

ATEX and IECEx Group II certified. Submersible, general purpose, top-entry accelerometer with DC output proportional to acceleration. Made from robust stainless steel throughout for continuous vibration monitoring in harsh underwater environments and areas with constant moisture or condensation. Internal electronics are enclosed in a Faraday cage and isolated to minimise noise. Sealed to IP68 with industry standard two wire 4-20mA output proportional to sensor range that can connect directly to PLC, DCS and other industrial controllers. Includes integral heavy duty polyurethane cable and is available with a wide range of mountings.

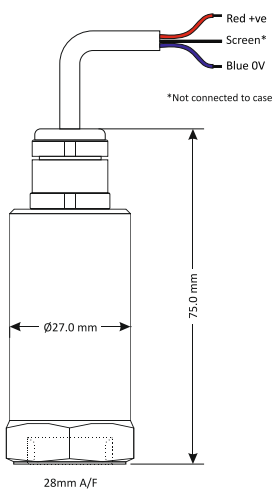
## Applications

- Intrinsically safe data collector
- Oil and mining
- Submersible pumps, fans and compressors

## MTN/2287IW



## Dimensions



## Technical

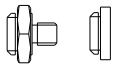
|                            |  |
|----------------------------|--|
| Output current             | 4-20mA DC proportional to rms acceleration (g rms)   |
| Supply voltage             | 12-32V DC (4-20mA)   |
| Frequency response         | 2Hz to 1kHz $\pm 10\%$   |
| Mounted base resonance     | 5kHz (nominal)   |
| Isolation                  | Base isolated  |
| Dynamic range              | 50g peak   |
| Transverse sensitivity     | Less than 5%   |
| Temperature range          | $-55^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$  |
| Temperature sensitivity    | 0.08%/ $^{\circ}\text{C}$  |
| Case material              | Stainless steel  |
| Cable <sup>1</sup>         | Integral polyurethane - length to be specified at point of order   |
| Maximum cable length       | See system drawing ATX038  |
| Mounting torque            | 8Nm  |
| Weight                     | 150g (nominal)   |
| Sealing                    | IP68   |
| Submersible depth          | 5m max (0.5 bar)   |
| Insulation                 | Units will pass a 500V insulation test   |
| <b>Certificate details</b> |  |
| Group II <sup>2</sup>      | BAS02ATEX1057X and IECEx BAS 08.0013X<br>Ex ia IIC T6 Ga ( $-55^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$ )<br>Ex ia IIIC T85 $^{\circ}\text{C}$ Da ( $-55^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$ ) |
| Terminal parameters        | U <sub>i</sub> = 28V, I <sub>i</sub> = 93mA, P <sub>i</sub> = 0.65W<br>For Ci and Li see certificate   |
| Barrier                    | MTL787S, BAS01ATEX7202 or P&FZ787,<br>BAS01ATEX7005 or any other barrier that conforms to note 4 of ATX038   |

## Studs and grub screws



| Part # | From           | To             |
|--------|----------------|----------------|
| MS036  | ¼"-28 UNF Male | M6 Male        |
| MS039  | ¼"-28 UNF Male | 10-32 UNF Male |
| MS067  | ¼"-28 UNF Male | M8 Male        |
| MS068  | ¼"-28 UNF Male | ¼"-28 UNF Male |
| MS124  | ¼"-28 UNF Male | M10 Male       |
| MS132  | ¼"-28 UNF Male | M12 Male       |

## Quick fit adapters



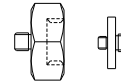
| Part # | From     | To             |
|--------|----------|----------------|
| MS001  | Q/F Male | Glue base      |
| MS002  | Q/F Male | M8 Male        |
| MS003  | Q/F Male | M10 Male       |
| MS004  | Q/F Male | ¼"-28 UNF Male |
| MS006  | Q/F Male | M6 Male        |

## Options

- Various cable lengths
- Optional mountings
- Filters
- Other ranges (see below)

| Part #         | Mounting      | xx = Optional acceleration (g rms) |
|----------------|---------------|------------------------------------|
| MTN/2287IW-xx  | ¼" UNF Female | 0-1                                |
|                |               | 0-2                                |
|                |               | 0-5                                |
| MTN/2287IWQ-xx | Q/F Female    | 0-10                               |
|                |               | 0-20                               |

## Mounting adapters

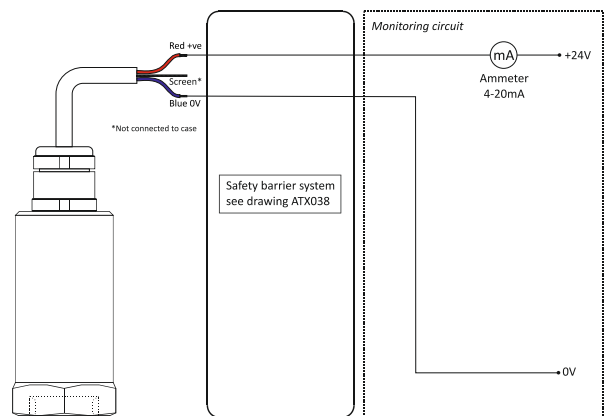


| Part # | From           | To               |
|--------|----------------|------------------|
| MS005  | Q/F Male       | ¼"-28 UNF Female |
| MS007  | Q/F Male       | 10-32 UNF Female |
| MS008  | Q/F Male       | M8 Female        |
| MS011  | ¼"-28 UNF Male | Q/F Female       |
| MS013  | ¼"-28 UNF Male | Glue base        |
| MS033  | ¼"-28 UNF Male | Q/F Female       |
| MS038  | Q/F Male       | M8 Conical Male  |
| MS061  | ¼"-28 UNF Male | 10-32 UNF Male   |
| MS079  | ¼"-28 UNF Male | Q/F Female       |
| MS106  | Q/F Male       | M10 Female       |

## Isolation

| Part # | From           | To               |
|--------|----------------|------------------|
| MS034  | ¼"-28 UNF Male | ¼"-28 UNF Female |
| MS093  | Q/F Male       | M8 Male          |

## System connection



**Note:** Care should be taken not to install this in a high velocity dust laden atmosphere.

<sup>1</sup> This cable has additional hosing around it manufactured from PTFE plastic, which has a surface resistivity of greater than 1 GΩ and therefore poses a risk from electrostatic ignition.

<sup>2</sup> Warning ref Group II: The Ci and Li were previously lower. The installer must take account of the increase in internal capacitance and inductance present on this apparatus.