



HAWKER LEVEL CONTROL SYSTEMS

This document refers to certified explosive atmosphere equipment, no changes permitted.

P8/IS

Zone 0 Intrinsically Safe Conductive Level Control System

- UKEX, IECEx, ATEX certified.
- Ignores electrode fouling.
- Galvanically isolated.
- Anti-splash timer.
- CSD circuitry.
- Wide selection of electrodes and mounting accessories available.



Principle of Operation

The **P8/IS** relies on the conducting properties of liquids to complete an electrical circuit between an active electrode and a reference electrode. Level sensing electrodes are normally mounted vertically and the controller switching action occurs as the liquid touches or leaves the electrode. Pressure tight electrodes are available if required. A low voltage A.C. signal is used on the electrodes to prevent electrolysis.

CSD Circuitry

The **P8/IS** will switch at about 5% of set sensitivity. i.e. 50 ohms in 1000 ohms. It will switch in environments where detritus and material will cling to the electrode such as in sewage and sludge applications. It will operate in high earthy environments such as chemical applications. It will ignore foam layers and switch in the liquid.

Fail to Safe Feature

Two versions of the controller are available. The fail to safe HIGH for filling applications and high alarms and the fail to safe LOW for emptying applications and low alarms. The relay state is indicated by a Red L.E.D.

Timer

There is an optional 5 second timer to ignore splashing and wave action

Sensitivity

The input switching point is adjustable between 200 and 13,000 ohms which suits all contaminated liquids. An option is available up to 36,000 ohms for clean liquids.

Mounting details

The controller is DIN mounted with wiring to the front of the module.



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TECHNICAL SPECIFICATION

Technical Specification

Mounting:	DIN rail
Supply:	230V A.C., 110V A.C., 24V A.C 50Hz ±10%
Consumption:	2.2VA
Installation cat:	Over voltage Cat II
Electrode voltage:	6V RMS 8.5 VP
Electrode current:	4mA Max
Sensitivity:	200 ohms to 13,000 ohms 500 ohms to 36,000 ohms (Optional)
Fail to safe:	'Low' or 'High' state when ordering
Operating temp:	-20° to +50°C
Relay contact rating:	Volt free contact S.P.C.O rated 240V A.C. @ 5A max, resistive. For intrinsically safe models load must not exceed 100VA, current consumption must not exceed 5 amps rms, voltage must not exceed 250V rms.
L.E.D.:	RED L.E.D. 'ON' when relay energised
Timer:	Optional anti-splash, 5s factory set. Delay ON / Delay OFF
Enclosure material:	Polycarbonate
Weight:	337g

Certified Electrode Holders Available

Category 1G (Zone 0)

Heavy Duty - Single

HPE8/IS, HPE8/P/IS, HPE12/IS, HPE12/P/IS

Medium Duty -Single

HPE22/IS, HPE22/P/IS

Light Duty - Single

HPE7/IS, HPE7/P/IS, HPE7/PA/IS, 1HPE7/F/IS

Borehole

HPE5/IS

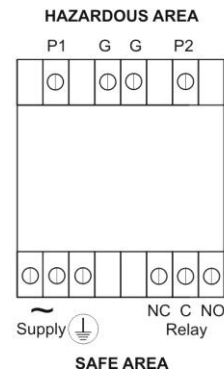
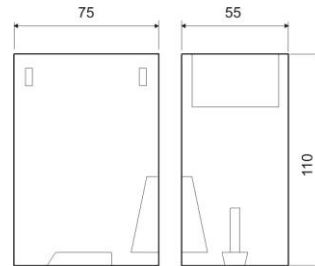
Medium Duty - Multi

HPE13/IS, HPE13/P/IS, HPE23/IS, HPE23/P/IS

Light Duty – Multi

HPE14/IS

Enclosure Connection



Certification Details

P8/IS Controller

CSAE 22UKEX1137X
IECEX SIR 17.0065X
SIRA 17ATEX2270X
[Ex ia Ga] IIC

Cat 1 Holders

CSAE 22UKEX1138X
IECEX SIR 17.0066X
SIRA 17ATEX2271X
Ex ia IIC T4 Ga
Ex ia IIC T6 Ga (HPE5/IS Only)

Ordering Information

P8/IS / L / T / 110

		code
Failsafe	Low	L
	High	H
Timer	No	
	Yes	T
Supply	110 VAC	110
	230 VAC	230
	24 VAC	24

Examples

P8/IS/H/110 Failsafe High, No Timer, 110VAC

P8/IS/L/T/230 Failsafe Low, Timer, 230VAC

This product has been designed and complies to the relevant standards as listed in its certificate of conformity. The installer/user must ensure compliance. The crossed out bin symbol, placed on the product, reminds you of the need to dispose of the product correctly at the end of its life. Because of continuing development we reserve the right to change the specifications without notice

HAWKER ELECTRONICS LTD.

57 The Avenue,
Rubery Industrial Estate,
Birmingham B45 9AL, ENGLAND
Telephone: +44 (0)121-453-8911 email: info@hawker-electronics.co.uk
www.hawker-electronics.co.uk



FM 10000

BRITISH MADE