

# MTN/2287IT-4P Series

Intrinsically safe 4-20mA output accelerometer for PLC interface ATEX & IECEx Group II approved

ATEX and IECEx Group II certified. General purpose, top-entry accelerometer with DC output proportional to acceleration and temperature outputs. Made from robust stainless steel throughout for continuous vibration monitoring in harsh industrial environments. Internal electronics are enclosed in a Faraday cage and isolated to minimise noise. Sealed to IP67 with industry standard two wire 4-20mA output proportional to sensor range that can connect directly to PLC, DCS and other industrial controllers. Includes 4-pin M12 connector and is available with a wide range of mountings.

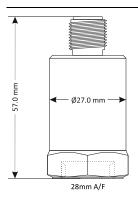
#### **Applications**

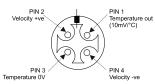
- Intrinsically safe data collector
- Oil & gas
- Motors, fans, compressors, pumps
- Petrochemical

#### MTN/2287IT-4P



#### **Dimensions**











#### Technical

Output current	4-20mA DC proportional to rms acceleration (g rms)
Temperature output	10mV/°C
Supply voltage	12-32V DC (4-20mA)
Frequency response	2Hz to 1kHz ±10 %
Mounted base resonance	5kHz (nominal)
Isolation	Electronics in Faraday cage, isolated from body
Dynamic range	50g peak
Temperature sensitivity	0.08%/°C
Transverse sensitivity	Less than 5%
Temperature range	T6 (-55°C ≤ Ta ≤ +45°C)
Case material	Stainless steel
Maximum cable length	See system drawing ATX038
Mounting torque	8Nm
Weight	140g (nominal)
Sealing	IP67
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## **Certificate Details**

Group II <sup>1</sup>	BAS02ATEX1057X and IECEx BAS 08.0013X Ex ia IIC T6 Ga (-55°C $\leq$ Ta $\leq$ +45°C) Ex ia IIIC T85°C Da (-55°C $\leq$ Ta $\leq$ 45°C)
Terminal parameters	Ui = 28V, Ii = 93mA, Pi = 0.65W For Ci and Li see certificate
Barrier	MTL7787+, BAS01ATEX7202 or P&FZ787, BAS01ATEX7005 or any other barrier that conforms to note 4 of ATX038 (Available on request)





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## Studs and grub screws



Part #	From	То
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
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## **Quick fit adapters**



Part #	From	То
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**

- Filters
- Mounting threads
- Other ranges (see below)

Part #	Mounting	xx = Optional acceleration (g rms)
MTN/2287IT-4P-xx	1⁄4" UNF Female	0-1 0-2 0-5
MTN/2287ITQ-4P-xx	Q/F Female	0-10 0-20

## **Mounting adapters**

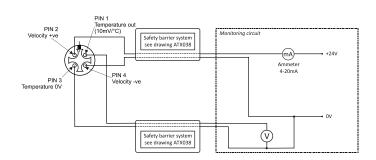


Part #	From	То
MS005	Q/F Male	¼"-28 UNF Female
MS007	Q/F Male	10-32 UNF Female
MS008	Q/F Male	M8 Female
MS011	¼"-28 UNF Male	Q/F Female
MS013	¼"-28 UNF Male	Glue base
MS033	¼"-28 UNF Male	Q/F Female
MS038	Q/F Male	M8 Conical Male
MS061	¼"-28 UNF Male	10-32 UNF Male
MS079	¼"-28 UNF Male	Q/F Female
MS106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

_	Part #	From	То
	MS034	¼"-28 UNF Male	1/4"-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>&</sup>lt;sup>1</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.