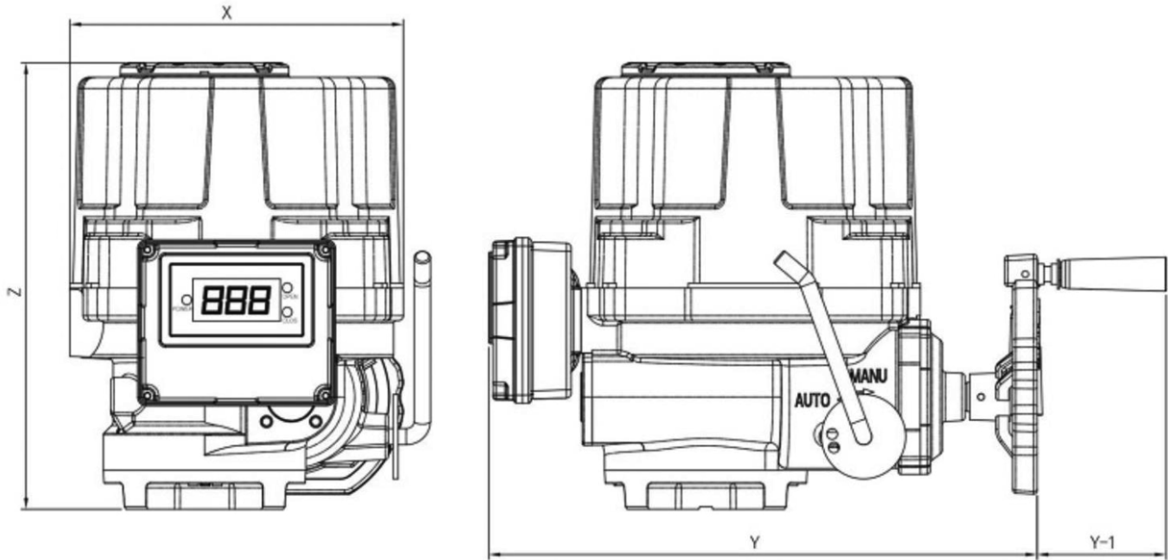


Units: inch

Model	Nm	in-Lbs	ISO5211	ØA	ØA-1	B	B-1	X	Y	Y-1	Z	SDD*
CVE-016	160	1,400	F07/F10	2.756	4.016	M8/12	M10/15	8.11	11.1	3.15	10.87	0.866
CVE-020	200	1,760	F07/F10	2.756	4.016	M8/12	M10/15	8.11	11.1	3.15	10.87	0.866
CVE-024	240	2,100	F07/F10	2.756	4.016	M8/12	M10/15	8.11	11.1	3.15	10.87	0.866
CVE-035	350	3,080	F10/F12	4.016	4.921	M10/15	M12/18	8.74	11.63	3.15	11.58	1.06
CVE-050	500	4,400	F10/F12	4.016	4.921	M10/15	M12/18	8.74	11.63	3.15	11.58	1.06
CVE-080	800	7,040	F12/F14	4.921	5.512	M12/18	M16/24	9.41	12.21	3.15	12.84	CF**
CVE-110	1,100	9,680	F12/F14	4.921	5.512	M12/18	M16/24	9.41	12.21	3.15	12.84	CF**
CVE-200	2,000	17,600	F16	-	6.496	-	M20/30	12.09	15.79	3.94	15.51	CF**
CVE-300	3,000	26,400	F16	-	6.496	-	M20/30	12.09	15.79	3.94	15.51	CF**

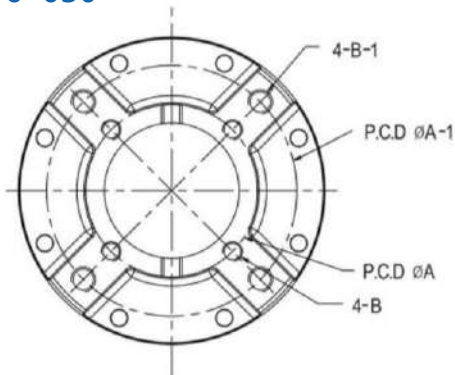
* SDD stands for Square Drive Diamond
** CF stands for Call Factory
*** Standard star drives are listed.
We can also supply Double D and Key Drive type inserts.

CVE-016~300 Modulating (with CPU)

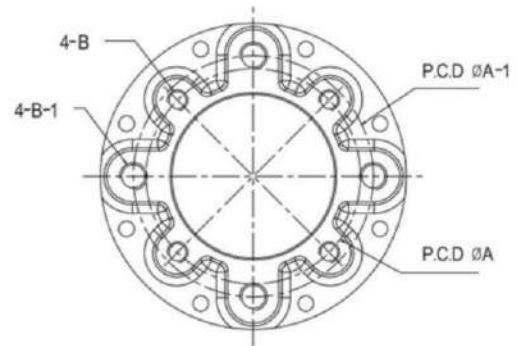


Valve Mounting (Base ISO 5211)

CVE-016~050



CVE-080~300



Units: inch

Model	Nm	in-Lbs	ISO5211	ØA	ØA-1	B	B-1	X	Y	Y-1	Z	SDD*
CVE-016	160	1,400	F07/F10	2.756	4.016	M8/12	M10/15	8.11	13.15	3.15	10.87	0.866
CVE-020	200	1,760	F07/F10	2.756	4.016	M8/12	M10/15	8.11	13.15	3.15	10.87	0.866
CVE-024	240	2,100	F07/F10	2.756	4.016	M8/12	M10/15	8.11	13.15	3.15	10.87	0.866
CVE-035	350	3,080	F10/F12	4.016	4.921	M10/15	M12/18	8.74	13.68	3.15	11.58	1.06
CVE-050	500	4,400	F10/F12	4.016	4.921	M10/15	M12/18	8.74	13.68	3.15	11.58	1.06
CVE-080	800	7,040	F12/F14	4.921	5.512	M12/18	M16/24	9.41	14.25	3.15	12.84	CF**
CVE-110	1,100	9,680	F12/F14	4.921	5.512	M12/18	M16/24	9.41	14.25	3.15	12.84	CF**
CVE-200	2,000	17,600	F16	-	6.496	-	M20/30	12.09	17.83	3.94	15.51	CF**
CVE-300	3,000	26,400	F16	-	6.496	-	M20/30	12.09	17.83	3.94	15.51	CF**

* SDD stands for Square Drive Diamond

** CF stands for Call Factory

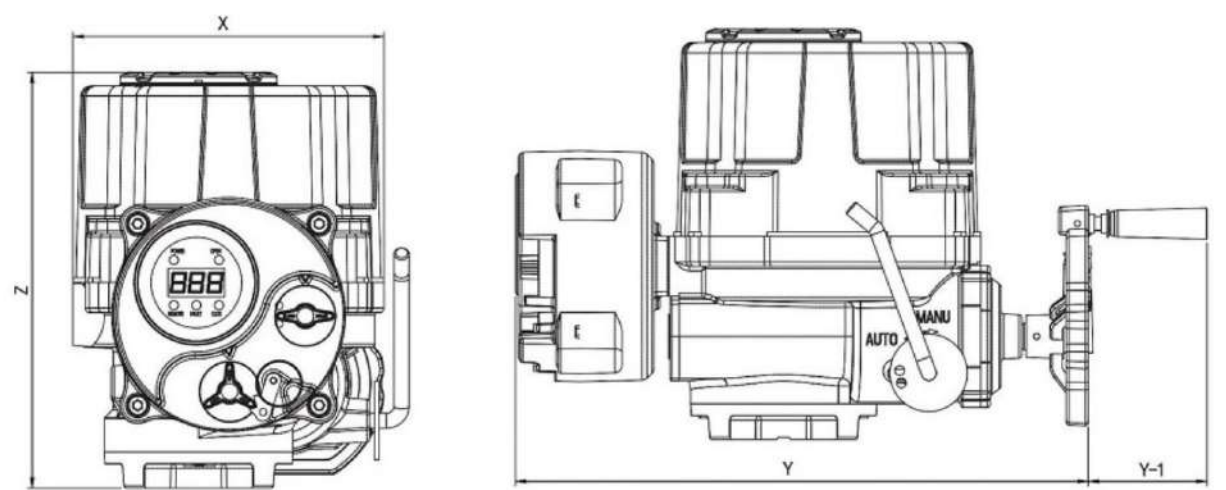
*** Standard star drives are listed. We can also supply Double D and Key Drive type inserts.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

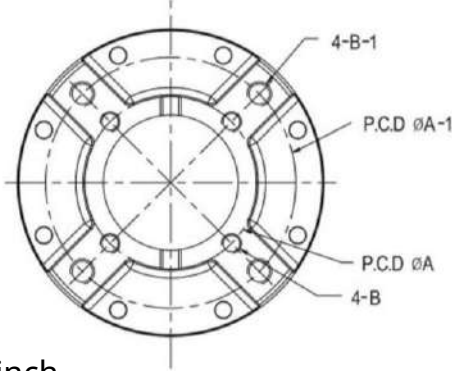
BASIC DIMENSIONS

CVE-016~300 1PH Integral, Modulating (with CPU)

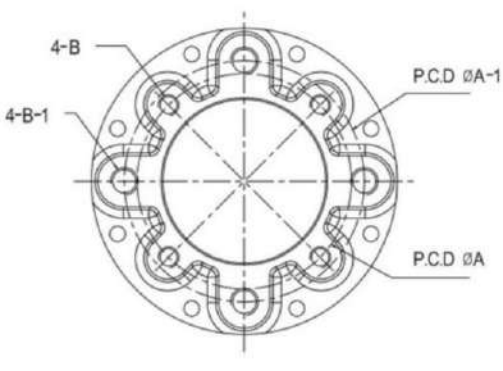


Valve Mounting (Base ISO 5211)

CVE-016~050



CVE-080~300

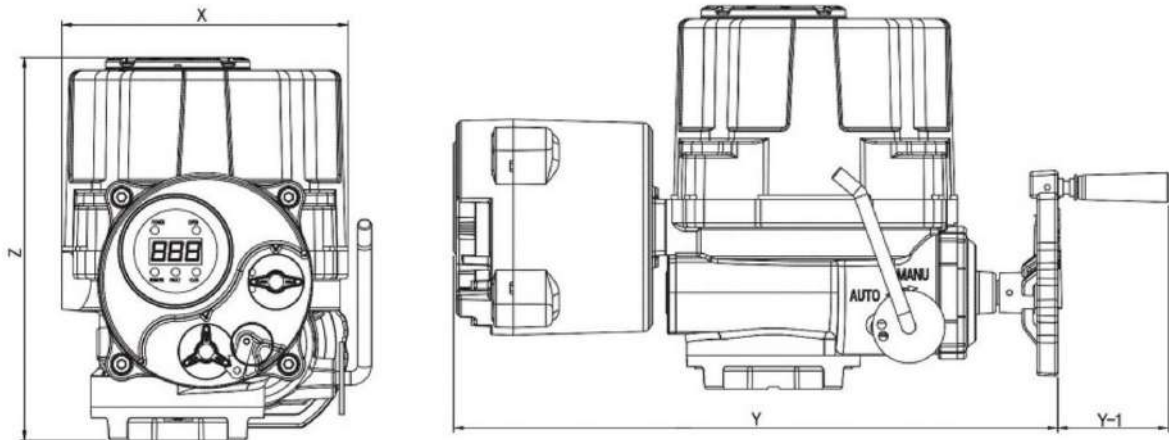


Units: inch

Model	Nm	in-Lbs	ISO5211	ØA	ØA-1	B	B-1	X	Y	Y-1	Z	SDD*
CVE-016	160	1,400	F07/F10	2.756	4.016	M8/12	M10/15	8.11	15.16	3.15	10.87	0.866
CVE-020	200	1,760	F07/F10	2.756	4.016	M8/12	M10/15	8.11	15.16	3.15	10.87	0.866
CVE-024	240	2,100	F07/F10	2.756	4.016	M8/12	M10/15	8.11	15.16	3.15	10.87	0.866
CVE-035	350	3,080	F10/F12	4.016	4.921	M10/15	M12/18	8.74	15.63	3.15	11.58	1.06
CVE-050	500	4,400	F10/F12	4.016	4.921	M10/15	M12/18	8.74	15.63	3.15	11.58	1.06
CVE-080	800	7,040	F12/F14	4.921	5.512	M12/18	M16/24	9.41	16.26	3.15	12.84	CF**
CVE-110	1,100	9,680	F12/F14	4.921	5.512	M12/18	M16/24	9.41	16.26	3.15	12.84	CF**
CVE-200	2,000	17,600	F16	-	6.496	-	M20/30	12.09	19.76	3.94	15.51	CF**
CVE-300	3,000	26,400	F16	-	6.496	-	M20/30	12.09	19.76	3.94	15.51	CF**

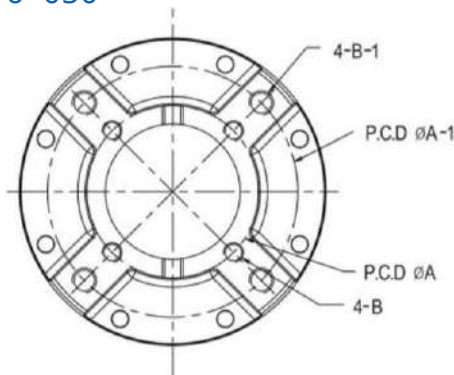
* SDD stands for Square Drive Diamond
** CF stands for Call Factory
*** Standard star drives are listed.
We can also supply Double D and Key Drive type inserts.

CVE-016~300 Modulating (with CPU)

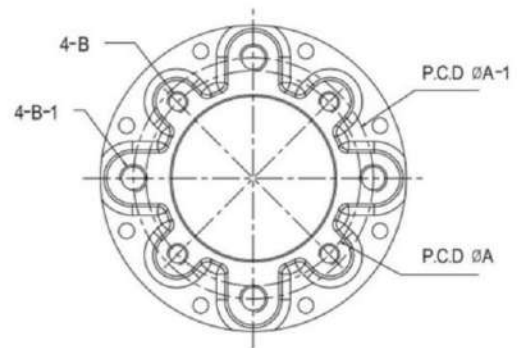


Valve Mounting (Base ISO 5211)

CVE-016~050



CVE-080~300



Units: inch

Model	Nm	in-Lbs	ISO5211	ØA	ØA-1	B	B-1	X	Y	Y-1	Z	SDD*
CVE-016	160	1,400	F07/F10	2.756	4.016	M8/12	M10/15	8.11	17.13	3.15	10.87	0.866
CVE-020	200	1,760	F07/F10	2.756	4.016	M8/12	M10/15	8.11	17.13	3.15	10.87	0.866
CVE-024	240	2,100	F07/F10	2.756	4.016	M8/12	M10/15	8.11	17.13	3.15	10.87	0.866
CVE-035	350	3,080	F10/F12	4.016	4.921	M10/15	M12/18	8.74	17.66	3.15	11.58	1.06
CVE-050	500	4,400	F10/F12	4.016	4.921	M10/15	M12/18	8.74	17.66	3.15	11.58	1.06
CVE-080	800	7,040	F12/F14	4.921	5.512	M12/18	M16/24	9.41	18.23	3.15	12.84	CF**
CVE-110	1,100	9,680	F12/F14	4.921	5.512	M12/18	M16/24	9.41	18.23	3.15	12.84	CF**
CVE-200	2,000	17,600	F16	-	6.496	-	M20/30	12.09	21.80	3.94	15.51	CF**
CVE-300	3,000	26,400	F16	-	6.496	-	M20/30	12.09	21.80	3.94	15.51	CF**

