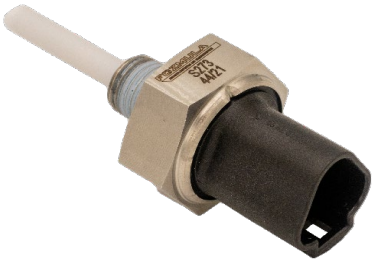
Rochester Sensors
Engineering Innovative Solutions™

S273 – Capacitance Coolant Level Switch



Featuring an integrated Deutsch DT04-3P connector the **S273** is a capacitance type liquid level switch for use in water-based liquids including engine and battery coolants. It is an active device designed to give an alarm signal if liquid falls below, or rises above, a preset level. It can also be specified with a delay to eliminate false alarms due to turbulence.

The switch is available with either sink to ground or source voltage output. A wide range of customer specifiable options make it suitable for most applications.

For high accuracy, the S273 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.

SPECIFICATION

Liquid types: Water based liquids, such as coolant or washer fluid, compatible with brass, PTFE, EPDM and FVMQ.

Electrical rating

Supply voltage:	9-36 VDC.
Supply current:	7 mA + source output.
Max. load current:	1.0 A (sink) or 20 mA (source).
Alarm delay time*:	0 to 25 s rising or falling.
Connection:	3-way Deutsch DT04-3P.
Power up delay*:	0 to 10 s.
Power up state*:	'In Liquid' or 'Out of Liquid'.
Output type*:	Sink (open collector) or Source (supply voltage less typically 2.7 V @ 10 mA).
Output state*:	Sink Open / Closed in liquid. Source On / Off in liquid.

*Factory set

Construction

Body:	Brass or 316 Stainless Steel.
Probe:	PTFE.
Terminals:	Brass, Gold Plated.
Seals:	EPDM & FVMQ.
Connector:	30% Glass Filled PBT.
Thread sealant:	Applied to taper thread variants only.

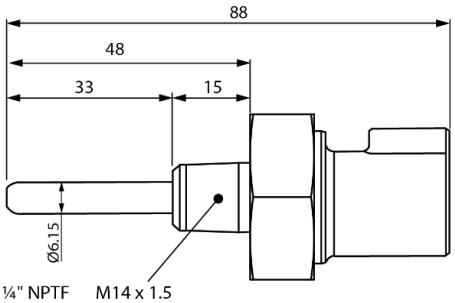
Connections: See diagrams below.

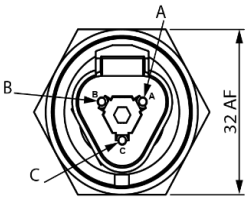
Environmental Ratings:

Ingress:	IP67, IPX9K (with mating connector fitted).
Max. pressure:	5.0 Bar (72 psi)
Temp. range:	-40 °C to +125 °C
Weight:	70 g typical (dependent on thread size)
EMC:	ISO13766:2006

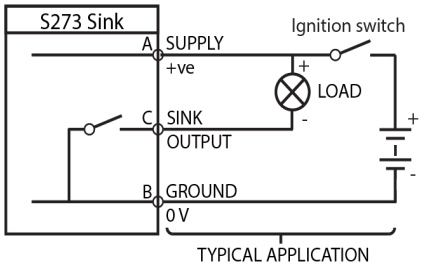
Vibration (15.3 Grms):
3 orthogonal planes for 3 hours per plane
Testing performed in accordance with BSEN 60068-2-64:1993

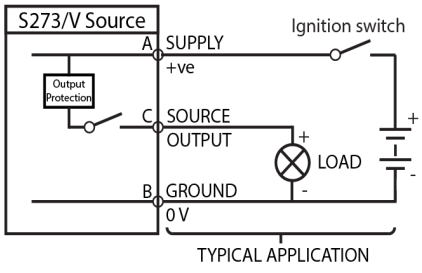
Drop:
1 m to concrete surface.





¼" NPTF	M14 x 1.5
⅜" NPTF	M18 x 1.5
½" NPTF	M22 x 1.5
⅜" BSPP	M22 x 2.5
½" BSPP	
½" BSPT	Others on request





Recommended Installation Tightening Torques:

¼" NPTF	9 Nm	M14x1.5	10 Nm
⅜" NPTF	11 Nm	M18x1.5	15 Nm
½" NPTF	20 Nm	M22x1.5	15 Nm
½" BSPP	15 Nm	M22x2.5	15 Nm
½" BSPT	20 Nm		

Optional Accessories:
C/K8: 3 way Deutsch DT06-3S mating connector kit to suit harness wire cross sectional area of 0.5 to 1.5mm2 (16-20 AWG).

E. & O. E. © Rochester Sensors UK Limited.
Since the suitability of these products depends upon a wide range of factors not in our control, Rochester Sensors UK Limited expects and understands that you will conduct the testing and evaluation necessary to determine that these products are suitable for your application. Whilst every effort is made to ensure the above details are correct at the time of printing, Rochester Sensors UK Limited reserves the right to make material changes, and or technical changes without notification.

+44(0) 1926 466700 | salesEMEA@rochestersensors.com | www.rochestersensors.co.uk

Manufacturing Worldwide