A T E X Ex ia GROUP I M1 GROUP II 1G INTRINSICALLY SAFE

ROLEX

TROLEX

TUNNELS PIPELINES ROADWAYS VENTLATION DUCTS MINING PROCESS INDUSTRIES

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No moving parts, self-cleaning vortex sensing head gives

long term stability.

ISSUE M 06/14

FLOW VELOCITY/VOLUME measurement of air, gases & vapours in heavy duty applications

20

GAS FLOW SENSOR/ TRANSMITTER

TROLEX

-

series

numerous mounting options; pipe insertion, open flow & in-line versions

precise High accuracy response with dynamic linearity correction.

configurable

Choice of analogue output signal: 4 to 20mA • 0.4 to 2V • 5 to 15Hz.

- Configurable signal turndown & response linearity in true engineering units.
- Configurable signal damping and display suppression.
 Volumetric flow calculation facility.

convenient

Clear LCD readout of signal values and all function mode parameters.

Simple pushbutton scaling to match on-site parameters

- signal offset, elevated zero, etc.

intrinsically safe

Certified Ex ia for use in Group I (Category M1) and Group II (Category 1) hazardous areas.

T X 5 9 2 0 series VORTEX GAS FLOW SENSOR/TRANSMITTER



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...reliable, accurate response

technical details						
INSERTION FLOW SENSORS	T X 5921 REAR PROJECTING SENSOR	TX5922 SIDE PROJECTING SENSOR	T X 5923 REMOTE SENSOR			
Application	Insertion into gas pipes, ventilation ducts &	Suspend in roadways & passages for open flow	Remote connected control unit for systems where			
	vapour tubes.	monitoring of ventilation.	space is restricted at the flow monitoring point.			
Process Media	Gas, ai	r, steam, saturated gases	and vapours.			
Flow Measuring Range	Rangeable from	n 0.5 to 5 m/s up to 0.5 to 30) m/s linear flow velocity.			
Accuracy	±2% characterised to	o the sensing element (withir	n 12.5° rotation of flow axis).			
Linearity	±19	% (within 12.5° rotation of flov	v axis).			
Housing Temperature		-15 to +50°C.				
Sensor Temperature	–15 to	150°C (200°C available to spe	ecification).			
Humidity		0 to 95% non condensin	g.			
Protection Classification		Dust and waterproof to IP6	6.			
Housing Material	Stainless steel rein	Stainless steel reinforced polymide 6 with PVC coated_flexible_conduit				
Sensor Material	Stainless steel (P	TEE coated versions available	to specification)			
Sensor Static Pressure		20 har				
Process Fitting	 1¹/2" BSP mounting bush. 50 mm ANSI Flange. (also available with welded process fittings for high pressure applications to specification). 	Wall mounting	 1¹/2" BSP mounting bush. 50 mm ANSI Flange. (also available with welded process fittings for high pressure applications to specification). 			
Cable Entry		2 x M20.				
Nett Weight	1.5 kg.	1.5 kg.	2.5 kg.			
Information Display		17 character dot matrix LC	D			
Setup Functions	• Zero	 Turndown 	 Signal damping 			
	• Span	Volumetric Calculation Display suppr				
	 Signal offset 	 Engineering units 	 Text language 			

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T X 5 9 2 0 s e r i e s VORTEX GAS FLOW SENSOR/TRANSMITTER

electrical details...

GENERAL PURPOSEAPPLICATIONS

Output Signal:	4 to 20 mA
Max. Load:	600 ohms at 24 dc
Power Supply:	10 to 30 V dc
Max. Current:	40 mA

GROUP II APPLICATIONS

FROM

Output Signal:	4 to 20 mA	
Max. Load:	600 ohms at 24 V dc	(x3)
Power Supply:	10 to 30 V dc	GROUP II
Max. Current:	40 mA	Ex ia IICT4 Ga

GROUP I APPLICATIONS

Output Signal:	4 to 20 mA	0.4 to 2 V	5 to 15 Hz		
Max. Load:	300 ohms at 12 V dc	10K ohms at 12 V dc	c Opto isolated 2 mA max		
Power Supply:	6.5 to 16.5 V dc				
Max. Current:	40 mA	15 mA 30 mA			



CE Designed to comply with the requirements of the EC directive on:

ATEX directive 94/9/EEC EMC directive 2004/108/EEC



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...choice of

TX5920 series **VORTEX GAS FLOW SENSOR/TRANSMITTER**

choice of mounting options...

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TX5921 REAR PROJECTING SENSOR with 11/2" BSP MOUNTING BUSH



TX5921 REAR PROJECTING SENSOR with 50 mm ANSI MOUNTING FLANGE





NB: Housing can be rotated through 300° with respect to the sensing head.

1.6

PROBE LENGTH: min = 165 mm (standard) max = 2 m

TX5922 SIDE PROJECTING SENSOR

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PROBE LENGTH: min = 165 mm (standard) max = 2 m

NB: Housing can be rotated through 300° with respect to the sensing head.



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TX5920 series **VORTEX GAS FLOW SENSOR/TRANSMITTER**

order reference...

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INSERTION VORTEX GAS FLOW SENSORS

			Please specify additional information:				
			CERTIFICATIO	NC	OUTPUT SIG	JAL	MOUNTING
TX5921	VORTEX GAS FLOW SENSOR/TRANSMITTER	Ex Group I	(01)	4 to 20 mA 0.4 to 2 V 5 to 15 Hz	(12) (11) (13)	• 1 ¹ /2" BSP Bush(22)	
	Real Projecting Sensor.	1	Ex Group II	(02)	4 to 20 mA		• 50 mm ANSI Flange
			General Purpo	se (03)	4 to 20 mA		(21)
TX5922	VORTEX GAS FLOW	-	Ex Group I	(01)	4 to 20 mA	(12)	
	SENSOR/TRANSMITTER				0.4 to 2 V	(11)	
	Side Projecting Sensor				5 to 15 Hz	(13)	 Wall Mounting
	Side i Tojecting Sensor.		Ex Group II	(02)	4 to 20 mA		
			General Purpo	se (03)	4 to 20 mA		
TX5923	VORTEX GAS FLOW		Ex Group I	(01)	4 to 20 mA	(12)	
	SENSOR/TRANSMITTER				0.4 to 2 V	(11)	• 11/2" BSP Bush(22)
	Bemote Sensor				5 to 15 Hz	(13)	
	Hemole Sensol.		Ex Group II	(02)	4 to 20 mA		• 50 mm ANSI Flange
		- X	General Purno	SP (03)	4 to 20 mA		(21)

...for use in arduous conditions

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