

# SERIES-ER PREMIER STANDARD

## Our latest full featured actuator



### Technical Specifications.....

#### MULTI-VOLTAGE OPERATION:

#### TWO VERSIONS

- 90 to 240 VAC 50-60 Hz version also used for 90 to 350 VDC
- 24 VDC or 24 VAC 50-60 Hz

#### DESCRIPTION

Quarter turn electric actuator in plastic housing with manual override  
For torques of 177 to 885 lb-in (20 to 100 Nm)

#### STANDARD EQUIPMENT

Internal 24 VDC motor  
Two auxiliary limit switches for 5 amp service  
Removable mounting plates for three mount choices  
F03-F04-F05 or F05-F07  
Female Star drive 14 mm or 22 mm  
Manual override  
Electronic torque limiter  
Mechanical limit stops 0° and 90° + 5°  
Electric connections: One DIN 43650 Connector and one Cord Grip Connector

#### OPTIONS

EPR.B Feedback potentiometer 100-1K-5K-10K Ohms  
EPT.C 4-20 mA / 0-20 mA / 0-10 volt position feedback  
EFC.2 Two extra limit switches  
ERI.B Regulated 10 watt anti-condensation heater  
ECD.1A Dual DIN 43650 Connectors  
180° or 270° without mechanical stops

#### TECHNICAL DATA

Duty cycle rating at maximum torque = 30% of operating time (CE134).  
Working temperature: +14°F to +131°F (-10°C to +55°C)  
Enclosure: Sealed IP65 / NEMA 4 Equivalent  
Weight: ER20: 2.2 lbs (1.00 kg)  
ER35, 60 & 100: 4.6 lbs (2.10 kg)

Model Number	Star/Mount	Torque	Voltages *	Power	Travel Time ****
ER20.X0A.M00***	14/F03-F04-F05**	177 lb-in/20 Nm	90 - 240 VAC	15 W	9 / 13 s
ER20.X03.M00***	14/F03-F04-F05**	177 lb-in/20 Nm	24 VAC/VDC	15 W	7 / 12 s
ER35.90A.M00	22/F05-F07	310 lb-in/35 Nm	90 - 240 VAC	45 W	7 / 8 s
ER35.903.M00	22/F05-F07	310 lb-in/35 Nm	24 VAC/VDC	45 W	6 / 7 s
ER60.90A.M00	22/F05-F07	531 lb-in/60 Nm	90 - 240 VAC	45 W	14 / 15 s
ER60.903.M00	22/F05-F07	531 lb-in/60 Nm	24 VAC/VDC	45 W	10 / 13 s
ER100.90A.M00	22/F05-F07	885 lb-in/100 Nm	90 - 240 VAC	45 W	22 / 25 s
ER100.903.M00	22/F05-F07	885 lb-in/100 Nm	24 VAC/VDC	45 W	18 / 22 s

\* 90 to 240 VAC 50/60 Hz and also 90 to 350 VDC.  
24 VAC 50/60 Hz or 24 VDC +/- 10%

\*\* Reducing sleeves star for 14 mm to square 9 mm and 11 mm included. For other sizes contact CR-TEC.

\*\*\* X = Removable plate F03 or F04 or F05, can be ordered mounted; Specify the star & mount needed.

\*\*\*\* Times with load and without load.

# SERIES-ER PLUS STANDARD

### The ultimate actuator with more standard features & options



## Technical Specifications.....

### MULTI-VOLTAGE OPERATION: TWO VERSIONS

- 90 to 240 VAC 50-60 Hz version also used for 90 to 350 VDC
- 12 to 48 VDC or 15 to 30 VAC 50-60 Hz

### DESCRIPTION

Quarter turn electric actuator in plastic housing with manual override by drive shaft  
For torques of 89 to 885 lb-in (10 to 100 Nm)

### STANDARD EQUIPMENT

Internal 24 VDC motor  
ERI.B Regulated 10 watt anti-condensation heater  
Two auxiliary limit switches for 5 amp service  
Removable mounting plates for three mount choices  
F03-F04-F05 or F05-F07  
Female Star drive 14 mm or 22 mm  
Manual override  
Electronic torque limiter  
Mechanical limit stops 0° and 90° + 5°  
Electric connections: One DIN 43650 Connector and one Cord Grip Connector

### OPTIONS

EPR.B Feedback potentiometer 100-1K-5K-10K Ohms  
EPT.C 4-20 mA / 0-20 mA / 0-10 volt position feedback  
EFC.2 Two extra limit switches  
ECD.1A Dual DIN 43650 Connectors  
180° or 270° without mechanical stops  
ECM.1 One Cord Grip Electrical Connector  
ECM.1 One Cord Grip Electrical Connector  
Third Position Electronics & Switch Card

### TECHNICAL DATA

Duty cycle rating at maximum torque = 50% of operating time (CE134).  
Working temperature: +14°F to +131°F (-10°C to +55°C)  
Enclosure: Sealed IP66 / NEMA 4 Equivalent  
Weight: ER10, 20 & 35: 2.9 lbs (1.34 kg)  
ER35, 60 & 100: 6.9 lbs (3.14 kg)

Model Number	Star/Mount	Torque	Voltages *	Power	Travel Time****
ER10.X0A.G00***	14/F03-F04-F05**	89 lb-in/10 Nm	90 - 240 VAC	15 W	9 / 11 s
ER10.X0B.G00***	14/F03-F04-F05**	89 lb-in/10 Nm	12-48 VDC & 15-30 VAC	15 W	9 / 11 s
ER20.X0A.G00***	14/F03-F04-F05**	177 lb-in/20 Nm	90 - 240 VAC	15 W	9 / 12 s
ER20.X0B.G00***	14/F03-F04-F05**	177 lb-in/20 Nm	12-48 VDC & 15-30 VAC	15 W	9 / 12 s
ER35.X0A.G00***	14/F03-F04-F05**	310 lb-in/35 Nm	90 - 240 VAC	15 W	19 / 26 s
ER35.X0B.G00***	14/F03-F04-F05**	310 lb-in/35 Nm	12-48 VDC & 15-30 VAC	15 W	19 / 24 s
ER35.90A.G00	22/F05-F07	310 lb-in/35 Nm	90 - 240 VAC	45 W	6 / 7 s
ER35.90B.G00	22/F05-F07	310 lb-in/35 Nm	12-48 VDC & 15-30 VAC	45 W	6 / 7 s
ER60.90A.G00	22/F05-F07	531 lb-in/60 Nm	90 - 240 VAC	45 W	10 / 12 s
ER60.90B.G00	22/F05-F07	531 lb-in/60 Nm	12-48 VDC & 15-30 VAC	45 W	10 / 12 s
ER100.90A.G00	22/F05-F07	885 lb-in/100 Nm	90 - 240 VAC	45 W	20 / 23 s
ER100.90B.G00	22/F05-F07	885 lb-in/100 Nm	12-48 VDC & 15-30 VAC	45 W	19 / 22 s

\* 90 to 240 VAC 50/60 Hz and also 90 to 350 VDC.  
12 to 48 VDC and 15 to 30 VAC 50/60 Hz

\*\* Reducing sleeves star for 14 mm to square 9 mm and 11 mm included. For other sizes contact CR-TEC.

