

## **40 Years Of Excellence**

AXIO is Annicom's UK Control Brand of innovative Peripherals and Control Devices.

Exceptional products and service from concept to manufacturing sets us apart.

BMS Peripherals & Controls
TOP SELLING PRODUCTS



## **Annicom, Founded In 1983 A Brief History**

Thanks to the continued support of our customers and suppliers, Annicom has entered it's 5th decade of trading.

Annicom's main products were Control Panel design and build for HVAC, Coal Mines and Bauxite Mines worldwide. Our first order was from Carrier.

Annicom began designing and producing OEM electronic products for a variety of industries. This quickly became the core of our business as gradually many UK coal mines were closed. Our unique approach to problem solving and forward thinking enabled our rapid growth.

Annicom introduced Annicom Cross Platform IO products and the AXIO brand. In addition we manufactured and designed almost all of our UK competitors IO modules and Thyristor controls.

2015: Annicom opened it's UAE warehouse and offices which are now located in Ajman, enabling faster delivery, lower freight cost and local engineering support for our UAE/GCC customers.

Over the years Annicom has acquired a number of businesses in the UK and now has four manufacturing plants in the UK.

This brochure features a selection of our most recently launched, and most popular products.

As AXIO has continued to evolve we have remained true to the values we know are important to you; innovative and flexible design, truly British made products, from concept to manufacture, and most importantly that demonstrate our passion and commitment to develop excellent Peripherals and Control Devices.

Thanks to you, our customers, AXIO continues to bring you the best of British engineering and manufacturing at very competitive prices.

**Dennis Gates Managing Director** 



## **AX-LSPTA**

#### **Liquid Static Pressure Transmitter**

The AX-LSPTA range of Pressure Transmitters are a cost effective pressure monitoring solution for liquids and nonaggressive, non-combustible gases. The units are available in a number of different ranges with either 4-20mA or 0-10Vdc output signals. Mechanical connection is via a 1/4" BSP male thread and electrical connection is made via a one metre flying lead cable or by a Hirschman plug.

<b>Order Codes</b>	(Example Part No: AX-LSPTA-V-6)
AX-LSPTA-x-500m	Liquid Static Pressure Transmitter 0 to 500mbar
AX-LSPTA-x-1	Liquid Static Pressure Transmitter 0 to 1bar
AX-LSPTA-x-2.5	Liquid Static Pressure Transmitter 0 to 2.5bar
AX-LSPTA-x-4	Liquid Static Pressure Transmitter 0 to 4bar
AX-LSPTA-x-6	Liquid Static Pressure Transmitter 0 to 6bar
AX-LSPTA-x-10	Liquid Static Pressure Transmitter 0 to 10bar
AX-LSPTA-x-16	Liquid Static Pressure Transmitter 0 to 16bar
AX-LSPTA-x-25	Liquid Static Pressure Transmitter 0 to 25bar
** Replace "x" with either "V for 0-10V" or "I for 4-20mA"	
** Add "P" at the end of part number for Plug	



#### **Liquid Differential Pressure Transmitter**

The AX-LDPT250 Differential Pressure Transmitters are piezo-resistive sensor for pressure monitoring of liquids and non aggressive gases. The units are available in a number of different ranges with either a 4-20mA or 0-10Vdc output signal. Mechanical connection is via 1/4" BSP parallel male Stainless Steel 316 connectors and Hirschman Plug for electrical connection. The AX-LDPT250 units supports mounting as well.

<b>Order Codes</b>	(Example Part No: AX-LDPT250-I-6)
AX-LDPT250-x-160	Liquid Differential Pressure Tx, 0-160mBar
AX-LDPT250-x-400	Liquid Differential Pressure Tx, 0-400mBar
AX-LDPT250-x-1	Liquid Differential Pressure Tx, 0-1Bar
AX-LDPT250-x-2	Liquid Differential Pressure Tx, 0-2Bar
AX-LDPT250-x-4	Liquid Differential Pressure Tx, 0-4Bar
AX-LDPT250-x-7	Liquid Differential Pressure Tx, 0-7Bar
AX-LDPT250-x-10	Liquid Differential Pressure Tx, 0-10Bar
AX-LDPT250-x-16	Liquid Differential Pressure Tx, 0-16Bar
** Replace "x" with either "V for 0-10V" or "I for 4-20mA"	

## **AX-LDPS1382 & 1482**

#### **Liquid Differential Pressure Switch - Wide Range**

The AX-LDPS1382 & 1482 range of Differential Pressure Switches are cost effective pressure monitoring solution for liquid and non aggressive gases. The units are designed for both flow proving and flow failure detection with models available to cover wide differential pressure range.

Order Codes	
AX-LDPS1382-1	Liquid Diff Press Switch 0.07Bar to 1Bar
AX-LDPS1382-4	Liquid Diff Press Switch 0.2Bar to 4Bar
AX-LDPS1382-11	Liquid Diff Press Switch 0.5Bar to 11Bar
AX-LDPS1382-28	Liquid Diff Press Switch 2Bar to 28Bar
AX-LDPS1382-125	Liquid Diff Press Switch 5Bar to 125mBar
AX-LDPS1382-250	Liquid Diff Press Switch 15Bar to 250mBar
AX-LDPS1382-400	Liquid Diff Press Switch 25Bar to 400mBar



Specifications	
Range	500mBar to 30Bar (Higher Ranges Available)
Over Pressure	300% FS (<70kPa), 200% FS (<10MPa)
Power Supply	12-36Vdc (4-20mA), 15-36Vdc (0-10V)
Output Load	<(Vsupply-12)/0.02A (4-20mA),>10kΩ (0-10V)
Accuracy	±0.25% typical
Press Connection	1/4" BSP male
Protection	IP65



Specifications	
Over Pressure	Positive pressure: ≤2 times FS
	Negative pressure is not allowed
Maximum Static	≤200bar
Pressure Connection	1/4" BSP Female Stainless Steel 316
Power Supply	24V DC,24V AC±15%,
Accuracy	0.25%FS, (0.5%FS for 400mbar)
Output	4-20mA, 0-10V DC
Operating Temperature:	-20°C to +70°C
Protection	IP65



Specifications	
Max Line Pressure	>250mBar = 34 Bar max
	<125mbar = 14 Bar max
Out Of Balance Press	4x Pressure Range
Pressure Connection	1/8" BSP Female Brass
Media Temp	-10°C to +85°C
Protection	IP65



## **AX-LDPS-FD113**

#### **Liquid Differential Pressure Switch**

The AX-LDPS-FD113 Differential Pressure Switch is a pressure monitoring solution for liquids and non aggressive gases. The unit is designed for both flow proving and flow failure detection to cover the range of 0.3 to 4.5 Bar. Approximate setpoint can be viewed on the dial at the front of the unit. The AX-LDPS-FD113 uses the differential pressure between the two inputs to operate an electrical switch. Applications include refrigeration and air-conditioning systems according to EN378 e.g. Compressor oil pressure control.

<b>Order Codes</b>	
AX-LDPS-FD113	Liquid Differential Pressure Switch 0.3Bar to 4.5Bar
AX-LDPS-FD113A	Liquid Differential Pressure Switch 0.3Bar to 4.5Bar – Annicom Logo



Specifications	
Range	0.3Bar to 4.5Bar
Differential	0.2Bar
Max Pressure	Operating 12Bar
	Test PT 23Bar
Press Connection	1/4" BSP Female
Protection	IP30

#### **AX-ADPT-8**

#### **Air Differential Pressure Transmitter - Field Selectable**

The AX-ADPT-8 series Differential Pressure Transmitters are engineered for building automation in the HVAC/R industry. The most technologically advanced transmitters on the market, measuring static and differential pressure, with field selectable units, range and output, all in a single device.

<b>Order Codes</b>	(Example Part No: AX-ADPT2K5-8-D)	
AX-ADPT250-8-x	Air Diff Press Tx ±25/50/100/150, 0-25 50 100 250 Pa	
AX-ADPT2K5-8-x	Air Diff Press Tx ±100 100 250 500 1K 1K5 2K 2K5 Pa	
AX-ADPT7K0-8-x	Air Diff Press Tx 1K 1K5 2K 2K5 3K 4K 5K 7K Pa	
** Replace "x" with "D" for display version		
** Replace "x" with "AZ" for auto zero version		
** Replace "x" with "AZ-D" for auto zero & display version		
** Replace "x" with "D-MOD" for display & Modbus version		



Specifications	
Power Supply	24Vac or 24Vdc, ±10%
Output	0-10V, 4-20mA
Overpressure	Proof: 25kPa, Burst: 30kPa
Pressure Connection	5mm and 6.3mm ABS connectors
Ambient Temp	-20°C to +50°C
Protection	IP54

## **AX-ADPS**

#### **Air Differential Pressure Switch**

The AX-ADPS Differential Pressure Switches are a cost effective solution for air flow proving and filter status monitoring applications. The switches are available in six ranges and can be used for static pressure switching applications by leaving one of the ports to remain open to normal atmospheric pressure. AX-ADPS units are suitable for use with air, nonaggressive and non-combustible gases.

