

**SPECIFICATIONS - INTEGRAL CONTROLS AUMA e-pac**

Doc No. : epac-01/99 Rev 02

Suitable for Auma India multi turn actuators SA(R) 3 - SA(R) 100.  
Controls Auma e-pac suitable for 3 Ph, AC with any one of the following voltages / frequencies.

Standard input voltages and frequencies :

Volt	230	230	380	380	400	400	415	415	440	440	475	475	500	500	550	550	660	660
Hz	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60

Suitable for :

- Input signals (potential-free) : OPEN-(STOP)-CLOSE with 24V, DC from internal power supply OR from external sources;
- Monitor relay for collective fault signal (potential free) (thermoswitch tripped, torque switch tripped in mid travel);
- Local status annunciation LEDs (colour Green) and fault annunciation LEDs (colour Red);
- Programmable control logic;
- Reversing contactors (Electrically and mechanically interlocked);
- Selector switch LOCAL-OFF-REMOTE (lockable in all three positions) with potential free contacts for Local-Off-Remote;
- Push buttons OPEN-STOP-CLOSE (local controls);
- Indicator LEDs / Lamps for OPEN / CLOSE;
- 24V DC, 150mA source
- Single Phase supply for space heater upto 10 watts
- Ambient temperature -20°C to +80°C
- Retaining (Non-inching) / Non-retaining (Inching) mode available on the Actuator;

DESCRIPTION	ITEM CODE
<i>Basic Version</i>	V 1.1
<u>With Emergency shut down (ESD) feature</u> Suitable for emergency shut down from Remote Command Centre (RCC) through two wires. The closing of contact at RCC will enable Actuator to move in OPEN / CLOSE direction (as programmed locally) overriding any existing REMOTE or LOCAL signals.	V 1.2
<u>With 2-wire make/break<sup>1)</sup></u> The remote command signal will be through two wires. The make (NC) of these wires will operate the Actuators in Open/Close direction and the Break (NO) of these wires will operate the Actuator in Close/Open Direction. The required direction of rotation shall be programmed locally.	V 1.3
<u>With 2-wire make/break and Emergency shut down (ESD) feature<sup>1)</sup></u>	V 1.4
<u>With Timer Board<sup>2)</sup></u> It will be possible to run the Actuator for a pre-defined travel in ON-OFF steps. The ON-OFF intervals shall be adjustable from 1-30 secs. for both directions independently.	V 1.5

DESCRIPTION	ITEM CODE
<u>With inhibit Close/Open</u> Two wires will be drawn to the Remote Control Center from the Actuator. The make (NC) of these wires will prevent the Actuator from opening/closing. Selection of direction to be inhibited shall be possible at the Actuator.	V 1.6
<u>With Negative switching</u> Absence of 24V, DC remote signals from Remote Control Center will make the Actuator to run in the required direction. <u>Retaining (inching)/Non-retaining (non-inching) mode will be field configurable.</u>	V 1.7
<u>With Remote Control &amp; Local Stop</u> Operation of the local stop will stop the Actuator even when Actuator is operating in remote mode.	V 1.8
<u>With Electronic positioner<sup>1)</sup></u> Electronic positioner accepts a nominal command signal of 4-20mA from Customer. <b>Command signal life zero, fail as is :</b> Feed back signal 0 – 20 mA Feed back signal 4 – 20 mA Feed back signal 1 – 5 V (from Potentiometer 4.7K Ω) <b>Command signal life zero, fail Close :</b> Feed back signal 0 – 20 mA Feed back signal 4 – 20 mA Feed back signal 1 – 5 V (from Potentiometer 4.7K Ω) <b>Command signal life zero, fail open :</b> Feed back signal 0 – 20 mA Feed back signal 4 – 20 mA Feed back signal 1 – 5 V (from Potentiometer 4.7K Ω)	V 2.1 V 2.2 V 2.3 V 2.4 V 2.5 V 2.6 V 2.7 V 2.8 V 2.9
<u>With Electronic positioner and Isolator<sup>1)</sup></u> Electronic positioner accepts a nominal command signal of 4-20mA from customer and Isolator gives an isolated 4-20mA-position feedback to customer. <b>Command signal life zero, fail as is :</b> Feed back signal 0 – 20 mA Feed back signal 4 – 20 mA Feed back signal 1 – 5 V (from Potentiometer 4.7K Ω) <b>Command signal life zero, fail Close :</b> Feed back signal 0 – 20 mA Feed back signal 4 – 20 mA Feed back signal 1 – 5 V (from Potentiometer 4.7K Ω) <b>Command signal life zero, fail open :</b> Feed back signal 0 – 20 mA Feed back signal 4 – 20 mA Feed back signal 1 – 5 V (from Potentiometer 4.7K Ω)	V 3.1 V 3.2 V 3.3 V 3.4 V 3.5 V 3.6 V 3.7 V 3.8 V 3.9

**OPTIONAL (Added features)**

DESCRIPTION	ITEM CODE
<i>Automatic Phase correction</i>	P
<i>Single Phasing Protection with power supply failure annunciation (potential free contact)</i>	F
<u>Thyristors / Solid state starters (for all versions)</u> Thyristor/solid state starters instead of contactors with suitable protection circuits. ➤ Upto 0.55kW ➤ Above 0.55 to 4kW	L H
<u>Remote annunciation Relays (for versions V1.1 to V1.8)</u> Individual relays contacts provided for remote annunciation for the following facilities:-  - Actuator running in OPEN - Actuator running in CLOSE - Torque switch OPEN trip - Torque switch CLOSE trip - Thermoswitch / Thermal overload relay trip - Power failure / Single phasing	R
<i>Thermal overload relay (for all versions)</i>	O
<i>Wall mountable e-pac unit (for all versions)</i>	W
<i>Positioner with PID feature (for all versions V 2.1 to V 3.9)</i>	D
<i>IP 68 Enclosure</i>	I
<i>Special Requirements **</i>	S

**NOTE :**

- 1) Input signal will be 2 – wire (make / break) for versions V1.3 & V1.4 and 4-20 mA for Versions V2.1 to 2.9, V3.1 to V3.9
  - 2) Intermediate switches are necessary for timer operation.
  - 3) In case of Special requirements detailed description will to be enclosed.
  - 4) Only for versions V1.1 to V1.8
- \* Default code (in case not indicated)  
\*\* Check with Auma.

**e-pac ORDERING CODE :**

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The ordering code should be indicated in all correspondences, offers, OA/WO. An example of an order code is illustrated below :

**415 A D V1.1 E 1 2 R 4 5 I 7**