* SDD stands for Square Drive Diamond

** CF stands for Call Factory

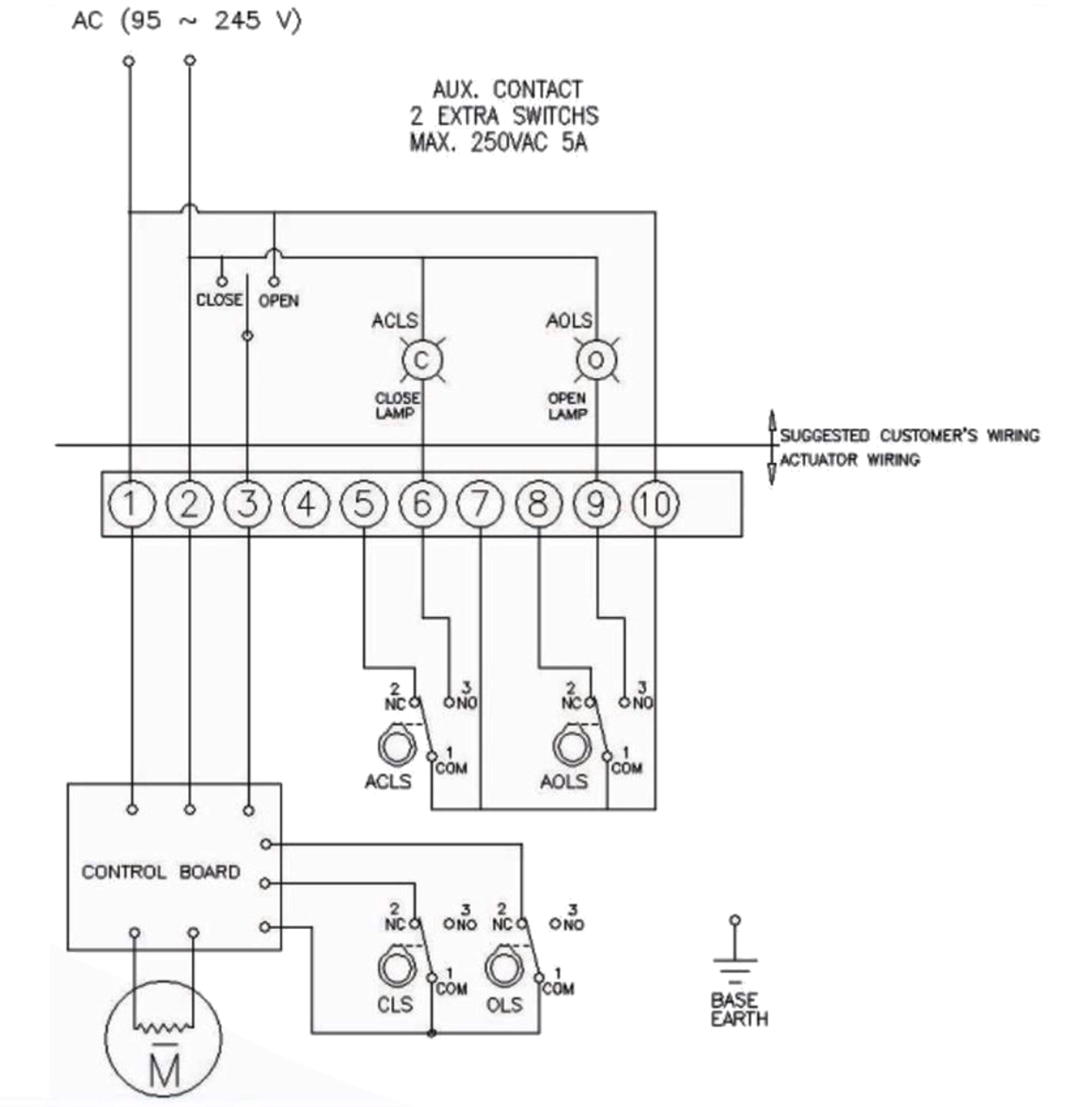
*** Standard star drives are listed. We can also supply Double D and Key Drive type inserts.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-004)

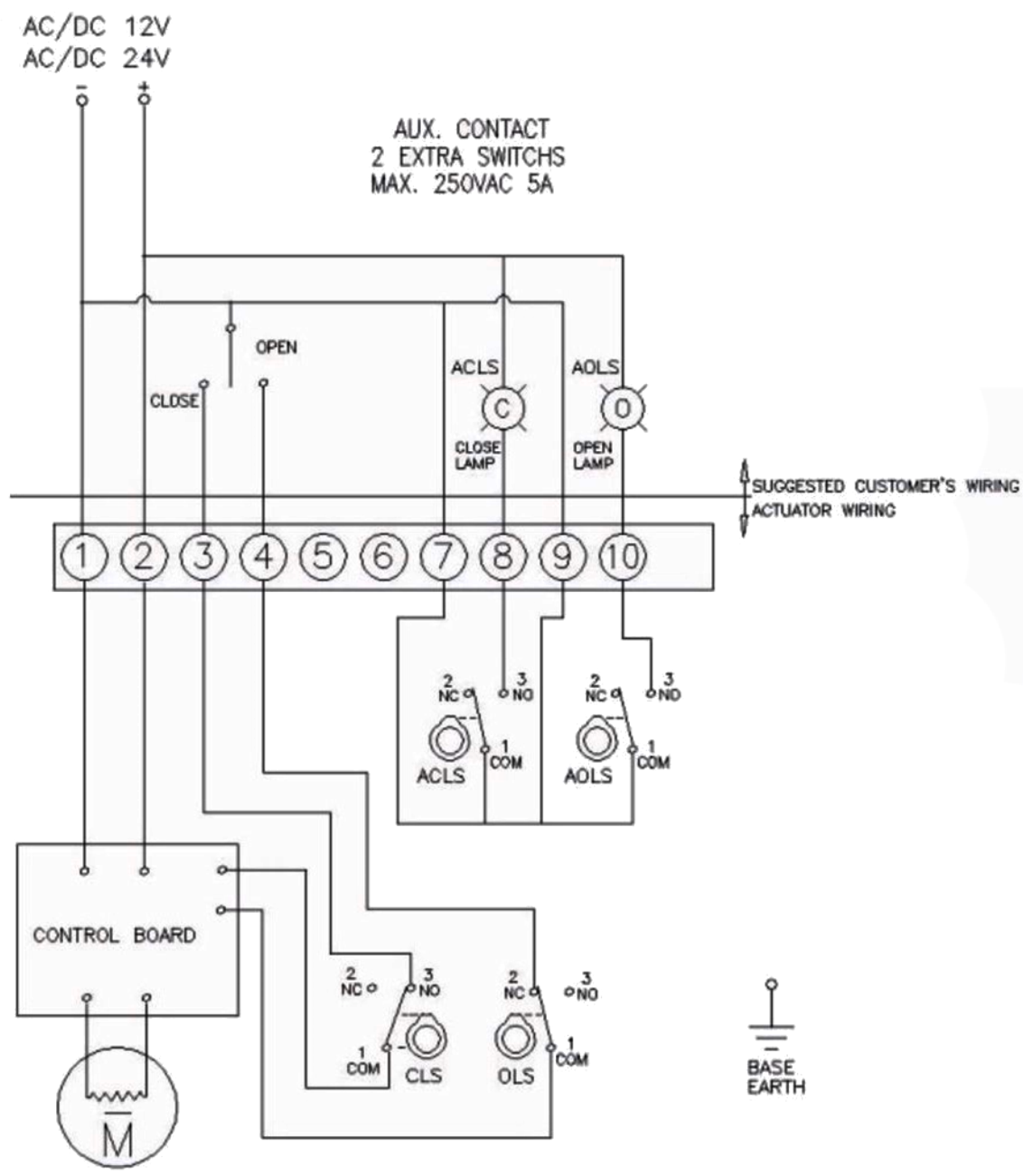
AC ON-OFF (3 Wire)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-004)

AC/DC ON-OFF



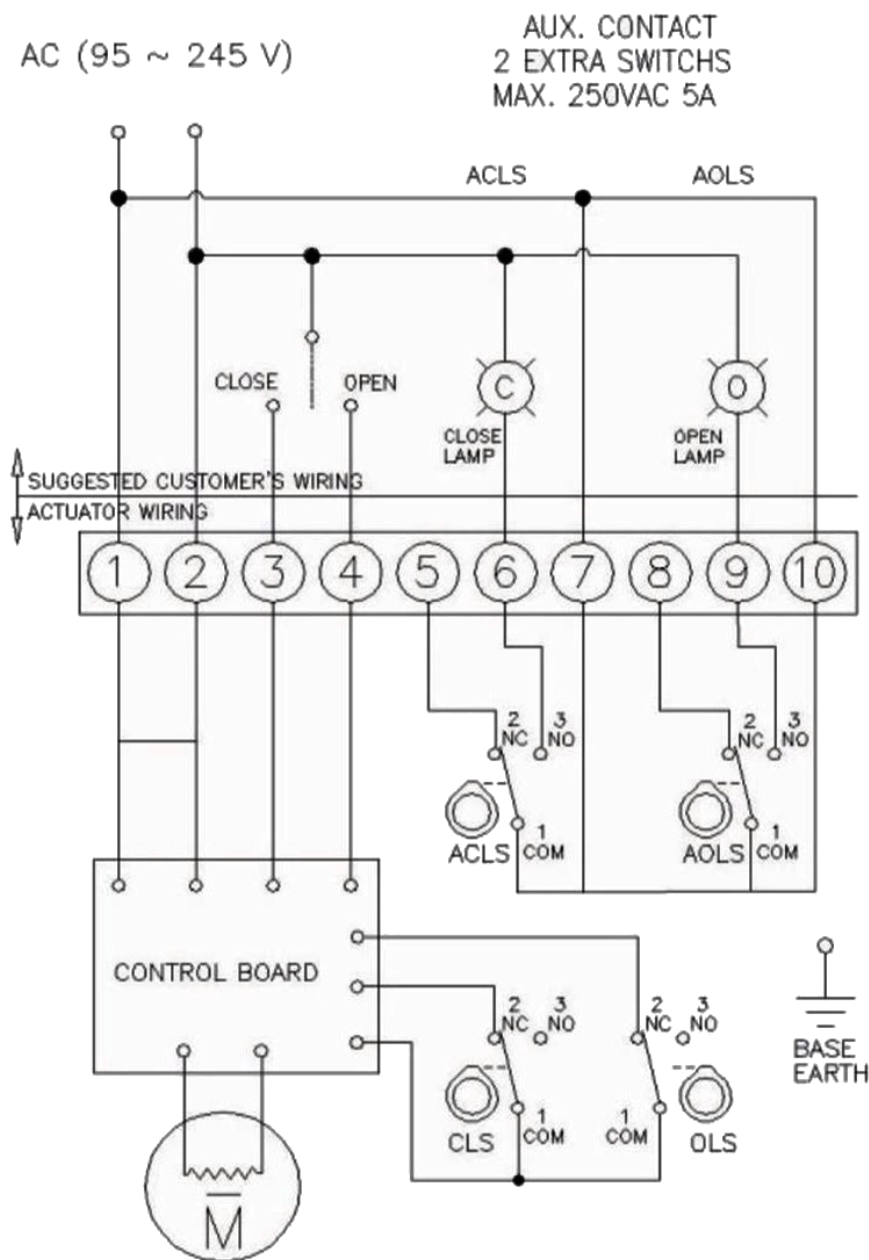
Important Notice

Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

QUARTER TURN TYPE

TYPICAL WIRING (CVE-004)

AC ON-OFF (4 Wire)



Important Notice

Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

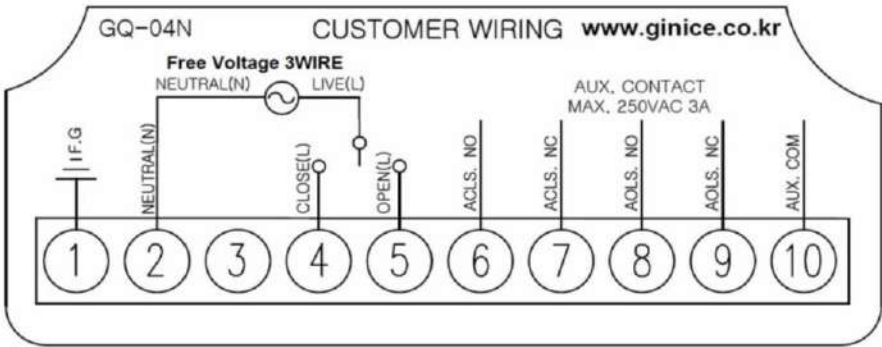
QUARTER TURN TYPE



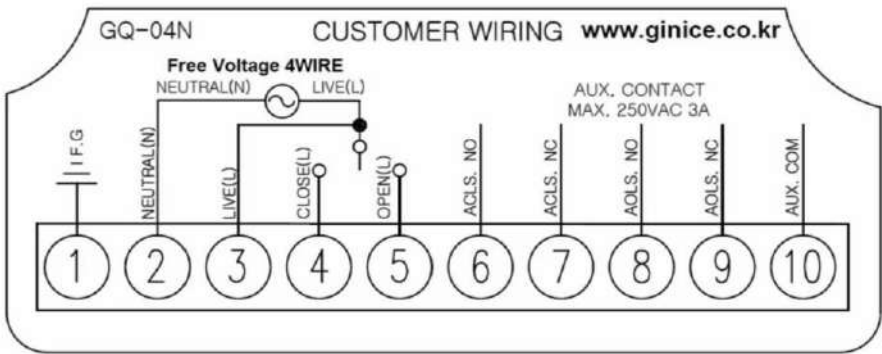
CVE SERIES

BUILD TO SERVE YOUR NEEDS

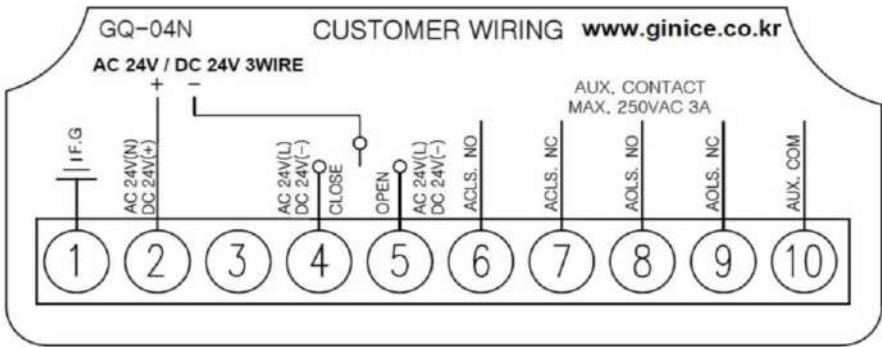
CONNECTION WIRING (CVE-004)



AC Free voltage 3WIRE (ON-OFF)

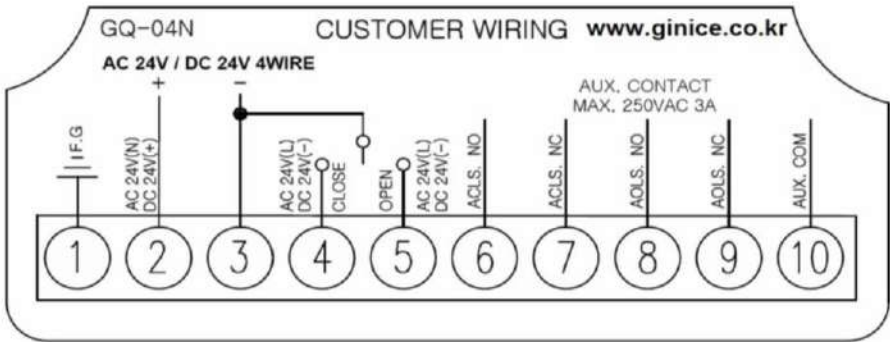


AC Free voltage 4WIRE (ON-OFF)

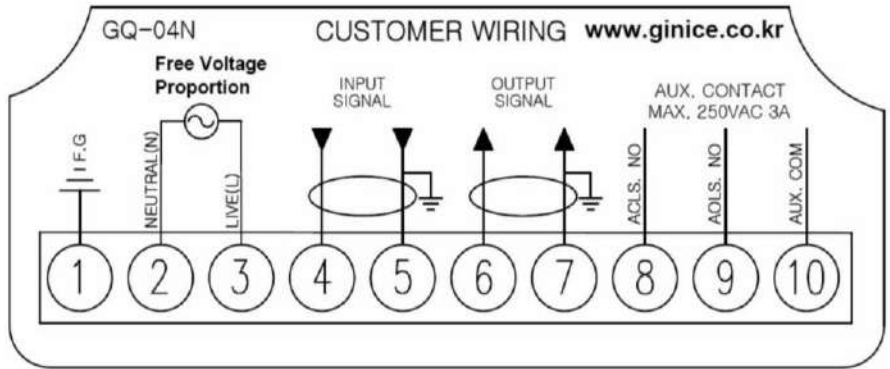


AC/DC 24V 3WIRE (ON-OFF)