<b>Order Codes</b>	(Example Part No: AX-ADPS-80-300D)	
AX-ADPS-80-300x	Air DP Switch 20Pa to 300 Pa	
AX-ADPS-83x	Air DP Switch 50Pa to 500 Pa	
AX-ADPS-84x	Air DP Switch 30Pa to 400 Pa	
AX-ADPS-85x	Air DP Switch 200Pa to 1000 Pa	
AX-ADPS-86x	Air DP Switch 500Pa to 2500 Pa	
AX-ADPS-DFK	Duct fixing Kit, Tube, Nozzles and Screws	
** Replace "x" with	** Replace "x" with "D" for Duct fixing kit	
** Replace "x" wit	"IP65D" for IP65 version & duct fixing kit	
** Replace "x" with "EXE" for ATEX version		



Specifications	
Max Pressure	10K Pa
Pressure Connection	Plastic pipe suitable for use with 6mm plastic tube
Electrical Connection	6.3mm Male Spade Lugs with Screw Terminal Adaptors
Electrical Rating	250Vac 1.5Amp Resistive maximum
Cable Entry	Switch = M20 Compression Gland
	IP65 Enclosure = M12 Compression Gland
Operating Temperature:	-20°C to 85°C
Protection	IP54 & IP65



## **AX-HL**

#### **Hydrostatic Level Transmitter**

The AX-HL Submersible Hydrostatic Level Transmitters are designed to be submerged directly in the liquid to be positioned as close as possible to the bottom and measure the hydrostatic pressure, which enables a direct conclusion regarding the current level. These units measure the height of liquid above the position in the tank, referenced to atmospheric pressure. The AXHL is ideal for tanks, wells, storage tanks, water towers, dams and gauging stations .

<b>Order Codes</b>	(Example Part No: AX-HL-V-5M10)
AX-HL-5M10	Hydrostatic Level Tx, 5M Range 10M Cable, 4-20mA
AX-HL-3.5M8	Hydrostatic Level Tx, 3.5M Range 8M Cable, 4-20mA
AX-HL-2.2M6	Hydrostatic Level Tx, 2.2M Range 6M Cable, 4-20mA
AX-HL-3.5M10	Hydrostatic Level Tx, 3.5M Range 10M Cable, 4-20mA
AX-HL-10M18	Hydrostatic Level Tx, 10M Range 18M Cable, 4-20mA
AX-HL-10M15	Hydrostatic Level Tx, 10M Range 15M Cable, 4-20mA
AX-HL-WF	AXIO Hydrostatic Waste Water Filter
** Add "-V" after "-HL" in part numbers for 0-10V output version	
** Add "P" after HL for PTFE Cable for waste water application	



Specifications	
Power Supply	12-30VDC
Output	4-20mA OR 0-10V
Sensor Type	Piezo-resistive silicon
Accuracy	0.25%-0.5%F.S
Overload	150%F.S
Stability	≤0.1%F.S./year
Material	Probe: SS316, Cable: PVC / PTFE
Ingress Protection	IP68

## **AX-LS-TM**

#### **Submersible Level Switch for Diesel**

The AX-LS-TM range of Adjustable Submersible Level Switches are suspended in the fluid to be monitored and are secured at the desired level by a cable gland in the cap or plug. This range is constructed of Nylon and Buna making it the perfect solution for monitoring diesel tanks. They are available with either a 2" BSP brass cap, 1 1/4" plastic cap or 1" plastic cap. See order codes below for options.

<b>Order Codes</b>	
AX-LS-TM	Diesel Level Float Sw, Single, 5m cable, 1-1/4" plastic cap
AX-LS-TM-5B	Diesel Level Float Sw, Single, 5m cable, 2" brass cap
AX-LS-TM-5P	Diesel Level Float Sw, Single, 5m cable, 1" plastic cap
AX-LS-TM-5BD	Diesel Level Float Sw, Two levels, 5m cable, 2" brass cap
AX-LS-TM-5BD3L	Diesel Level Float Sw, Three levels, 5m cable, 2" brass cap
AX-LS-TM-5BD4L	Diesel Level Float Sw, Four levels, 5m cable, 2" brass cap



Specifications	
Material	Nylon and Buna
Contact Rating	50W, 240Vac/200Vdc
Switching Current	0.5A
Max. Carry Current	1A
Lead Wire	5m PVC cable (22AWG)
Operating Temp Range	-20°C to 80°C

## **AX-LS-FL-C**

#### **Liquid Level Float Switches - 99mm**

The AX-LS-FL-C Float Switch is a control device for charging and discharging pumps motors and magnetic valves. It is also an alarm device that alerts the user at specified surface levels. The unit consists of a float which is suspended from a weighted cable, as the liquid levels change the float follows the surface level at the same time tilting due to its weighted restraint, Inside the float are a number of microswitches which trigger as the float tips. Suitable for a wide range of non-flammable liquids.

<b>Order Codes</b>	
AX-LS-FL-1LC	Liquid Level Float Switch, Low level alarm-99mm
AX-LS-FL-1HC	Liquid Level Float Switch, High level alarm-99mm
AX-LS-FL-2LC	Liquid Level Float Switch, Filling pump control-99mm
AX-LS-FL-2HC	Liquid Level Float Switch, Emptying pump control-99mm
AX-LS-FL-2LHC	Liquid Level Float Switch, High & low level alarm-99mm



Specifications	
Standard Cable Length	5 Metre (Custom length is available)
Standard Adjustment Range	200 to 1200mm
Pressure Rating	200 kPa
Contact Ratings	6A @6-250Vac
Maximum DC Power	75 VA (=0,3A, 250V)
Operating Temperature:	-20°C to 85°C
Material	Float: Polypropylene, Cable: PVC, PTFE
Buoyancy	4 N
Ingress Protection	IP67



## **AX-LS-FL-M**

#### **Liquid Level Float Switches - 76mm**

The AX-LS-FL-M Float Switch is a control device for charging and discharging pumps, motor and magnetic valves. It also generates alarm that alerts the user at defined surface levels. The unit consists of a float which is suspended from a PVC cable. As the liquid levels change, the float follows the surface level at the same time tilting due to its weighted restraint, inside the float are a number of microswitches which trigger as the float tips. Suitable for a wide range of non-flammable liquids.

<b>Order Codes</b>	
AX-LS-FL-1LM	Liquid Level Float Switch, Low level alarm-76mm
AX-LS-FL-1HM	Liquid Level Float Switch, High level alarm-76mm
AX-LS-FL-2LM	Liquid Level Float Switch, Filling pump control-76mm
AX-LS-FL-2HM	Liquid Level Float Switch, Emptying pump control-76mm



Specifications	
Standard Cable Length	5 Metre (Custom length is available)
Pressure Rating	200 kPa
Contact Ratings	6A @6-250Vac
Maximum DC Power	75 VA (=0,3A, 250V)
Operating Temperature:	-20°C to 85°C
Material	Float: Polypropylene, Cable: PVC, PTFE
Buoyancy	4 N
Ingress Protection	IP67



Specifications	
Measuring Range	0.4 to 8 Metre
0 4 4	4-20mA (into 250ohms at 24Vdc or 850ohms at
Output	38Vdc)
Power Required	0.5Watt at 24V
Accuracy	0.25% of measuring range (electronic)
Ultrasonic Core Angle	12°
Ultrasound Frequency	50KHz ±10%
Ingress Protection	IP66

#### **AX-UL-SON48**

#### **Ultrasonic Level Transmitter**

The AX-UL-SON48 provides accurate, reliable level measurement for liquids and slurries. It is a loop powered ultrasonic transmitter which operates from a 24- 38V D.C. voltage, enabling the 4-20mA signal produced to transmit over relatively long distances.

