

Model 2912 Force Transducers

Features

- robust construction made of mild steel
- small azimuth angle error, perfect for in-line applications
- for tension and compression applications
- capacity from 5 t to 50 t
- accuracy up to 0.05 %fs

Applications

- measuring tensile and compressive force
- hopper and crane scales

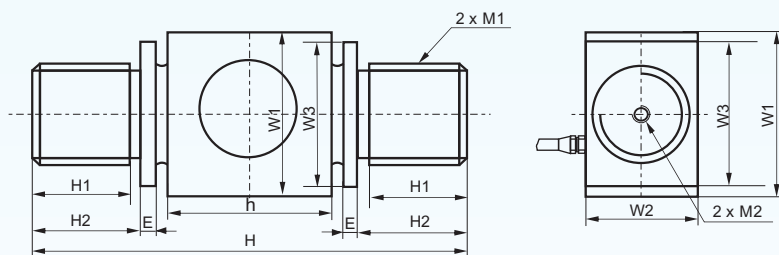


Description

2912 rod end in-line tension and compression force transducers are made of mild steel. These force sensors feature small azimuth angle error, which makes them ideal solutions for in-line applications.

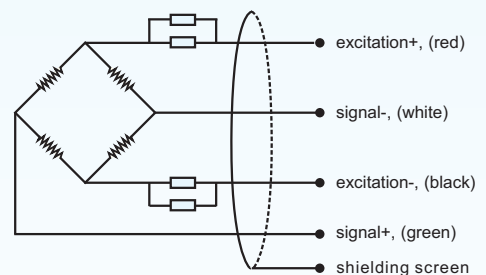
The capacity of model 2912 ranges from 5t to 50t, with an accuracy up to 0.1%fs (fs =full scale). These products can be sealed to a protection level of IP 67.

Dimensions



cap.(t)	H	H1	H2	E	h	W1	W2	W3	M1	M2
5	216	50	56	7	76	72	45	54	M42x3	M6x1
10	216	50	56	7	76	72	64	64	M42x3	M6x1
20	244	55	61	8	92	92	65	84	M52x3	M8x1.25
30	260	60	66	10	88	95	80	90	M56x3	M8x1.25
50	320	80	86	10	108	100	95	100	M64x3	M8x1.25

Electrical Connection



Model 2912

Force Transducers



Technical Data

parameters	units	specifications	
capacity	t	5, 7, 10, 20, 30, 50	
safe load limit	%fs	150	
ultimate overload	%fs	200	
output sensitivity at fs	mV/V	1.0 (cap.=5t), 1.5(cap.=10, 20t), 2.0 (cap.>20t)	
zero unbalance	%fso	± 1	
non-linearity	%fs	± 0.05	± 0.1 (standard)
hysteresis	%fs	± 0.05	± 0.1
repeatability	%fs	± 0.02 (cap.< 30t), ± 0.03 (cap.=30t, 50t)	
creep error (30 min.)	%fs	± 0.03 (cap.< 30t), ± 0.05 (cap.=30t, 50t)	
excitation (supply voltage)	Vdc	10 (recommended), 6, ..., 15	
max. excitation voltage	Vdc	16	
input resistance	Ω	1100 ± 30	
output resistance	Ω	1000 ± 5	
insulation resistance	MΩ	≥ 5000@50 Vdc	
storage temp. range	°C	-35 ~ +80	
operating temp. range	°C	-20 ~ +60	
compensated temp. range	°C	-10 ~ +40	
temp. coefficient of sensitivity	%fs/°C	± 0.002	
temp. coefficient of zero	%fs/°C	± 0.002	
load cell body material		mild steel	
sealing		potted	
mechanical interface		refer to the dimensions on the datasheets	
electrical interface		Φ5.7 mm, 4-conductor shielded cable, PVC jacket, 1 m	
environment protection		IP 66 (standard), IP 67	
unit weight	kg	Capacity dependent, to be confirmed when order.	

The listed specifications are subject to change without prior notice.

BCM SENSOR TECHNOLOGIES BVBA

Ordering Information

position (pos.) 1: model									
2912: made from mild steel									
pos. 2: capacities									
5 t 10 t 7 t 20 t 30 t 50 t									
pos. 3: output sensitivity									
1 mV/V (cap.= 5 t) 1.5 mV/V (cap. = 10 t & 20 t) 2 mV/V (cap.>20t)									
pos. 4: non-linearity or accuracy class									
0.05 %fs 0.1 %fs (standard)									
pos. 5: bridge resistance									
1000 Ω (Rin = 1100 ± 30 Ω, Rout = 1000±5 Ω)									
pos. 6: mechanical interface									
Refer to the dimensions on the datasheets. Pos. 6 can be omitted from the ordering code.									
pos. 7: electrical interface									
cable, code = diameter(Φ)/number of conductors/cable jacket/cable length 5.7/4/PVC/1 = Φ5.7 mm, 4-conductors shielded, PVC, length = 1*m									
pos. 8: environment protection									
IP 66 (standard) IP 67									
pos. 9: accessories for installation									
N = NA**. In case of "NA", pos.9 can be omitted.									
pos. 10: customized spec's									
When any customized spec's are required, the customer needs to add "C" as the last parameter in the ordering code, and specifies the wished spec's on his order clearly. The customized spec's needs to be confirmed in advance by BCM's sales representative. Code "C" can be omitted if no customized spec's are required.									
pos.1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6	pos. 7	pos. 8	pos. 9	pos. 10

*: This value can also be a customized value.

** : NA = not available or not applicable

example: 2912-5t-1mV/V-0.1%fs-1000Ω-5.7/4/PVC/1-IP66-C

