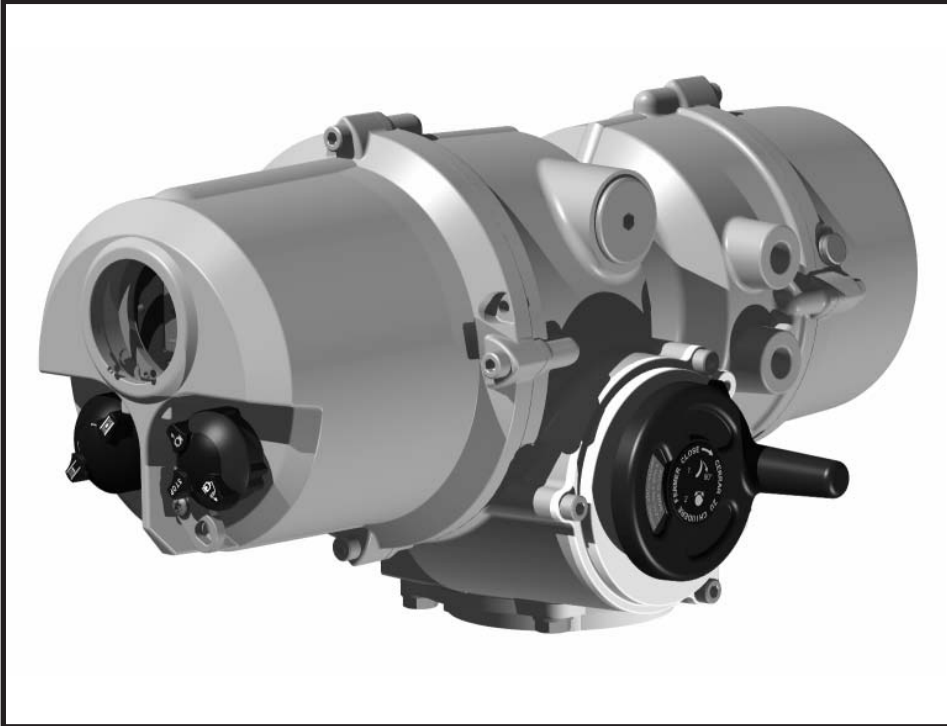


IQT electric valve actuators

Battery failsafe options

rotork

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Failsafe Operation

Two versions of the IQT are available to provide failsafe operation on failure of the AC power supply. The IP68 watertight rating of the electrical enclosure is not affected by the addition of the battery pack.

Type 1

Actuator arranged for use on a 24V DC supply provided by the customer. This version is available to suit any standard AC primary power supply, any listed enclosure and electrical option.

Type 2

Actuator with the addition of a separate, bolt on, weatherproof enclosure housing a rechargeable battery, charging unit and control and protection circuits. The actuator gives fully automatic operation. Under normal conditions, the battery is kept fully charged. A colour coded lamp on the main display indicates the battery charge level.

Action on Loss of Power

Actuator response on AC power failure may be preselected for one of the following:

- ① Fail open
- ② Fail close
- ③ Stay-put awaiting a local or externally fed remote signal to open or close.

Maximum Number of Operations

The number of operations available using the failsafe battery pack will be dependant on the ambient temperature and torque required. A minimum of one operation at rated torque for a IQT2000 will be available at -30°C rising to 50 operations for a IQT125 at +20°C

Note A

As IQT actuators are limited to a maximum 20% duty cycle at rated torque, the number of operations at an ambient temperature of 20°C may be calculated for a given actuator speed by the following formula:
number of operations = $1800 \div$
operating time (sec) x 5

Note B

Battery supply is automatically disconnected 30 minutes after AC power failure.

If Folomatic is fitted, this will cease to function during the loss of AC power.

If continuous position indication is required an externally powered CPT should be used.

Mains failure indication

On mains failure the 24V DC supply normally available at actuator terminals 4 and 5 is lost and this could therefore be used as the basis for indication of mains failure.

Charger

The integral battery charger unit provides three levels of charge dependent on the battery condition and these are indicated by different colours of a lamp:

Boost: Constant 500mA, red lamp.

