



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

ATEX and IECEx Group II 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.

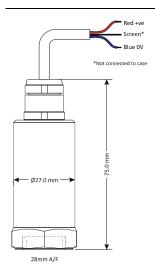
# **Applications**

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

## MTN/1185IW



## **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 ≤ +65°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 II <sup>2</sup>	BAS02ATEX1057X and IECEx BAS 08.0013X Ex ia IIC T6 Ga (-55°C $\leq$ Ta $\leq$ +65°C) Ex ia IIIC T85°C Da (-55°C $\leq$ Ta $\leq$ +65°C)
Terminal parameters	Ui = 28V, Ii = 93mA, Pi = 0.65W For Ci and Li see certificate
Barrier	MTL787S, BAS01ATEX7202 or P&FZ787, BAS01ATEX7005 or any other barrier that conforms to note 5 of ATX031

For pricing or any further information, please contact Omni Instruments Ltd.



**Contact Details:** 

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# MTN/1185IW Series

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# Studs and grub screws



То
M6 Male
10-32 UNF Male
M8 Male
1/4"-28 UNF Male
M10 Male
M12 Male

# **Quick fit adapters**



From	То
Q/F Male	Glue base
Q/F Male	M8 Male
Q/F Male	M10 Male
Q/F Male	¼"-28 UNF Male
Q/F Male	M6 Male
	Q/F Male Q/F Male Q/F Male Q/F 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**

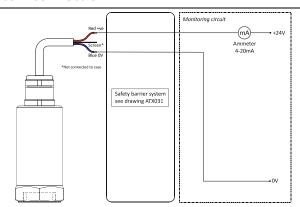


Part #	From	То
MS005	Q/F Male	1/4"-28 UNF Female
MS007	Q/F Male	10-32 UNF Female
MS008	Q/F Male	M8 Female
MS011	¼"-28 UNF Male	Q/F Female
MS013	¼"-28 UNF Male	Glue base
MS033	¼"-28 UNF Male	Q/F Female
MS038	Q/F Male	M8 Conical Male
MS061	¼"-28 UNF Male	10-32 UNF Male
MS079	¼"-28 UNF Male	Q/F Female
MS106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

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 $<sup>^1</sup>$  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.

<sup>&</sup>lt;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.