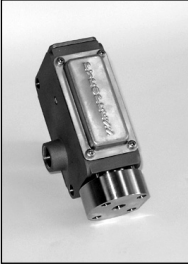




# INDUSTRIAL PRESSURE, VACUUM AND DIFFERENTIAL PRESSURE SWITCHES



## GUARDIAN RANGE

- Single or dual settings • Adjustable deadband option
- Stainless steel or black anodised aluminium case to IP66/67
- M20 electrical connection • Manual reset option
- Alternative microswitches •

<b>Specification</b>	:	Page 10 & 11
<b>Low Pressure</b>	: 2 mBar to 500 mBar	Page 20 & 30
<b>Medium Pressure</b>	: 0.1 to 12.4 Bar	Page 12 & 13
<b>Medium Pressure</b>	: 0.1 to 34 Bar ( <b>flush diaphragm</b> )	Page 14 & 15
<b>High Pressure</b>	: 1.5 to 640 Bar	Page 18 & 19
<b>Vacuum</b>	: -995 mBar to -1 mBar	Page 21
<b>Vacuum/pressure</b>	: -1 to +2 Bar	Page 21
<b>Differential pressure</b>	: 2 mBar to 12 Bar	Page 30 & 31



## ARGUS RANGE

- Single or simultaneous dual settings • PPS (engineering polymer) or stainless steel case to IP67 • DIN 43650 connector or integral terminal block via M20 entry • PED Cat IV upon request •

<b>Specification</b>	:	Page 64 & 65
<b>Low Pressure</b>	: 2 mBar to 550 mBar	Page 74 & 75
<b>Medium Pressure</b>	: 0.2 to 28 Bar	Page 66 & 67
<b>Medium Pressure</b>	: 0.1 to 22 Bar ( <b>flush diaphragm</b> )	Page 72 & 73
<b>High Pressure</b>	: 0.8 to 800 Bar	Page 66 & 67
<b>Vacuum</b>	: -995 mBar to -1 mBar	Page 74 & 75
<b>Differential pressure</b>	: 2 mBar to 7.5 Bar	Page 74 & 75
<b>Differential pressure</b>	: 2 to 12 Bar ( <b>200 Bar max</b> )	Page 74 & 75



## TITAN RANGE

- Single or simultaneous dual settings • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Resistors option • Ministry of Defence approved •

<b>Specification</b>	:	Page 46 & 47
<b>Low Pressure</b>	: 0.25 mBar to 725 mBar	Page 54 & 55
<b>Medium Pressure</b>	: 0.1 to 40 Bar	Page 48 & 49
<b>Medium Pressure</b>	: 0.15 to 27.5 Bar ( <b>ultra low diff</b> )	Page 48 & 49
<b>Medium Pressure</b>	: 0.1 to 16 Bar ( <b>flush diaphragm</b> )	Page 50 & 51
<b>High Pressure</b>	: 0.75 to 600 Bar	Page 52 & 53
<b>Vacuum</b>	: -995 mBar to -0.5 mBar	Page 54 & 55
<b>Differential pressure</b>	: 0.25 mBar to 8.5 Bar	Page 54 & 55
<b>Differential pressure</b>	: 1.5 to 10.5 Bar ( <b>140 Bar max</b> )	Page 54 & 55

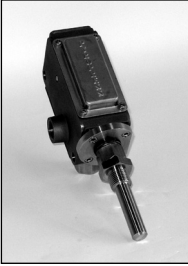


## SENTINEL RANGE

- Electronic pressure switch • Digital indication • Dual relay output
- Optional 4 - 20 mA output • Adjustable switching differential
- Battery or 24V.DC supply • Black anodised aluminium case to IP66 •

<b>Specification</b>	:	Page 100 & 101
<b>Medium Pressure</b>	: 0.01 to 400 Bar	Page 102

