

## ATR Tension Canister Load Cell

- Measurement ranges from 0 ... 100 kg to 0 ... 10 t
- Tension
- Non-linearity 0.02 % / 0.05 % / 0.1 % RO
- Output signal rationalised 3.0 mV/V  $\pm 0.2$  % (or  $\pm 0.1$  %)
- Supply voltage 10 VDC, max. 15 VDC



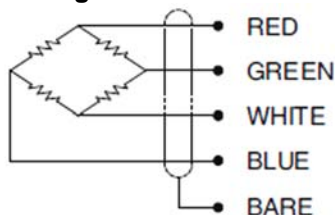
The ATR series load cells are designed for measuring tensile loads up to 10 tonnes are particularly suited for industrial application where optimum precision is needed. Featuring high-alloy tool steel construction for excellent repeatability, the unique element design provides high rated output (3 mV/V) with low deflection. It is recommended that the load cell should incorporate rod end ball joint assemblies to reduce the overall length.

- Hermetically sealed
- Robust high capacity design
- High rated output (3 mV/V)

### ■ Specifications

Model	ATRU	ATRC	ATRD
Rated capacity (RC):	500 kg, 1 t, 2 t, 3 t, 5 t	100 kg, 200 kg, 300 kg, 500 kg, 1 t, 2 t, 3 t, 5 t, 10 t	100 kg, 200 kg, 300 kg, 500 kg, 1 t, 2 t, 3 t, 5 t, 10 t
Non-linearity:	$\leq 0.02$ % RO	$\leq 0.05$ % RO	$\leq 0.1$ % RO
Hysteresis:		$\leq 0.02$ % RO	$\leq 0.1$ % RO
Creep, 20 min:		$\leq 0.02$ %	$\leq 0.1$ %
Non-repeatability:		$\leq 0.02$ % RO	$\leq 0.1$ % RO
Rated output (RO), rationalised:		3.0 mV/V $\pm 0.1$ %	3.0 mV/V $\pm 0.2$ %
Zero balance:		1 % RO	
Temperature effect on rated output:		$\pm 0.03$ % load/10 K	$\pm 0.05$ % load/10 K
Temperature effect on zero balance:		$\pm 0.03$ % RO/10 K	$\pm 0.05$ % RO/10 K
Compensated temperature range:		-10 ... +70 °C	
Operating temperature range:		-20 ... +80 °C	
Supply voltage, recommended:		10 VDC	
Supply voltage max.:		15 VDC	
Terminal input resistance:		350 $\Omega$ $\pm 3.5$ $\Omega$	
Terminal output resistance:		350 $\Omega$ $\pm 5$ $\Omega$	
Insulation resistance, min.:		5000 M $\Omega$ at 50 VDC	2000 M $\Omega$ at 50 VDC
Safe overload:		150 % RC	
Ultimate overload:		300 % RC	
Environmental sealing:		meets IP67	
Electrical connection:		$\varnothing$ 9 mm x 5 m (22AWG x 4-core, shielded)	

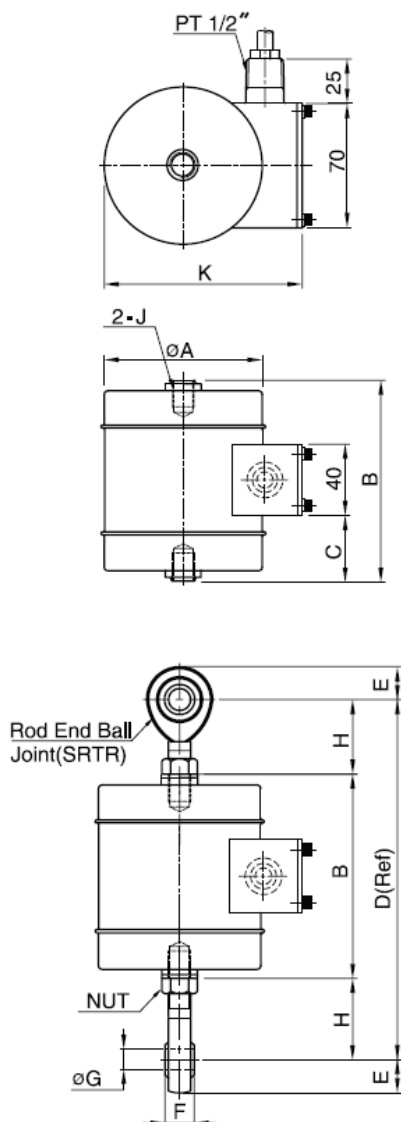
### ■ Wiring Information



#### Wiring

red	+ supply voltage
green	+ output signal
white	- supply voltage
blue	- output signal
bare	screen

## ■ Dimensions



Dimensions in „mm“, approx. values

These drawings are for information only and not intended for construction purpose.

Please contact us for detailed drawings.

Rated capacity	100 kg to 300 kg (981 N to 2.9 kN)	500 kg, 1 t (4.9 kN, 9.8 kN)	2 t to 5 t (19.6 kN to 49 kN)	10 t (98 kN)
A	88	88	88	138
B	110	106	145	210
C	35	33	52.5	70
D	192	188	255	430
E	16	16	32	50
F	16	16	28	43
G	12	12	22	40
H	41	41	55	110
J	M12 x 1.25; depth 13	M12 x 1.25; depth 13	M24 x 2; depth 30	M39 x 2; depth 50
K	112	112	112	171
Rod end ball joints	SRTR1	SRTR1	SRTR2	SRTR3
Weight	2.8 kg	2.8 kg	4.5 kg	12.5 kg

## ■ Ordering Information

ATRz-xx	Model z=	Capacity xx =
	U = Linearity ≤0.02 % RO	100 = 100 kg      1T = 1 t
	C = Linearity ≤0.05 % RO	200 = 200 kg      2T = 2 t
	D = Linearity ≤0.1 % RO	300 = 300 kg      3T = 3 t
		500 = 500 kg      5T = 5 t
		10T = 10 t

### Safety note:

It is essential to provide additional safety precautions like safety chains etc. for catching the load in a breakage, which cannot be excluded completely.

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.