

Ucontrol SA100 Actuator



Highlights

- Certified for use in ATEX & UKEX Zone 0 hazardous areas
- Certified for use with hydrogen
- Mechanical range limiter
- Simple retrofit to existing regulator equipment
- High precision control accuracy



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The Ucontrol SA100 Actuator is a UtonomyOne component.

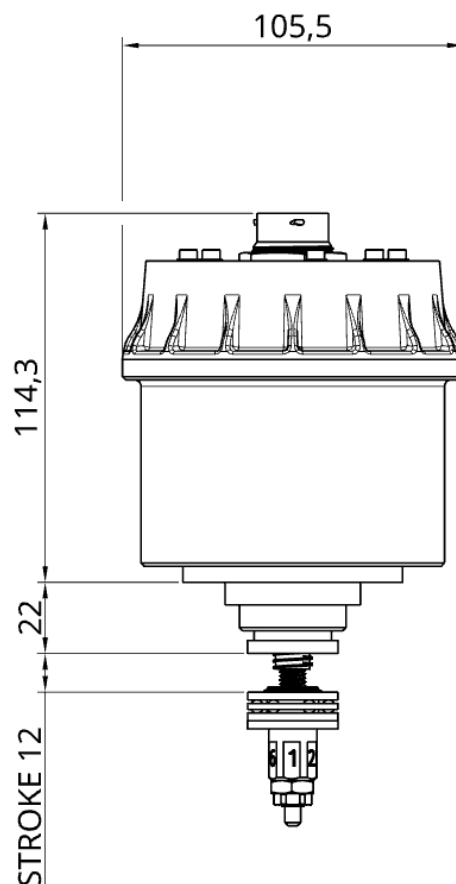
Actuators are interfaced with pilot regulators, typically installed on auxiliary (control) rails, in order to control the set-point pressure of pressure regulation sites. The linear motion of the Actuator is used to compress or extend the control spring located within the pilot regulator.

The Actuator concept has been specifically designed to retrofit to existing gas distribution equipment with almost no modification.

Actuators are intrinsically safe, with ATEX & UKEX Zone 0 certification, for installation in hazardous gas environments, including hydrogen. Actuators feature a mechanical range limiter to accurately constrain the pressure control range for additional network security.

Used in conjunction with the Ucontrol Controller, and within the wider UtonomyOne system, the Actuator facilitates standalone set-point scheduling, remote pressure control, and autonomous set-point optimisation based on machine-learning predictive demand models.

Dimensions (mm)



Ucontrol SA100 Actuator
0800-000086



Technical Specifications

Linear Control	
Maximum Stroke	≥12.0 mm (Stroke can be reduced to any value below maximum by a Range Limiter)
Hysteresis	± 0.5 %
Actuator Speed	8 mm/min
Position Accuracy	± 0.12 %
Environmental	
Operating Temperature ⁽¹⁾	-20 °C ≤ Ta ≤ 48/58 °C
Storage Temperature	-20 °C ≤ Ta ≤ 60 °C
Ingress Protection	IP54
Mechanical	
Weight	1.0 kg
Construction	Aluminium, Stainless Steel, Brass, Nylon
Approvals & Standards	
ATEX & UKEX ⁽¹⁾	II 1 G, Ex ia IIC T4 Ga, Ex h IIC T4 Ga, -20 °C ≤ Ta ≤ 48/58 °C
EMC	Emissions: EN 55011:2016 Immunity: EN 61326-1:2013
Safety	EN IEC 61010-1, EN ISO 12100
RoHS	EN IEC 63000, Compliant with exemptions 6 b, 6 c, 7 a, 7 c (I)

⁽¹⁾ The upper limit for the operating ambient temperature depends on the battery pack fitted in the Ucontrol Controller

Ordering Information

Actuator Part Number	Model	Description
0800-000086	SA100	Single drive, Above ground, 100N nominal force
Adaptor Kits		
0800-000017	Donkin 226K AG Adaptor Kit	
0800-000019	Jeavons J48 AG Adaptor Kit	
Ancillary Equipment		
0800-000067	Ucontrol Installation Tool (UIT)	
0400-000026-xxx	Controller to Actuator Cable xxx (cable length): 018 — 1.8m 030 — 3.0m 050 — 5.0m 100 — 10.0m 150 — 15.0m	