# INDUSTRIAL TEMPERATURE SWITCHES



## GUARDIAN RANGE

- **Single or dual settings** • Stainless steel or black anodised aluminium case to IP66/67 • M20 electrical connection • Manual reset option •
- Alternative microswitches • Thermowell lengths from 38 to 1200mm •

<b>Specification</b>	:	Page 10 & 11
<b>Rigid Stem</b>	:	-40 to +230°C..... Page 34 & 35
<b>Capillary</b>	:	-46 to +250°C..... Page 35



## ARGUS RANGE

- **Single set point** • PPS (engineering polymer) or stainless steel case to IP67 • DIN 43650 connector or integral terminal block via M20 entry •
- PED Cat IV upon request • Thermowell lengths from 38 to 1200mm •

<b>Specification</b>	:	Page 64 & 65
<b>Rigid Stem</b>	:	-40 to +230°C..... Page 80 & 81
<b>Capillary</b>	:	-46 to +250°C..... Page 80 & 81



## TITAN RANGE

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option • Ministry of Defence approved • Thermowell lengths from 38 to 1200mm •

<b>Specification</b>	:	Page 46 & 47
<b>Rigid Stem</b>	:	-40 to +230°C..... Page 58 & 59
<b>Capillary</b>	:	-46 to +250°C..... Page 58 & 59



## SENTINEL RANGE

- Electronic temperature switch • Digital indication • Dual relay output
- Adjustable switching differential • Black anodised aluminium case to IP66 • Ceramic sensor • 2 x M20 electrical connections • Battery or 24V.DC supply • Optional 4 - 20 mA output • Thermowell lengths from 38 to 1200mm • Remote sensor option •

<b>Specification</b>	:	Page 100 & 101
<b>Temperature range</b>	:	-50 to 400°C..... Page 103

## REMOTE MOUNTING CAPILLARY VERSION

Vapour filled 316 stainless steel capillary offered on the GUARDIAN, ARGUS and TITAN ranges. Available from 2 to 10 metres in 1 metre increments. Various probe lengths and process connections available

## FLANGED AND SOLID DRILLED THERMOWELLS

Can be custom manufactured to suit any application. Vortex shedding/wake frequency calculations, ultrasonic and hydrostatic results can be provided upon request.

## INDUSTRIAL LEVEL SWITCHES



### GUARDIAN RANGE

- **Single or dual settings** • Stainless steel or black anodised aluminium case to IP66/67 • M20 electrical connection • Manual reset option •
- Alternative microswitches •

<b>Specification</b> :	Page 10 & 11
<b>Horizontal mounting</b> :	Page 38
<b>Vertical mounting</b> :	Page 39
<b>Vertical reed</b> :	Page 41



### ARGUS RANGE

- **Single set point** • PPS (engineering polymer) or stainless steel case to IP67 • DIN 43650 connector or integral terminal block via M20 entry •
- PED Cat IV upon request •

<b>Specification</b> :	Page 64 & 65
<b>Horizontal mounting</b> :	Page 82 - 84
<b>Vertical mounting</b> :	Page 82 - 84
<b>Vertical reed</b> :	Page 85 & 86

## INDUSTRIAL FLOW SWITCHES



### GUARDIAN RANGE

- **Single or dual settings** • **Adjustable deadband** •
- Stainless steel or black anodised aluminium case to IP66/67 •
- M20 electrical connection • Manual reset option • Alternative microswitches •

<b>Specification</b> :	Page 10 & 11
<b>Inline 1/2" to 10" pipe size (12mm to 250mm)</b> :	Page 44



### TITAN RANGE

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option • Ministry of Defence approved •

<b>Specification</b> :	Page 46 & 47
<b>Inline 1/2" to 10" pipe size (12mm to 250mm)</b> :	Page 62 & 63

# ATEX CERTIFIED EExia PRESSURE, VACUUM AND DIFFERENTIAL PRESSURE SWITCHES



## GUARDIAN RANGE

Certification ATEX CE<sup>II</sup> II1G EExia IIC T6 Tamb -50 to +78°C, T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or dual settings** • **Adjustable deadband option** •
- Stainless steel or black anodised aluminium case to IP66/67 •
- M20 electrical connection • Manual reset option •