\*\*\* X = Removable plate F03 or F04 or F05, can be ordered mounted; Specify the star & mount needed.

\*\*\*\* Times with load and without load.

# SERIES-ER

## ER SERIES ELECTRIC ACTUATOR

## CLASSIC STANDARD MODELS



Included T Handle

### Technical Specifications.....

#### DESCRIPTION

Quarter turn electric actuator in plastic housing with manual override by drive shaft  
For torques of 89 to 885 lb-in (10 to 100 Nm)

#### STANDARD EQUIPMENT

Precision 50% duty motor for 230 VAC and continuous duty for 24 VAC/VDC & 12 VDC  
Two auxiliary limit switches for 5 amp service  
Removable mounting plates for three mount choices F03-F04-F05 or F05-F07  
Female Star drive 14 mm or 22 mm  
Manual override  
Electronic torque limiter  
Mechanical limit stops 0° and 90° + 5°  
Electric connections: One DIN 43650 Connector and one Cord Grip Connector

#### OPTIONS

ERP Long handle for manual override  
EPR.B Feedback potentiometer 100-1K-5K-10K Ohms  
EPT.C 4-20 mA / 0-20 mA / 0-10 volt position feedback  
EFC.2 Two extra limit switches  
ERI.B Regulated 10 watt anti-condensation heater  
ECD.1A Dual DIN 43650 Connectors 180° or 270° without mechanical stops  
EFT.3 Third position 0°- 90°- 180°, with feedback

#### TECHNICAL DATA

Duty cycle rating at maximum torque (CE134)  
230 VAC = 50% of operating time  
12/24 VAC/VDC = 30% of operating time  
Working temp: +14°F to +131°F (-10°C to +55°C)  
Enclosure: Sealed IP65 / NEMA 4 Equivalent  
Weight: ER10-20-35 3.3 lbs (1.5 kg)  
ER45-60-100 6.6 lbs (3.0 Kg)

Model Number	Star/Mount**	Torque	Voltages****	Power	90° Travel Time*
ER10.X58E***	14/F03-F04-F05	89 lb-in/10 Nm	230 VAC	11 W	25 s
ER10.X53S***	14/F03-F04-F05	89 lb-in/10 Nm	12-24 VDC & 24 VAC	11 W	10*/25 s
ER20.X58B***	14/F03-F04-F05	177 lb-in/20 Nm	230 VAC	15 W	20 s
ER20.X33S***	14/F03-F04-F05	177 lb-in/20 Nm	24 VAC/VDC	11 W	20 s
ER20.X53M***	14/F03-F04-F05	177 lb-in/20 Nm	12-24 VDC & 24 VAC	26 W	4*/8 s
ER35.X58B***	14/F03-F04-F05	310 lb-in/35 Nm	230 VAC	15 W	35 s
ER35.X53M***	14/F03-F04-F05	310 lb-in/35 Nm	12-24 VDC & 24 VAC	26 W	8*/16 s
ER35.933S	22/F05-F07	310 lb-in/35 Nm	24 VAC/VDC	11 W	35 s
ER45.958R	22/F05-F07	398 lb-in/45 Nm	230 VAC	24 W	20 s
ER45.953M	22/F05-F07	398 lb-in/45 Nm	12-24 VDC & 24 VAC	26 W	10*/20 s
ER60.958R	22/F05-F07	531 lb-in/60 Nm	230 VAC	24 W	20 s
ER60.933S	22/F05-F07	531 lb-in/60 Nm	24 VAC/VDC	11 W	60 s
ER60.953M	22/F05-F07	531 lb-in/60 Nm	12-24 VDC & 24 VAC	26 W	10*/20 s
ER100.958R	22/F05-F07	885 lb-in/100 Nm	230 VAC	24 W	35 s
ER100.933S	22/F05-F07	885 lb-in/100 Nm	24 VAC/VDC	11 W	100 s
ER100.953M	22/F05-F07	885 lb-in/100 Nm	12-24 VDC & 24 VAC	26 W	30*/45 s

\* 90° Travel time at 24 Volts.

\*\* Reducing sleeves star for 14 mm to square 9 mm and 11 mm included. For other sizes contact CR-TEC.

\*\*\* X = Removable plate F03 or F04 or F05, can be ordered mounted; Specify the star and mount needed.

\*\*\*\* Voltage tolerance +/- 10%. AC voltages 50 Hz or 60 Hz.

# SERIES-ER PLUS SLOW OPERATING



## Technical Specifications.....

### MULTI-VOLTAGE OPERATION:

#### TWO VERSIONS

- 90 to 240 VAC 50-60 Hz version also used for 90 to 350 VDC
- 12 to 48 VDC or 15 to 30 VAC 50-60 Hz

#### DESCRIPTION

Quarter turn electric actuator in plastic housing with manual override by drive shaft  
For torques of 310 to 885 lb-in (35 to 100 Nm)

#### STANDARD EQUIPMENT

Internal 24 VDC motor  
Two auxiliary limit switches for 5 amp service  
Removable mounting plates for three mount choices  
F03-F04-F05 or F05-F07  
Female Star drive 22 mm  
Manual override  
Electronic torque limiter  
Mechanical limit stops 0° and 90° + 5°  
Electric connections: One DIN 43650 Connector and one Cord Grip Connector

#### OPTIONS

EPR.B Feedback potentiometer 100-1K-5K-10K Ohms  
EPT.C 4-20 mA / 0-20 mA / 0-10 volt position feedback  
EFC.2 Two extra limit switches  
ECD.1A Dual DIN 43650 Connectors  
180° or 270° without mechanical stops  
ECM.1 One Cord Grip Electrical Connector  
ECM.1 One Cord Grip Electrical Connector  
Third Position Electronics & Switch Card

#### TECHNICAL DATA

Duty cycle rating at maximum torque = 50% of operating time (CE134).  
Working temperature: +14°F to +131°F (-10°C to +55°C)  
Enclosure: Sealed IP66 / NEMA 4 Equivalent  
Weight: 6.9 lbs (3.14 kg)

Model Number	Star/Mount	Torque	Voltages *	Power	Travel Time****
ER35.93A.G00	22/F05-F07	310 lb-in/35 Nm	90 - 240 VAC	45 W	34 / 40 s
ER35.93B.G00	22/F05-F07	310 lb-in/35 Nm	12-48 VDC & 15-30 VAC	45 W	34 / 41 s
ER60.93A.G00	22/F05-F07	531 lb-in/60 Nm	90 - 240 VAC	45 W	67 / 79 s
ER60.93B.G00	22/F05-F07	531 lb-in/60 Nm	12-48 VDC & 15-30 VAC	45 W	68 / 79 s
ER100.93A.G00	22/F05-F07	885 lb-in/100 Nm	90 - 240 VAC	45 W	110 / 119 s
ER100.93B.G00	22/F05-F07	885 lb-in/100 Nm	12-48 VDC & 15-30 VAC	45 W	110 / 119 s

\* 90 to 240 VAC 50/60 Hz and also 90 to 350 VDC.  
12 to 48 VDC and 15 to 30 VAC 50/60 Hz

\*\*\*\* Times with load and without load.

