

## S-Series Pulse Output Information Sheet

### Introduction

Sierra Instruments Smart series has the option to create a totalizer pulse output on the Smart electronics under the following conditions:

- Smart units since 2000 this includes the 620S, 640S, and 780S
- An EN2, or 4 enclosure is used
- An E2, E3, or E4 enclosure with a display is used. The pulse circuit is on the round display PCB. Some additional wiring needs to be done at the Sierra factory.
- You need to order "PULSE" on the part number configurator when you place the order.

#### EN (NEMA 4X) style enclosure

TB2		
1	Ø	PWR (+)
2	Ø	PWR (-)
3	Ø	AUX 18-30V PWR
4	Ø	ALM COMMON
5	Ø	HI ALM
6	Ø	LO ALM
7	Ø	(+) BV
8	Ø	(-) BV
9	Ø	(+) 4-20
10	Ø	+ 20 LOOP PWR
11	Ø	(+) 0-5
12	Ø	(-) 0-5
13	Ø	(+) RANGE
14	Ø	(-) RANGE
15	Ø	PULSE OUT (+)
16	Ø	PULSE OUT (-)

#### E (Explosion Proof) style enclosure

PWR(+)	1	20	SENSOR (GRN)
PWR(-)	2	19	SENSOR (ORG)
(+) 0-5	3	18	SENSOR (RED)
(-) 0-5	4	17	SENSOR (WHT)
AUX 18-30V PWR	5	16	SENSOR (BLK)
(+) 4-20	6	15	(+) RANGE
(-) 4-20	7	14	(-) RANGE
ALM COMMON	8	13	(+) BV
(+) HI ALM	9	12	PULSE OUT (+)
(+) LO ALM	10	11	PULSE OUT (-)

TB1 LAYOUT

### Electrical Data:

Output level +5 Vdc

Pulse: Negative (TTL or open collector output)

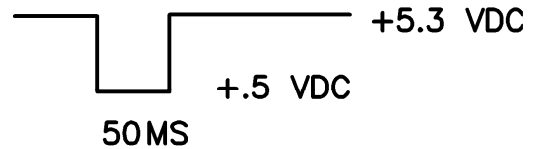
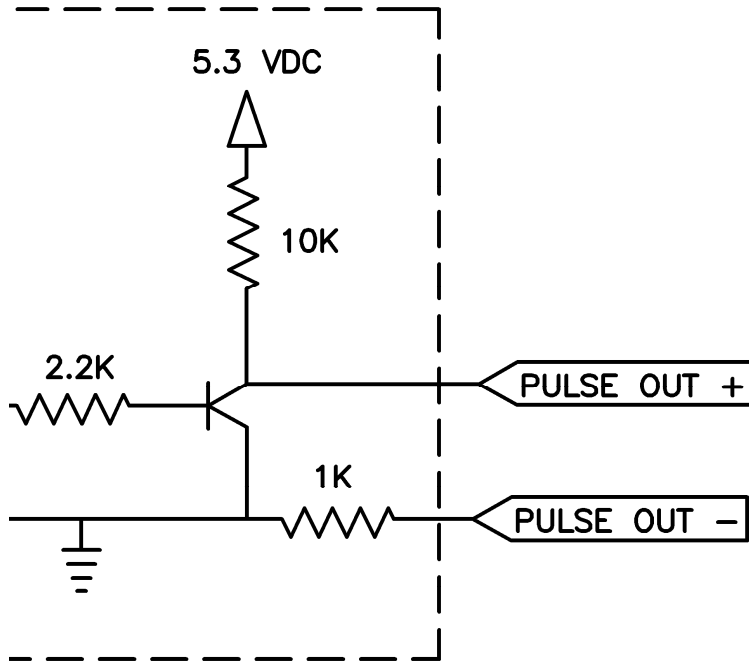
Pulse width: 50 mSec

Max Frequency: 1 Hz

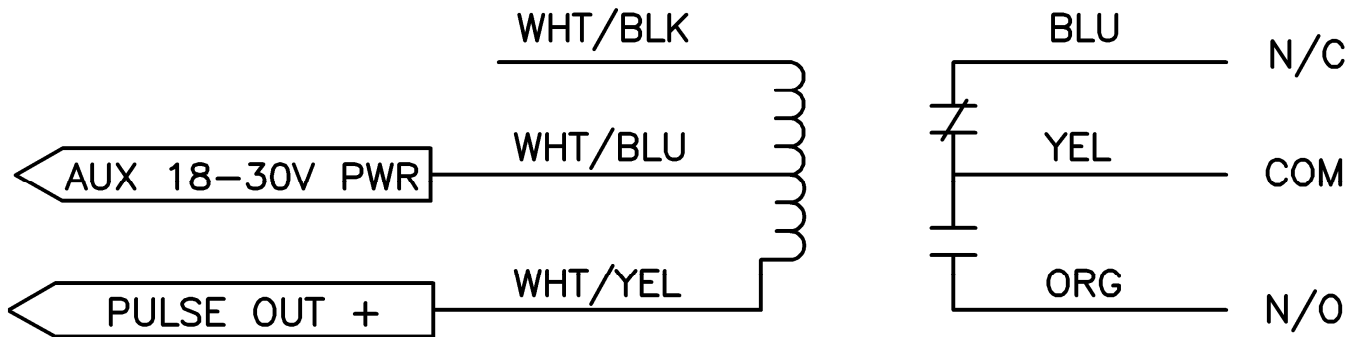
Max current using the internal supply and resistors, 0.40 mA

Max current with external power and resistors, 40 ma.

The number of engineering units per pulse is factory set and is available on the calibration certificate. (i.e. 10 scf per pulse)



This drawing shows the pulse output circuit inside the Smart Electronics. Connecting directly to the 2 Pulse Output terminals provides enough drive to support a PLC digital input card or a simple self powered totalizer counter like a Red Lion CUB or a Omron H7EC series.



If you need a dry relay contact output you can drive a low powered 24 VDC relay (> 600 Ω coil) as above. The common Functional Devices Inc. RIBU1C relay shown above has been tested and works fine.

99-1662 rev. B