<b>Specification</b>	:	Page 10 & 11
<b>Low Pressure</b>	: 2 mBar to 500 mBar	Page 20 & 30
<b>Medium Pressure</b>	: 0.1 to 12.4 Bar	Page 12 & 13
<b>Medium Pressure</b>	: 0.1 to 34 Bar ( <b>flush diaphragm</b> )	Page 14 & 15
<b>High Pressure</b>	: 1.5 to 640 Bar	Page 18 & 19
<b>Vacuum</b>	: -995 mBar to -1 mBar	Page 21
<b>Vacuum/pressure</b>	: -1 to +2 Bar	Page 21
<b>Differential pressure</b>	: 2 mBar to 12 Bar	Page 30 & 31



## ARGUS RANGE

Certification ATEX CE<sup>II</sup> II1G EExia IIC T6 Tamb -50 to +78°C, T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or simultaneous dual settings** • PPS (engineering polymer) or stainless steel case to IP67 • DIN 43650 connector or integral terminal block via M20 entry or flying lead with M20 or 1/2" NPT male for direct connection to junction box • Circuit monitoring resistors option • PED Cat IV upon request •

<b>Specification</b>	:	Page 64 & 65
<b>Low Pressure</b>	: 2 mBar to 550 mBar	Page 74 & 75
<b>Medium Pressure</b>	: 0.2 to 28 Bar	Page 66 & 67
<b>Medium Pressure</b>	: 0.1 to 22 Bar ( <b>flush diaphragm</b> )	Page 72 & 73
<b>High Pressure</b>	: 0.8 to 800 Bar	Page 66 & 67
<b>Vacuum</b>	: -995 mBar to -1 mBar	Page 74 & 75
<b>Differential pressure</b>	: 1 mBar to 7.5 Bar	Page 74 & 75
<b>Differential pressure</b>	: 2 to 12 Bar ( <b>200 Bar max</b> )	Page 74 & 75



## TITAN RANGE


Certification ATEX CE<sup>II</sup> II1GD EExia IIC T6 Tamb -50 to +78°C, T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or simultaneous dual settings** • Stainless steel or black anodised case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option •

<b>Specification</b>	:	Page 46 & 47
<b>Low Pressure</b>	: 0.25 mBar to 725 mBar	Page 54 & 55
<b>Medium Pressure</b>	: 0.1 to 40 Bar	Page 48 & 49
<b>Medium Pressure</b>	: 0.15 to 27.5 Bar ( <b>ultra low diff</b> )	Page 48 & 49
<b>Medium Pressure</b>	: 0.1 to 16 Bar ( <b>flush diaphragm</b> )	Page 50 & 51
<b>High Pressure</b>	: 0.75 to 600 Bar	Page 52 & 53
<b>Vacuum</b>	: -995 mBar to -0.5 mBar	Page 54 & 55
<b>Differential pressure</b>	: 0.25 mBar to 8.5 Bar	Page 54 & 55
<b>Differential pressure</b>	: 1.5 to 10.5 Bar ( <b>140 Bar max</b> )	Page 54 & 55

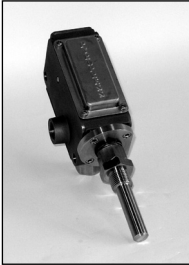
# ATEX CERTIFIED EExia TEMPERATURE SWITCHES

## GUARDIAN RANGE


Certification ATEX CE  II1G EExia IIC T6 Tamb -50 to +78°C, T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or dual settings** • Stainless steel or black anodised aluminium case to IP66/67 • M20 electrical connection • Manual reset option •
- Alternative microswitches • Thermowell lengths from 38 to 1200mm •