# SERIES-ER PLUS FAILSAFE

## Return to initial position without power



### Technical Specifications.....

#### MULTI-VOLTAGE OPERATION:

#### TWO VERSIONS

- 90 to 240 VAC 50-60 Hz version also used for 90 to 350 VDC
- 12 to 48 VDC or 15 to 30 VAC 50-60 Hz

#### DESCRIPTION

Quarter turn electric actuator in plastic housing with manual override by drive shaft  
For torques of 89 to 885 lb-in (10 to 100 Nm)

#### STANDARD EQUIPMENT

Internal 24 VDC motor  
Two auxiliary limit switches for 5 amp service  
Removable mounting plates for three mount choices  
F03-F04-F05 or F05-F07  
Female Star drive 14 mm or 22 mm  
Manual override  
Electronic torque limiter  
Mechanical limit stops 0° and 90° + 5°  
Electric connections: One DIN 43650 Connector and one Cord Grip Connector

#### OPTIONS

EPR.B Feedback potentiometer 100-1K-5K-10K Ohms  
EPT.C 4-20 mA / 0-20 mA / 0-10 volt position feedback  
EFC.2 Two extra limit switches  
ECD.1A Dual DIN 43650 Connectors  
180° or 270° without mechanical stops  
ECM.1 One Cord Grip Electrical Connector  
ECM.1 One Cord Grip Electrical Connector

#### TECHNICAL DATA

Duty cycle rating at maximum torque = 50% of operating time (CE134).  
Working temperature: +14°F to +104°F (-10°C to +40°C)  
Enclosure: Sealed IP66 / NEMA 4 Equivalent  
Weight: ER10, 20 & 35: 2.9 lbs (1.34 kg)  
ER35, 60 & 100: 6.9 lbs (3.14 kg)

Model Number	Star/Mount	Torque	Voltages *	Power	Travel Time****
ER10.X0A.GS2***	14/F03-F04-F05**	89 lb-in/10 Nm	90 - 240 VAC	15 W	9 / 11 s
ER10.X0B.GS2***	14/F03-F04-F05**	89 lb-in/10 Nm	12-48 VDC & 15-30 VAC	15 W	9 / 11 s
ER20.X0A.GS2***	14/F03-F04-F05**	177 lb-in/20 Nm	90 - 240 VAC	15 W	9 / 12 s
ER20.X0B.GS2***	14/F03-F04-F05**	177 lb-in/20 Nm	12-48 VDC & 15-30 VAC	15 W	9 / 12 s
ER35.90A.GS2	22/F05-F07	310 lb-in/35 Nm	90 - 240 VAC	45 W	6 / 7 s
ER35.90B.GS2	22/F05-F07	310 lb-in/35 Nm	12-48 VDC & 15-30 VAC	45 W	6 / 7 s
ER60.90A.GS2	22/F05-F07	531 lb-in/60 Nm	90 - 240 VAC	45 W	10 / 12 s
ER60.90B.GS2	22/F05-F07	531 lb-in/60 Nm	12-48 VDC & 15-30 VAC	45 W	10 / 12 s
ER100.90A.GS2	22/F05-F07	885 lb-in/100 Nm	90 - 240 VAC	45 W	20 / 23 s
ER100.90B.GS2	22/F05-F07	885 lb-in/100 Nm	12-48 VDC & 15-30 VAC	45 W	19 / 22 s

\* 90 to 240 VAC 50/60 Hz and also 90 to 350 VDC.

12 to 48 VDC and 15 to 30 VAC 50/60 Hz

\*\* Reducing sleeves star for 14 mm to square 9 mm and 11 mm included. For other sizes contact CR-TEC.

\*\*\* X = Removable plate F03 or F04 or F05, can be ordered mounted; Specify the star & mount needed.

\*\*\*\* Times with load and without load.

# SERIES-ER PLUS FAILSAFE - SLOW OPERATING

## Return to initial position without power



### Technical Specifications.....

#### MULTI-VOLTAGE OPERATION:

##### TWO VERSIONS

- 90 to 240 VAC 50-60 Hz version also used for 90 to 350 VDC
- 12 to 48 VDC or 15 to 30 VAC 50-60 Hz

#### DESCRIPTION

Quarter turn electric actuator in plastic housing with manual override by drive shaft  
For torques of 310 to 885 lb-in (35 to 100 Nm)

#### STANDARD EQUIPMENT

Internal 24 VDC motor  
Two auxiliary limit switches for 5 amp service  
Removable mounting plates for three mount choices  
F03-F04-F05 or F05-F07  
Female Star drive 22 mm  
Manual override  
Electronic torque limiter  
Mechanical limit stops 0° and 90° + 5°  
Electric connections: One DIN 43650 Connector and one Cord Grip Connector

#### OPTIONS

EPR.B Feedback potentiometer 100-1K-5K-10K Ohms  
EPT.C 4-20 mA / 0-20 mA / 0-10 volt position feedback  
EFC.2 Two extra limit switches  
ECD.1A Dual DIN 43650 Connectors  
180° or 270° without mechanical stops  
ECM.1 One Cord Grip Electrical Connector  
ECM.1 One Cord Grip Electrical Connector

#### TECHNICAL DATA

Duty cycle rating at maximum torque = 50% of operating time (CE134).  
Working temperature: +14°F to +104°F (-10°C to +40°C)  
Enclosure: Sealed IP66 / NEMA 4 Equivalent  
Weight: 6.9 lbs (3.14 kg)

Model Number	Star/Mount	Torque	Voltages *	Power	Travel Time****
ER35.93A.GS2	22/F05-F07	310 lb-in/35 Nm	90 - 240 VAC	45 W	34 / 40 s
ER35.93B.GS2	22/F05-F07	310 lb-in/35 Nm	12-48 VDC & 15-30 VAC	45 W	34 / 41 s
ER60.93A.GS2	22/F05-F07	531 lb-in/60 Nm	90 - 240 VAC	45 W	67 / 79 s
ER60.93B.GS2	22/F05-F07	531 lb-in/60 Nm	12-48 VDC & 15-30 VAC	45 W	68 / 79 s
ER100.93A.GS2	22/F05-F07	885 lb-in/100 Nm	90 - 240 VAC	45 W	110 / 119 s
ER100.93B.GS2	22/F05-F07	885 lb-in/100 Nm	12-48 VDC & 15-30 VAC	45 W	110 / 119 s

\* 90 to 240 VAC 50/60 Hz and also 90 to 350 VDC.  
12 to 48 VDC and 15 to 30 VAC 50/60 Hz

\*\*\*\* Times with load and without load.

