

# MTN/M1185IW Series

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

ATEX and IECEx Group I certified. Submersible, general purpose, top-entry velocity transducer with DC output. Made from robust stainless steel throughout for long term vibration analysis in harsh underwater environments and areas with constant moisture or condensation. Sealed to IP68 and includes integral heavy duty polyurethane cable. Available with a wide range of mountings.

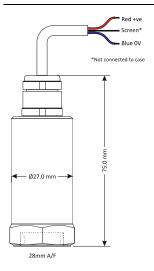
# **Applications**

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

## MTN/M1185IW



#### **Dimensions**









## **Technical**

Output current	4-20mA DC proportional to rms velocity (mm/s)	
Supply voltage	12-32V DC (4-20mA)	
Frequency response	2Hz to 1kHz ±10 %	
Mounted base resonance	5kHz (nominal)	
Isolation	Base isolated	
Dynamic range	50g peak	
Transverse sensitivity	Less than 5%	
Temperature range	-55°C ≤ Ta ≤ +115°C	
Temperature sensitivity	0.08%/°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 ATX031	
Mounting torque	8Nm	
Weight	150g (nominal)	
Sealing	IP68	
Submersible depth	5m max (0.5 bar)	
Certificate details		
Group I	BAS02ATEX0245X and IECEx BAS 08.0013X Ex ia I Ma (-55°C $\leq$ Ta $\leq$ +115°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 5 of ATX031 (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

## **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**

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

Part #	Mounting	xx = Optional Velocity (mm/s rms)
MTN/1185IW-xx	¼"UNF Female	0-10 0-20 0-25 0-50 0-100
MTN/1185IWQ-xx	Q/F Female	

# **Mounting adapters**

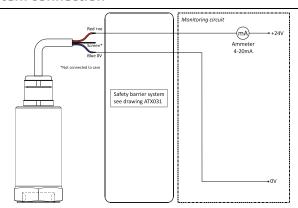


Part #	From	То
MS005	Q/F Male	1/4"-28 UNF Female
MS007	Q/F Male	10-32 UNF Female
MS008	Q/F Male	M8 Female
MS011	¼"-28 UNF Male	Q/F Female
MS013	¼"-28 UNF Male	Glue base
MS033	¼"-28 UNF Male	Q/F Female
MS038	Q/F Male	M8 Conical Male
MS061	¼"-28 UNF Male	10-32 UNF Male
MS079	¼"-28 UNF Male	Q/F Female
MS106	Q/F Male	M10 Female

## Isolation

_	Part #	From	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>1</sup> This cable has additional hosing around it manufactured from PTFE plastic, which has a surface resistivity of greater than 1  $G\Omega$ m and therefore poses a risk from electrostatic ignition.

