

## S283 Coolant Level Switch – Capacitance Type



The **S283** is an active device designed to give an alarm signal if liquid falls below, or rises above, a preset level. It can be specified with a delay to eliminate false alarms due to turbulence.

Containing a factory programmable microprocessor, the switch offers sink to ground or source voltage output. Its small footprint with limited intrusion into the tank means a reduced risk of damage and a wide range of customer specifiable options make it suitable for most applications.

For high accuracy, the S283 should ideally be mounted horizontally at the point where an alarm or control signal is required. However, the switch can be mounted vertically – contact Rochester Sensors UK Limited with your application requirements.



### SPECIFICATION

#### Liquid types:

#### Electrical rating

|                           |   |
|---------------------------|---|
| <b>Supply voltage:</b>    | 9-36 VDC.   |
| <b>Supply current:</b>    | 7 mA + source output.                                 |
| <b>Max. load current:</b> | 1.0 A (sink) or 20 mA (source).                       |
| <b>Alarm delay time:</b>  | 0 to 25 s rising or falling (factory set).            |
| <b>Connection:</b>        | 4 way Deutsch DT04-4P.                                |
| <b>Power up delay:</b>    | 0 to 10 s (factory set).                              |
| <b>Power up state:</b>    | 'In Liquid' or 'Out of Liquid' (factory set).         |
| <b>Output type:</b>       | Sink (open collector) and/or Source (supply voltage). |
| <b>Output pin:</b>        | Pin 4 (sink) or Pin 3 (source).                       |
| <b>Output state:</b>      | Sink Open / Closed in liquid (factory set).           |

#### Connections:

#### Environmental Ratings

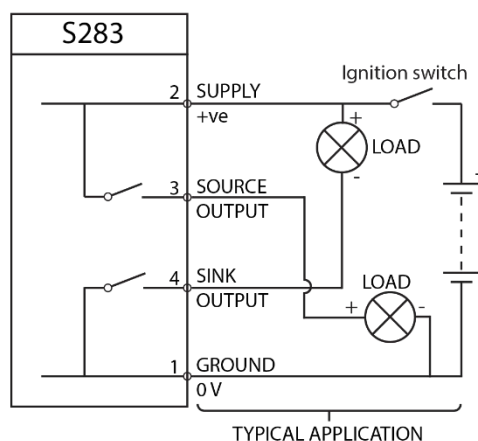
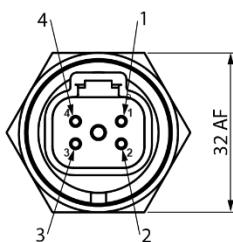
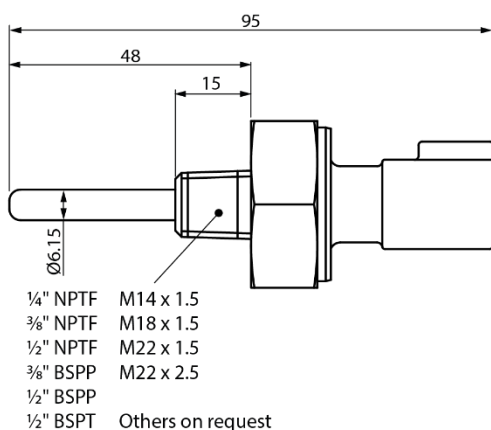
|                       |   |
|-----------------------|---|
| <b>Ingress:</b>       | IP67 (with mating connector fitted).    |
| <b>Max. pressure:</b> | 5.0 Bar (72 psi)                        |
| <b>Temp. range:</b>   | -40 °C to +125 °C                       |
| <b>Weight:</b>        | 70 g typical (dependent on thread size) |
| <b>EMC:</b>           | ISO13766:2006                           |

#### Construction

|                        |  |
|------------------------|--|
| <b>Body:</b>           | Brass.                                       |
| <b>Probe:</b>          | PTFE.  |
| <b>Terminals:</b>      | Brass, Gold Plated.                          |
| <b>Seals:</b>          | FVMQ.  |
| <b>Connector:</b>      | PBT 30% Glass Filled.                        |
| <b>Thread sealant:</b> | Vibra-Seal 516 (taper thread variants only). |

#### Vibration (15.3 Grms)

3 orthogonal planes for 3 hours per plane  
Testing performed in accordance with BSEN 60068-2-64:1993  
**Drop:** 1 m to concrete surface.



NOTE: IF SINK ONLY OUTPUT IS REQUIRED THEN PIN 3 IS NOT USED.

#### Recommended Installation Tightening Torques:

|           |       |         |       |
|-----------|-------|---------|-------|
| 1/4" NPTF | 9 Nm  | M14x1.5 | 10 Nm |
| 3/8" NPTF | 11 Nm | M18x1.5 | 15 Nm |
| 1/2" NPTF | 20 Nm | M22x1.5 | 15 Nm |
| 1/2" BSPP | 15 Nm | M22x2.5 | 15 Nm |
| 1/2" BSPT | 20 Nm |         |       |

#### Optional accessories

**C/K13:** 4 way Deutsch DT06-4S mating connector kit to suit harness wire cross sectional area of 0.5 to 1.5 mm<sup>2</sup> (16-20 AWG).