# SERIES-ER PLUS MODULATING

## Control with 4-20 mA, 0-20 mA or 0-10 volt signal



### Technical Specifications.....

#### MULTI-VOLTAGE OPERATION:

##### TWO VERSIONS

- 90 to 240 VAC 50-60 Hz version also used for 90 to 350 VDC
- 12 to 48 VDC or 15 to 30 VAC 50-60 Hz

##### DESCRIPTION

Quarter turn electric actuator in plastic housing with manual override by drive shaft  
For torques of 177 to 885 lb-in (20 to 100 Nm)

##### STANDARD EQUIPMENT

Internal 24 VDC motor  
Two auxiliary limit switches for 5 amp service  
Removable mounting plates for three mount choices  
F03-F04-F05 or F05-F07  
Female Star drive 14 mm or 22 mm  
Manual override  
Electronic torque limiter  
Mechanical limit stops 0° and 90° + 5°  
Electric connections: One DIN 43650 Connector and one Cord Grip Connector

##### OPTIONS

EFC.2 Two extra limit switches  
ECD.1A Dual DIN 43650 Connectors  
180° or 270° without mechanical stops  
ECM.1 One Cord Grip Electrical Connector  
ECM.1 One Cord Grip Electrical Connector

##### TECHNICAL DATA

Duty cycle rating at maximum torque = 50% of operating time (CE134).  
Working temperature: +14°F to +131°F (-10°C to +55°C)  
Enclosure: Sealed IP66 / NEMA 4 Equivalent  
Weight: ER20: 2.9 lbs (1.34 kg)  
ER35, 60 & 100: 6.9 lbs (3.14 kg)

Model Number	Star/Mount	Torque	Voltages *	Power	Travel Time****
ER20.X3A.GP6***	14/F03-F04-F05**	177 lb-in/20 Nm	90 - 240 VAC	15 W	16 / 25 s
ER20.X3B.GP6***	14/F03-F04-F05**	177 lb-in/20 Nm	12-48 VDC & 15-30 VAC	15 W	16 / 25 s
ER35.93A.GP6	22/F05-F07	310 lb-in/35 Nm	90 - 240 VAC	45 W	34 / 40 s
ER35.93B.GP6	22/F05-F07	310 lb-in/35 Nm	12-48 VDC & 15-30 VAC	45 W	34 / 41 s
ER60.93A.GP6	22/F05-F07	531 lb-in/60 Nm	90 - 240 VAC	45 W	67 / 79 s
ER60.93B.GP6	22/F05-F07	531 lb-in/60 Nm	12-48 VDC & 15-30 VAC	45 W	68 / 79 s
ER100.93A.GP6	22/F05-F07	885 lb-in/100 Nm	90 - 240 VAC	45 W	110 / 119 s
ER100.93B.GP6	22/F05-F07	885 lb-in/100 Nm	12-48 VDC & 15-30 VAC	45 W	110 / 119 s

\* 90 to 240 VAC 50/60 Hz and also 90 to 350 VDC.  
12 to 48 VDC and 15 to 30 VAC 50/60 Hz

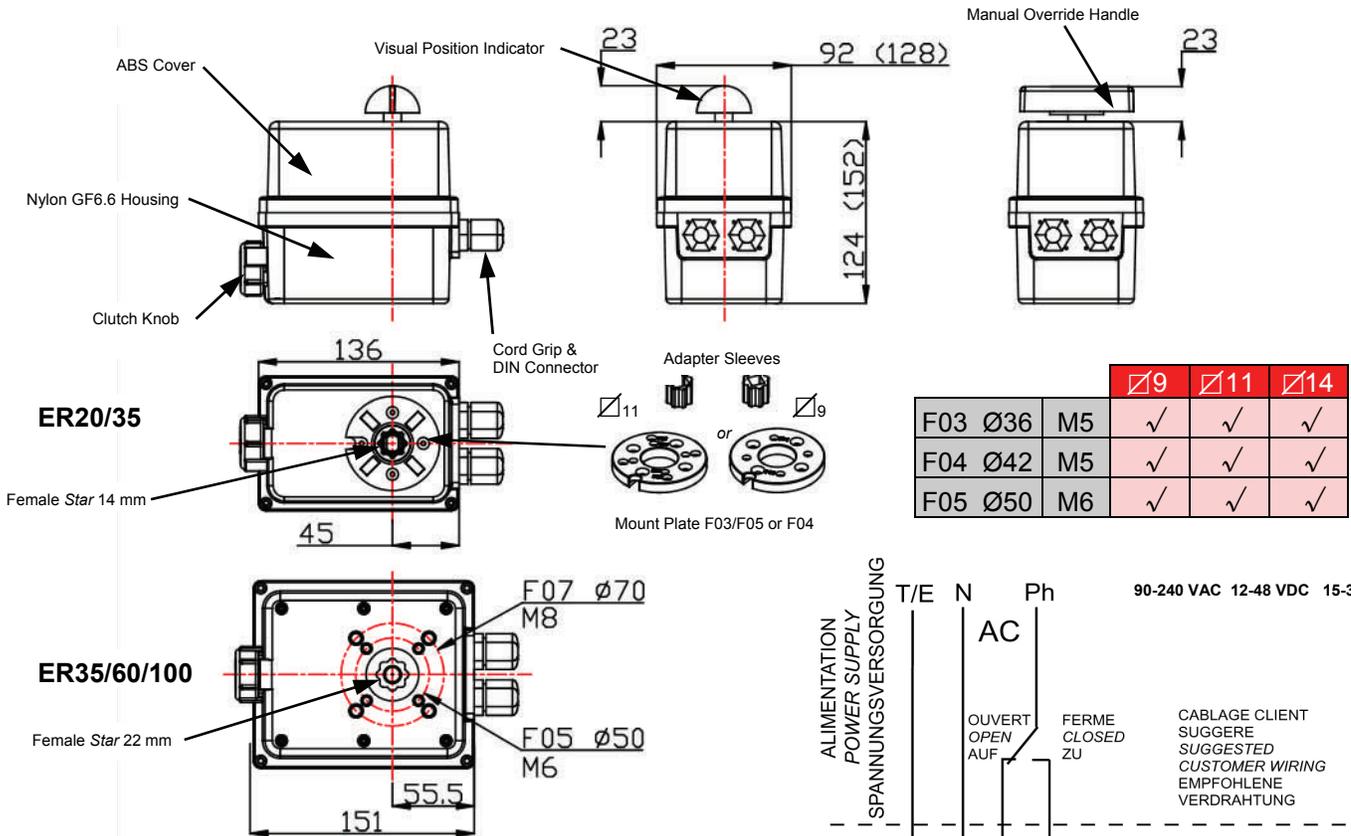
\*\* Reducing sleeves star for 14 mm to square 9 mm and 11 mm included. For other sizes contact CR-TEC.