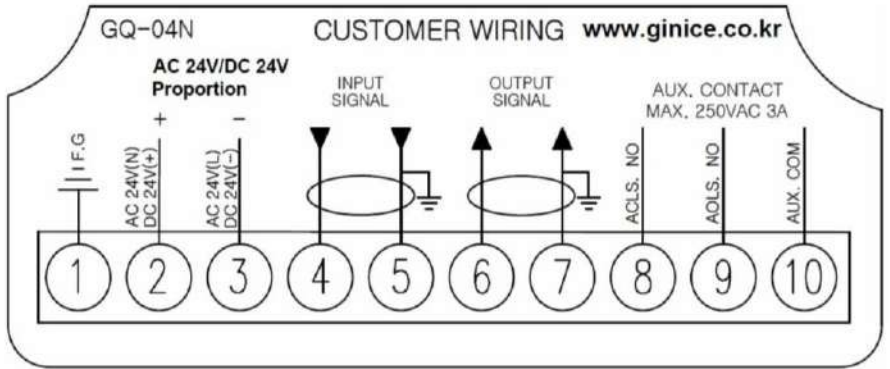
CONNECTION WIRING (CVE-004)



AC/DC 24V 4WIRE (ON-OFF)



AC Free voltage (Proportion)



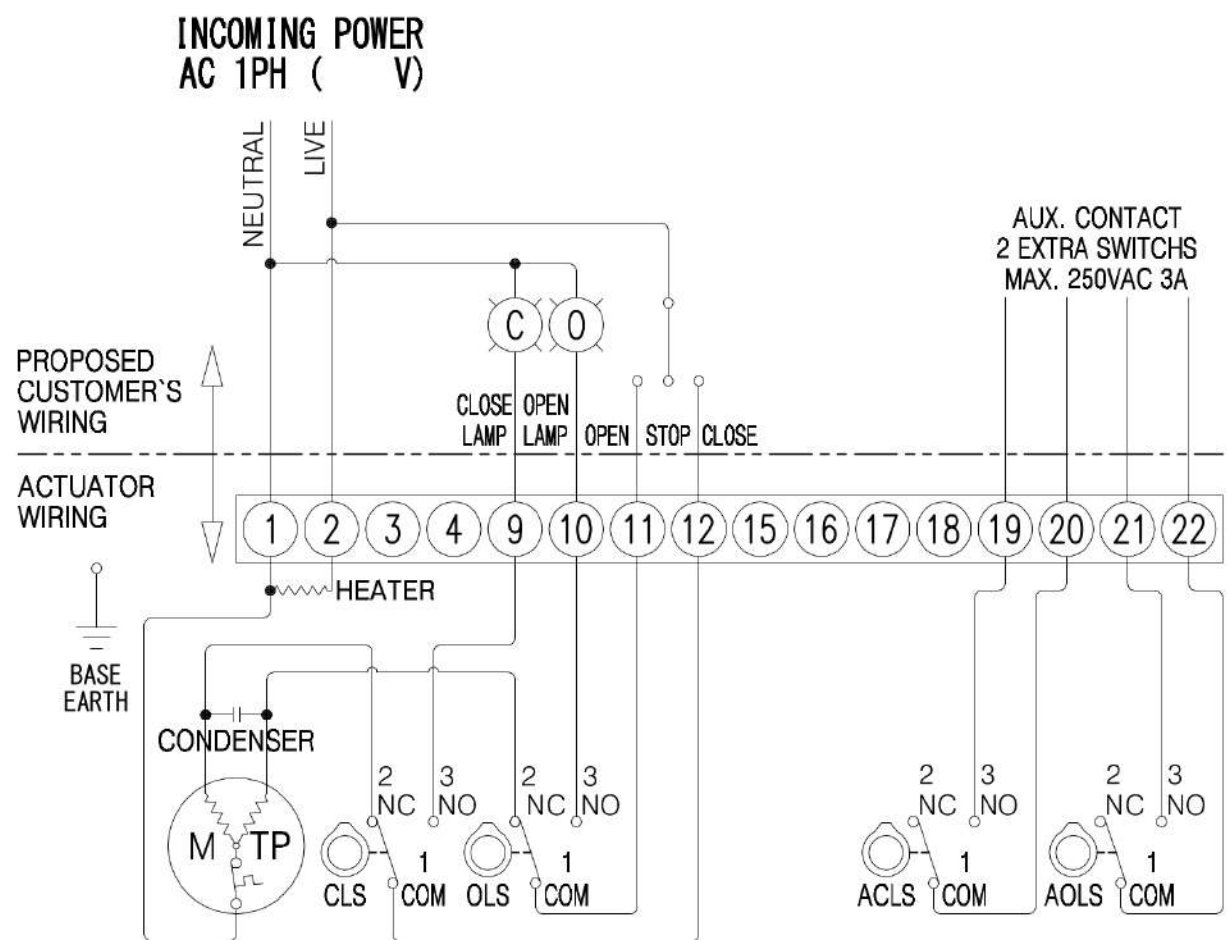
AC 24V/DC 24V (Proportion)

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-006/008)

1HP/110V/220VAC 50/60Hz (On/Off)

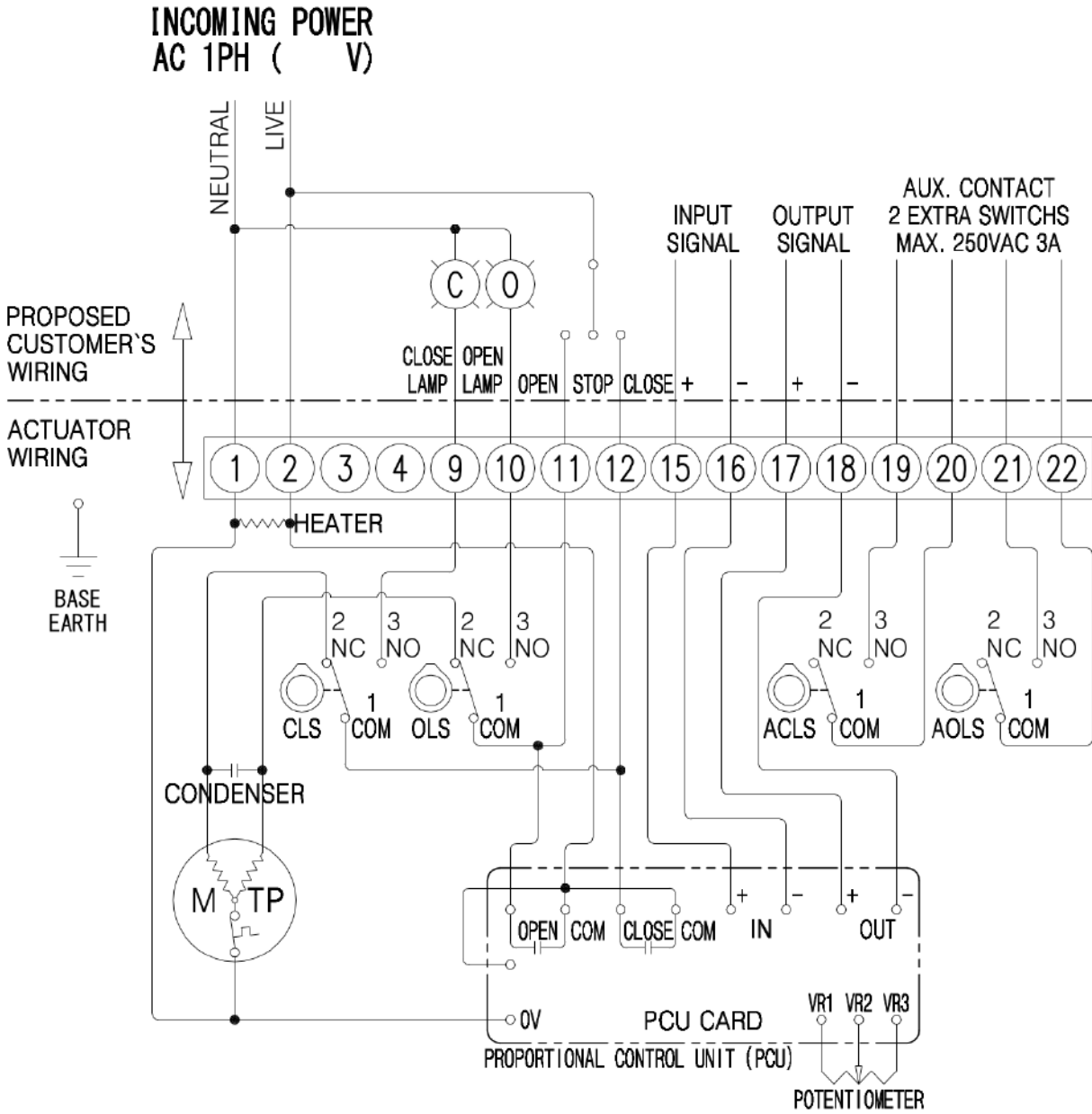


Important Notice

Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-006)

1HP/110V/220VAC 50/60Hz (PCU)



Important Notice

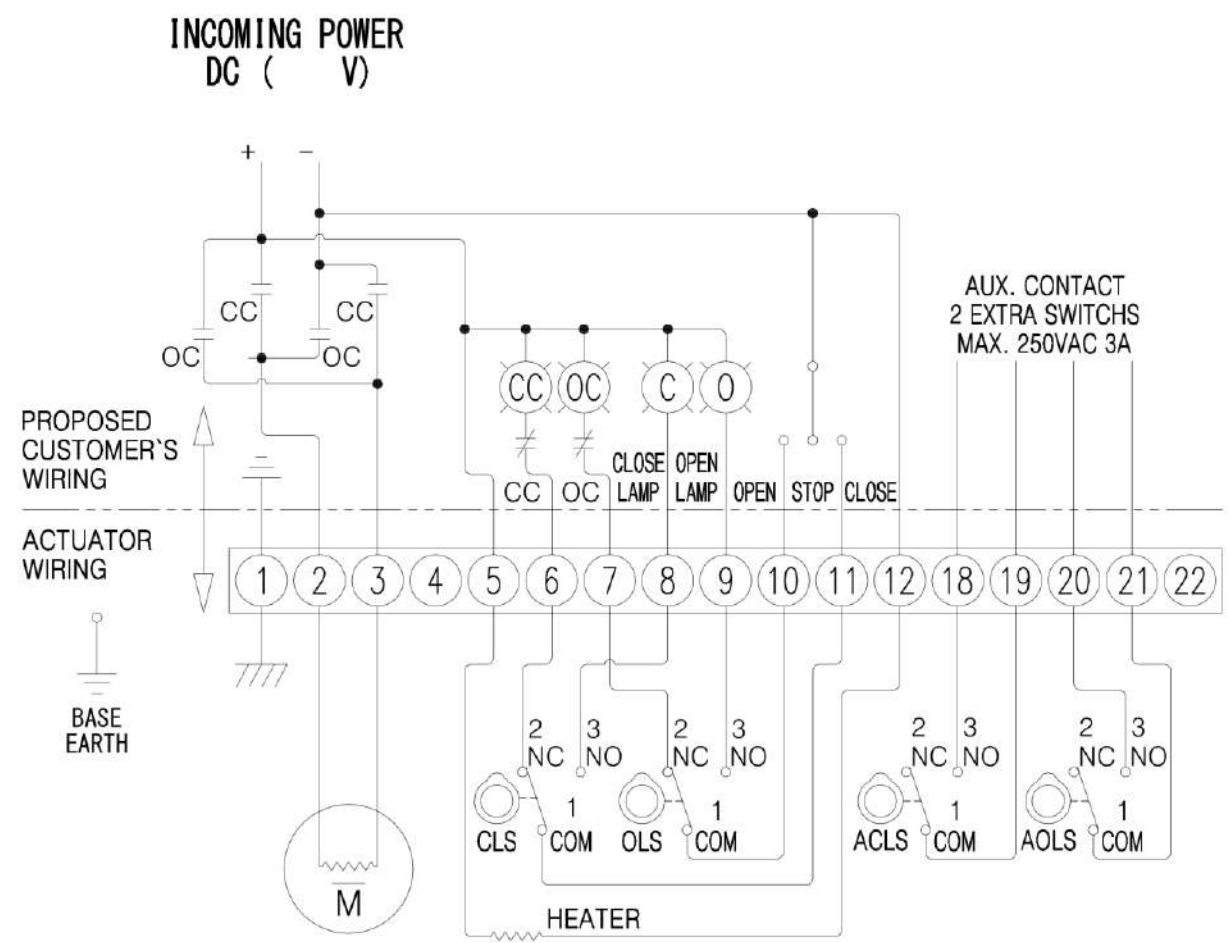
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-006)

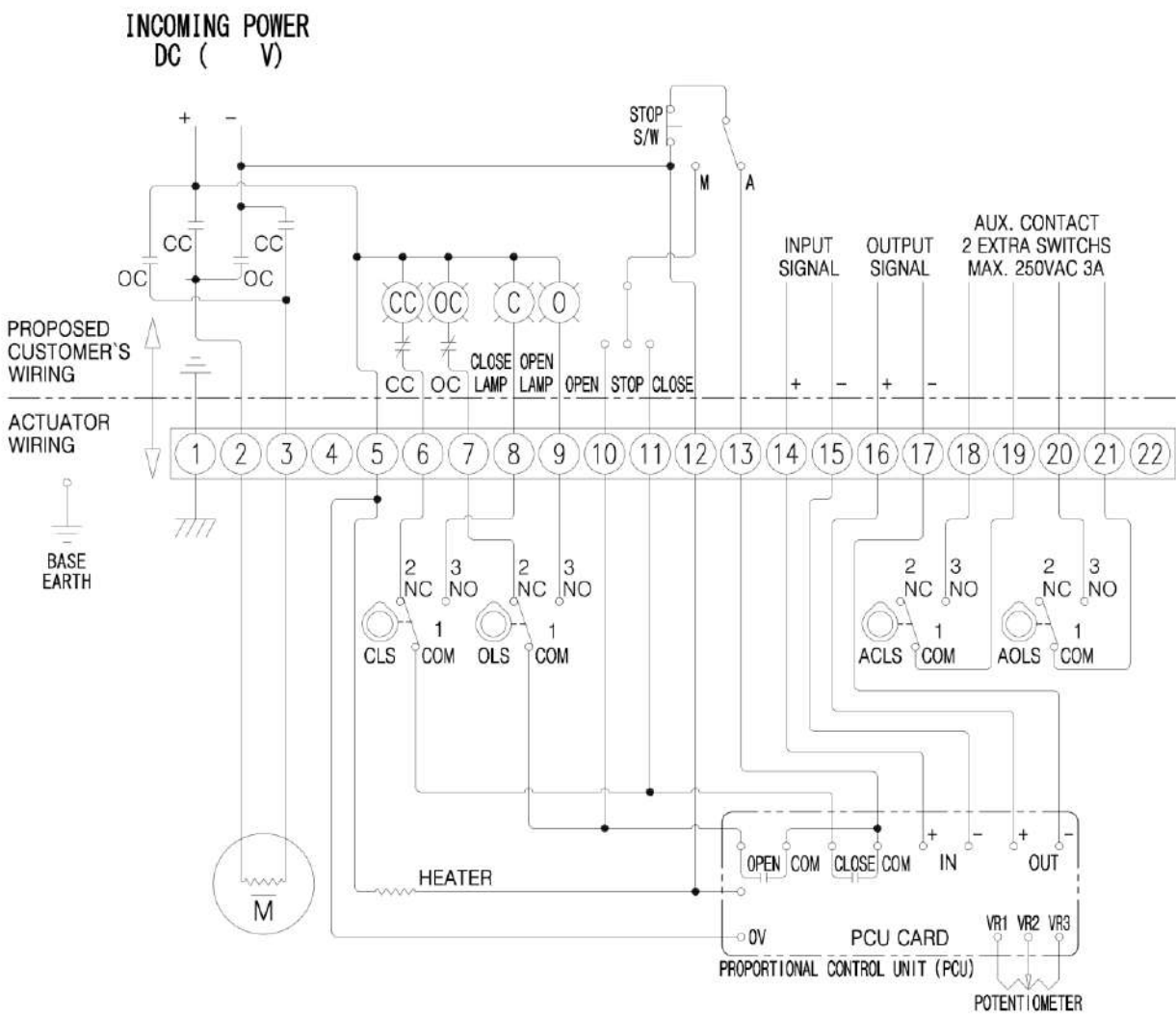
24VDC (On/Off)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-006)

