

Ucontrol Actuator DB300



Highlights

- Certified for use in ATEX & UKEX Zone 0 hazardous areas
- Certified for use with hydrogen
- IP68 rated for below ground installation
- Dual motor operation
- Mechanical range limiter
- Simple retrofit to existing regulator equipment
- High precision control accuracy



Ucontrol DB300 Actuator

The Ucontrol DB300 Actuator is a UtonomyOne component.

The Ucontrol DB300 Actuator is interfaced with pilot regulators and is typically installed on auxiliary (control) rails in order to control the set-point pressure for medium pressure regulation sites. The linear motion of the Actuator is used to compress or extend the control spring located within the pilot regulator.

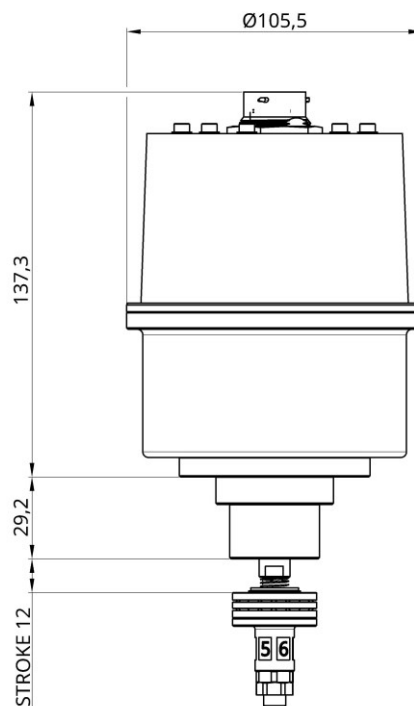
The Actuator concept has been specifically designed to retrofit to existing gas distribution equipment with almost no modification.

The Ucontrol DB300 Actuator is rated for submerged use at a depth of 1.5m for a duration of 30 days to allow installation into below ground environments.

The Actuator is equipped with two motors and is 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 DB300 Actuator facilitates standalone set-point scheduling, remote pressure control, and autonomous set-point optimisation based on machine-learning predictive demand models.

Dimensions (mm)



DB300 Actuator
0800-000087



Technical Specifications

Linear Control	
Maximum Stroke	≥12.0 mm (Stroke can be limited to any value below maximum by a Range Limiter)
Hysteresis	± 0.5 %
Actuator Speed	3.6 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 ⁽²⁾	IP68 (1.5 meters depth, 30 days duration) as per IEC 60529
Mechanical	
Weight	1.4 kg
Construction	Aluminium, Stainless Steel, Brass, Fluoroelastomer, Fluoropolymer
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

⁽²⁾ When fitted to regulator using UtonomyOne BG Adaptor Kit, installed within 30° of vertical, with cable attached

Ordering Information

Actuator Part Number	Model	Description
0800-000087	DB300	Dual drive, Below ground, 300N nominal force
Adaptor Kits		
0800-000022	Elster ZSC 100 BG Adaptor Kit	
Ancillary Equipment		
0800-000067	Ucontrol Installation Tool (UIT)	
0400-000022-xxx	Below Ground Actuator Cable xxx (cable length): 018 — 1.8m 030 — 3.0m 050 — 5.0m 100 — 10.0m 150 — 15.0m	