



Miniature Linear Actuator

Patented Technology

| | | |
|-------------------------------------|--|--|
| Model | ST105 | |
| Lead (Nut) | Available in: Self-Locking (not possible to back drive) or Back-drivable | |
| Typical Applications | Wide ranging applications including in the Automotive, Rail, Marine, Automation, Defence, and Aviation, etc. Typical applications include: <ul style="list-style-type: none"> • Linear traction (forward or backwards) of loads up to 500N • Valve and vent control (open and close) • Actuation of rotary arms or linear sliders • Block or lock action (Fuel Filler Cap Lock and other Locking and Latch mechanisms) | |
| Feature | Value | Notes |
| Linear Travel | 20mm max. | Forward (push) and return (Pull) – available also with longer travel (as may be required) |
| Stall Current | 8.3 Amp (12VDC @ 25°C) | |
| | 5.1 Amp (9VDC @ 85°C) | |
| | 14.9 Amp (16VDC @ -40°C) | |
| Current Draw | 3 Amp | 200N Constant Load @ Maximum Load |
| Nominal Operating Voltage | 12 Volt Direct Current | Also available in 24 Volt DC |
| Operating Voltage Range | 6 to 16 V Direct Current | |
| Continuous Load | 200N | |
| Impulse | up to 500N | Peak Load @ 12VDC (under nominal conditions) |
| Operating Speed @ Full Load | 0.15mm/millisecond (300 millisecond/20mm @ 12VDC) | Driving 200N continuous load over 20mm Travel (under nominal conditions) |
| Operating Speed @ No Load | 0.09 mm/millisecond (180 millisecond/20mm @ 12VDC) | Driving no load over 20mm Travel (at nominal conditions) |
| Operating Temperature | -40°C to +120°C | Available also for -50°C to +150°C |
| Overload Protection | PTC (Thermal) | Cut off at Overload Conditions |
| Performance Under Load | 100,000 cycles | 100,000 cycle over 20mm Travel (at nominal conditions): <ul style="list-style-type: none"> • Incremental load from 0N to 200N • Constant Load of 200N • Toggle Load of up to 500N |
| Performance @ No Load | 1 million cycles | For applications requiring no load such as in a Fuel Filler Cap |
| IP Rating | IP56 | Also available to IP67 |
| Motor Driver (MOSFIT) Rating | 5A | Direct drive may be possible without H-bridge |
| Weight | 83 grams | Standard |

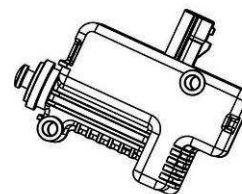
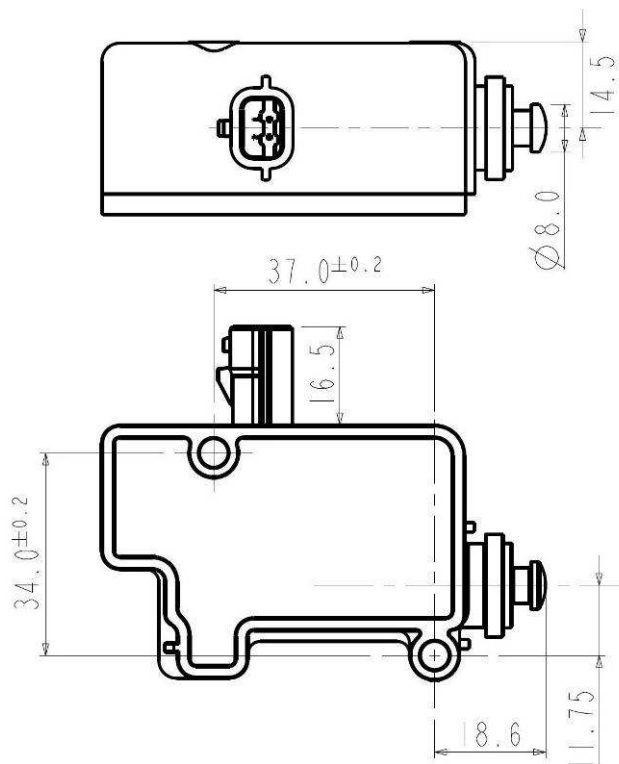
Chevalier Technologies Limited

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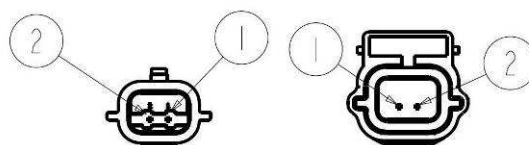
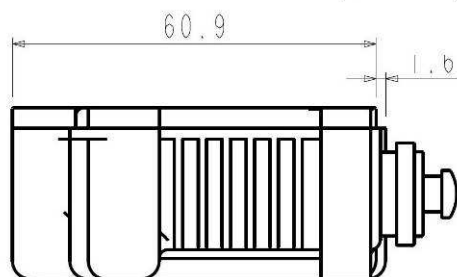
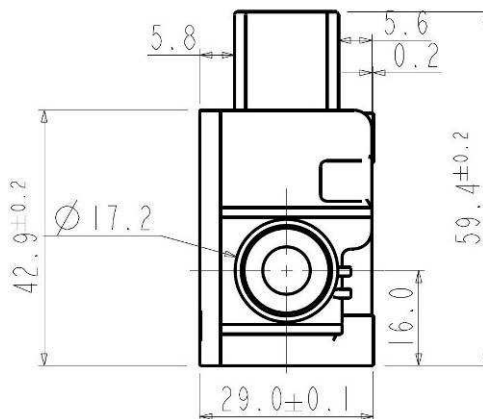
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Model

ST105



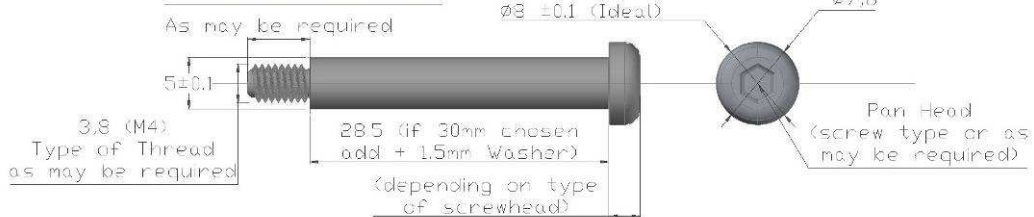
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YAZAKI MALE PLUG
7282-8851-30

YAZAKI FEMALE PLUG
7283-8851-30

M4 Shoulder Bolt



M5 Neck Bolt



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