**Specification** : Page 10 & 11  
**Rigid Stem** : -40 to +230°C ..... Page 34 & 35  
**Capillary** : -46 to +250°C ..... Page 35



## ARGUS RANGE


Certification ATEX CE  II1G EExia IIC T6 Tamb -50 to +78°C, T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single set point** • PPS (engineering polymer) or stainless steel case to IP67 • DIN 43650 connector or integral terminal block via M20 entry •
- PED Cat IV upon request • Thermowell lengths from 38 to 1200mm •

**Specification** : Page 64 & 65  
**Rigid Stem** : -40 to +230°C ..... Page 80 & 81  
**Capillary** : -46 to +250°C ..... Page 80 & 81



## TITAN RANGE

Certification ATEX CE  II1GD EExia IIC T6 Tamb -50 to +78°C, T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option • Ministry of Defence approved • Thermowell lengths from 38 to 1200mm •

**Specification** : Page 46 & 47  
**Rigid Stem** : -40 to +230°C ..... Page 58 & 59  
**Capillary** : -46 to +250°C ..... Page 58 & 59



## REMOTE MOUNTING CAPILLARY VERSION

Vapour filled 316 stainless steel capillary offered on the GUARDIAN, ARGUS and TITAN ranges. Available from 2 to 10 metres in 1 metre increments. Various probe lengths and process connections available


## FLANGED AND SOLID DRILLED THERMOWELLS

Can be custom manufactured to suit any application. Vortex shedding/wake frequency calculations, ultrasonic and hydrostatic results can be provided upon request.



## ATEX CERTIFIED EExia LEVEL SWITCHES

### GUARDIAN RANGE


Certification ATEX CE  II1G EExia IIC T6 Tamb -50 to +78°C,  
T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or dual settings** • Stainless steel or black anodised aluminium case to IP66/67 • M20 electrical connection • Manual reset option •
- Alternative microswitches •

<b>Specification</b>	:	Page 10 & 11
<b>Horizontal mounting</b>	:	Page 38
<b>Vertical mounting</b>	:	Page 39
<b>Vertical reed</b>	:	Page 41



### ARGUS RANGE

Certification ATEX CE  II1G EExia IIC T6 Tamb -50 to +78°C,  
T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C


- **Single set point** • PPS (engineering polymer) or stainless steel case to IP67 • DIN 43650 connector or integral terminal block via M20 entry •
- PED Cat IV upon request •

<b>Specification</b>	:	Page 64 & 65
<b>Horizontal mounting</b>	:	Page 82 - 84
<b>Vertical mounting</b>	:	Page 82 - 84
<b>Vertical reed</b>	:	Page 85 & 86



## ATEX CERTIFIED EExia FLOW SWITCHES


### GUARDIAN RANGE

Certification ATEX CE  II1G EExia IIC T6 Tamb -50 to +78°C,  
T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or dual settings** • Stainless steel or black anodised aluminium case to IP66/67 • M20 electrical connection • Adjustable deadband •
- Manual reset option • Alternative microswitches •

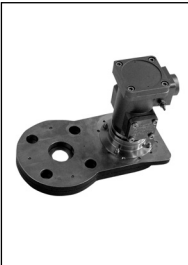
<b>Specification</b>	:	Page 10 & 11
<b>Inline 1/2" to 10" pipe size (12mm to 250mm)</b>	:	Page 43 & 44

### TITAN RANGE

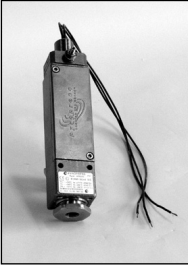
Certification ATEX CE  II1GD EExia IIC T6 Tamb -50 to +78°C,  
T5 Tamb -50 to +93°C, T4 Tamb -50 to +128°C

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option • Ministry of Defence approved •

<b>Specification</b>	:	Page 46 & 47
<b>Inline 1/2" to 10" pipe size (12mm to 250mm)</b>	:	Page 62 & 63



