

## 04717 STS – Limit Switch

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The **04717 STS** is a range of water proof switches with a depth rating of up to 1000m. The active element of this range of switches is a high quality change over element, fixed into CuA16Ni2 housing.

Originally designed for the defence industry and built to exacting military standards, development of this product has given STS Subsea the ability to offer a wide variety of similar sensor and switch products to customer specifications.



The housings can be made from a variety of other materials and populated with alternative switching options such as NO, Hall-Effect and Magneto-Resistive with a wide range of current carrying capacity to suit the application. All switches can be tested in house up to a maximum of 3000 p.s.i..

All switches are supplied with 1m of cable as standard with the fully bonded, moulded cable entry either right angled or straight. The standard moulding is polyurethane with options for polyethylene or neoprene if required. All design, machining and assembly operations are carried out in house enabling cost effective, bespoke solutions to be produced with quick response times.

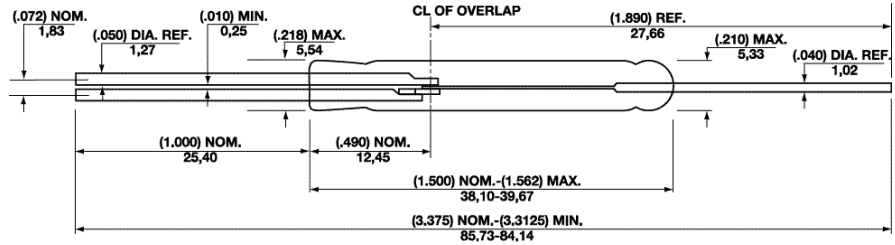
### **Standard Specification**

Switching Voltage (V) dc max :	500V
Breakdown Voltage (V) dc min :	1200V
Switching Current (A) max :	0.5A
Carry Current (A) max :	3.0A
Resistance Contact :	125mΩ

Please contact STS Subsea to discuss how this product can be tailored to meet your specific requirements.

**Reed Switch Details :-**

Switch Type : DRR-DTH  
 Contact Form : C


**Features**

- Changeover switch with 39.67mm x 5.53mm (1.562" x 0.210") glass envelope
- Capable of carrying up to 3 Amps
- Maximum contact rating 30 Watts
- Minimum voltage breakdown 1200 Vdc
- 10 Ohms insulation resistance
- Available sensitivity range 50-80AT

**Benefits**

- Hermetically sealed switch contacts are not effected by and have no effect on their external environment
- Can be used as changeover or normally closed contact
- Capable of switching European mains voltage
- Low, stable contact resistance
- Zero operating power required for contact closure
- Fit and forget durability

**ELECTRICAL RATINGS**

<b>Contact Rating</b>		Watt - max.	30
<b>Voltage</b>	Switching Breakdown	Vdc - max. Vdc - min.	500 1200
<b>Current</b>	Switching Carry	A - max. A - max.	0.5 3.0
<b>Resistance</b>	Contact,Initial Insulation	$\Omega$ - max. $\Omega$ - min.	0.125 $10^9$
<b>Capacitance</b>	Contact	pF - typ.	2.0
<b>Temperature</b>	Operating Storage	$^{\circ}\text{C}$ $^{\circ}\text{C}$	-20 to +125 -65 to +125

