

## ACR Compression Load Cell

- ▣ Measurement ranges from 0 ... 300 kg to 0 ... 10 t
- ▣ Compression
- ▣ 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



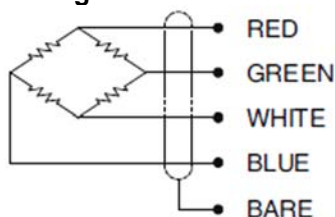
The ACR series load cells are designed for measuring compressive loads up to 10 tonnes are particularly suited for industrial application where optimum precision is needed. Featuring high-alloy tool steel construction for excellent repeatability, the unique element design provides high rated output (3 mV/V) with low deflection. It is recommended that the load cell should incorporate the flat, solid, machined bearing plate and mounting plate to provide the highest accuracy.

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

### ▣ Specifications

Model	ACRU	ACRC	ACRD
Rated capacity (RC):	500 kg, 1 t, 2 t, 3 t, 5 t	300 kg, 500 kg, 1 t, 2 t, 3 t, 5 t, 10 t	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 rationalised (RO):	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 connections:	$\varnothing$ 9 mm x 5 m (22AWG x 4-core, shielded)		

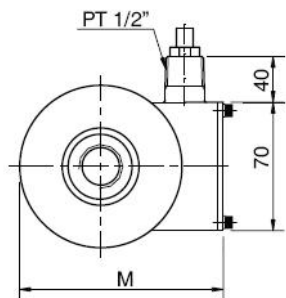
### ▣ Wiring



#### Wiring

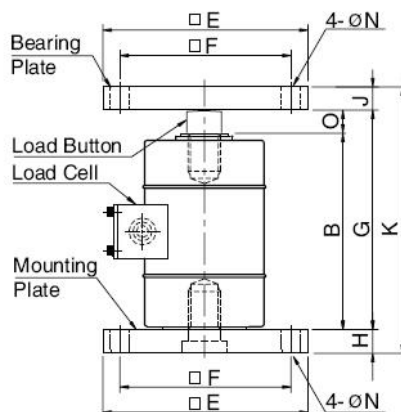
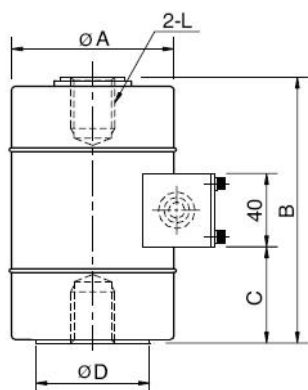
red	+ supply voltage
green	+ output signal
white	- supply voltage
blue	- output signal
bare	screen

## ■ 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	300 kg (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	33	33	52.5	70
D	34	34	66	102
E	100	100	130	160
F	78	78	106	126
G	119	115	161	230
H	15	15	24	30
J	15	15	24	30
K	149	145	209	290
L	M12x1.25; depth 13	M12x1.25; depth 13	M24x2; depth 30	M39x2; depth 50
M	112	112	112	171
N	8	8	12	14
O	9	9	16	20
Bearing plate	BPCR1	BPCR1	BPCR2	BPCR3
Mounting plate	MPCR1	MPCR1	MPCR2	MPCR3
Load button	LBCR1	LBCR1	LBCR2	LBCR3
Weight	2.8 kg	2.8 kg	4.5 kg	12.5 kg

## ■ Ordering Information

ACRz-xx	Model z=	Capacity xx =
	U = Linearity $\leq 0.02$ % RO	300 = 300 kg      3T = 3 t
	C = Linearity $\leq 0.05$ % RO	500 = 500 kg      5T = 5 t
	D = Linearity $\leq 0.1$ % RO	1T = 1 t            10T = 10 t
		2T = 2 t

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