\*\*\* X = Removable plate F03 or F04 or F05, can be ordered mounted; Specify the star & mount needed.

\*\*\*\* Times with load and without load.

## ER SERIES ELECTRIC ACTUATOR

# SERIES-ER



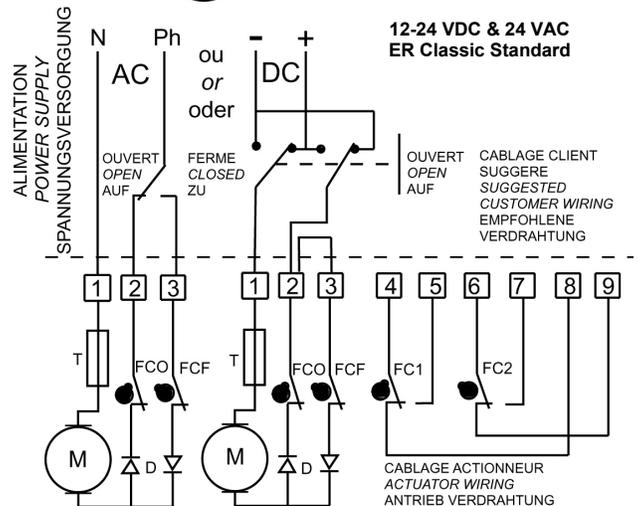
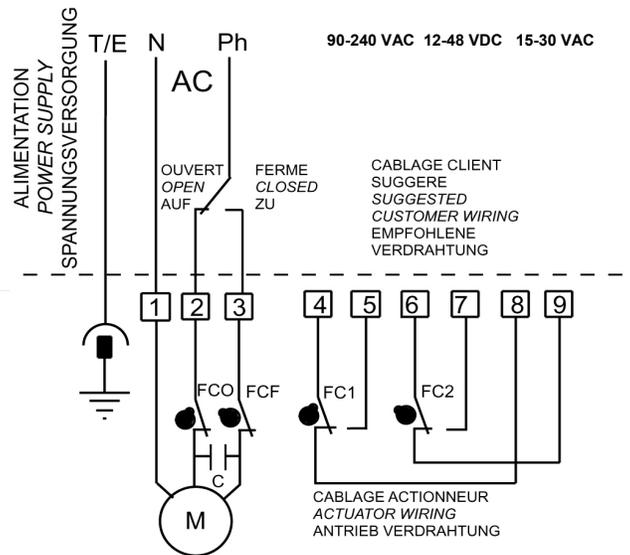
**ER20/35**

Female Star 14 mm

**ER35/60/100**

Female Star 22 mm

**NOTE:** REFER TO THE ACTUATOR OPERATION MANUALS FOR COMPLETE POWER AND LIMIT SWITCH CONNECTION INFORMATION.



SYM	DESIGNATION
FCO	Open limit switch
FCF	Close limit switch
FC1	Auxiliary limit switch #1
FC2	Auxiliary limit switch #2
M	Motor
T	Thermal fuse
D	Diodes
C	Capacitor

# SERIES-V



**VR SERIES**



**VS SERIES**



**VT SERIES**

## Technical Specifications.....

### VR/VS/VT MODELS

#### DESCRIPTION

90° Electric actuator in aluminum housing with plastic cover. Manual override by drive shaft or hand wheel For torques of 221 to 8,851 lb-in (25 to 1,000 Nm)

#### STANDARD EQUIPMENT

VR & VS: Multi-Voltage Actuator at 100-240 VAC, 24 VAC/VDC, 125-320 VDC and 400 VAC 3 Phase  
 VT: Multi-Voltage Actuator 240 VAC, 24 VAC/VDC and 400 VAC 3 Phase  
 Four adjustable limit switches 5 Amp ISO 5211 mounting for three choices  or 22 mm  
 F05-F07, F07-F10 or F10-F12  
 Star drive 17 mm, 22 mm or 36 mm  
 Manual override  
 Torque limiter  
 Visual position Indicator  
 Mechanical limit stops: Adjustable for VS & VT  
 Electric connections: Two ISO M20 Connectors  
 Internal 4 Watt Heating Resistor for VR & VS; 10 Watts for VT and 400 Volts

#### VERSIONS

On/Off, Three Points or Full Modulating  
 90° Standard with 180° or 270° on request  
 0-10 Volt or 4-20 mA Control Signal

#### TECHNICAL DATA

Duty cycle rating at maximum torque:  
 Three choices of 30%, 50% or 80% of operating time (CE134).  
 Working temperature: -4°F to +158°F (-20°C to +70°C)  
 Enclosure: Sealed IP67  
 Weight: VR = 6.8 lbs (3.1 kg)  
 VS = 12.3 lbs (5.6 Kg)  
 VT = 37.6 lbs (17.1 kg)

### OPTIONS

Option Part	Description
ERI.B	Regulated 10 Watt Heating Resistor
ECA	Aluminum Cover (+2.0 lbs / 0.9 kg)
EPR.B	Feedback Potentiometer: 0.1k, 1k, 5k or 10k Ohms
EPT.A	Feedback Potentiometer: 4-20 mA
EFC.2	Two Extra 5 Amp Limit Switches with Card
EBS.24	Fail Safe Battery Backup
ECM.1	One ISO M12 Connector
ECM.2	Dual ISO M12 Connectors

Options	Option 1 ERI.B	Option 1 ERT.B	Option 2 ECA	Option 3 EPR.B	Option 3 EPT.B	Option 3 EFC.2	Option 4 EBS.24	Option 5 ECM.1	Option 5 ECM.2
On/Off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modulating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**VR/VS/VT25-45-75-100-150-300-600-1000**

**DUTY CYCLE 30 %**

Model Number	Star/Mount	Torque	Voltages	Power	Travel Time
VR75.70A.M00	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	45 W	15 s
VR75.703.M00	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	45 W	15 s
VS150.90A.M00	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	45 W	30 s
VS150.903.M00	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	45 W	30 s
VS300.90A.M00	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VS300.903.M00	22/F07-F10	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s

