



Silo protection pressure sensor

FLEX500-A

The sensor monitors the pressure in the silo during fill conditions and transmits a 4-20mA signal back to a control panel to form an essential part of the silo protection system. The unit can be used with a standard Hycontrol silo protection panel or with other manufacturers' equipment capable of powering a 4-20mA transmitter.

The FLEX500-A is unique in that it can be tested whilst in the silo. A true functional test to guarantee that it is working satisfactorily, before a powder delivery takes place, can be initiated at the press of a button. The test can detect if the sensor is blocked, damaged or faulty and also completes a self-clean operation every time the button is pressed. As this test utilises the same air as the filters it will also detect if the supply to the filters is not on.

Performance Specification

Measuring Range	:	0 – 100 mbar (0 – 40 inches H ² O)
Accuracy	:	+/- 0.25% full scale
Hysteresis	:	< +/- 0.25% full scale
Repeatability	:	< +/- 0.25% full scale

Hardware Specification

Sensor power supply	:	24 VDC 2 wire loop powered
GLT power supply	:	110 VAC 50 Hz(A) / 24VDC (D)
Air supply for GLT	:	30-50 psi (Refer to instruction sheet)
Air supply to T300	:	150 psi max
Analogue output	:	4-20 mA
Ambient Temp range	:	-20 to +70 deg C
Enclosure	:	IP67 Glass-filled Nylon
Electrical entry	:	M20 cable gland
Process connection	:	1" BSPP (G1) as standard other options available



INSTRUCTIONS FOR HYCONTROL FLEX500-A

The sensor is normally used with a Hycontrol panel HYCDPS500A, to monitor the silo pressure in the range 0-100mbar.

It can be used with other compatible control systems if the additional controls can provide the set points required as per attached sheet.

Installation

This will normally be at the top of the silo

Avoid positions where the probe or housing could be damaged

The cable entry must be horizontal or angled downwards

The process connection is 1" BSPP (G1)

Use of a sealing washer is recommended

Use the spanner flats but **do not over-tighten the plastic thread**

Electrical Connections

These are made between the sensor and the panel HYCDPS500A, 110Vac (2.5W) and 4-20mA, 4 cores in total

For the panel connections refer to drg. AK4750 (supplied with the panel)

Refer to the sensor terminal label and make the 110V (non-polarised) and mA connections as indicated

Pneumatic Connection

Connect a 30–50 psi air supply via the 6mm compression fitting

The T300 filter regulator supplied is preset to provide the 30-50psi supply to the FLEX500-A; do not adjust this regulator. The input to the T300 can be up to 150psi (normally taken from the air filter supply on the silo roof).

Do not adjust the internal sensor regulator, this is pre-set to ensure correct functioning of the panel



PRESSURE SENSOR FLEX500-A/D

SET POINTS