<b>Order Codes</b>	
AX-UL-SON48	Ultrasonic Level Sensor, 4-20mA, 0.4 to 8m

## **AX-LFS-B1**

#### **Liquid Flow Switch**

The AX-LFS range of electro-mechanical flow switches is intended for flow control of water or corrosive media in heating and cooling systems. They are well suited for pipes used in industrial plants such as heating and air conditioning systems, refrigeration systems sprinkler, or anti-fire systems, heat pumps, devices for oil monitoring and lubrication circuits. They have a built in safety switch with an alarm signal for flow shortage signalling.

Order Codes	
AX- LFS-B1	LFS ø18" pipe, 11bar max pressure, brass, FR1
AX- LFS-B1A	LFS ø18" pipe, 11bar max pressure, brass, FR1, TUV app
AX- LFS-B2	LFS ø18" pipe, 11bar max pressure, brass, FR2, TUV app
AX- LFS-S1A	LFS ø18" pipe, 30bar max pressure, SS316, FR1, TUV app
AX- LFS-S2	LFS ø18" pipe, 30bar max pressure, SS316, FR2,
AX-LFS-B3T1	LFS ø1/2" pipe, 11bar max pressure, brass, T Fitting, FR3
AX-LFS-B3T2	LFS ø3/4" pipe, 11bar max pressure, brass, T Fitting, FR3
AX-LFS-B3T3	LFS ø1" pipe, 11bar max pressure, brass, T Fitting, FR3



Specifications	
Contacts	Dust-tight microswitch with switching contacts (NC/NO)
Switch capacity	24 - 230 Vac/ 15A (resistive load) or 8A (inductive load)
Operating temp	-40 - +85°C
Humidity	10 - 90 % RH (non-condensing)
Max. liquid temp	-40 - +120°C
Paddles	Stainless steel AISI 316L
Housing	Base in ABS, transparent Polycarbonate (PC) cover
Certification	EU LVD, EU EMC, Eu RoHS, CE
Protection class	IP65, class I



## **AX-GS-CM-VSQ**

#### **Carbon Monoxide Voltage Transmitter (CO)**

The AX-GS-CM-VSQ Carbon Monoxide Voltage Transmitter provides a linear output signal for CO levels from 0-300ppm. The output voltage is configurable for either 0-5Vdc, 2-10Vdc or 0-10Vdc. The sensor module uses a plug-in connector making for easy in-the-field replacement. The unit is designed to be used with concealed connections via a rear mounted cable gland, however side mounted gland is also possible.

<b>Order Codes</b>	
AX-GS-CM-VSQ	Carbon Monoxide Voltage Transmitter, 0-300ppm, Square Enclosure, 0-10V Output Concealed and open wiring options available.



Specifications	
Sensor Type	Electrochemical 3-electrode
Power Supply	24Vac ±10%, 100mA maximum
	24Vdc ± 10%, 60mA maximum
Output	0-5Vdc, 2-10Vdc or 0-10Vdc at 5mA maximum load
Output Range	0-300ppm (0-100ppm as an option)
Output Accuracy	±5ppm or ±5% of reading, between 0-50°C
Material	Polypropylene, White
Ingress Protection	IP66

## **AX-GS-CM-NO2-V**

#### Nitrogen Dioxide & Carbon Monoxide Tx (CM & NO2)

The AX-GS-CM-NO2-V is an ideal solution for detecting harmful emission of carbon monoxide and nitrogen dioxide gases in parking garages, loading docks and warehouses etc. The output voltages are configurable for either 0-5Vdc, 2-10Vdc or 0-10Vdc. This makes it compatible with most BMS and HVAC controllers with analogue inputs. By monitoring the levels of CO and NO2 in the air the ventilation system can be adjusted to ensure that the air quality is within safe limits.

Order Codes		
AX-GS-CM-NO2-V	CO 0-300ppm , NO2 0-10ppm transmitter, voltage output	
AX-GS-CM-NO2-VL	CO 0-300ppm , NO2 0-10ppm transmitter, voltage output, LCD display	



Specifications	
Power Supply	24Vac ±10%, 100mA maximum OR
	24Vdc ± 10%, 60mA maximum
Sensor Type (CO & NO2)	Electrochemical 3-electrode
Outputs	0-5Vdc, 2-10Vdc OR
	0-10Vdc at 5mA maximum load
Output Range	CO: 0-300ppm, NO2: 0-10ppm
Housing	Flame retardant ABS
Ingress Protection	IP65

## **AX-PM**

#### PM2.5/PM10 Particulate Matter Transmitter

The AX-PM Particulate Matter Transmitter is suitable for use in ventilation applications. It uses a laser light scattering principle to measure particles of sizes PM2.5 and PM10. The unique data acquisition and calibration techniques used in the product ensure high accuracy and long term reliability. This data can be used as a reference in ventilation control systems to improve the overall air quality.

<b>Order Codes</b>	
AX-PM-VI	PM2.5/PM10 0-1000ug/m3 transmitter with selectable voltage or current output



Specifications	
Power Supply	$24$ Vac $\pm 10\%$ , $100$ mA maximum OR
Detection Principle	Laser scattering
Particle Size	PM2.5,PM10 (selectable using jumper)
Outputs	0-10Vdc at 5mA max load
•	4-20mA at 600 Ohms max
Output Range	PM10,PM2.5: 0-1000µg/m3
Output Accuracy	± 10% of FS
Response Time	< 10 Seconds
Ingress Protection	IP65



## **AX-AQM-3**

#### Outdoor Air Quality (CM, NO2 & PM10)

The AX-AQM-3 is an ideal solution for detecting harmful emissions in parking garages, loading docks and warehouses etc. It offers the detection of carbon monoxide, nitrogen dioxide gases and particulate matter in the same enclosure. Voltage output and current output versions are available. The NO2 and CO sensor modules use plug-in connectors making easy in-the-field replacement easy. The PM sensor uses the laser light scattering principle to measure particles of sizes less than 10µm.

<b>Order Codes</b>	
AX-AQM-3VI	CO, NO2, PM2.5 & PM10 Tx,3x Select V/I Output
AX-AQM-V3-10	CO, NO2, PM2.5 & PM10 Tx,3x Select V Output
AX-AQM-I3-10	CO, NO2, PM2.5 & PM10 Tx,3x Select I Output
AX-AQM-3-MOD	CO, NO2, PM2.5 & PM10 Tx, Modbus
AX-AQM-3-MOD-L	CO, NO2, PM2.5 & PM10 Tx, Modbus LCD



#### **Indoor Air Quality Monitor**

The AX-GS-AQM monitors air purity with MOS sensor technology. It detects a wide range of Volatile Organic Compounds (VOC) which cause discomfort to humans and are associated with bad air quality. It converts the reading to CO2 equivalent which is the amount of VOCs with the same global warming potential of CO2 and provides a linear analogue voltage. The output range can be 0-5V/0-10V/2-10Vde based on the jumper setting.

<b>Order Codes</b>	
AX-GS-AQM-S	Air quality transmitter, 400-2000 ppm CO2Eq , Voltage output, 24V AC/DC $$
AX-GS-AQM-S230	Air quality transmitter, 400-2000 ppm CO2Eq , Voltage output, 90-260Vac

## AX-GS-SD2000-P

#### **Duct Smoke Detector-Photoelectric**

The AX-GS-SD Photoelectric Duct Smoke Detector has the option of either a Photoelectric sensor or an Ionisation sensor for high temperature applications, the sensor heads are interchangeable. The sensors samples air currents passing through a duct using a range of sampling tubes and has two alarm relay outputs to switch on fans, blowers etc. and send an alarm to the BMS or alarm panel. A NEMA 4X version is also available for outdoor environments.