**DUTY CYCLE 50%**

On/Off Model	Modulating Model	Star/Mount	Torque	Voltages	Power	Travel Time
VR25.709.R00		17/F05-F07	221 lb-in/25 Nm	400 VAC 3 Phase	20 W	10 s
VR25.70A.G00	VR25.70A.GP5	17/F05-F07	221 lb-in/25 Nm	100 - 240 VAC	45 W	7 s/15 s
VR25.703.G00	VR25.703.GP5	17/F05-F07	221 lb-in/25 Nm	24 VAC/VDC	45 W	7 s/15 s
VR45.709.R00		17/F05-F07	398 lb-in/45 Nm	400 VAC 3 Phase	52 W	10 s
VR45.70A.G00	VR45.70A.GP5	17/F05-F07	398 lb-in/45 Nm	100 - 240 VAC	45 W	15 s
VR45.703.G00	VR45.703.GP5	17/F05-F07	398 lb-in/45 Nm	24 VAC/VDC	45 W	15 s
VR75.709.R00		17/F05-F07	664 lb-in/75 Nm	400 VAC 3 Phase	52 W	15 s
VR75.70A.G00	VR75.70A.GP5	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	45 W	20 s
VR75.703.G00	VR75.703.GP5	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	45 W	20 s
VS100.909.R00		22/F07-F10	885 lb-in/100 Nm	400 VAC 3 Phase	135 W	10 s
VS100.90A.G00	VS100.90A.GP5	22/F07-F10	885 lb-in/100 Nm	100 - 240 VAC	45 W	15 s
VS100.903.G00	VS100.903.GP5	22/F07-F10	885 lb-in/100 Nm	24 VAC/VDC	45 W	15 s
VS150.909.R00		22/F07-F10	1328 lb-in/150 Nm	400 VAC 3 Phase	135 W	20 s
VS150.90A.G00	VS150.90A.GP5	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	85 W	30 s
VS150.903.G00	VS150.903.GP5	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	85 W	30 s
VS300.909.R00		22/F07-F10	2655 lb-in/300 Nm	400 VAC 3 Phase	135W	35 s
VS300.90A.G00	VS300.90A.GP5	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VS300.903.G00	VS300.903.GP5	22/F07-F10	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s
VT600.A09.T00		36/F10-F12	5310 lb-in/600 Nm	400 VAC 3 Phase	250 W	38 s
VT600.A08.T00		36/F10-F12	5310 lb-in/600 Nm	230 VAC	250 W	38 s
VT600.A03.T00*		36/F10-F12	5310 lb-in/600 Nm	24 VAC/VDC	150 W	38 s
VT1000.A09.T00		36/F10-F12	8851 lb-in/1000 Nm	400 VAC 3 Phase	250 W	38 s
VT1000.A08.T00		36/F10-F12	8851 lb-in/1000 Nm	230 VAC	250 W	38 s
VT1000.A03.T00*		36/F10-F12	8851 lb-in/1000 Nm	24 VAC/VDC	150 W	38 s

\* Check with CR-TEC for availability

**DUTY CYCLE 80%**

On/Off Model	Modulating Model	Star/Mount	Torque	Voltages	Power	Travel Time
VR25.70A.H00	VR25.70A.HP5	17/F05-F07	177 lb-in/25 Nm	100 - 240 VAC	85 W	7 s/15 s
VR25.703.H00	VR25.703.HP5	17/F05-F07	177 lb-in/25 Nm	24 VAC/VDC	85 W	7 s/15 s
VR45.70A.H00	VR45.70A.HP5	17/F05-F07	398 lb-in/45 Nm	100 - 240 VAC	85 W	15 s
VR45.703.H00	VR45.703.HP5	17/F05-F07	398 lb-in/45 Nm	24 VAC/VDC	85 W	15 s
VR75.70A.H00	VR75.70A.HP5	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	85 W	20 s
VR75.703.H00	VR75.703.HP5	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	85 W	20 s
VS100.90A.H00	VS100.90A.HP5	22/F07-F10	885 lb-in/100 Nm	100 - 240 VAC	85 W	15 s
VS100.903.H00	VS100.903.HP5	22/F07-F10	885 lb-in/100 Nm	24 VAC/VDC	85 W	15 s
VS150.90A.H00	VS150.90A.HP5	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	85 W	30 s
VS150.903.H00	VS150.903.HP5	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	85 W	30 s
VS300.90A.H00	VS300.90A.HP5	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VS300.90A.H00	VS300.903.HP5	22/F05-F07	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s

# SERIES-VX

**EXPLOSION PROOF**



**VRX SERIES**



**VSX SERIES**



**VTX SERIES (Soon)**

## Technical Specifications.....

### VRX/VSX/VTX MODELS

**DESCRIPTION**

90° Electric actuator in aluminum housing with aluminum cover. Manual override by drive shaft or hand wheel  
For torques of 221 to 8,851 lb-in (25 to 1,000 Nm)

**STANDARD EQUIPMENT**

VRX & VSX: Multi-Voltage Actuator at 100-240 VAC, 24 VAC/VDC, 125-320 VDC and 400 VAC 3 Phase  
VTX: Multi-Voltage Actuator 240 VAC, 24 VAC/VDC and 400 VAC 3 Phase  
Four adjustable limit switches 5 Amp  
ISO 5211 mounting for three choices  
F05-F07, F07-F10 or F10-F12  
Star drive 17 mm, 22 mm or 36 mm  
Manual override  
Torque limiter  
Visual position Indicator  
Mechanical limit stops: Adjustable for VSX & VTX  
Electric connections: Two ISO M20 Connectors  
Internal 4 Watt Heating Resistor for VR & VS; 10 Watts for VT and 400 Volts

**VERSIONS**

On/Off, Three Points or Full Modulating  
90° Standard with 180° or 270° on request  
0-10 Volt or 4-20 mA Control Signal

**TECHNICAL DATA**

Duty cycle rating at maximum torque:  
Two choices of 50% or 80% of operating time (CE134).  
Working temperature: -4°F to +158°F (-20°C to +70°C)  
Enclosure: Sealed IP67  
Explosion Proof: Per ATEX - Group II, Cat. 2 G & D  
EEx d IIB T6 - tD A21 IP67 T80°  
LCIE 06 ATEX 6006X  
Weight: VR = 8.8 lbs (4.0 kg)  
VS = 14.3 lbs (6.5 Kg)  
VT = 39.6 lbs (18.0 kg)

**OPTIONS**

Option Part Number	Rev. 3.19.2008	Description
EPR.B		Feedback Potentiometer: 0.1k, 1k, 5k or 10k Ohms
EPT.A1		Feedback Potentiometer: 4-20 mA
EFC.2		Two Extra 5 Amp Limit Switches with Card
ERI.B		Regulated 10 Watt Heating Resistor
EBS.24		Fail Safe Battery Backup

Options	Option 1	Option 1	Option 2	Option 2	Option 2	Option 3
Versions	ERI.B	ERT.B	EPR.B	EPT.B	EFC.2	EBS.24
On/Off	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Modulating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**EXPLOSION PROOF**

