


SONARtrac® TECHNICAL DATASHEET
For the Oilsands Industry



GENERAL	INSTRUMENT TAG NO.		INTEGRAL/REMOTE		REMOTE		
	SERVICE DESCRIPTION		POWER SUPPLY	VOLTAGE	100 TO 240 VAC OR 18 TO 36 VDC		
	CRITICAL INSTRUMENT			FREQUENCY	50/60 Hz		
	P & ID NO			POWER	25 WATTS MAX, 18 WATTS TYPICAL		
	PIPE	SPEC		ANALOG OUTPUT RANGE		(2) 4-20mA CHANNELS, INTERNAL OR EXTERNAL POWERED	
		SIZE		OUTPUT LOAD IMPEDANCE		650 OHMS MAX	
		SCHEDULE		ENCLOSURE	RATING	NEMA 4X	
		MATERIAL			MATERIAL	FIBERGLASS	
	FLUID			DIGITAL OUTPUTS		PULSE, ALARM, HART, MODBUS ASCII/RTU RS232/485, FOUNDATION FIELDBUS H1	
	FLUID STATE			PROCESSOR		32-BIT DIGITAL SIGNAL PROCESSOR	
AMBIENT TEMP RANGE			DATA LOGGING CAPABILITY		YES		
MAX DESIGN TEMP / PRESSURE			SYSTEM DIAGNOSTICS		YES		
MIN DESIGN TEMP / PRESS			LOCAL DISPLAY		LCD WITH BACKLIGHT		
FLOW RATE	MINIMUM		OPERATING TEMP RANGE		-20°C TO +60°C (57°C ZONE 2)		
	NORMAL		STORAGE TEMP RANGE		-30°C TO +80°C		
	MAXIMUM		MOUNTING		PIPE OR WALL MOUNT		
PRESSURE AT NORMAL FLOW			ELECTRICAL	AREA ELECTRICAL CLASS		ORDINARY LOCATION, CLASS I DIV 2, CLASS I ZONE 2	
PRESSURE AT MAX FLOW				APPROVAL		cTUVus (SAFETY),UL/DEMKO,(HAZ. AREA)	
TEMP AT NORMAL FLOW				I.S. RATED		NO	
PROCESS DATA	TEMP AT MAX FLOW		ACCESSES	BI-DIRECTIONAL MEASURE		YES / PROGRAMMABLE	
	LINE VELOCITY	MINIMUM			TOTALIZER	UNITS	GAL; LIT; M ³ ; FT ³ , CUSTOM
		NOMINAL				DISPLAY NO OF DIGITS	8; THEN TO EXPONENTIAL
		MAXIMUM		INTERNAL NO OF DIGITS		11; THEN ROLLOVER TO 0	
	FLUID CHARACTER	CLEAN/DIRTY		INDICATOR RANGE		PROGRAMMABLE	
		STEADY/PULSE/BATCH		ACTIVE / PASSIVE		PASSIVE	
		CORROSIVE		MEASUREMENT TYPE		SONAR ARRAY PROCESSING	
		WT. % SOLIDS		MOUNTING		EXTERNAL CLAMP-ON (NON-CONTACT)	
		TYPE		MEASUREMENT PARAMETER		LIQUID, VOLUMETRIC FLOW AND GAS VOLUME FRACTION (ENTRAINED AIR)	
		NOMINAL DENSITY		SENSOR TYPE		PIEZO ELECTRIC POLYMER	
PARTICLE SIZE		ELEMENT MATERIAL		PVDF			
OTHER			TRANSDUCER METER	OPERATING TEMP RANGE		-40°C TO +100°C	
VISCOSITY AT NORMAL FLOW				STORAGE TEMP RANGE		-40°C TO +85°C	
ENTRAINED AIR/GAS PERCENT (Range)				ENCLOSURE	2" - 16"	FIBERGLASS	
FLOW DIRECTION (Forward or bi-directional)					ABOVE 16"	STAINLESS STEEL OR FIBERGLASS	
INSTALLATION ORIENTATION (Vertical or Horizontal)				RATED LINEAR RANGE, VOLUMETRIC FLOW		1 TO 10 M/S (3 TO 30 FT/S)	
				RATED RANGE, ENTRAINED AIR/GAS		0 to 20% BY VOLUME	
				ACCURACY, VOLUMETRIC FLOW		± 1% OF READING	
				ACCURACY, ENTRAINED AIR/GAS		± 5% OF READING, 0.01% TO 20%	
				REPEATABILITY, VOLUMETRIC FLOW		± 0.3% OF READING	
				REPEATABILITY, ENTRAINED AIR/GAS		± 1% OF READING, 0.01% TO 20%	
			MIN UPSTREAM PIPE DIA (from single elbow)		15 D		
			MIN DOWNSTREAM PIPE DIA (from single elbow)		5 D		
 Process Flow Monitoring Systems CIDRA Oilsands Ltd. 1-877-CIDRA 77 Main Office: Wallingford, CT 203-265-0035 Fax: 203-294-4211 Sales: Calgary, AB 403-819-1855 Service: FT McMurray, AB 780-792-4440 / 780-838-9836 www.cidra.com		ELECTRICAL	AREA ELECTRICAL CLASS		ORDINARY LOCATION, CLASS I DIV 2, CLASS I ZONE 2		
			APPROVAL		cTUVus (SAFETY),UL/DEMKO (HAZ. AREA)		
			I.S. RATED		NO		
		PURCHASE	MANUFACTURER		CIDRA		
			MODEL NUMBER		VF & GVF-100 or HD VF & GVF-100		
			MEASUREMENT		CONTINUOUS LIQUID FLOW & ENTRAINED AIR/GAS		