Overcharge: nominal 35V, amber lamp

Float: nominal 33V, green lamp

Battery disconnected: 20v, lamp off

Typical recharge times following complete discharge: 4 hours

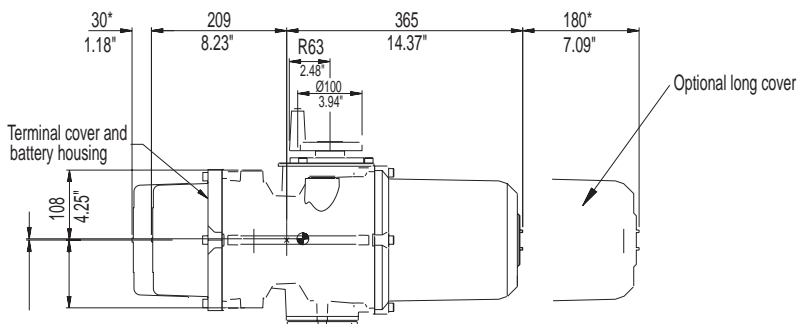
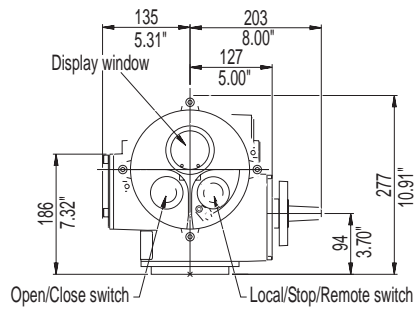
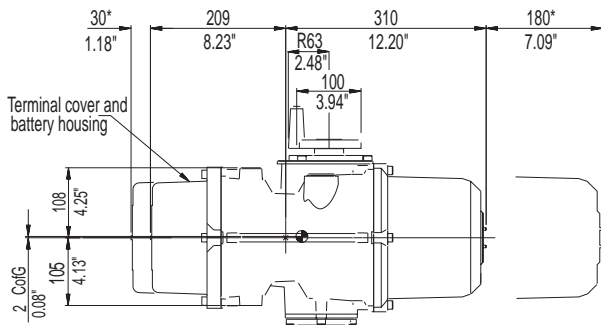
Battery

28V, 2.5 A.h sealed lead acid.

Float life: 8 years at 20°C, 3 years at 40°C

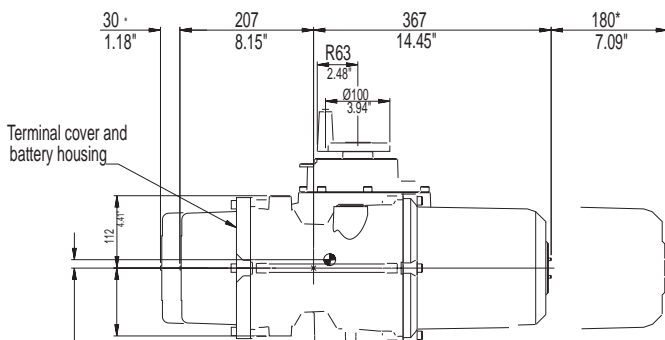
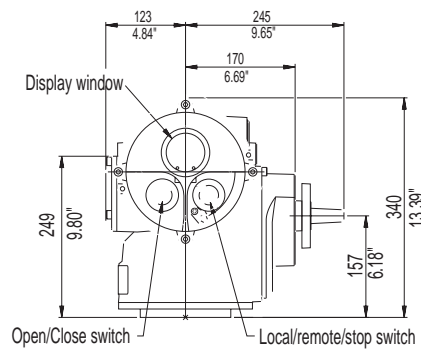
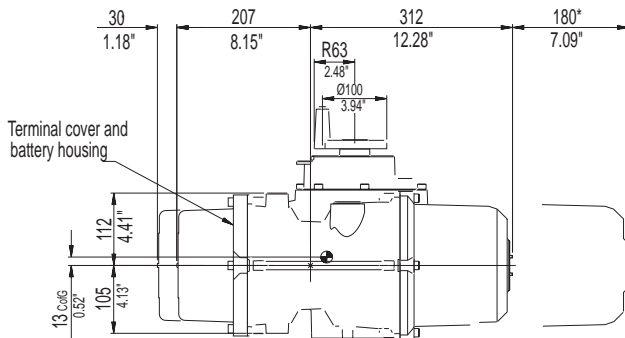
Storage life: 1 year at 20°C

Dimension data for sizes IQT 125, 250 and 500



*removal allowance

Dimension data for sizes IQT 1000 and 2000



*removal allowance