**DUTY CYCLE 50%**

On/Off Model	Modulating Model	Star/Mount	Torque	Voltages	Power	Travel Time
VRX25.709.R00		17/F05-F07	221 lb-in/25 Nm	400 VAC 3 Phase	20 W	10 s
VRX25.70A.G00	VRX25.70A.GP5	17/F05-F07	221 lb-in/25 Nm	100 - 240 VAC	45 W	7 s/15 s
VRX25.703.G00	VRX25.703.GP5	17/F05-F07	221 lb-in/25 Nm	24 VAC/VDC	45 W	7 s/15 s
VRX45.709.R00		17/F05-F07	398 lb-in/45 Nm	400 VAC 3 Phase	52 W	10 s
VRX45.70A.G00	VRX45.70A.GP5	17/F05-F07	398 lb-in/45 Nm	100 - 240 VAC	45 W	15 s
VRX45.703.G00	VRX45.703.GP5	17/F05-F07	398 lb-in/45 Nm	24 VAC/VDC	45 W	15 s
VRX75.709.R00		17/F05-F07	664 lb-in/75 Nm	400 VAC 3 Phase	52 W	15 s
VRX75.70A.G00	VRX75.70A.GP5	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	45 W	20 s
VRX75.703.G00	VRX75.703.GP5	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	45 W	20 s
VSX100.909.R00		22/F07-F10	885 lb-in/100 Nm	400 VAC 3 Phase	135 W	10 s
VSX100.90A.G00	VSX100.90A.GP5	22/F07-F10	885 lb-in/100 Nm	100 - 240 VAC	45 W	15 s
VSX100.903.G00	VSX100.903.GP5	22/F07-F10	885 lb-in/100 Nm	24 VAC/VDC	45 W	15 s
VSX150.909.R00		22/F07-F10	1328 lb-in/150 Nm	400 VAC 3 Phase	135 W	20 s
VSX150.90A.G00	VSX150.90A.GP5	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	85 W	30 s
VSX150.903.G00	VSX150.903.GP5	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	85 W	30 s
VSX300.909.R00		22/F07-F10	2655 lb-in/300 Nm	400 VAC 3 Phase	135W	35 s
VSX300.90A.G00	VSX300.90A.GP5	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VSX300.903.G00	VSX300.903.GP5	22/F07-F10	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s
VTX600.A09.T00*		36/F10-F12	5310 lb-in/600 Nm	400 VAC 3 Phase	250 W	38 s
VTX600.A08.T00*		36/F10-F12	5310 lb-in/600 Nm	100 - 240 VAC	250 W	38 s
VTX600.A03.T00*		36/F10-F12	5310 lb-in/600 Nm	24 VAC/VDC	150 W	38 s
VTX1000.A09.T00*		36/F10-F12	8851 lb-in/1000 Nm	400 VAC 3 Phase	250 W	38 s
VTX1000.A08.T00*		36/F10-F12	8851 lb-in/1000 Nm	100 - 240 VAC	250 W	38 s
VTX1000.A03.T00*		36/F10-F12	8851 lb-in/1000 Nm	24 VAC/VDC	150 W	38 s

\* Check with CR-TEC for availability

**DUTY CYCLE 80%**

On/Off Model	Modulating Model	Star/Mount	Torque	Voltages	Power	Travel Time
VRX25.70A.H00	VRX25.70A.HP5	17/F05-F07	222 lb-in/25 Nm	100 - 240 VAC	85 W	7 s/15 s
VRX25.703.H00	VRX25.703.HP5	17/F05-F07	222 lb-in/25 Nm	24 VAC/VDC	85 W	7 s/15 s
VRX45.70A.H00	VRX45.70A.HP5	17/F05-F07	398 lb-in/45 Nm	100 - 240 VAC	85 W	15 s
VRX45.703.H00	VRX45.703.HP5	17/F05-F07	398 lb-in/45 Nm	24 VAC/VDC	85 W	15 s
VRX75.70A.H00	VRX75.70A.HP5	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	85 W	20 s
VRX75.703.H00	VRX75.703.HP5	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	85 W	20 s
VSX100.90A.H00	VSX100.90A.HP5	22/F07-F10	885 lb-in/100 Nm	100 - 240 VAC	85 W	15 s
VSX100.903.H00	VSX100.903.HP5	22/F07-F10	885 lb-in/100 Nm	24 VAC/VDC	85 W	15 s
VSX150.90A.H00	VSX150.90A.HP5	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	85 W	30 s
VSX150.903.H00	VSX150.903.HP5	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	85 W	30 s
VSX300.90A.H00	VSX300.90A.HP5	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VSX300.903.H00	VSX300.903.HP5	22/F07-F10	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s

# SERIES-VA

**CSA: C, US & UL**



**VRA SERIES**



**VSA SERIES**

## Technical Specifications.....

### VRA/VSA MODELS:

**DESCRIPTION**

90° Electric actuator in aluminum housing with aluminum cover. Manual override by drive shaft or hand wheel  
For torques of 221 to 2,260 lb-in (25 to 300 Nm)

**STANDARD EQUIPMENT**

VRA & VSA: Multi-Voltage Actuator at 100-240 VAC, 24 VAC/VDC and 125-320 VDC  
Four adjustable limit switches 5 Amp  
ISO 5211 mounting for two choices  
F05-F07 or F07-F10  
Star drive 17 mm or 22 mm  
Manual override  
Torque limiter  
Visual position Indicator  
Mechanical limit stops: Adjustable for VSA  
Electric connections: Two 1/2" NPT Ports  
Internal 4 Watt Heating Resistor

**VERSIONS**

On/Off, Three Points or Full Modulating  
90° Standard with 180° or 270° on request  
0-10 Volt or 4-20 mA Control Signal

**TECHNICAL DATA**

Duty cycle rating at maximum torque:  
80% of operating time (CE134).  
Working temperature: -4°F to +158°F (-20°C to +70°C)  
Enclosure: Sealed IP67  
Weight: VRA = 10.8 lbs (4.9 kg)  
VSA = 15.2 lbs (6.9 Kg)

**APPROVALS**

CSA Approvals to Canadian and USA UL Standards, and ANSI Standards for UL.  
CSA C22.2 No. 139 and ANSI / UL 429

**OPTIONS**

Option Part Number	Description
EPR.B	Feedback Potentiometer: 0.1k, 1k, 5k or 10k Ohms
ERI.B	Regulated 10 Watt Heating Resistor
EBS.24	Fail Safe Battery Backup

Options	Option 1 ERI.B	Option 2 EPR.B	Option 3 EBS.24
Versions			
On/Off	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Modulating	<input type="radio"/>		

**MULTI-VOLT: 80% DUTY**

Multi-Volt Model	Star/Mount	Torque	Voltages	Power	Travel Time
VRA25.70A.H00	17/F05-F07	221 lb-in/25 Nm	100 - 240 VAC	85 W	7 s
VRA25.703.H00	17/F05-F07	221 lb-in/25 Nm	24 VAC/VDC	85 W	7 s
VRA45.70A.H00	17/F05-F07	398 lb-in/45 Nm	100 - 240 VAC	85 W	15 s
VRA45.703.H00	17/F05-F07	398 lb-in/45 Nm	24 VAC/VDC	85 W	15 s
VRA75.70A.H00	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	85 W	20 s
VRA75.703.H00	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	85 W	20 s
VSA100.90A.H00	22/F07-F10	885 lb-in/100 Nm	100 - 240 VAC	85 W	15 s
VSA100.903.H00	22/F07-F10	885 lb-in/100 Nm	24 VAC/VDC	85 W	15 s
VSA150.90A.H00	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	85 W	30 s
VSA150.903.H00	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	85 W	30 s
VSA300.90A.H00	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VSA300.903.H00	22/F07-F10	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s