<b>Order Codes</b>	
AX-GS-SD2000-P	Duct Smoke Detector with Photoelectric sensor
AX-GS-SD3000-P	Duct Smoke Detector with Photoelectric sensor –IP65
AX-GS-SD-STN1	Sampling tube 1' to 2' (25 to 50cm)
AX-GS-SD-STN2.5	Sampling tube 2' to 4' (50 to 100cm)
AX-GS-SD-STN5	Sampling tube 4' to 8' (100 to 200cm)
AX-GS-SD-STN10	Sampling tube 8' to 12' (200 to 300cm)



Specifications	
Sensor Type	CO/NO2=Electrochemical 3-electrode
	PM=Laser scattering
Power Supply	24Vac ±10%, 150mA maximum
	24Vdc ± 10%, 100mA maximum
Output	0-10Vdc at 5mA max load or 4-20mA at 600 Ohms max
Response time(t90)	CO, NO2: <35 Seconds, PM10,PM2.5: <10 Seconds
Housing	ABS
Ingress Protection	IP65



Specifications	
Power Supply	S=24 Vac ± 15% @ 35mA or 24 Vdc ± 10% @ 35mA
	S230=90 ~ 260 Vac , 50~400 Hz
Sensor Technology	Metal oxide semiconductor sensor
Output	400 - 2000 ppm CO2 equivalent
Analog output	0-5/0-10/2-10V DC (5mA max.)
Housing	Flame retardant ABS
Ingress Protection	IP20





Specifications	
Sensor Type	4 wire Photoelectric
Power Supply	24Vac/dc or 115/230Vac
Air Velocity	0.5 to 20m/sec
Ambient Temp	0 to +60°C
Humidity	10% to 85% RH non-condensing
Conformity	CE marked, UL listed, CSFM, EMC, LVD
Ingress Protection	SD2000-P=IP54
	SD3000-P= NEMA 4X rated (IP65)

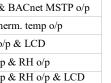


## **AX-GS-CD-T81**

### **CO2 & Temperature Transmitter with Display**

The AX-GS-CD-T81 Combined Humidity, Temperature and Carbon Dioxide Transmitter uses NDIR single beam Infra-red technology to monitor the CO2 levels and give both a Voltage and Current output of CO2 levels and a Thermistor to monitor the temperature and a Thermoset Polymer Based Capacitive sensor for the RH and outputs a linear signal as either 4-20mA or 0-5/10Vdc. The options include a LCD display displaying the ppm levels.

Order Codes	
AX-GS-CD-T81-E	Space CO2 Sensor & therm. temp o/p
AX-GS-CD-T81-EB	Space CO2 Sensor & therm. temp & BACnet MSTP o/p
AX-GS-CD-T81-ES	Space CO2 Sensor 0-5000ppm & therm. temp o/p
AX-GS-CD-T81-ED	Space CO2 Sensor & therm. temp o/p & LCD
AX-GS-CD-T81-EH	Space CO2 Sensor & analogue temp & RH o/p
AX-GS-CD-T81-EHD	Space CO2 Sensor & analogue temp & RH o/p & LCD display



### **AX-GS-TC3**

#### **Wall & Duct Mount Gas Detectors**

The AX-GS-TC3 series consist of all kinds of wall and duct mounted gas sensors i.e. Hydrogen (H2), Oxygen (O2), Chlorine (CH), Hydrogen Sulphide (H2S), Methane (NG), Nitric Oxide (NO), Sulphur Dioxide (SD). Ozone (O3), Methane (NG), Ammonia (NH3) etc.

The TC3 series uses a duct pitot kit to be installed on ducts for gas detection purpose.

Order Codes	
AX-GS-TC3-H2	Hydrogen sensor W/D mount 4-20mA o/p 0-1000ppm
AX-GS-TC3-O2	Oxygen sensor W/D mount 4-20mA o/p 0-25% volume
AX-GS-TC3-CH	Chlorine sensor W/D mount 4-20mA o/p 0-20ppm
AX-GS-TC3-H2S	Hydrogen Sul. sensor W/D mount 4-20mA o/p 0-50ppm
AX-GS-TC3-NG	Methane Sensor W/D mount, 4-20mA o/p 0-100%
AX-GS-TC3-NO	Nitric Oxide Sensor W/D mount 0-5ppm 4-20mA L.P
AX-GS-TC3-SD	Sulphur Dioxide Sensor W/D mount 4-20mA o/p 0-20ppm
AX-GS-TC3-NG	Methane sensor Wall mount 4-20mA o/p 0-100% LEL

## AX-GS-CD-D8041

#### **Duct Carbon Dioxide Sensor**

The AX-GS-CD-D80 Carbon Dioxide Duct mounted Transmitter uses single beam Infra-red technology to monitor CO2 concentration levels and output a corresponding 0-10V signal. The unit is intended for use in return air ducts to give a proportional signal to control ventilation and hence maintain air quality. The -AR versions have an adjustable switched relay output to directly control a fan. Various passive temperature sensors are available as an option.

Order Codes	
AX-GS-CD-D8041	Duct Mounted CO2 Sensor, 105mm probe, 24V supply
AX-GS-CD-D8042	Duct Mounted CO2 Sensor, 205mm probe, 24V supply
AX-GS-CD-D8041-AR	Duct Mounted CO2 Sensor, 105mm probe, 24V supply,
AX-GS-CD-D8042-AR	Duct Mounted CO2 Sensor, 205mm probe, 24V supply,
AX-GS-CD-D8041-230	Duct Mounted CO2 Sensor, 105mm probe, 230V supply
AX-GS-CD-D8042-230	Duct Mounted CO2 Sensor, 205mm probe, 230V supply



Specifications	
Power Supply	18 to 30Vac 50/60Hz
Consumption	0.7W @ nominal voltage of 24Vac
Ambient Temp. Range	0 to +50°C, 0-95% RH non condensing
Sensor Type	CO2 Non-dispersive Infra-red
Range	0-2000ppm standard, 0-5000ppm available (-S ver)
Accuracy	±or 5% whichever is greater
Output	0-5/10Vdc and 4-20mA
Ingress Protection	IP20



Specifications	
Sensor Type	Electromechanical
Power Supply	18-28VDC (24VDC Nominal)
Output	4-20mA linear output
Ambient Temp Range	-5 to +50°C
Weight	840 grams
Housing	Plastic ABS
Ingress Protection	IP54



Specifications		
Power Supply	AC: 18 to 30Vac 50/60Hz,	
	DC: 18 to 42Vdc ( 0.65W @ 42Vdc ,1.65W peak power)	
Ambient Temp	0 to +50°C, 0-95% RH non condensing	
Analogue Output	0-10V at 5mA maximum. Resolution <25mV steps	
Output Range	0-2,000ppm for 0-10V signal	
Accuracy	±40ppm or 3% whichever is greater at 22°C	
Enclosure	Flame retardant ABS (UL 94 - 5VA). Protection IP30	
Conformity	CE marked, EMC, LVD	



## AX-RA-A

#### **Damper Actuators (Modulating)**

The AX-RA-A Modulating Damper Actuators are designed for dampers in ventilation and air-conditioning systems. These 24Vac/dc & 230Vac operated actuators come with two auxiliary SPDT switches.

The AX-RA-A Damper Actuators comes with a selectable control signal of 0(2)-10Vdc or 0(4)-20mA and are used to regulate these dampers with ingress protection of IP54.

<b>Order Codes</b>	(Example Part No: AX-RA-6A-S)
AX-RA-xA	Damper Actuator Modulating 24V, xNm,
AX-RA-xA-S	Damper Actuator Modulating 24V, xNm,
AX-RA-xA-S-230	Damper Act Modulating 230VAC, xNm,
** Replace "x" with below torque ranges.	
* 2Nm, 4Nm, 6Nm, 8Nm, 16Nm, 24Nm, 32Nm	



#### **Damper Actuators (On/Off or 3 Points)**

The AX-RA-D On/Off Damper Actuators are designed for dampers in ventilation and air-conditioning systems. These 24Vac/dc & 230Vac operated actuators come with two auxiliary SPDT switches.

The AX-RA-D Damper Actuators comes with a selectable control sign

The AX-RA-D Damper Actuators comes with a selectable control signal of 0(2)-10Vdc or 0(4)-20mA and are used to regulate these dampers with ingress protection of IP54.

<b>Order Codes</b>	(Example Part No: AX-RA-6D-S)
AX-RA-xD	Damper Actuator On/Off or 3 Points 24V, xNm, 0-10V/4-20mA
AX-RA-xD-S	Damper Actuator On/Off or 3 Points 24V, xNm, 0-10V/4-20mA, Aux Switch
AX-RA-xD-S-230	Damper Actuator On/Off or 3 Points 30VAC, xNm, 0-10V/4-20mA, Aux Switch
** Replace "x" with	below torque ranges.
* 2Nm, 4Nm, 6Nm, 8	3Nm, 16Nm, 24Nm, 32Nm

## **AX-RAS**

#### **Damper Actuators (Spring Return)**

The AX-RAS Spring Return Modulating & On/Off type Damper Actuators are designed for dampers in ventilation and air conditioning systems. These 24Vac/dc & 230Vac operated actuators come with two optional auxiliary SPDT switches. The AX-RAS damper actuators come with control signals of 0(2)-10V or 0(4)-20mA with ingress protection IP54.