24VDC (PCU)



Important Notice

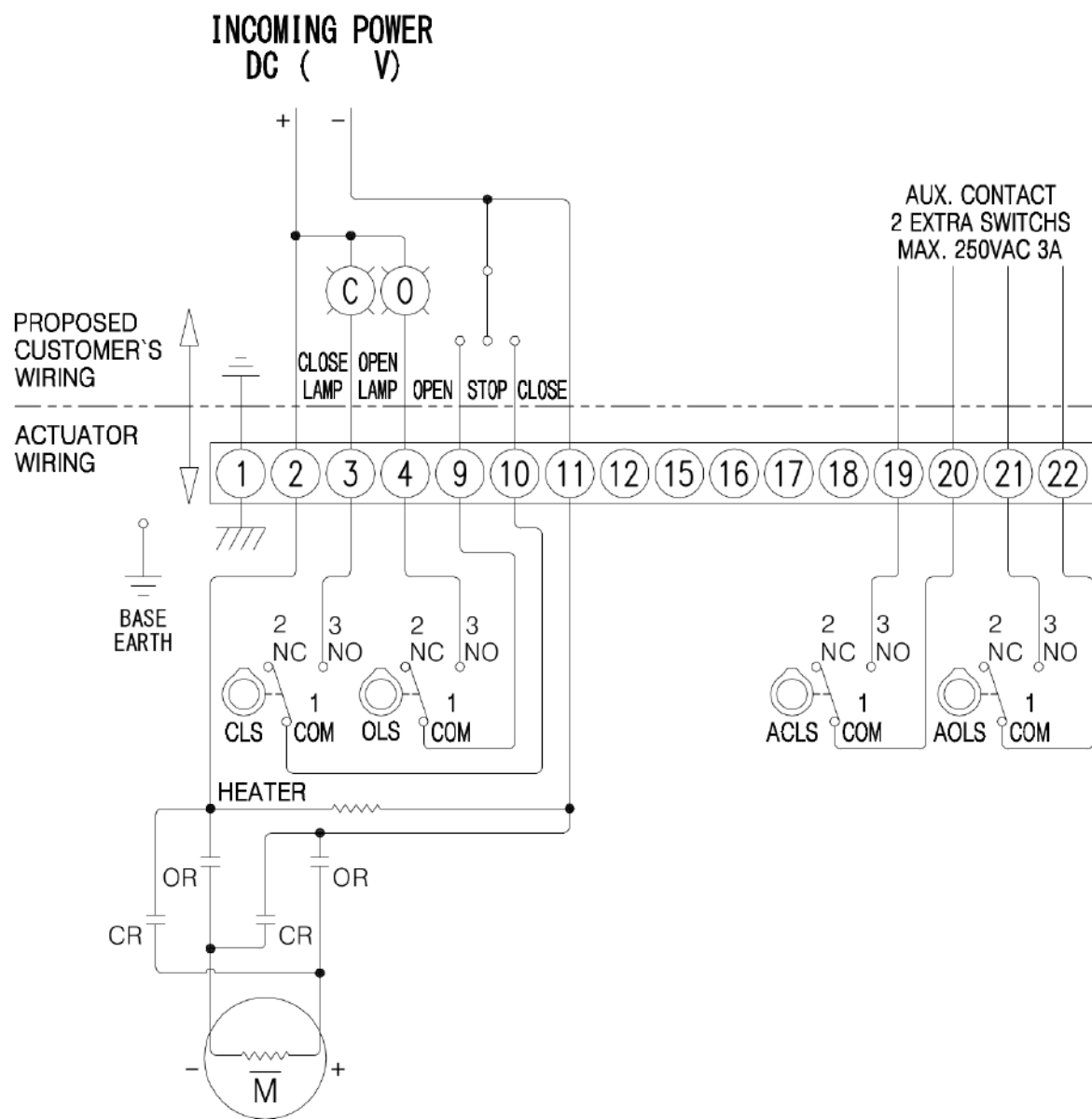
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-006)

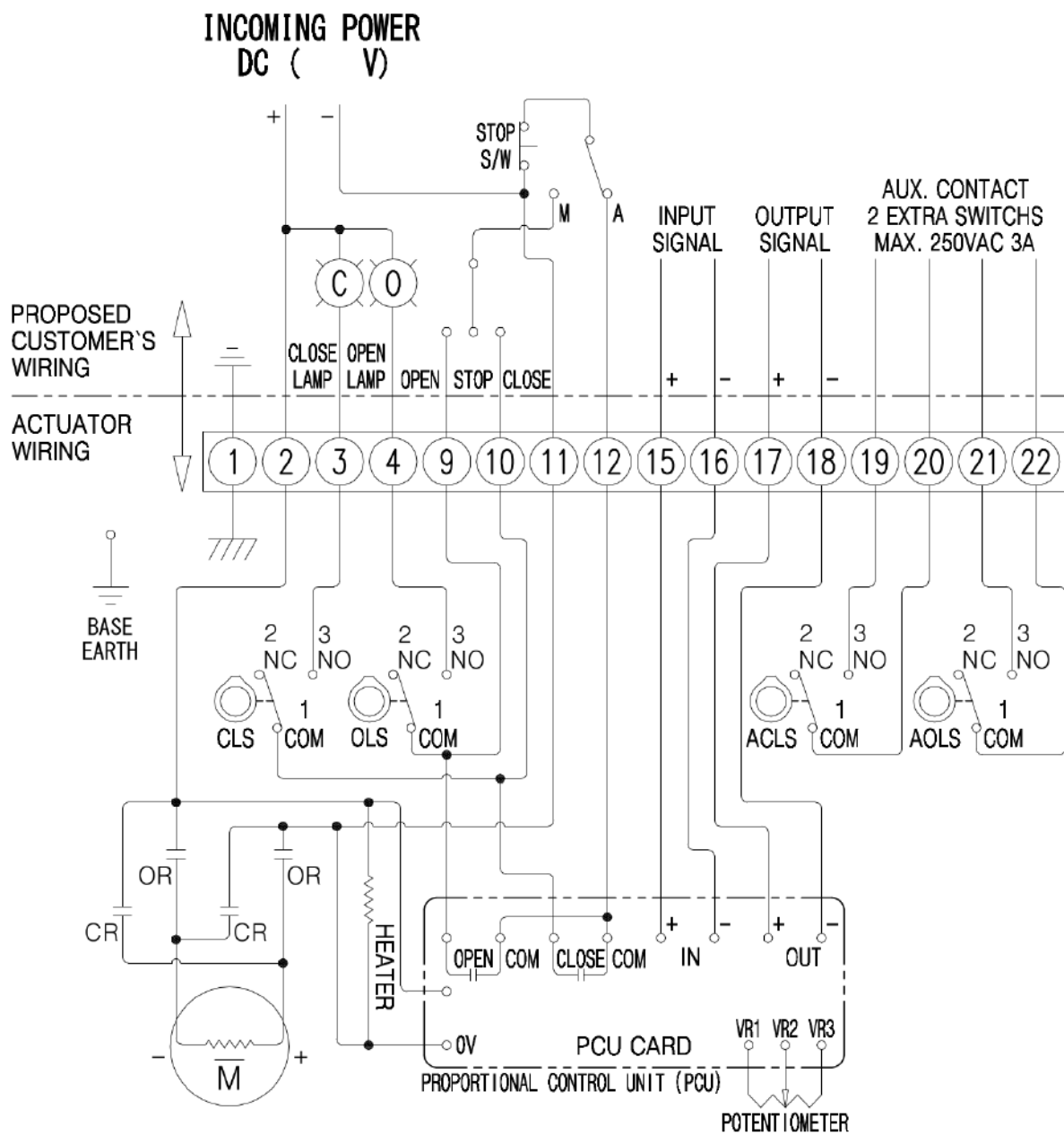
24VDC (On/Off inner)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-006)

24VDC (PCU - inner)



Important Notice

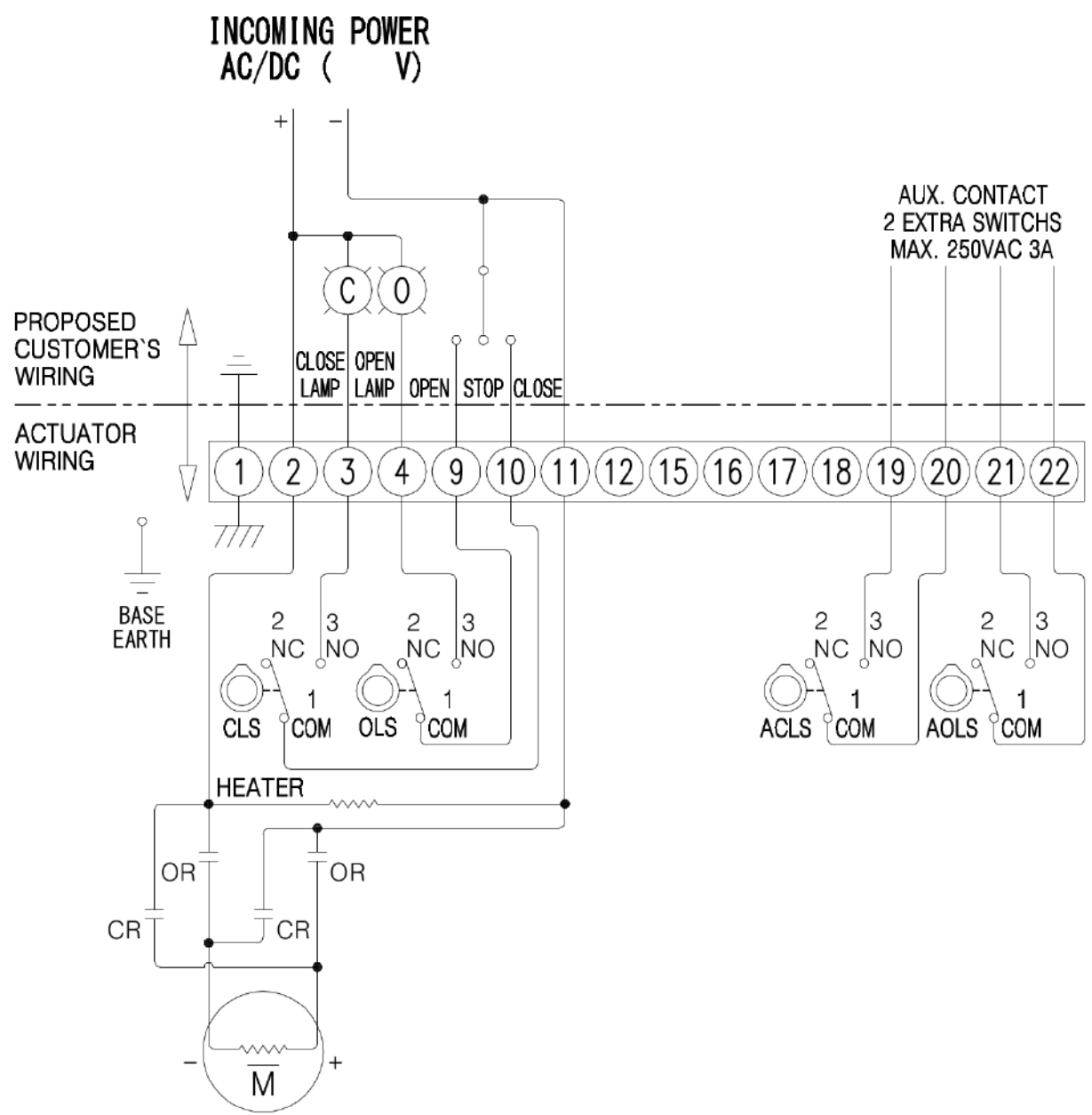
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-006)

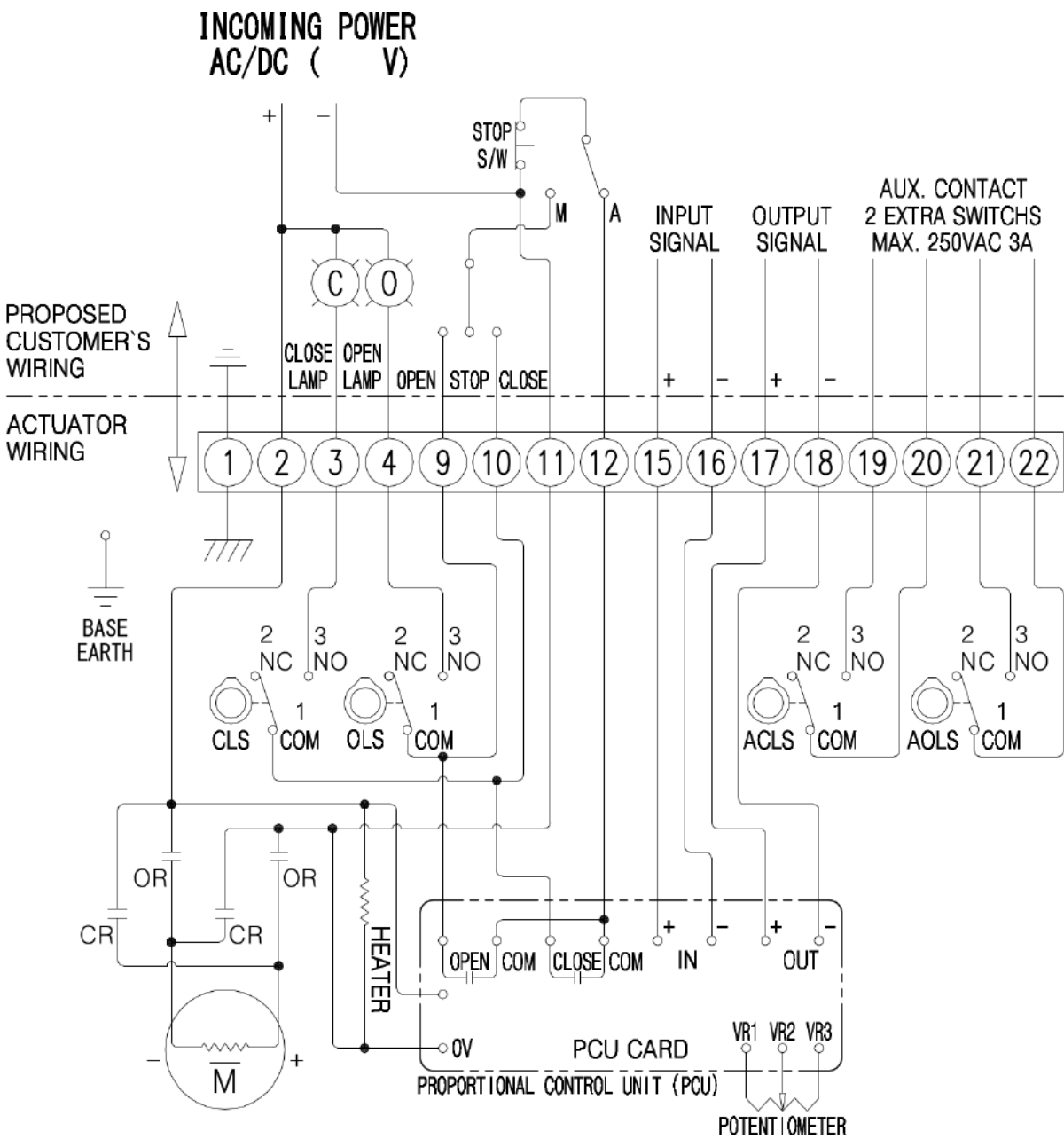
24V AC/DC (On/Off inner)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-006)

24V AC/DC (PCU - inner)