**FAILSAFE BATTERY BACKUP: 80% DUTY**

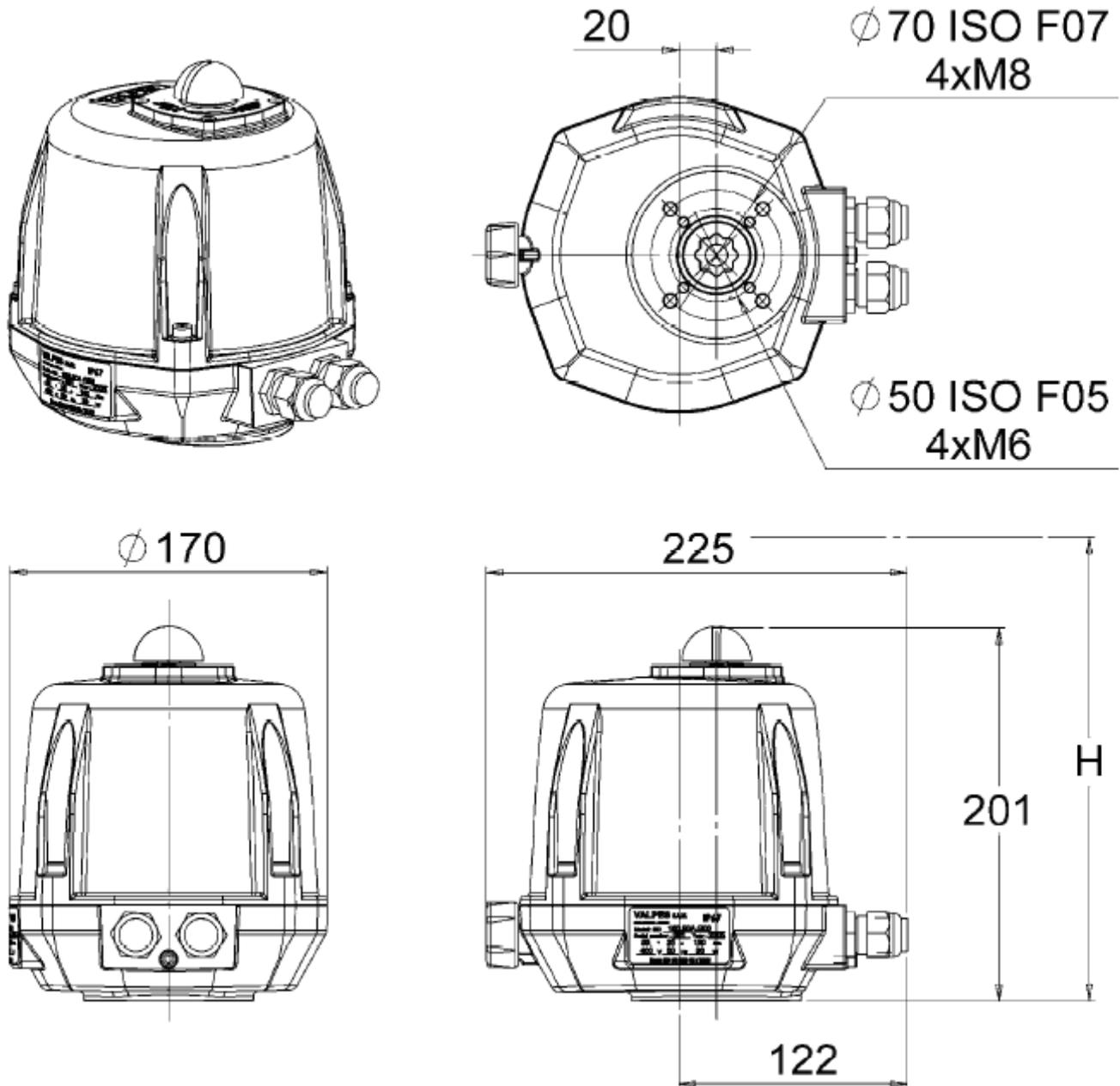
Failsafe Model	Star/Mount	Torque	Voltages	Power	Travel Time
VRA25.70A.H00.S	17/F05-F07	221 lb-in/25 Nm	100 - 240 VAC	85 W	7 s
VRA25.703.H00.S	17/F05-F07	221 lb-in/25 Nm	24 VAC/VDC	85 W	7 s
VRA45.70A.H00.S	17/F05-F07	398 lb-in/45 Nm	100 - 240 VAC	85 W	15 s
VRA45.703.H00.S	17/F05-F07	398 lb-in/45 Nm	24 VAC/VDC	85 W	15 s
VRA75.70A.H00.S	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	85 W	20 s
VRA75.703.H00.S	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	85 W	20 s
VSA100.90A.H00.S	22/F07-F10	885 lb-in/100 Nm	100 - 240 VAC	85 W	15 s
VSA100.903.H00.S	22/F07-F10	885 lb-in/100 Nm	24 VAC/VDC	85 W	15 s
VSA150.90A.H00.S	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	85 W	30 s
VSA150.903.H00.S	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	85 W	30 s
VSA300.90A.H00.S	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VSA300.903.H00.S	22/F07-F10	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s

**MODULATING: 80% DUTY**

Modulating Model	Star/Mount	Torque	Voltages	Power	Travel Time
VRA25.70A.HP5	17/F05-F07	221 lb-in/25 Nm	100 - 240 VAC	85 W	7 s/*15 s
VRA25.703.HP5	17/F05-F07	221 lb-in/25 Nm	24 VAC/VDC	85 W	7 s/*15 s
VRA45.70A.HP5	17/F05-F07	398 lb-in/45 Nm	100 - 240 VAC	85 W	15 s
VRA45.703.HP5	17/F05-F07	398 lb-in/45 Nm	24 VAC/VDC	85 W	15 s
VRA75.70A.HP5	17/F05-F07	664 lb-in/75 Nm	100 - 240 VAC	85 W	20 s
VRA75.703.HP5	17/F05-F07	664 lb-in/75 Nm	24 VAC/VDC	85 W	20 s
VSA100.90A.HP5	22/F07-F10	885 lb-in/100 Nm	100 - 240 VAC	85 W	15 s
VSA100.903.HP5	22/F07-F10	885 lb-in/100 Nm	24 VAC/VDC	85 W	15 s
VSA150.90A.HP5	22/F07-F10	1328 lb-in/150 Nm	100 - 240 VAC	85 W	30 s
VSA150.903.HP5	22/F07-F10	1328 lb-in/150 Nm	24 VAC/VDC	85 W	30 s
VSA300.90A.HP5	22/F07-F10	2655 lb-in/300 Nm	100 - 240 VAC	85 W	50 s
VSA300.903.HP5	22/F07-F10	2655 lb-in/300 Nm	24 VAC/VDC	85 W	50 s

\* Travel time for 4-20 mA

### Actuator Dimensions (mm)



### Actuator Dimensions (mm)