Order Codes	(Example Part No: AX-RAS-10D)
AX-RAS-xD	Damper Act, Spring Ret, On-Off/3 Point 24Vac, xNm
AX-RAS-xD-230	Damper Act, Spring Ret, On-Off/3 Point 230VAC, xNm
AX-RAS-xDS	Damper Act, Spring Ret, On-Off/3 Point 24Vac, xNm, 2 Aux Switches
AX-RAS-xD-S-230	Damper Act, Spring Ret, On-Off/3 Point 230VAC, xNm, 2 Aux Switches
** Replace "x" with below torque ranges.	
* 3Nm, 5Nm, 10Nm, 15Nm, 20Nm	



Specifications	
Power Supply	AC/DC 24V 50/60Hz OR
Nominal Voltage Range	24Vac (AC/DC 19.2V-28.8V),
Direction Of Rotation	Manual Regulation
Life Cycle	60,000 Cycles
Sound Power Level	45dB
Protection	IP54



Specifications	
Power Supply	AC/DC 24V 50/60Hz OR
Nominal Voltage Range	24Vac (AC/DC 19.2V-28.8V), 230Vac (AC 85V-265V)
Direction Of Rotation	Manual Regulation
Life Cycle	60,000 Cycles
Sound Power Level	45dB
Protection	IP54



Specifications	
Power Supply	AC/DC 24V 50/60Hz OR
11.	AC 100-240V 50/60Hz 24Vac (AC/DC 19.2V-28.8V),
Nominal Voltage Range	230Vac (AC 85V-265V)
Angle of rotation:	95° Max, (Mechanical Adjustment Option)
Life Cycle	60,000 Cycles
Sound Power Level	45dB
Protection	IP54



## **AX-RAF-DS**

#### **Fire & Spring Return Damper Actuators**

The AX-RAF Fire & Spring Return Damper Actuators are designed for dampers in ventilation and air-conditioning systems. These 24 Vac/dc & 230 Vac operated actuators come with 2 auxiliary SPDT and Thermal switches. The AX-RAD Damper Actuators come with selectable control signal of 0(2)-10 Vdc or 0(4)-20 mA used to regulate these dampers with ingress protection of IP54.

<b>Order Codes</b>	(Example Part No: AX-RAF-5DST)	
AX-RAF-xDS	Fire D.A, Spring Ret, 24V, xNm, Aux Switches	
AX-RAF-xDS-230	Fire D.A, Spring Ret, 230V, xNm, Aux Switches	
AX-RAF-xDST	Fire D.A, Spring Ret 24V, xNm, Aux Switches, Thermistor	
AX-RAF-xDST-230	Fire D.A, Spring Ret 230V, xNm, Aux Switch, Thermistor	
** Replace "x" with below torque ranges.		
* 3Nm, 5Nm, 10Nm, 15Nm, 20Nm		



Specifications	
Power Supply	AC/DC 24V 50/60Hz OR
Nominal Voltage Range	24Vac (AC/DC 19.2V-28.8V),
Direction Of Rotation	Manual Regulation
Life Cycle	60,000 Cycles
Sound Power Level	45dB
Protection	IP54

## AX-TE Temperature Sensors (Duct, Immersion, Space, Outdoor, HT)

The AX-TE Temperature Sensor series has NTC type sensors for Duct, Immersion, Room, Space, Flying Lead, Strap On and High Temperature, compatible with all kind of controllers.

A wide range of thermowells is also available for immersion applications. Wire type temperature sensors are also available in the same range.

<b>Order Codes</b>	(Example Part No: AX-TE-I1K)
AX-TE-Ix	Immersion Temperature Sensor-Duct
AX-TE-Dx	Duct Temperature Sensor
AX-TE-Fx	Flying Lead Temperature Sensor
AX-TE-Sx	Space Temperature Sensor
AX-TE-Ox	Outdoor Temperature Sensor
AX-TE-Rx	Room Temperature Sensor
AX-TE-Px	Plate Temperature Sensor
AX-TE-Ix-HT	High Temperature Sensor (Immersion/Duct)
** Replace "x" with below thermistor options	
* (T-10K3A1), (H-20K6A1), (N1K-Ni1000), (I100-PT100), (I1K-PT1000) etc	



Specifications	
Output	Range of 2 wire thermistor and PTC platinum
Accuracy	Thermistor: ±0.2°C between 0°C and 70°C
	Platinum: ±0.35°C between 0°C and 100°C
Ambient Temp Range	-10°C to 60°C. 0-95% RH
Housing	Flame retardant ABS plastic
Protection	IP20, IP65, IP68

### **AX-TE-xTX-W**

#### **Temperature Transmitter (Duct, Immersion, Room, Outdoor)**

The AX-TE-xTX-W Temperature Transmitters are designed for wide range temperature measurements in Duct, Chilled Water, Room and Outdoor applications. These Temperature Transmitters come with analogue output of 0-10V & 4-20mA. A jumper selectable option is available for temperature ranges between  $-50^{\circ}$ C to  $400^{\circ}$ C and for output selection.

<b>Order Codes</b>	(Example Part No: AX-TE-DTX-W)
AX-TE-ITX-W	Immersion Temperature Transmitter, Analogue Output
AX-TE-DTX-W	Duct Temperature Transmitter, Analogue Output
AX-TE-RTX-W	Room Temperature Transmitter, Analogue Output
AX-TE-OTX-W	Outside Temperature Transmitter, Analogue Output
AX-TE-STX-W	Space Temperature Transmitter, Analogue Output
AX-TE-FTX-W	Flying Lead Temperature Transmitter, Analogue Output
AX-TE-TTX-W	Thimble Temperature Transmitter, Analogue Output
** Standard Probe Size is 150mm	
** Add "-65" for 65mm probe option	



Specifications	
Power Supply	Voltage: 0-5Vdc/0-10Vdc at 5mA Max
1 ower Suppry	Current: 4-20mA max resistance load $500\Omega$
Dower Supply	Voltage: 24Vdc or 24Vac (±15%)
Power Supply	Current: 24Vdc (±15%) 2-wire loop power
Ambient Temperature	0-50°C for electronics
Power Consumption	40mA for Voltage output
	20mA for loop power
Protection	IP54 and IP65



## **AX-RHT**

#### **Humidity & Temperature Transmitter (Duct/Room/**

A range of accurate, high quality RH&T Transmitters with selectable current or voltage analogue outputs. The units are extremely reliable, have excellent stability and a quick response time. Both 2% and 3% accuracy versions are available. Options for this range of sensors include the addition of various passive temperature sensors for most BMS systems. .

<b>Order Codes</b>	(Example Part No: AX-RAF-5DST)
AX-RHT-D3	Duct RH & Temperature Transmitter
AX-RHT-O3	Outside RH & Temperature Transmitter
AX-RHT-SD	Room RH & Temperature Transmitter (Optional Display)
** Replace "3" with "2" for 2% accuracy for duct & outdoor models	
** Replace "D" with Passive Thermistor for room models	



Specifications	
Supply Voltage	24Vac/dc (±15%)
Output (Voltage)	0-10Vdc, 0-5Vdc at 10mA maximum load
Output (Current)	4-20mA at 500 Ohms maximum load
Output Range - RH	0 to 95%
Output Range - Temp	<b>duct:</b> 0°C to +70°C, <b>outside:</b> -20°C to +50°C
Ambient Temp Range	-10°C to 60°C, 0-95% RH non condensing
Ingress Protection	IP54, IP65



Specifications	
Power Supply	22V - 26V AC (50Hz) or DC
	220V - 240V AC 50Hz (live/neutral)
Output switch rating	10A, 250V AC 50Hz (resistive)
Humidity control	5% RH to 95% RH
Sensor accuracy	+/- 3% RH
Guarantee	3 Years

## DH-1

#### **Duct Humidistat**

The DH-1 Duct Humidistat is calibration-free and accurate to within 3% RH. Capable of switching loads of up to 10A at 250V AC, it is ideally suited to the control of ventilation, humidification and dehumidification equipment; such as extract fans, boost controls, override controls, alarms, etc.

The DH-1 Duct Humidistat delivers accurate electronic control of humidity levels in HVAC ventilation ducts.