Important Notice

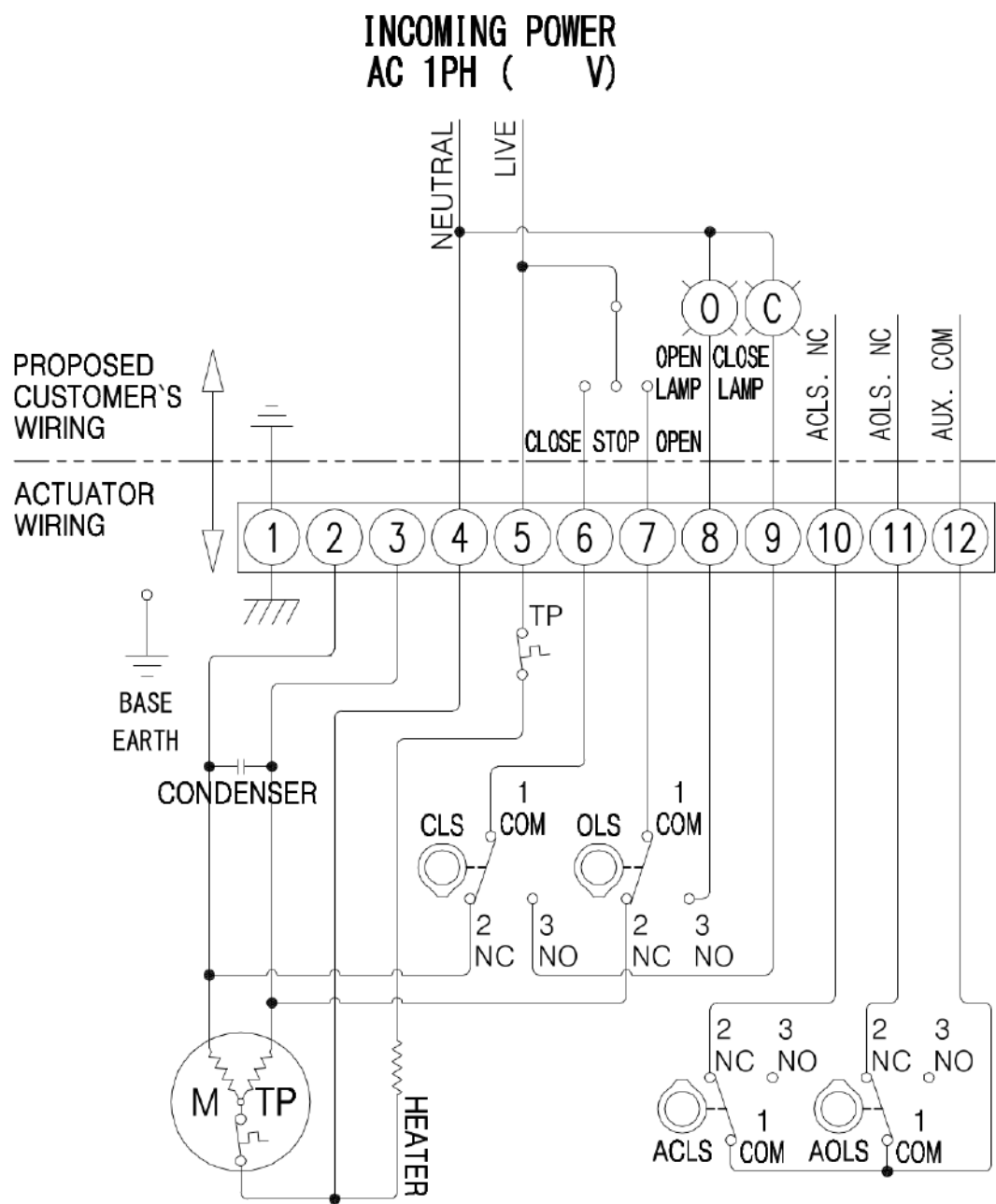
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-010)

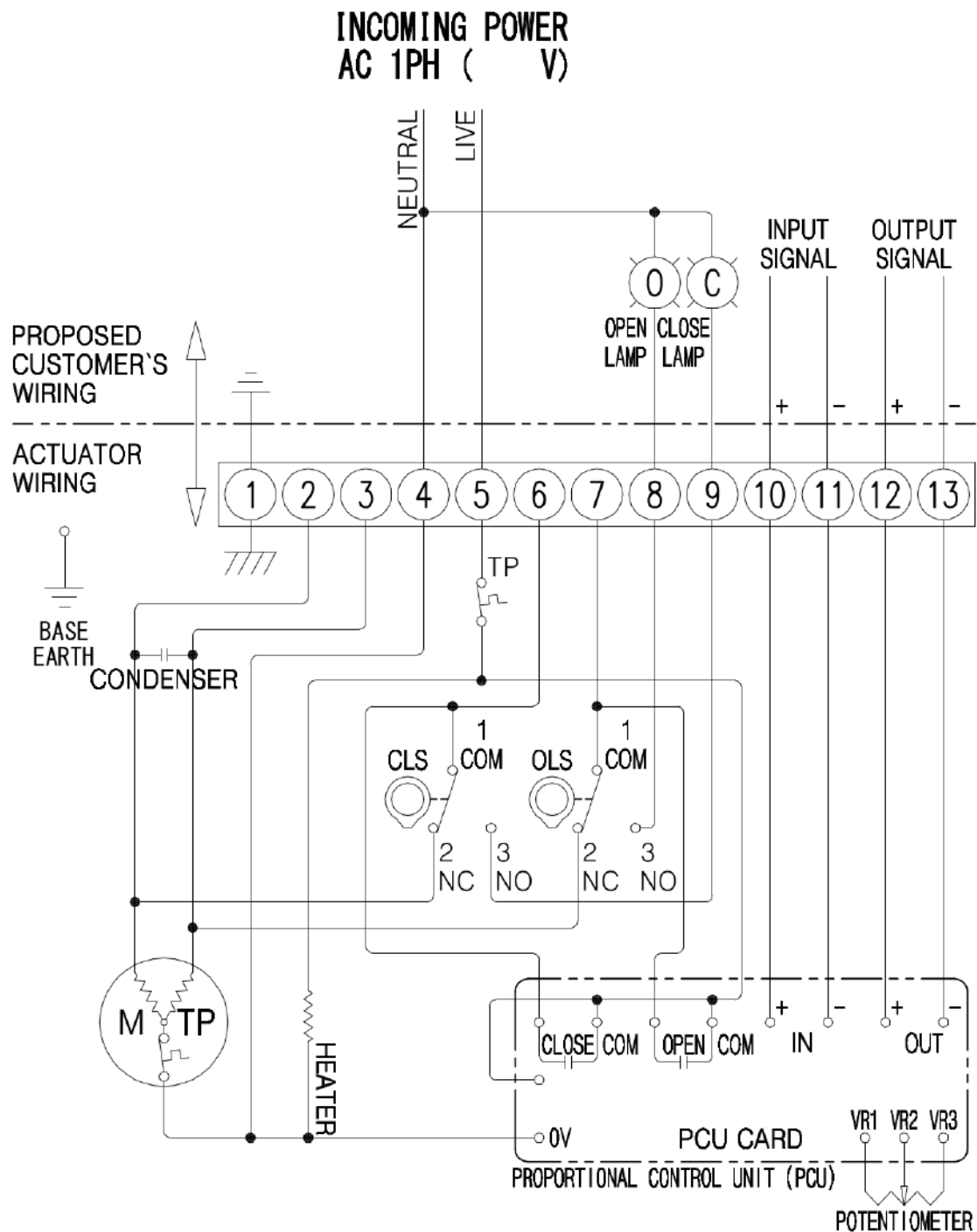
1HP/110V/220VAC 50/60Hz (On/Off)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-010)

1HP/110V/220VAC 50/60Hz (PCU)



Important Notice

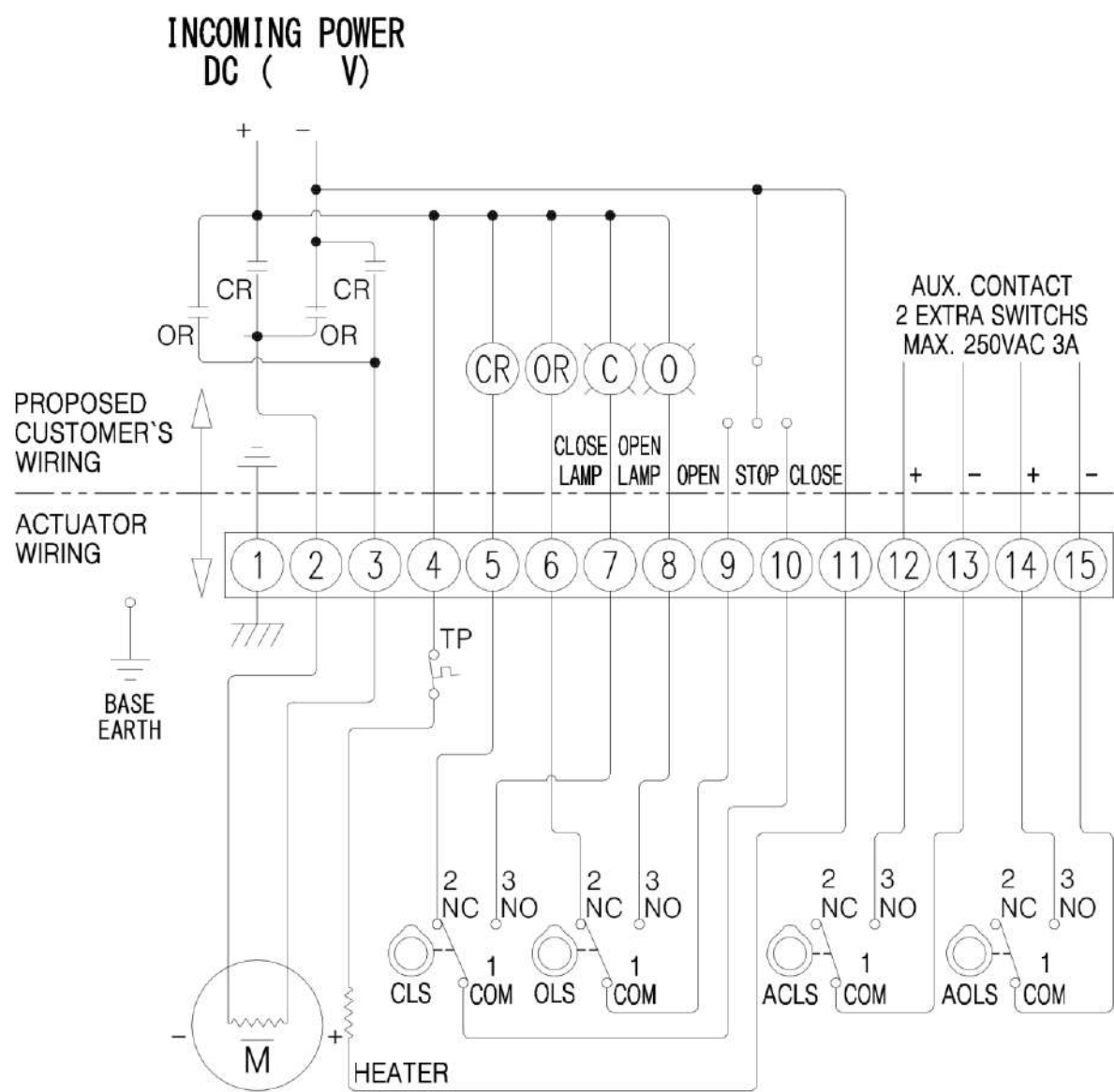
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-010)

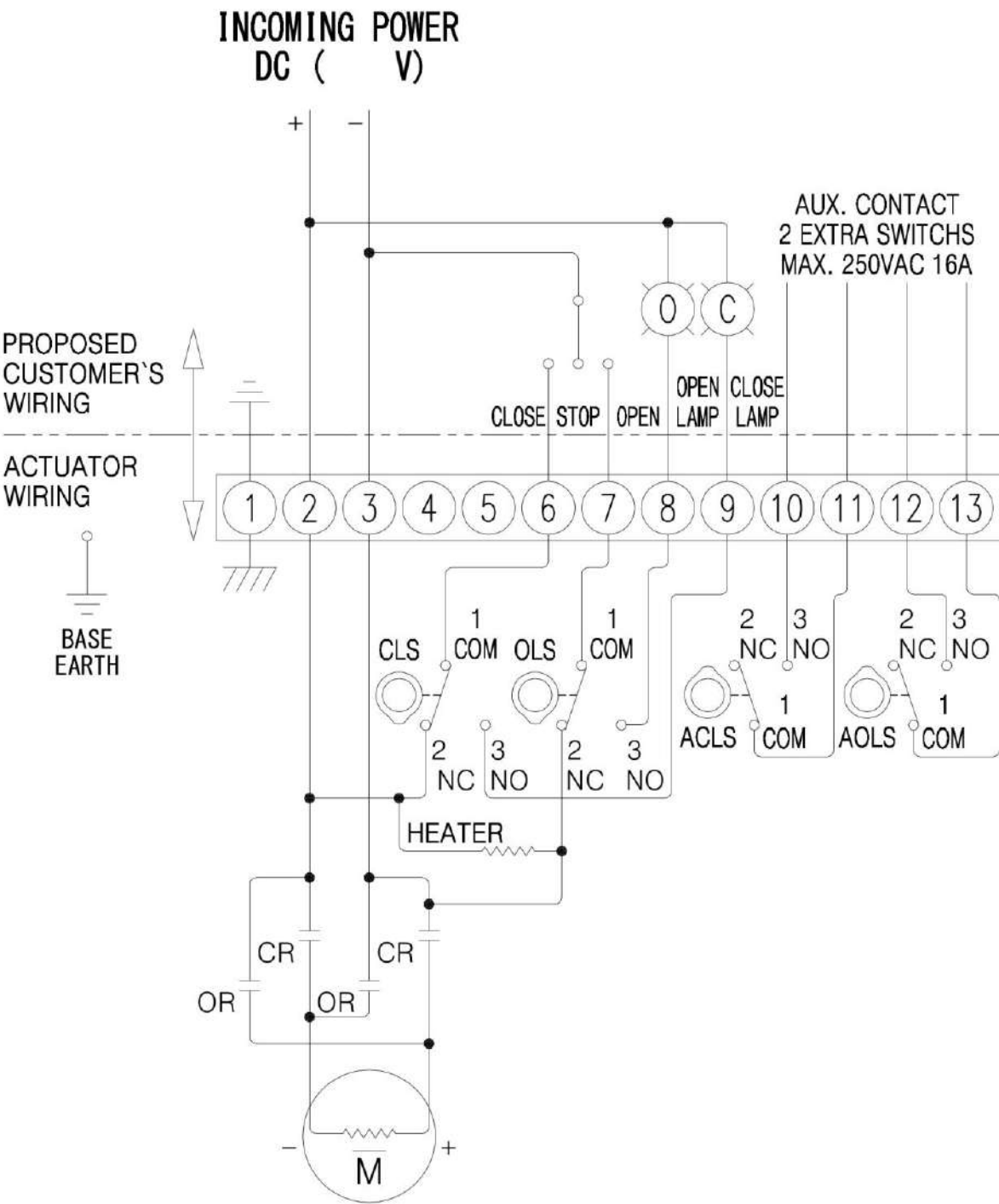
24VDC (On/Off)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-010)

24VDC (On/Off Inner)