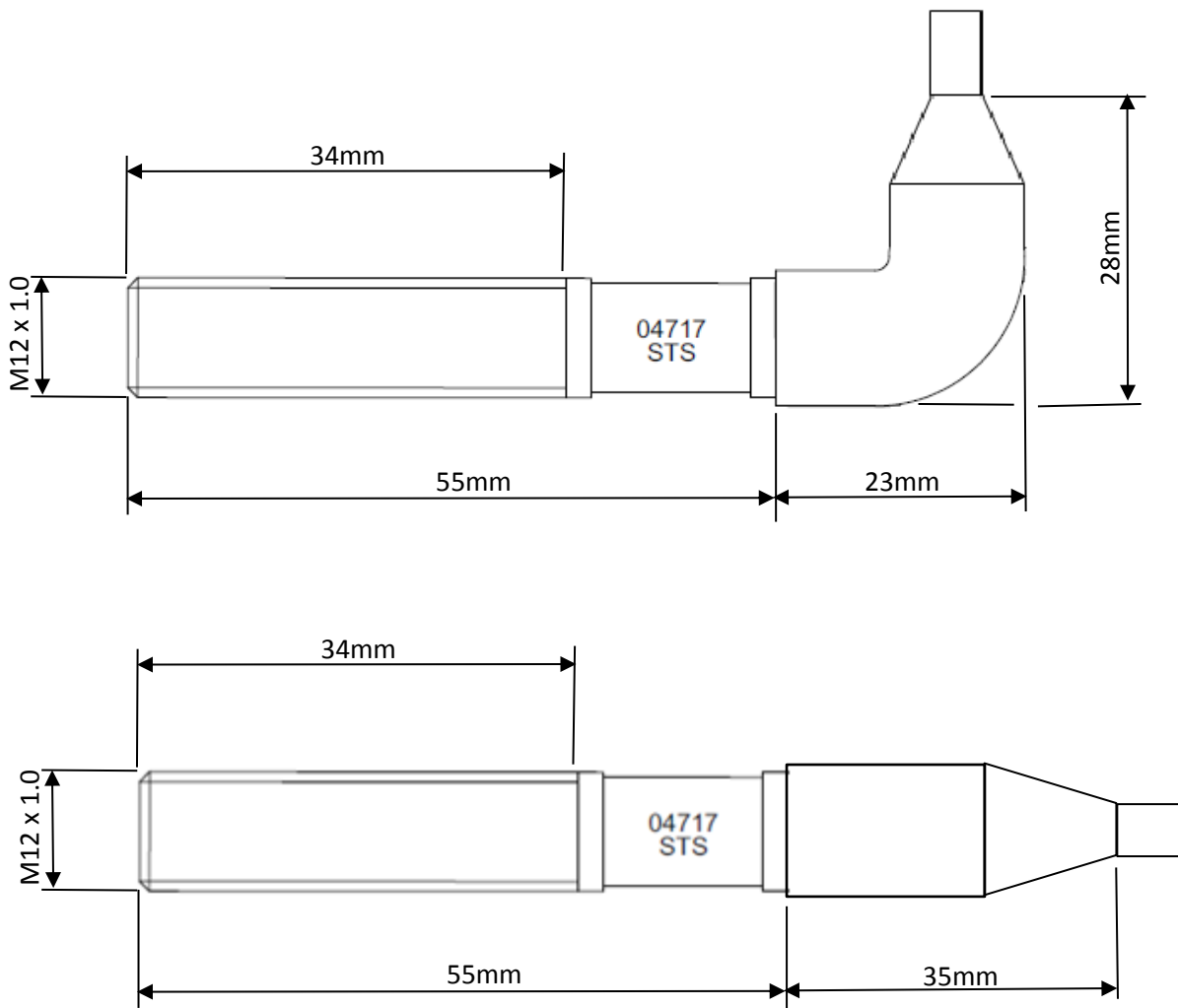
**OPERATING CHARACTERISTICS**

<b>Operate Time</b>		ms - max.	4.5
<b>Release Time</b>		ms - max.	7.0
<b>Shock</b>	11ms 1/2 sine wave	G - max.	10
<b>Vibration</b>	50-2000 Hertz	G - max.	15
<b>Resonant Frequency</b>		Hz - typ.	2750

**MAGNETIC CHARACTERISTICS**

<b>Pull-In Range</b>		Ampere Turns	50-80
<b>Rating Sensitivity</b>		Ampere Turns	60
<b>Test Coil</b>			L4988

**Moulded Assembly - Dimensions :-**



**Notes :-**

- 1) Supplied with 3 x 0.35mm<sup>2</sup> core EPD 62511A cable, length to suit customer requirements.
- 2) 2 off M12 locknuts supplied with each assembly.
- 3) Magnetic Actuators can be supplied to suit requirements.

**Wiring Details :-**

RED : Normally Open

WHITE : Common

BLUE : Normally Closed

STSubsea products are being used in a wide variety of marine and harsh environments, including :-

- Subsea instrumentation, sensors, and control systems
- Autonomous and remotely operated surface and underwater vehicles.
- Downhole instrumentation and logging systems
- Military Communication and Control systems
- Meteorological Buoy systems
- Military Sonar systems
- Land and Marine Seismic equipment
- Offshore renewable energy projects

These products are derived from a range of key strengths, capabilities and industry experience :-

- Specialised, bespoke connectors and cables for underwater or harsh environments.
- Complete prototyping service, from design to manufacture to electrical and pressure testing
- Design of electrical, optical, coax /RF, Ethernet or hybrid connectors from unique one-offs to volume applications
- Cost effective, shallow water products
- Incorporating proven, commercially available interconnects into subsea capable solutions
- On-site moulding service and an over-moulding material capability for Polyurethane, Neoprene and Polyethylene components
- Through-hull penetrators, glass-to-metal seals and epoxy waterblocks
- Ceramic transducers and hydrophones
- Potting and encapsulation of switches, sensors, strain gauges and PCBs
- Long established, MetOcean range of metal shell, drymate connectors

STSubsea is a division of STS Defence, an SME providing electronic manufacturing and through-life system engineering services; engaging with our customers through experience, expertise and a commitment to quality.

STS Defence is part of the Key Technologies group, along with STS Rail, manufacturer of railway telephone concentrators and Foxton, supplier of audio visual equipment for modern security and policing applications.

We focus on working in partnership with customers developing initial concepts into reality, leveraging over 40 years' experience of working on Ministry of Defence projects to develop an impressive portfolio of through-life capabilities that are essential to our clients.