Order Codes	
DH-1/50	Duct Humidistat 50mm probe (220Vac - 240Vac)
DH-1/24V/50	Duct Humidistat 50mm probe (22Vac - 26Vac )
DH-1/196	Duct Humidistat 196mm probe – Manufactured to Order
DH-1/24V/196	Duct Humidistat 196mm probe – Manufactured to Order

## **AX-HUMI**

#### **Dew Point, Wet Bulb and Enthalpy Transmitters**

The AX-HUMI Transmitters are rugged, compact and ideally suited for monitoring Dew Point, Wet Bulb, Enthalpy or Temperature in building automation and process application. Using a capacitive RH sensor, the unit's microprocessor computes the Dew Point, Wet Bulb or Enthalpy. Separate models are available for Space (Wall Mount), Duct and Outside Air.

Order Codes		
AX-HUMI-DP-XR-x Dew Point Transmitter		
AX-HUMI-EN-XR-x	Enthalpy Transmitter	
AX-HUMI-WB-XR-x	Wet Bulb Transmitter	
** Replace "x" with "S" for Wall Mount Version		
** Replace "x" with "D" for Duct Mount Version		
** Replace "x" with "O" for Open Air Version		



Specifications	
Operating Range	-40°F to 140°F (-40°C to 60°C)
	0% to 99% RH ( non condensing)
Supply Voltage	-12 to 30 Vdc
Signal Outputs	4-20mA, 0-5V or 0-10V (selectable)
Max Load (Current O/P Only)	$(\Omega) = \text{Supply Vol} - 10/0.02$
Sensing Element	Capacitive Polymer Sensor
Storage Temp	-67°F to 185°F (-55°C to 85°C)
Ingress Protection	IP42 For Duct Mount & Outside Air Tx



## **AX-MPR1**

#### **Din Mount Single Phase Thyristors**

The AX-MPR1 DIN Rail Mount Power Regulator (thyristors) series provides continuously adjustable control of electric heating loads from a 0-10V control input. Applications include electric heating coils, heating cables and electric furnaces. These Din Rail Mount Single Phase Thyristors comes with rating of 2kW, 4kW, 6kW and 9kW.

<b>Order Codes</b>	
AX-MPR1-2	Din Mount Thyristor, Single Phase, 2kW
AX-MPR1-4	Din Mount Thyristor, Single Phase, 4kW
AX-MPR1-6	Din Mount Thyristor, Single Phase, 6kW
AX-MPR1-9	Din Mount Thyristor, Single Phase, 9kW



Specifications		
Input	0-10Vdc at 0.2mA maximum	
Power Supply	24Vac/dc ±10%	
LED Indication	ON when output is on	
Terminals	Rising clamp for 0.5-1.5mm <sup>2</sup> stranded or 2.5mm <sup>2</sup> solid core cable	
Ambient Temp Range	0 to 55°C Note; The units are rated at 40°C	
Over Temp	Load is disconnected when heatsink temp exceeds 90°C	
	Load is reconnected when heatsink temp falls below 85°C	

## **AX-MPR3**

#### **Din Mount Three Phase Thyristors**

The AX-MPR3 Series of DIN Rail Mounting Power Regulators (thyristors) provides continuously adjustable control of electric heating loads from a BMS Controller or similar. Applications include electric heating coils, heating cables and electric furnaces. The AX-MPR3 Series come with rating of 6kW, 12kW & 18kW.

Order Codes	
AX-MPR3-6	Din Mount Three Phase Thyristor, 6kW
AX-MPR3-12	Din Mount Three Phase Thyristor, 12kW
AX-MPR3-18	Din Mount Three Phase Thyristor, 18kW



Specifications	
Input	0-10Vdc at 0.2mA maximum
Power Supply	24Vac ±10% or 22 - 40Vdc
Power Consumption	30mA @ 24Vdc (0.72VA) or 50mA @ 24Vac (1.2VA)
Alarm Output	24Vac/dc (as power supply) - open-circuit when over temperature alarm is active
Rated Supply	380-440Vac / 50-60Hz
Control Isolation	3,000V

### **AX-PPR3**

#### **Panel Mount Three Phase Thyristors**

The AX-PPR3 range of Panel Mount Three Phase power regulators (thyristors) provides continuously adjustable control of electric heating loads from a BMS Controller or similar. Applications include electric heating coils, heating cables and electric furnaces. The AX-PPR3 Series come with rating of 27kW, 36kW, 54kW, 72kW & 105kW.

Order Codes		
AX-PPR3-27	Panel Mount Three Phase Thyristor, 27kW	
AX-PPR3-36	Panel Mount Three Phase Thyristor, 36kW	
AX-PPR3-54	Panel Mount Three Phase Thyristor, 54kW	
AX-PPR3-72	Panel Mount Three Phase Thyristor, 72kW	
AX-PPR3-105	Panel Mount Three Phase Thyristor, 105kW	
** 150kW, 180kW, 280kW & 400kW are also available		





Specifications	
Input	0-10Vdc at 0.2mA maximum
Control Power Supply	$24$ Vac $\pm 10\%$ or $22 - 40$ Vdc
Alarm Output	250Vac at 5A VFC
Rated Supply	380-440Vac / 50-60Hz
LED Indication	ON when output is on
Control Isolation	3,000V
	0 to 55°C. Note: The units are rated at 40°C.
Ambient Temperature	If using at higher ambient temperature derate
	the unit by 10% for every 5°C above 40°C



## AX-AV-SP-ESF-35-3

#### **Single Point Air Velocity & Duct Temp Transmitter**

The AX-AV-SP-ESF-35 are Single Point Air Velocity Transmitters designed on the Calorimetric principle of the air flow being passed across a heated thermistor and the results being measured against a control thermistor to determine heat loss and corresponding air flow. The units are mounted across the flow of the duct and give an analogue output proportionate to the air flow. Voltage or current output is available.

Order Codes	
AX-AV-SP-ESF-35-3	Single Point Air Velocity & Temperature Transmitter
AX-AV-SP-ESF-35-3D	Single Point Air Velocity & Temperature Transmitter with Display
AX-AV-SP-ESF-35-3DR	Single Point Air Velocity & Temperature Transmitter with Display and Relay



0 10 11		
Specification	Specifications	
Power Supply	24Vac / 24Vdc ±10% (120mA)	
Airflow Speed	0-2m/sec or 0-10m/sec or 0-20m/sec (jumper selectable)	
Temp Range	0 to 50°C	
Output Signal	Velocity 4-20mA (max $400\Omega$ ) or 0-10Vdc (min $1k\Omega$ )	
	Temperature 4-20mA (max 400 $\Omega$ ) or 0-10Vdc (min 1k $\Omega$ )	
Ambient Temp	-20 to 70°C	
Ingress Protection	IP54	

## **AX-AV-MPP**

#### **Multi Point Air Velocity Probes**

The AX-AV-MPP range of Multi Point Air Velocity Probes are mounted across the air flow in larger ducts and, in conjunction with the AX-ADPT Air Velocity Transmitter, gives an analogue output of the airflow. By rotating the static probe the effects of turbulent air on air flow measurements can be mitigated. Larger sizes are also available.

<b>Order Codes</b>	
AX-AV-MPP-40	2 x Multipoint probes 40cm
AX-AV-MPP-50	2 x Multipoint probes 50cm
AX-AV-MPP-60	2 x Multipoint probes 60cm
AX-AV-MPP-70	2 x Multipoint probes 70cm
AX-AV-MPP-80	2 x Multipoint probes 80cm
AX-AV-MPP-100	2 x Multipoint probes 100cm
AX-AV-MPP-125	2 x Multipoint probes 125cm
AX-AV-MPP-150	2 x Multipoint probes 150cm
**Add "175cm", "200cm", "230cm" after "MPP" for bigger sizes	



Specifications	
Materials	316 Stainless steel, 25.4mm external diameter
Connectors	316 Stainless steel to suit 6mm ID PVC tube
Duct Flange	52mm external diameter with neoprene gasket duct seal

### **AX-AV-ALU**

#### Multi Point Pitot Tubes (Rectangular/Round Ducts)

The AX-AV-ALU Multi Point Air Velocity Probes are mounted across the air flow in smaller ducts and, in conjunction with the AX-ADPT250 Air Differential Pressure Transmitter gives an analogue output of the airflow. The shape of the probe profile creates a linear amplification of at least 2.5 times the velocity pressure, allowing for accurate measurement of velocities as low as 1.0m/s.