# ATEX CERTIFIED EExd FLAMEPROOF PRESSURE, VACUUM AND DIFFERENTIAL PRESSURE SWITCHES



## ARGUS RANGE

Certification ATEX CE  $\text{II}2\text{GD EExd IIC T6} = \text{Ta} -50 \text{ to } +71^\circ\text{C}$ ,  
 $\text{T5} = \text{Ta} -50 \text{ to } +86^\circ\text{C}$ ,  $\text{T4} = \text{Ta} -50 \text{ to } +94^\circ\text{C}$

- **Single or simultaneous dual settings** • PPS (engineering polymer) or stainless steel case to IP67 • Flying lead for connection to local or remote junction box • PED Cat IV upon request •

<b>Specification</b>	:	Page 64 & 65
<b>Low Pressure</b>	: 2 mBar to 550 mBar	Page 74 & 75
<b>Medium Pressure</b>	: 0.2 to 28 Bar	Page 66 & 67
<b>Medium Pressure</b>	: 0.1 to 22 Bar ( <b>flush diaphragm</b> )	Page 72 & 73
<b>High Pressure</b>	: 0.8 to 800 Bar	Page 66 & 67
<b>Vacuum</b>	: -995 mBar to -1 mBar	Page 74 & 75
<b>Differential pressure</b>	: 1 mBar to 7.5 Bar	Page 74 & 75
<b>Differential pressure</b>	: 2 to 12 Bar ( <b>200 Bar max</b> )	Page 74 & 75



## TITAN RANGE

Certification ATEX CE  $\text{II}2\text{GD EExd IIB} + \text{H}_2 \text{T6} = \text{Ta} -55 \text{ to } +60^\circ\text{C}$ ,  
 $\text{T6} = \text{Ta} -55 \text{ to } +75^\circ\text{C}$ ,  $\text{T5} = \text{Ta} -55 \text{ to } +90^\circ\text{C}$

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option •

<b>Specification</b>	:	Page 46 & 47
<b>Low Pressure</b>	: 0.25 mBar to 725 mBar	Page 54 & 55
<b>Medium Pressure</b>	: 0.1 to 40 Bar	Page 48 & 49
<b>Medium Pressure</b>	: 0.15 to 27.5 Bar ( <b>ultra low diff</b> )	Page 48 & 49
<b>Medium Pressure</b>	: 0.1 to 16 Bar ( <b>flush diaphragm</b> )	Page 50 & 51
<b>High Pressure</b>	: 0.75 to 600 Bar	Page 52 & 53
<b>Vacuum</b>	: -995 mBar to -0.5 mBar	Page 54 & 55
<b>Differential pressure</b>	: 0.25 mBar to 8.5 Bar	Page 54 & 55
<b>Differential pressure</b>	: 1.5 to 10.5 Bar ( <b>140 Bar max</b> )	Page 54 & 55



## TROJAN RANGE

Certification ATEX CE  $\text{II}2\text{GD EExd IIC T6} = \text{Ta} -50 \text{ to } +71^\circ\text{C}$

- **Single or independent dual settings** • Black anodised aluminium case to IP65 • Certification via ATEX certified microswitches • Termination via EExe junction box •

<b>Specification</b>	:	Page 90 & 91
<b>Medium Pressure</b>	: 0.14 to 32 Bar	Page 92 & 93
<b>High Pressure</b>	: 1.5 to 338 Bar	Page 92 & 93

# ATEX CERTIFIED EExd FLAMEPROOF TEMPERATURE SWITCHES



## ARGUS RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIC T6 = Ta -50 to +71°C, T5 = Ta -50 to +86°C, T4 = Ta -50 to +94°C

- **Single or simultaneous dual settings** • PPS (engineering polymer) or stainless steel case to IP67 • Flying lead for connection to local or remote junction box • PED Cat IV upon request • Thermowell lengths from 38 to 1200mm •