Important Notice

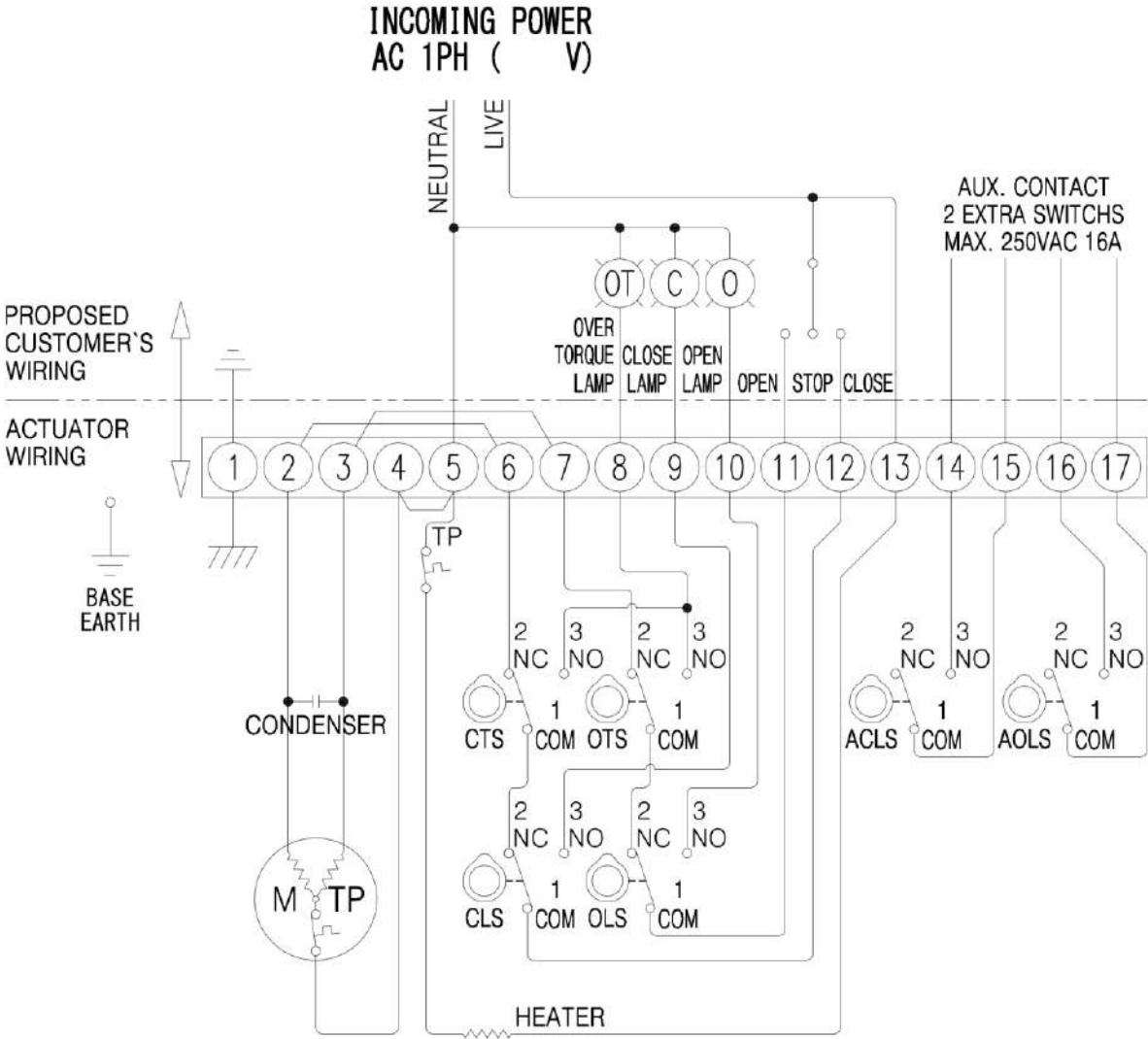
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-016~300)

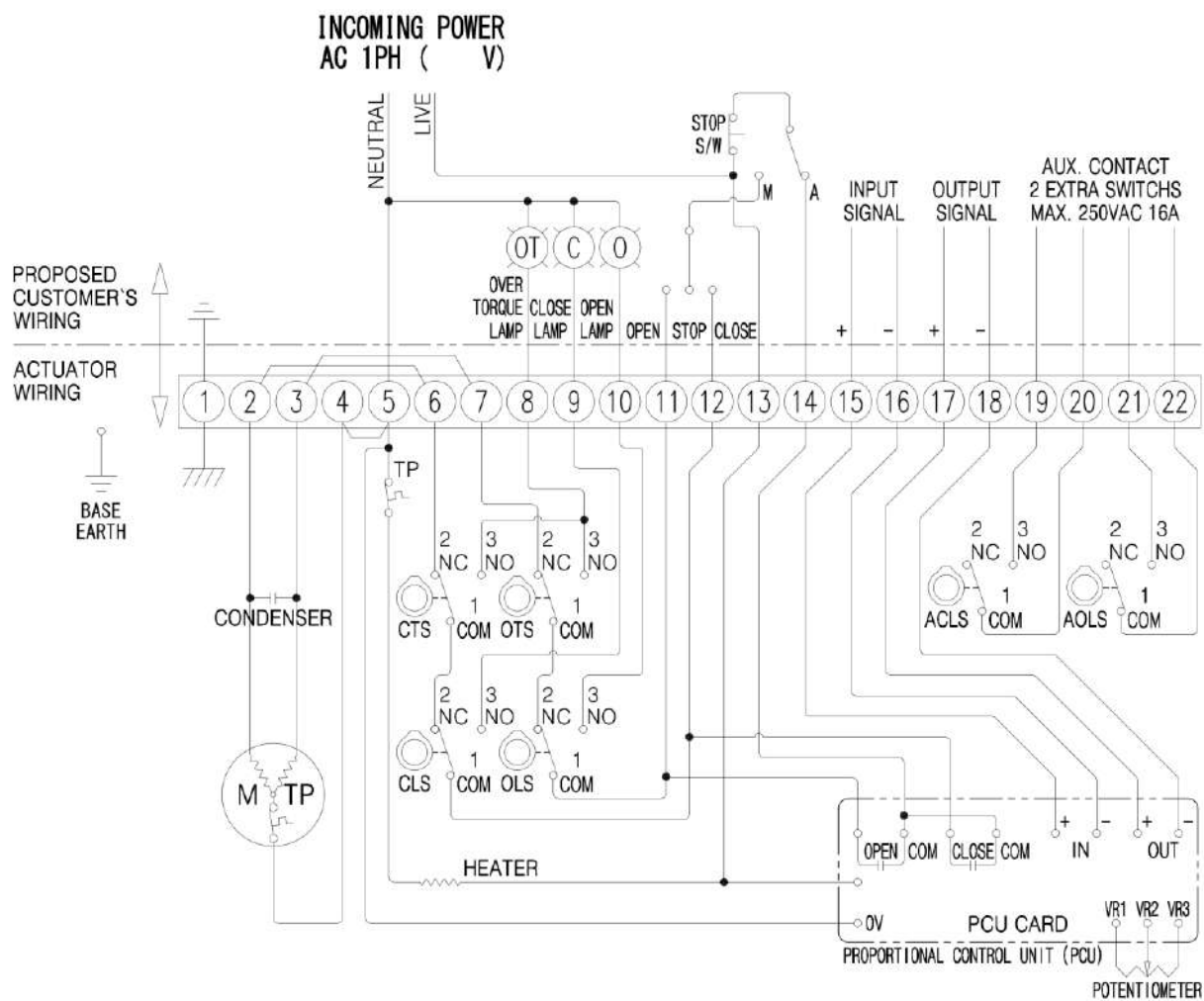
1HP/110V/220VAC 50/60Hz (On/Off)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-016~300)

1HP/110V/220VAC 50/60Hz (PCU)



Important Notice

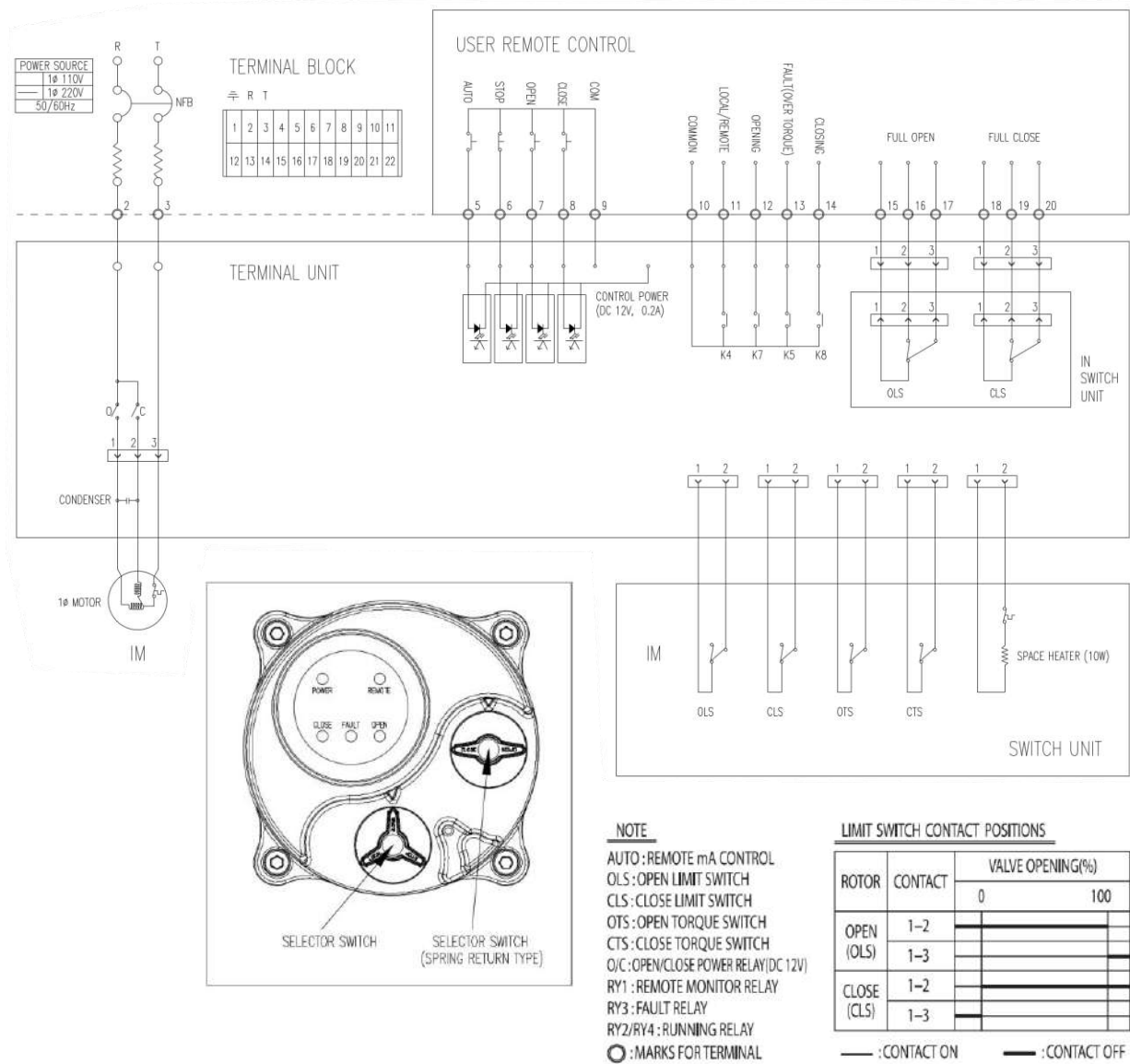
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-016~300)

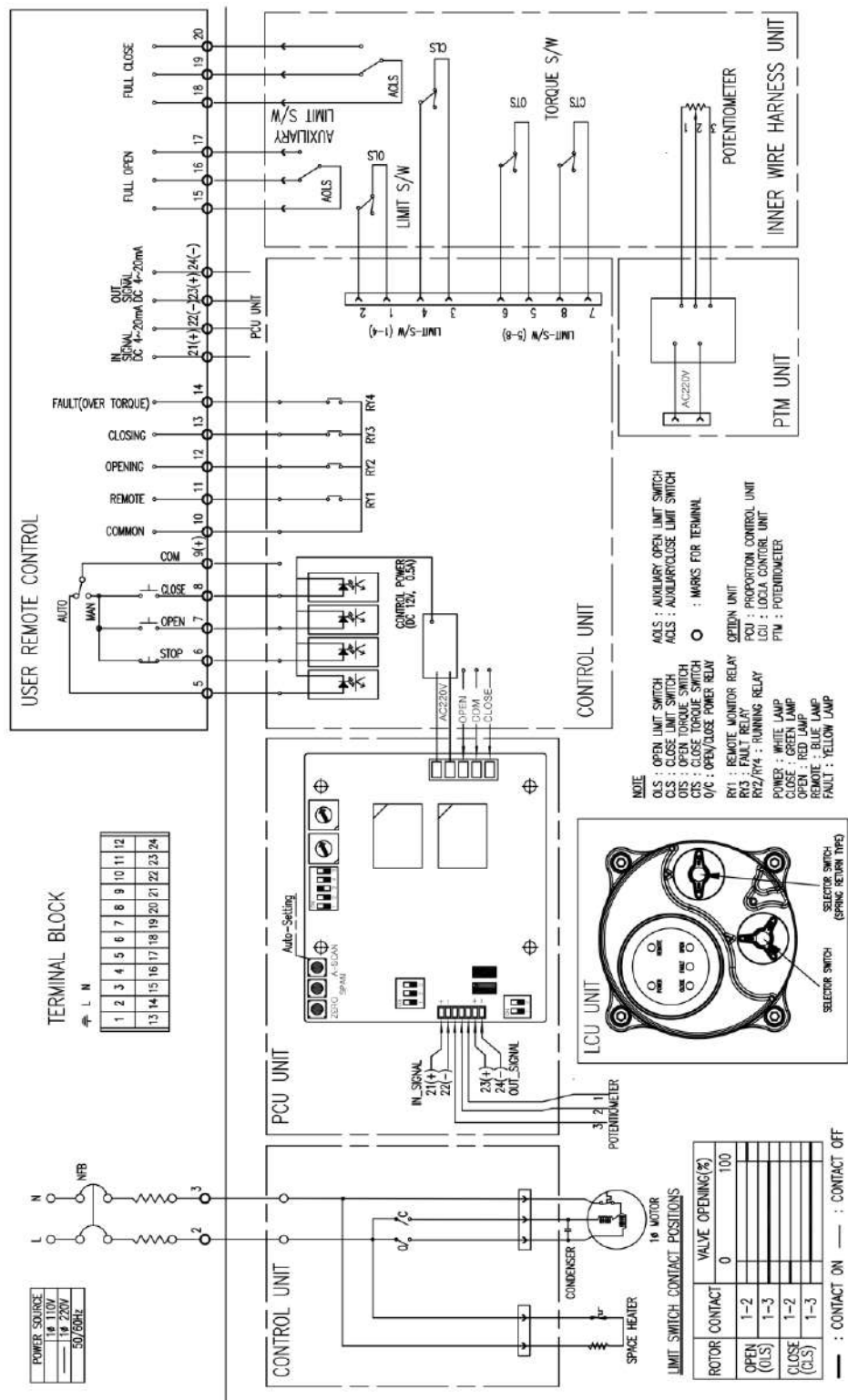
1HP/110V/220VAC 50/60Hz (LCU)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-016~300)

1HP/110V/220VAC 50/60Hz (LCU+PCU)