Order Codes	
AX-AV-ALU-Lx	Multi Point Pitot Tube, Rectangular Duct, ACC +/-2%
AX-AV-ALU-Rx	Multi Point Pitot Tube, Round Duct, ACC +/-2%
** For Rectangular Duct, replace x with required length, e.g. AX-AV-ALU-L200. Max Length 600mm, multiple of 50mm	
** For Round Duct, replace x with required diameter, e.g. AX-AV-ALU-R080. Max Diameter 600mm, multiple of 50mm	



Specifications	
Measurement Units	Pa, 1/s
Media Compatibility	Dry air or non-aggressive gases
Accuracy	±2%
Operating Temperature	5 to 95°C
Materials	T3015 Aluminium probe, mild steel mounting plate, expanded foam sealing gasket
Round Ducts	80mm to 600mm
Rectangular Ducts	200mm to 600mm



## **AX-OC-CMPF**

#### **Celling Mount Occupancy Sensor (Big & Small)**

The AX-OC-CMPF infrared sensor detects movements of people, large animals and vehicles in a detection range of up to 6m with a detection angle of 360° (on free area) and switches on the connected lighting. After a preset time of approximately 10 seconds to 15 minutes, the motion detector switches off again. A mini version of the occupancy sensor is also available with same features.

Order Codes	
AX-OC-CMPF	Flush Ceiling Mount Occupancy PIR Sensor, 230V
AX-OC-CMPF-VF	Flush Ceiling Mount Occupancy PIR Sensor, 230V, Volt Free
AX-OC-CMPF-M	Flush Ceiling Mount Occupancy PIR Sensor-Mini, 230V –Mini
AX-OC-CMPF-VF-M	Flush Ceiling Mount Occupancy PIR Sensor-Mini, 230V, Volt Free—Mini



#### **Wall Mount Occupancy Sensor (Curtain Detection)**

The AX-OC-CW range of Occupancy Sensor is designed for use in energy savings systems where pet immunity is required and the lighting loads are automatically controlled based on human occupancy. It detects movement using a PIR sensor and turns on the connected loads. There is an adjustable timer that switches off the load when the area is no longer occupied.

Order Codes	
AX-OC-CW-24SL	Wall Mount Curtain PIR sensor,24V, Switched Live
AX-OC-CW-230SL	Wall Mount Curtain PIR sensor,230V, Switched Live
AX-OC-CW-24VF	Wall Mount Curtain PIR sensor, 24V, Volt Free
AX-OC-CW-230VF	Wall Mount Curtain PIR sensor, 230V, Volt Free
** Add -O" for optional touch switch for overriding sensor	
** Add "-65" for IP65 version	

## **AX-LLT**

#### **Light Level Transmitter**

The AX-LLT ambient light transmitter is designed for use in lighting control applications in indoor and outdoor environments. It converts the ambient light reading into a voltage(0-10V/0-5V) or current (3-wire 4-20mA) signal, making it compatible with most BMS and lighting control systems. The unit features jumper selectable output ranges - 0-2000, 0-4000 and 0-10000 lux. The output voltage/ current selection is also done using on-board jumpers.

Order Codes		
AX-LLT	Multirange Light Level Transmitter, Voltage and Current Output	



Specifications	
Power Supply	220-240V AC 50/60Hz
Power Consumption	Max. 1200W with usual lamps
	Max. 300W with LED and energy saving lamps
Switch	On, off or detector
Detection Speed	0,6-1,5m/s
Detection Range	Max.6m (<24°C)/360°
Ambient Brightness	<3-2.000LUX
Ingress Protection	IP20



Specifications	
Power Supply	230 Vac ± 10 % 230V versions
	24 Vac/dc ± 10 % for 24V versions
Power Consumption	1W maximum
Sensor Type	Infrared
Detection Range	8m
Field Of View	110° Degree. See the detection pattern
Output	Supply voltage for switched live versions. SPST for volt
Contact Rating	6A @ 240Vac resistive



Specifications	
Power supply	24 V AC ± 15% @ 65mA maximum
	24 V DC ± 15% @ 40mA maximum
Sensor type	Photodiode
Sensing range	0-2000 lux, 0-4000 lux and 0-10000 lux
Output	Voltage: 0-5VDC, 0-10VDC
	Current: 4-20mA (3Wire)
Field of view	55°
Accuracy	±5% across the range
Ingress Protection	IP65



## **AX-WLD**

#### Water Leak Detection Module (2 & 4 Zone)

The AX-WLD is a range of two zone & four zone Water Leak Detection DIN rail mountable modules. Used with either a rain sensor, water-point sensor or cable sensor, this module can have a total of 200m of cable connected to each input (cable and header). The excitation signal generated by the unit for the sensor connections ensures that the sensors do not degrade when exposed to damp for long periods.

<b>Order Codes</b>	(Example Part No: AX-WLD2-24-LA)
AX-WLD2-24	Two zone water leak detection module 24V
AX-WLD2-230	Two zone water leak detection module 230Vac
AX-WLDF-24	Four zone water leak detection module 24V
AX-WLDF-230	Four zone water leak detection module 230Vac
** Add "-A" to part code for Alarm Buzzer	
** Add "-L" to part code for Latching Option	
** Add "-E" to part code for enclosure	



#### **Water Lead Detection Cable Sensor**

The AX-WCS range of Cable Sensors are used to detect water leaks, usually at floor level. These sensors must be used in conjunction with the AX-WLD2 range of Detection Modules. The excitation signal generated by the AX-WLD2 for the sensor connections ensures that the sensors do not degrade when exposed to damp for long periods.

Order Codes	
AX-WCS-02	Water Cable Sensor for WLD2, 2m cable & 1m header cable
AX-WCS-05	Water Cable Sensor for WLD2, 5m cable & 3m header cable
AX-WCS-10	Water Cable Sensor for WLD2, 10m cable & 3m header cable
AX-WCS-15	Water Cable Sensor for WLD2, 15m cable & 3m header cable
AX-WCS-20	Water Cable Sensor for WLD2, 20m cable & 3m header cable
AX-WCS-xx	Custom Cable Length

## **AX-DTS-B**

#### **Drip Tray Switch**

AX-DTS-B Drip Tray Switches are simple to install, easy to service and extremely reliable. The device is essentially a reed switch with a permanent magnet mounted onto the float.

It finds its application in air conditioners, commercial and residential HVAC systems, condensate drain pans, heating systems, ventilation systems and refrigeration equipment etc.

Order Codes		
AX-DTS-B	Drip Tray Switch	



Specifications	
Supply	<b>WLD2-24</b> = $24$ Vac @ $50$ Hz $\pm 10\%$ & $24$ Vdc $\pm 10\%$ at
Suppry	50mA max
	<b>WLD2-230</b> = $230$ Vac @ $50$ Hz $\pm 15\%$
	<b>WLDF-24</b> = $24$ Vac @ $50$ Hz $\pm 10\%$ & $24$ Vdc $\pm 10\%$ at
	150mA max
	<b>WLDF-230</b> = $230$ Vac @ $50$ Hz $\pm 15$ %
Sensor Types	Cable, Point or Rain (AX-WCS, AX-WPS, AX-WRS1)
Max Cable	200
Length Per Input	200m



Specifications	
Material	PVC Twisted pair with stainless 316 elements
Cable Excitation	Isolated AC signal to ensure the detector cable is not subject to oxidation and erosion.
Response Time	<1 sec after exposure
Dimension	3.5mm diameter
Maximum Cable Run	200m (including header cable)



Specifications	
Float Material	Polypropylene, White
Housing and Retainer Ring Material	Polypropylene, Black
Power rating (max)	50VA
Switching voltage	200VDC,150VAC
Breakdown voltage (min)	250VDC
Switching current (max)	1.5A AC/DC
Approvals	CE, Conforms to UL508



## **AX-TX**

### **Panel Mount & Encapsulated Transformers**

Single phase transformers with standard 230Vac input primary winding and 24Vac output. Designed for use in low voltage circuits where galvanic isolation is required. e.g. BMS and HVAC control panels. A surface mount encapsulated versions with leads are also available.

<b>Order Codes</b>	
AX-TX-025P	Voltage Transformer, Panel mount, 230Vac-24Vac / 25VA
AX-TX-050P	Voltage Transformer, Panel mount, 230Vac-24Vac / 50VA
AX-TX-100P Voltage Transformer, Panel mount ,230Vac-24Vac / 100VA	
AX-TX-L30 Voltage Transformer, Encapsulated ,230Vac-24Vac / 30VA	
** Custom Ratings are also available	



#### Industrial Plug In Relay (2 Pole & 4 Pole)

The ESC-RN series comprises a range of high quality 2 pole & 4 pole industry standard relay footprint mounted in DIN Rail base and clip. Variants are available with 24Vdc, 24Vac and 230Vac coils. Other versions are available on special request. The DIN Rail base is designed to be a snap fit onto TS35 section DIN Rail.