**Specification** : Page 64 & 65  
**Rigid Stem** : -40 to +230°C..... Page 80 & 81  
**Capillary** : -46 to +250°C..... Page 80 & 81



## TITAN RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIB + H<sub>2</sub> T6 = Ta -55 to +60°C, T6 = Ta -55 to +75°C, T5 = Ta -55 to +90°C

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option • Thermowell lengths from 38 to 1200mm •

**Specification** : Page 46 & 47  
**Rigid Stem** : -40 to +230°C..... Page 58 & 59  
**Capillary** : -46 to +250°C..... Page 58 & 59



## TROJAN RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIC T6 = Ta -50 to +71°C

- **Single or independent dual settings** • Black anodised aluminium case to IP65 • Certification via ATEX certified microswitches • Termination via EExe junction box •

**Specification** : Page 90 & 91  
**Rigid stem** : -40 to +230°C ..... Page 96 & 97



## REMOTE MOUNTING CAPILLARY VERSION

Vapour filled 316 stainless steel capillary offered on the GUARDIAN, ARGUS and TITAN ranges. Available from 2 to 10 metres in 1 metre increments. Various probe lengths and process connections available

## FLANGED AND SOLID DRILLED THERMOWELLS

Can be custom manufactured to suit any application. Vortex shedding/wake frequency calculations, ultrasonic and hydrostatic results can be provided upon request.

## ATEX CERTIFIED EExd FLAMEPROOF LEVEL SWITCHES



### ARGUS RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIC T6 = Ta -50 to +71°C, T5 = Ta -50 to +86°C, T4 = Ta -50 to +94°C

- **Single or simultaneous dual settings** • PPS (engineering polymer) or stainless steel case to IP67 • Flying lead • PED Cat IV upon request •

<b>Specification</b>	:	Page 64 & 65
<b>Vertical</b>	:	Page 82 - 84
<b>Horizontal</b>	:	Page 82 - 84



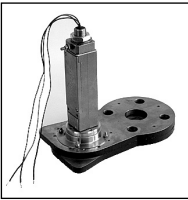
### TITAN RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIB + H<sub>2</sub> T6 = Ta -55 to +60°C, T6 = Ta -55 to +75°C, T5 = Ta -55 to +90°C

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • M20 electrical connection •

<b>Specification</b>	:	Page 46 & 47
<b>Vertical</b>	:	Page 60 & 61
<b>Horizontal</b>	:	Page 60 & 61

## ATEX CERTIFIED EExd FLAMEPROOF FLOW SWITCHES



### ARGUS RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIC T6 = Ta -50 to +71°C, T5 = Ta -50 to +86°C, T4 = Ta -50 to +94°C

- **Single or simultaneous dual settings** • PPS (engineering polymer) or stainless steel case to IP67 • Flying lead • PED Cat IV upon request •

<b>Specification</b>	:	Page 64 & 65
<b>Inline 1/2" to 10" pipe size (12mm to 250mm)</b>	:	Page 87 & 88



### TITAN RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIB + H<sub>2</sub> T6 = Ta -55 to +60°C, T6 = Ta -55 to +75°C, T5 = Ta -55 to +90°C

- **Single or simultaneous dual settings** • Stainless steel or black anodised aluminium case to IP66 • Integral terminal block via M20 electrical connection • Circuit monitoring resistors option •

<b>Specification</b>	:	Page 46 & 47
<b>Inline 1/2" to 10" pipe size (12mm to 250mm)</b>	:	Page 62 & 63



### TROJAN RANGE

Certification ATEX CE  $\text{\textcircled{E}}$  II2GD EExd IIC T6 = Ta -50 to +71°C

- **Single or independent dual settings** • Black anodised aluminium case to IP65 • Certification via ATEX certified microswitches • Termination via EExe junction box •

<b>Specification</b>	:	Page 90 & 91
<b>Inline 1/2" to 10" pipe size (12mm to 250mm)</b>	:	Page 98 & 99