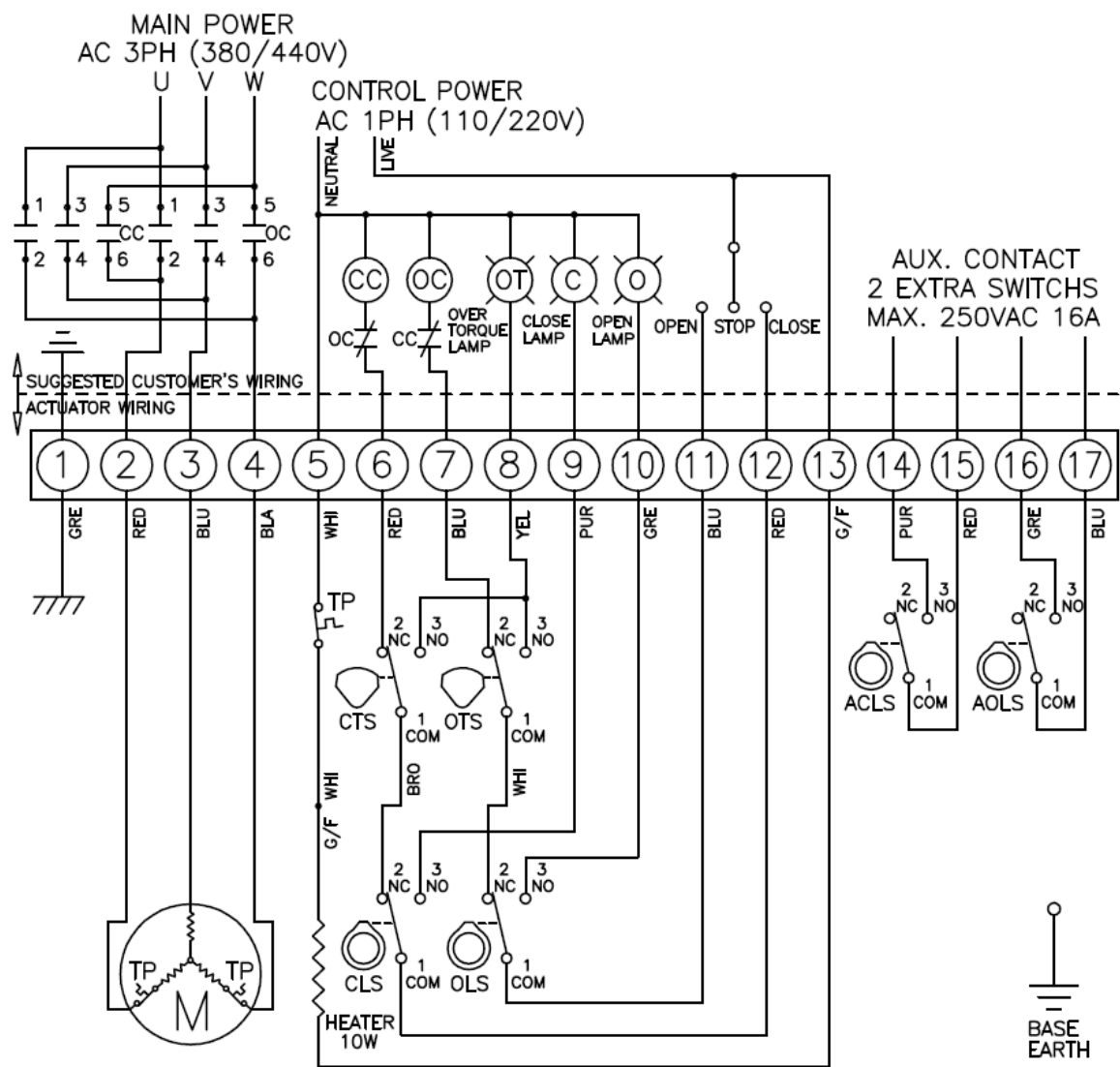
Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-016~300)

3HP/110V/220VAC 50/60Hz (On/Off)



Important Notice

Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

TORQUE & LIMIT SWITCHES

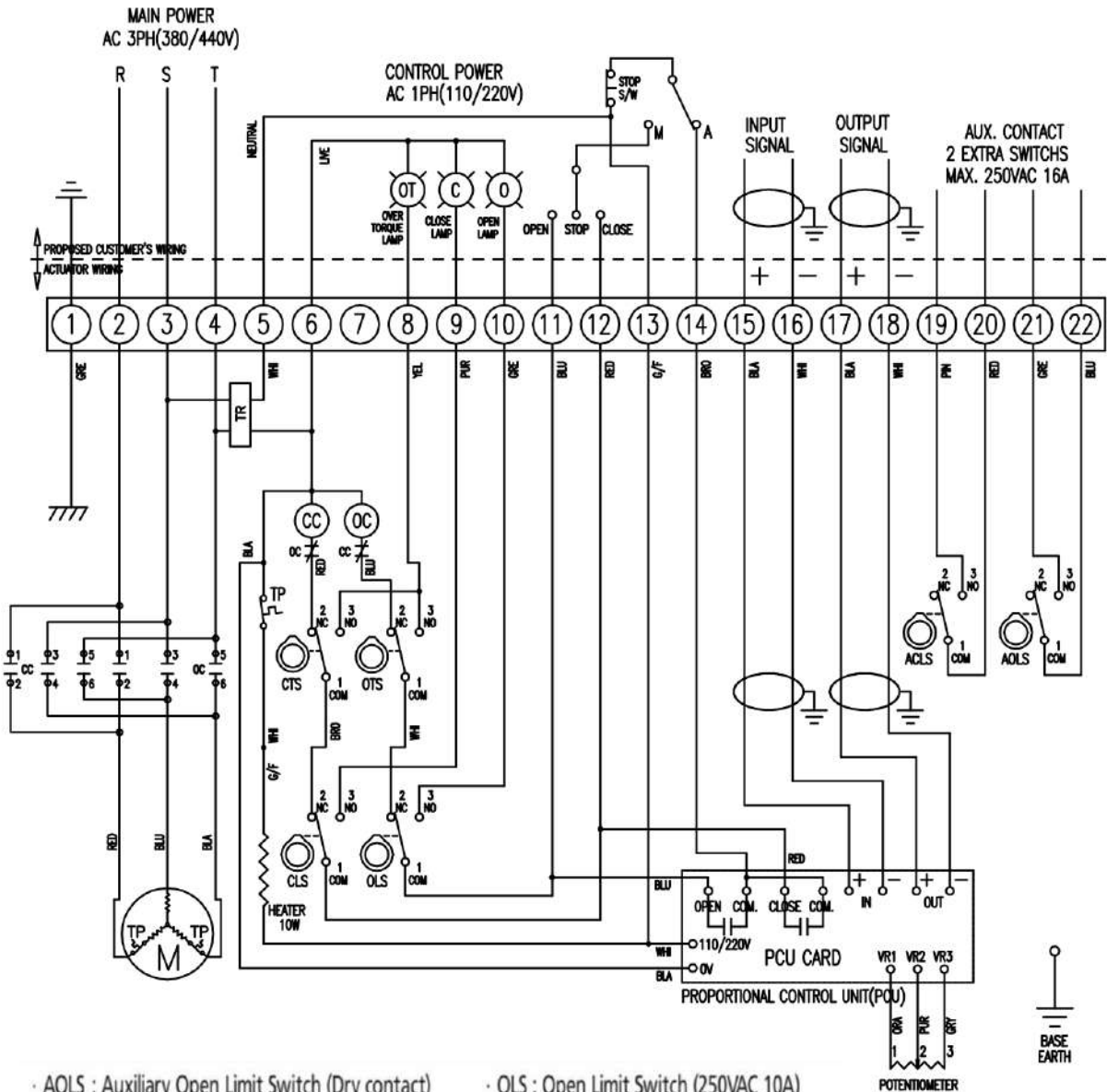
SWITCH	CLOSE ← INTERMEDIATE → OPEN		
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-2			
ACLS 1-3			
AOLS 1-2			
AOLS 1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-016~300)

3HP/110V/220VAC 50/60Hz (PCU)



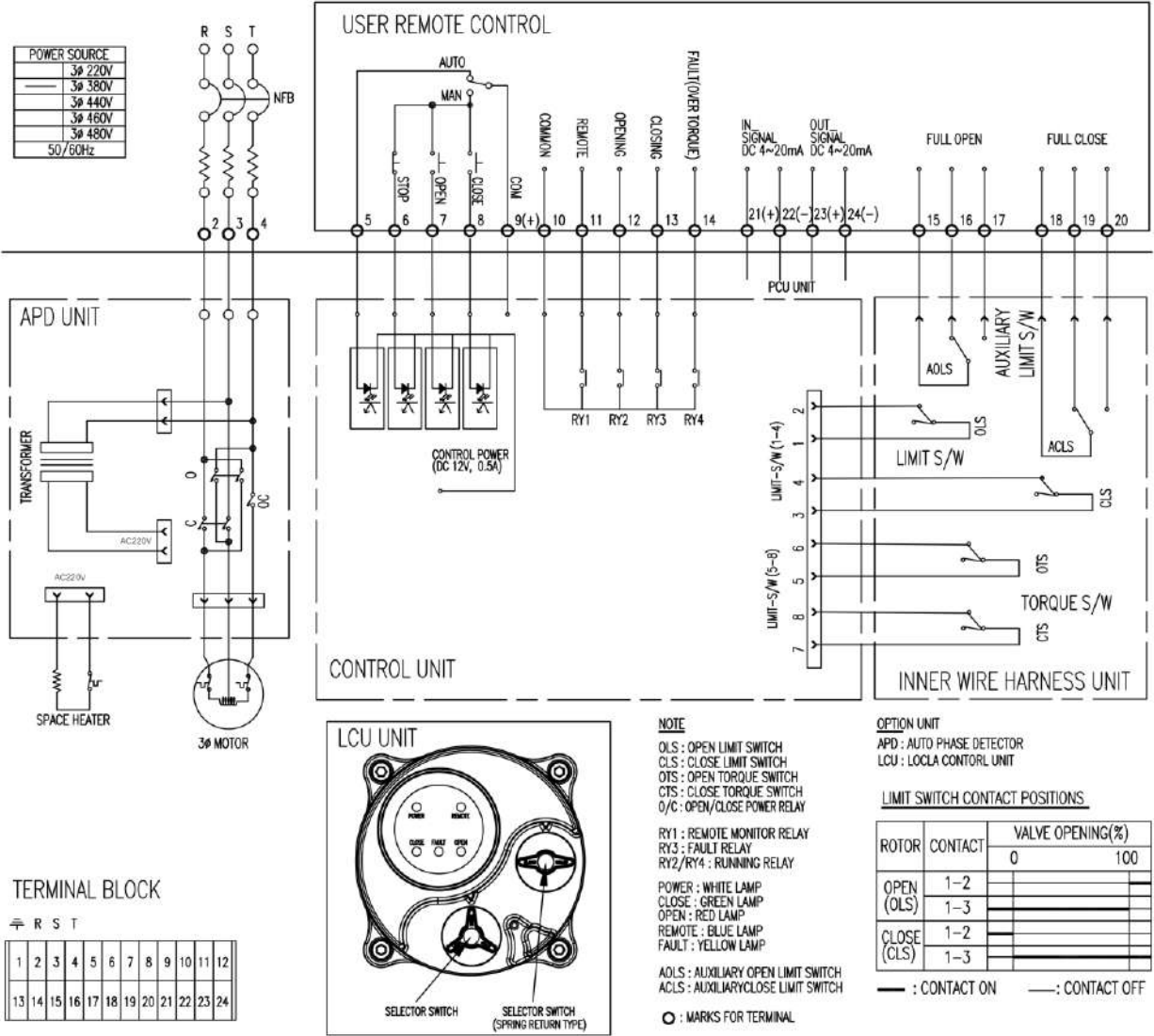
- AOLS : Auxiliary Open Limit Switch (Dry contact)
- ACLS : Auxiliary Close Limit Switch (Dry contact)
- CLS : Close Limit Switch (250VAC 10A)
- OLS : Open Limit Switch (250VAC 10A)
- CTS : Close Torque Switch (250VAC 10A)
- OTS : Open Torque Switch (250VAC 10A)

Important Notice

Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-016~300)

3HP/380V/440VAC 50/60Hz (LCU)



Important Notice

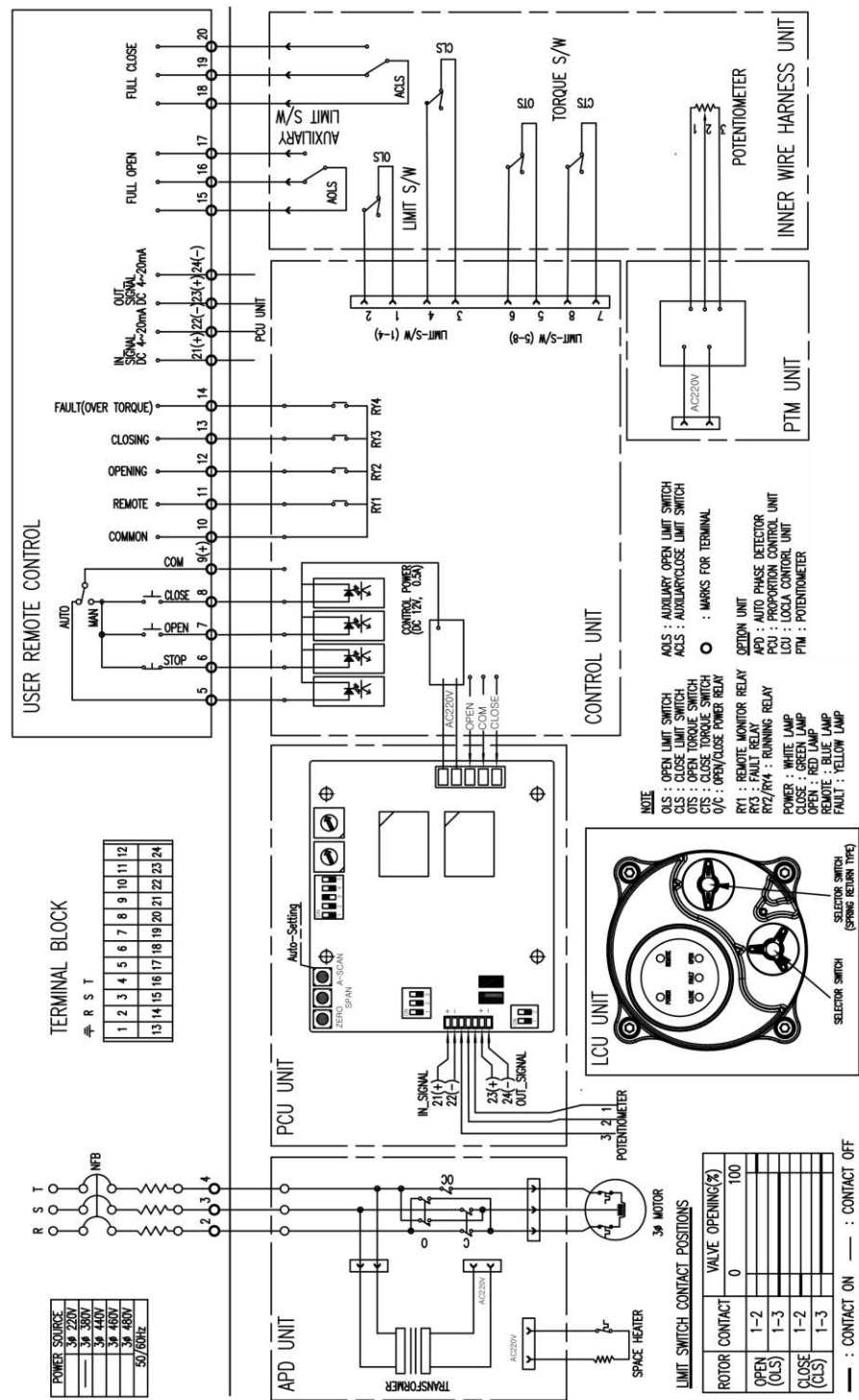
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-016~300)

