

# Rate of flow transmitter

## Model RIDA4-20AK With 4-20mA analog output signal



6 digit red LED 0.56" (14.2mm) high digits  
Requires 85 to 250 VAC power source  
Provides 12 VDC for sensors (pulsers) 100mA max, short circuit protected

3 programmable function keys, 5 total  
3 programmable user inputs, 30V max continuous

### Totalizer

6 digit display: -999,999 to 999,999  
greater than 6 digits alternating between high and low order (8 digit max)

3 configurable totalizers

### Rate meter

5 digit display 0 to 99,999  
Max count rate 20kHz  
Min count rate 0.01Hz

Analog output 4 to 20mA  
Isolation 500 Vrms for 1 minute  
Signal accuracy 0.4% of full scale  
Compliance 500 ohm load max

DIP switch settings for count input configuration  
Non-volatile EEPROM memory  
Wire clamp screw terminal connections 30-14 AWG

Environmental rating NEMA 4/IP65 - face only  
IP20 - rear  
Operating temperature 0 to 50°C  
Vibration protection IEC 68-2-6 5-150Hz 1.5 hrs, 2g's  
Shock protection IEC 68-2-27 10 g's, 11ms  
UL listed UL508, UL50  
Weight 10.1 oz (286g)  
DIN cut-out (3.62+0.03/-0)x(1.77+0.02/-0) in  
(68+0.8/-0)x(33+6/-0) mm

### Features

Red LCD display  
Independent rate and total factors  
Selectable decimal position

### Benefits

Easy to read  
Display in multiple engineering units  
Scale as needed for low or high flows

### Description

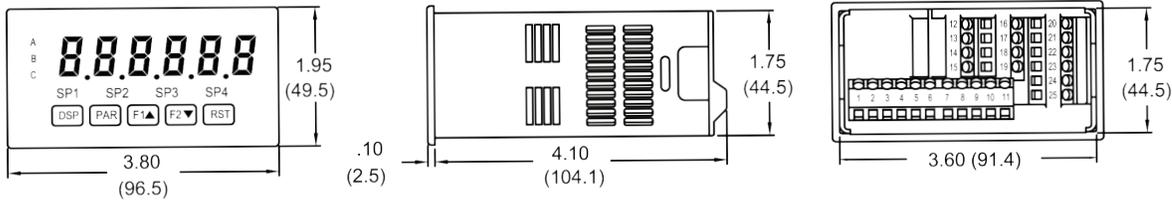
The model RIDA4-20AK is an economical rate of flow transmitter with 4-20mA output. It is particularly suited for use in providing a flow rate signal from Elster AMCO meter products, for use with use with programmable logic controllers, building management systems, and supervisory control and data acquisition (SCADA) systems.

It includes large red, easy to read 0.56" tall characters. Separately programmable count and rate scale factor values and decimal points allow for operation in various engineering units. The RIDA4-20AK allows users to program the zero and span of their systems anticipated flow range (i.e. 4mA value and 20mA value).

The low speed input is suited to contact closures such as reed switches or Elster AMCO Water's oil meters. The high speed input may be used with solid state, current sourcing pulsers such as Elster's evoQ4 with pulse output or oil meters with inductive pulse output options.

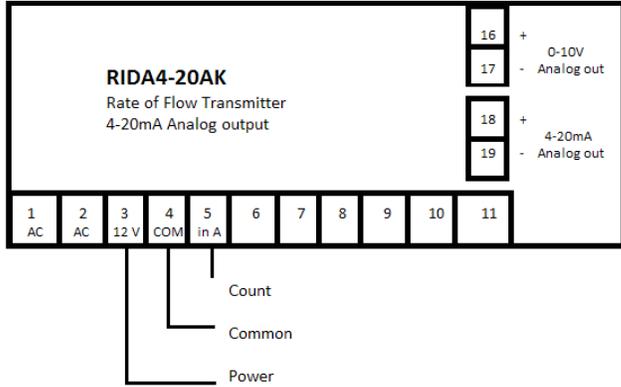
Wiring diagram examples are shown on the reverse page. Full size wiring diagrams detailing the connection of the RIDA4-20AK to our industrial metering products are available from Elster AMCO Water.





Dimensions in inches (mm).

Note: Recommended minimum clearance (behind the panel) for mounting clip installation is 2.1" (53.4) H x 5" (127) W.



## Programming quick reference

### Module 1 input parameters

T-INP	Description	Typical selection
x cnt	count mod	a cnt
xrESET	action at reset	zero
xdECPt	counter decimal point	0
xSCFAC	counter scale factor	1
xSCALr	scale multiplier	1, .1, or .01 based on meter

### Module 4 input parameters

4-rtE	Description	Typical selection
rAtEE n	rate assignment	rATE-A
L0-Udt	display update	1 (can be increased to smooth)
HI-Udt	rate at zero	.2-99 based on input frequency
rtE dP	rate decimal position	0 (resolution can be changed for low flow)
SEGS	linearizer segments	0
rDSP#	rate scaling display	1= per sec, 60= per min, 3600=per hr
rINP#	rate scaling input	1= gallons, 3.785= liter

### Wire diagram and DIP switch settings

Meter	Count	Common	Power	1	2	3	Jumper
V100	red or yellow	blue or black	NA	off	off	off	sink
H4000 (PR7)	red or yellow	black	NA	off	off	off*	sink
M190	either	either	NA	off	off	off	sink
H4400 inductive	brown	resistor**	black	off	off	off	src
Oil meter inductive	+ (right pin)	- (left pin)	NA	off	off	off	src
evoQ4	red or white	green	NA	off	off	off*	sink

\* may depend on pulse weight and flow rate combinations;

\*\* add 650 Ohm resistor between terminal 4 and 5

### Module 8 analog output parameters

8-ANA	Description	Typical selection
type	analog type	4-20 (can be 0-20mA or 0-10 VDC)
ASIN	analog assignment	rATE
AN-L0	analog low scale	0
AN-HI	analog high scale	process or meter dependent



elster

www.elsteramcowater.com

United States  
Elster AMCO Water, LLC  
10 SW 49<sup>th</sup> Avenue, Bldg. 100  
Ocala, FL 34474  
T +1 352 369 6500  
F +1 352 368 1950  
watermeters@elster.com

Canada  
Elster Canadian Meter Company Inc.  
1100 Walker's Line, Suite 101  
Burlington, Ontario L7N 2G3  
T +1 866 703 7581  
F +1 905 634 6705  
watermeters@elster.com

Caribbean  
Elster AMCO Water, Inc.  
P.O. Box 225, Carretera 112 KM 2.3  
Isabella, PR 00662  
T +1 787 872 2006  
F +1 787 872 5427  
prwatermeters@elster.com

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