Order Codes		
ESC-R2N-2012-23-5024-WTL Relay 2PDT Plug In 24Vac Coil, 10A, Test Lever and LED		
ESC-R2N-2012-23-5230-WTL Relay 2PDT Plug In 230Vac Coil, 10A, Test Lever and LED		
ESC-R2N-2012-23-1024-WTL Relay 2PDT Plug In 24Vdc Coil, 10A, Test Lever and LED		
ESC-R4N-2014-23-3024-WTL Relay 4PDT,Plug In 24Vac Coil, 5A, Test Lever and LED		
ESC-R4N-2014-23-3230-WTL Relay 4PDT,Plug In 230Vac Coil, 5A, Test Lever and LED		
ESC-R4N-2014-23-1024-WTL Relay 4PDT,Plug In 24Vdc Coil, 5A, Test Lever and LED		

## ESC18F

#### Industrial Plug In Sockets & Clips (2Pole & 4Pole)

Plug in sockets for 2pole and 4pole relays comes in three different categories. Two sided connections, single sided connections and screwless connections. Clips are included with every plug in socket.

Order Codes	
ESC18F-2Z-C4	Plug in socket, 2 pole, double sided connections with clip
ESC18F-2Z-C5	Plug in socket, 2 pole, single sided connections with clip
ESC18F-2Z-SL	Plug in socket, 2 pole, screwless connections with clip
ESC18F-4Z-C4	Plug in socket, 4 pole, double sided connections with clip
ESC18F-4Z-C5	Plug in socket, 4 pole, single sided connections with clip
ESC18F-4Z-SL	Plug in socket, 4 pole, screwless connections with clip
** Clips are included with all models of bases	



Specifications		
Rated input voltage	230Vac	
Rated input frequency	5060 Hz	
No of secondary windings	1	
Output voltage	24Vac	
Transformer class (IEC61558)	Class I	
Insulation class	Class A	
Maximum temperature rise	50°C max	
Compliance	CE , EU RoHS	



Specifications		
Resistance	≤50mΩ	
Material	Silver Tin Oxide	
Resistive Load	10A @220Vac/24Vdc (2 Pole 2PDT), 5A @220Vac/30Vdc (4 Pole 4PDT)	
Max. Switching Current	10Amp (2Pole 2PDT), 5Amp (4Pole 4PDT)	
Max. Switching Voltage	250Vac / 30Vdc	
Max. Switching Power	1750VA / 210W	
Insulation Resistance	≥500mΩ	



Specifications		
Rated Voltage	250 Vac	
Rated Current	2 pole, double sided = 12A	
	2 pole, single sided = 10A	
	2 pole, Screwless = 12A	
	4 pole, double sided = 8A	
	4 pole, double sided = 8A	
	4 pole, double sided = 7A	
Socket Material	PA66+GF (V1/V0)	



## **AX-CNDR**

#### **AXIO's Digital Room Controller**

The AX-CNDR Digital Room Controller features high-contrast blue backlit display with white text, and fit a single gang, flush-mount back box. The unit has selection for an internal or external temperature sensor and provides an adjustable proportional and integral heating and cooling outputs or on/off control depending on unit type.





Features		
* 0-10V PI heating and cooling outputs	* Keycard / occupancy input, adjustable exit delay	
* 0-10V PI cooling with On/Off heating (CRX versions)	* Window contact input	
* 0-10V fan speed control with Auto (XXE versions)	* 3 point fan speed voltage profile, limit noise	
* On/off heating /cooling control (RXX versions)	* Unused Keycard/Window contact inputs available as BACnet binary inputs	
* 3 speed fan speed control with Auto (XX3 versions)	* Fits a standard single gang, flush-mount back box	
* Isolated BACnet MSTP / RTU, supports COV	* Two part plug-in connectors for easy installation	
* Adjustable setpoint range	* Built in terminating resistor (BN version)	

## **AX-CS & AX-CT**

#### **AXIO Current Switch & Current Transmitter**

The AX-CSL current switch solid-core can accept AC current up to 200A depending on the model. Both models provides an output switch signal with the state of normally open contact to control various automation devices.

The AX-CTX Analogue Current Transmitters are designed for use in any AC current monitoring application where it is required to monitor a particular piece of equipment for proper operation.



Order Codes			
<b>Current Switches</b>	Details	Current Transmitter	Details
AX-CSL-150-2	Current SW 150A Solid Core Fixed SP 0.2A, 0.3A 135 AC/DC SW	AX-CTX-LA10-50	Current Transmitter, 4-20Ma, Solid Core, 0-10, 0-20, 0-50A
AX-CSL-200-05	Current Switch 200A Solid Core Fixed Set-Point 0.5A, 0.3A 135 AC/DC Switch	AX-CTX-LA100-200	Current Transmitter, 4-20Ma, Solid Core, 0-100, 0-150, 0-200A
AX-CSL-200-05H	Current Switch 200A Solid Core Fixed Set-Point 0.5A, 1A 240 AC Switch	AX-CTX-LV10-50	Current Transmitter, 0-10 VDC, Solid Core, 0-10, 0-20, 0-50A
AX-CSL-A200-1H	Current Switch 200A Solid Core Adjustable Set-Point 1-200A, 1A 240 AC Switch	AX-CTX-LV100-200	Current Transmitter, 0-10 VDC, Solid Core, 0-100, , 0-150, 0-200A
AX-CSL-S200-1	Current Switch 200A Split Core Fixed Set-Point 1A, 0.3A 135 AC/DC Switch	AX-CTX-SLA10-50	Current Transmitter, 4-20Ma, Split Core, 0-10, 0-20, 0-50A
AX-CSL-SA200-15H	Current Switch 200A Split Core Adjustable Set-Point 1.5-200A, 1A 240 AC Switch	AX-CTX-SLA100-200	Current Transmitter, 4-20Ma, Split Core, 0-100, 0-150, 0-200A
AX-CSLM-A50-01	Current Switch 1A Solid Core Adjustable Set-Point 0.01-1A, 0.3A 130V Switch	AX-CTX-SLV10-50	Current Transmitter, 0-10 VDC, Split Core, 0-10, 0-20, 0-50A
AX-CSLM-A50-05	Current Switch 50A Solid Core Adjustable Set-Point 0.5-50A, 0.3A 130V Switch	AX-CTX-SLV100-200	Current Transmitter, 0-10 VDC, Split Core, 0-100, , 0-150, 0-200A

## I/O & RELAY MODULES

#### Input Output Modules, Relay Modules, Commissioning Tool

AXIO has a wide range of I/O modules available in the shape of Multiplexers, Phase Cut Modules, Fan Speed Relay, Current Splitter Modules, Multi Mode Relay Modules etc.

AXIO also has AX-REF-VI which is a useful, versatile tool ideal for commissioning engineers, testers and system designers.



Features		
I/O Modules	Relay Modules	
* Multiplexers - Digital and Analogue	* Single Relay Modules	
* Raise/Lower and Conversion Modules	* Multi-Mode Relay Modules	
* Rescaling, Limiting and Splitter Modules	* Fan Speed Relay Modules	
* Phase Cut Modules and Analogue to Pneumatic	* Fan Speed Convertor Modules	
* Timers and Phase Failure Relays	<b>Commissioning Tools</b>	
	* Analogue output reference unit - hand held	



## **Website Datasheet Links (Digital Version)**

- \* INPUT OUTPUT MODULES
- \* RELAY MODULES
- \* THYRISTOR POWER CONTROLLERS, SSRs
- \* CONTROLLERS
- \* NETWORKING DEVICES
- \* THERMOSTATS
- \* TEMPERATURE, RELATIVE HUMIDITY & HUMIDISTATS
- \* SETPOINT
- \* EMERGENCY WATERLEAK & DISPLAY
- \* PRESSURE
- \* POWER SUPPLIES, MONITORING & METERING
- \* GAS SENSOR, SMOKE DETECTOR & AIR QUALITY
- \* AIR VELOCITY, FLOW & LIQUID LEVEL
- \* OCCUPANCY & LIGHTING
- \* VALVES
- \* DAMPER ACTUATORS
- \* ENCLOSURES
- \* COMMISIONING TOOLS
- \* ISOLATORS

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AXIO has a full and varied range of products demonstrating its commitment to providing customers with excellent Peripherals and Control Devices.

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