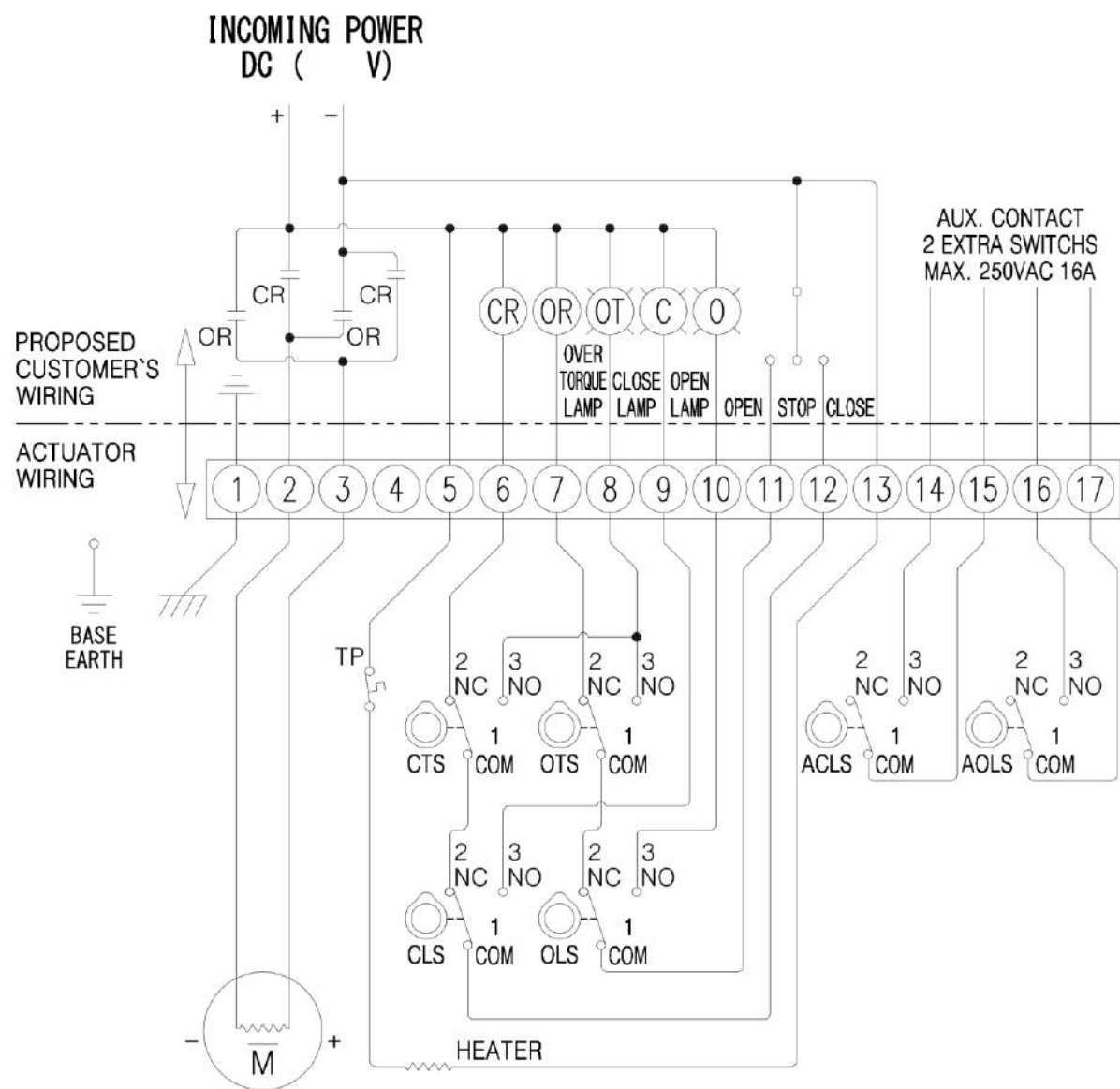
3HP/380V/440VAC 50/60Hz (LCU+PCU)



Important Notice
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator.
If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-016~50)

24VDC (On/Off)



Important Notice

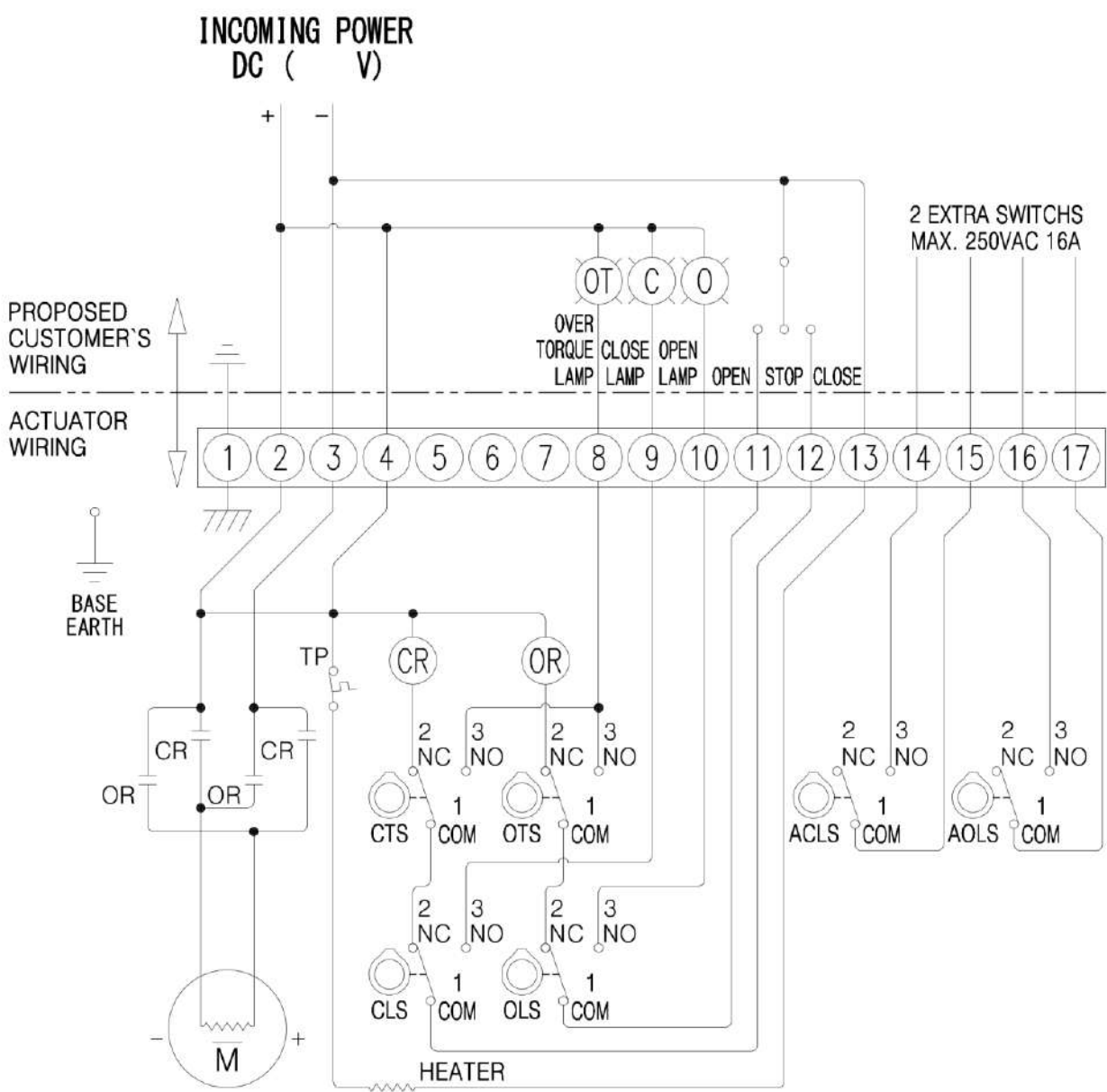
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-016~50)

24VDC (On/Off Inner)

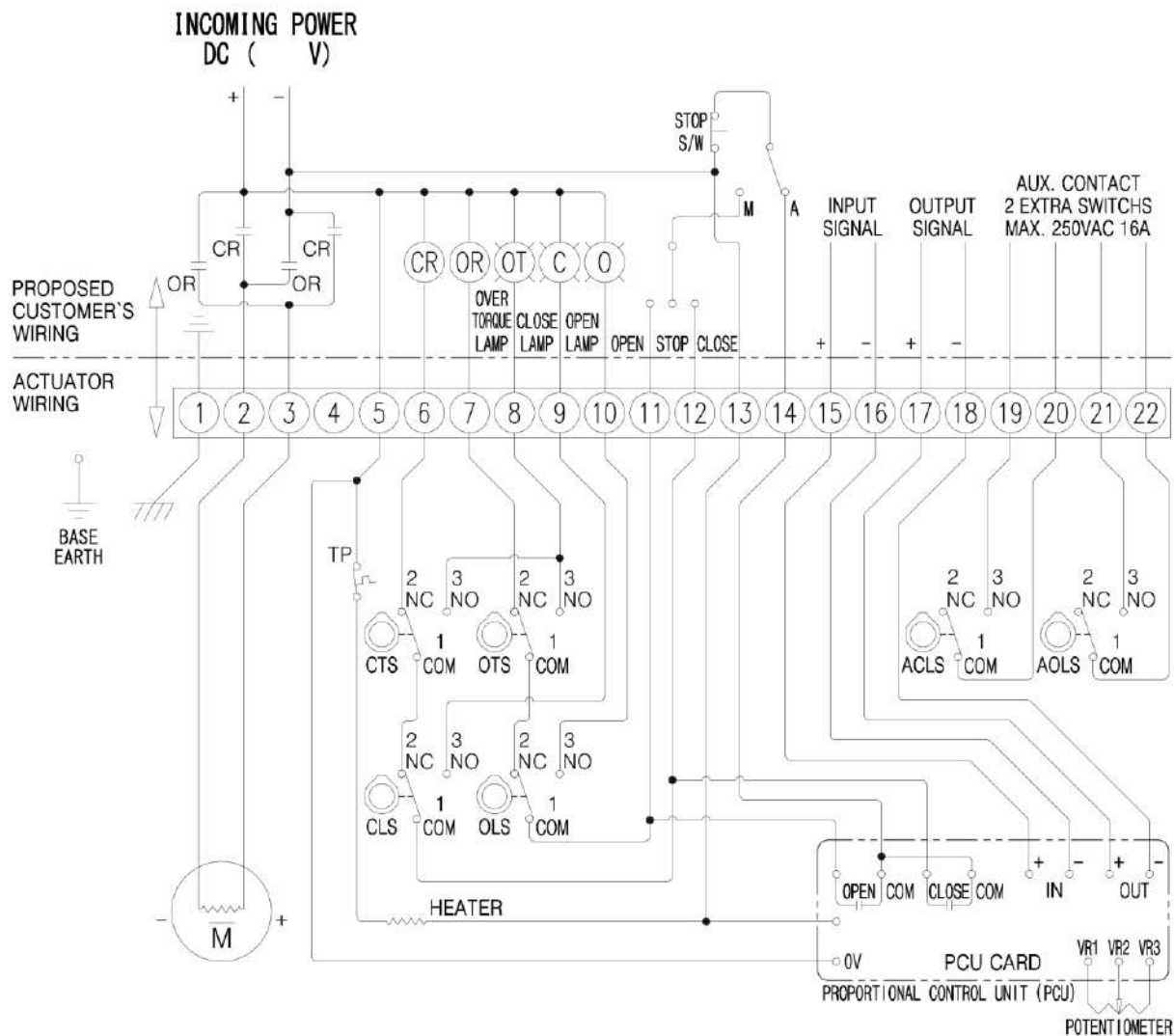


Important Notice

Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

TYPICAL WIRING (CVE-016~50)

24VDC (PCU)



Important Notice

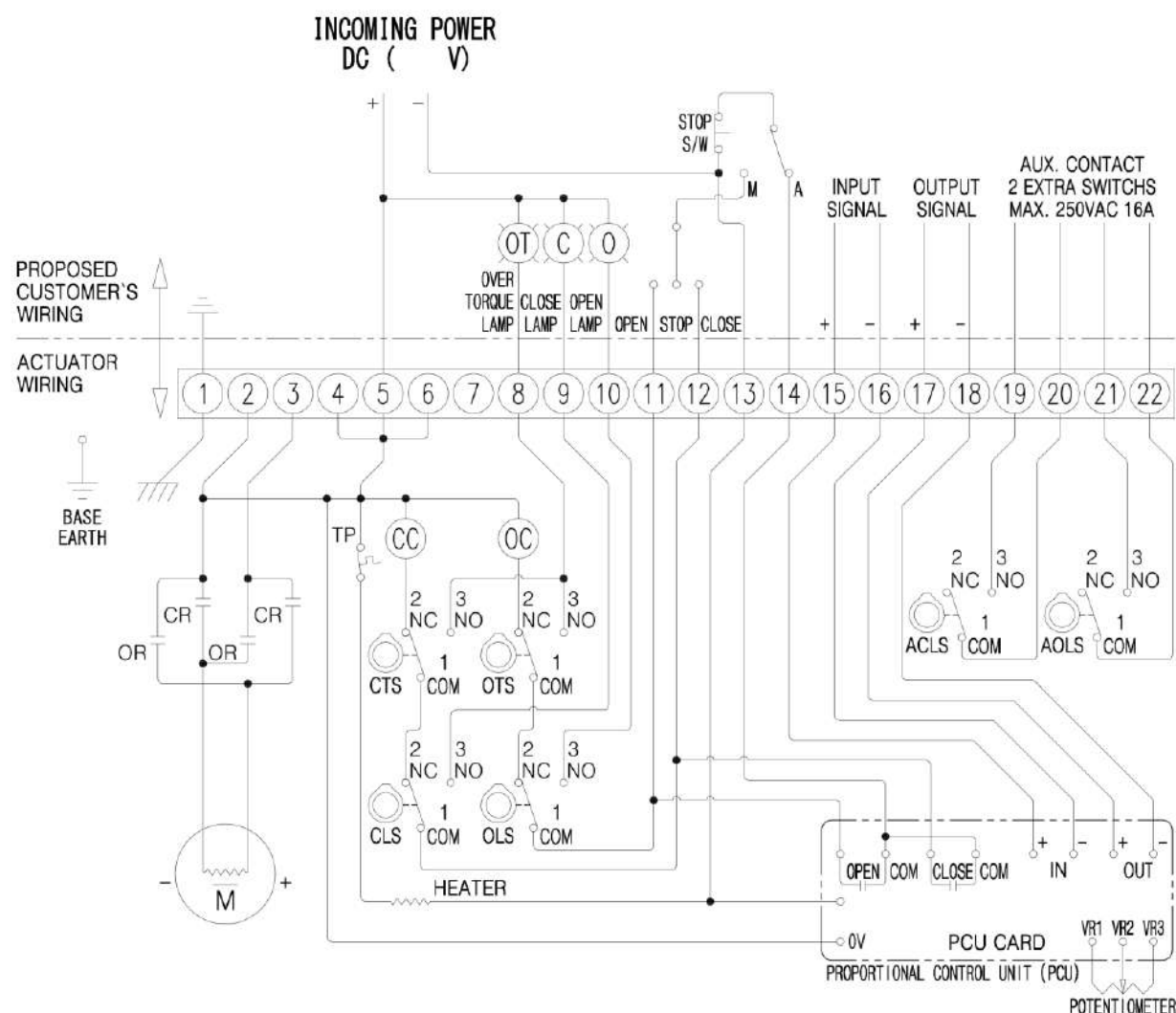
Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

TYPICAL WIRING (CVE-016~50)

24VDC (PCU Inner)



Important Notice

Please refer only to the Wiring Diagram Sticker or separate Wiring Diagram inside of each actuator. If there is any confusion please contact your distributor.

ELECTRIC ACTUATOR

QUARTER TURN TYPE

ORDER CODING SYSTEM (how to order)

CVE - X X X - X X X X

	in-Lbs	Nm
002 :	176	20
004 :	350	40
04N :	350	40

1 : 11 x 11
2 : 14 x 14

1 : Standard (ON-OFF)
2 : PCU (Proportional Control Unit) CVE-04N only

1 : 95 ~ 245V AC / 1PH
2 : 24V DC
3 : 12V DC CVE 002-004 only

1 : Weather proof, NEMA 44X / IP67

CVE - X X X - X X X X

	in-Lbs	Nm
006 :	530	60
008 :	700	80
009 :	790	90
010 :	880	100
015 :	1,330	150
016 :	1,400	160
020 :	1,760	200
024 :	2,100	240
035 :	3,080	350
050 :	4,400	500
080 :	7,040	800
110 :	9,680	1,100
200 :	17,600	2,000
250 :	22,000	2,500
300 :	26,400	3,000
600 :	52,800	6,000
900 :	79,200	9,000

1 : 90°
2 : 120°
3 : 135°
4 : 180°
5 : 270°

1 : Standard (ON-OFF)
2 : PU (Potentiometer Unit)
3 : PTM (Position Transmitter)
4 : PCU (Proportional Control Unit)
5 : ALS (Additional Limit Switch)
6 : ATS (Additional Torque Switch)
7 : LCU (Local Control Unit, LED + On/Off)
8 : LCU (Local Control Unit, LED + PCU)
9 : LCU (Local Control Unit, LED + PTM)

1 : 110V AC / 1PH
2 : 220V AC / 1PH
3 : 220V AC / 3PH
4 : 380V A
5 : 440V AC / 3PH
6 : 460V AC / 3PH
7 : 24V AC/DC
8 : 24V DC
9 : 24V DC (Inner type)

1 : Weather proof, IP67
2 : Watertight, IP68

CVE-016 ~ 900

CVE-016 ~ 900

CVE-006 ~ 050

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