

5050M

SUBSEA LOAD SHACKLES

Load measuring shackles designed to measure subsea tension forces.



Model 5050M - 30 t



Features

- o CE certified for hoisting applications
- o Protection class: IP68
- o Depth: up to -7500 m / -24 606 ft (750 bars / 11 000 psi) - deeper on request
- o Sturdy design
- o Material: stainless steel except shackle bow
- o Easy to install
- o Complete range of CE certified electronics, load limiters and display available
- o Cable length: 6 m (other lengths available on request)

Most popular options



Ex i

Ex d

IP68

Application(s) SENSY's dynamometric load shackles 5050M are perfectly designed for the following applications:

- SL-FORCE: Force measurement on subsea lines / Subsea mooring.
- SL-HOIST: Load monitoring on subsea hoisting devices.

Capacities

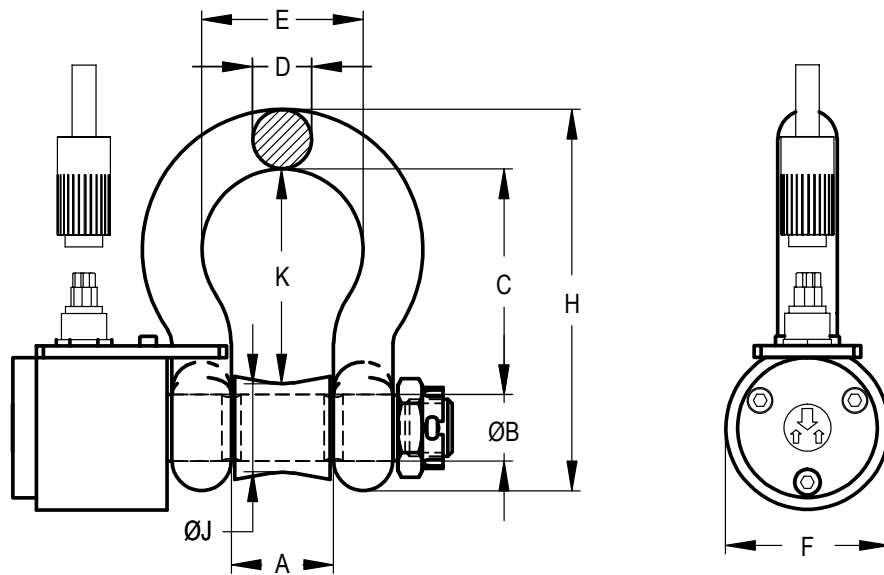
from 5 t to 400 t

Specifications	SL - FORCE	SL - HOIST	
Combined error (non-linearity + hysteresis)	0.25 - 1**	0.5 - 2**	% F.S.*
Repeatability error	<± 0.25	<± 0.25	% F.S.*
Creep error over 30 min.	<± 0.3	<± 0.3	% F.S.*
Zero shift after loading	<± 0.5	<± 0.5	% F.S.*
Reference temperature	23	23	°C
Compensated temperature range	-10...+45	-10...+45	°C
Service temperature range	-25...+70	-25...+70	°C
Storage temperature range	-50...+85	-50...+85	°C
Temperature coefficient of the sensitivity	<± 0.2	<± 0.2	% F.S./10°C
Temperature coefficient of zero signal	<± 0.2	<± 0.2	% F.S./10°C
Zero balance	± 0.02	± 0.02	mV/V
Nominal sensitivity	± 1.5	± 1	mV/V
Input resistance	350 ± 2	350 ± 2	ohm(s)
Output resistance	350 ± 2	350 ± 2	ohm(s)
Insulation resistance (50 V)	> 5000	> 5000	Mohm(s)
Reference excitation voltage	10	10	VDC
Permissible nominal range of excitation voltage	3...12	3...12	VDC
Safe load limit	150	200	% F.S.*
Breaking load	> 300	> 500	% F.S.*
Permissible dynamic loading	50	75	% F.S.*
Static lateral force limit	100	150	% F.S.*

* F.S. : Full Scale.

** Typical range of accuracy, depending on design and dimensions.
Specifications subject to change without notice..

5050M > STANDARD DIMENSIONS



Ref. Item	Capacities			D		A	B	C	E	F±	H	ØJ	K	Tolerances C & K	Total weight (kg)
	Force		Hoist	(mm)	(inch)										
	Standard > 300 %**	Extended capacity* > 300 %**	> 500 %**												
5050M-1 1/8"	8 t	10 t	5 t	28	1 1/8"	47±2.4	32	108	75	68	185±8.9	40	104	±6.4	5
5050M-1 1/2"	12 t	15 t	8 t	38	1 1/2"	60±4	42	146	99	92	249±9.9	54	140	±6.4	12
5050M-1 3/4"	20 t	25 t	12 t	45	1 3/4"	74±4	50	178	126	106	299.5±11.2	65	171	±6.4	19
5050M-2"	33 t	40 t	20 t	50	2"	83±4.2	57	197	138	122	331±17.5	72	189	±12.7	28
5050M-2 1/2"	50 t	60 t	30 t	65	2 1/2"	105±4.7	70	260	180	145	432.5±18.7	90	250	±12.7	52
5050M-3"	75 t	85 t	45 t	75	3"	127±5	83	329	190	165	526.5±26	105	318	±19	90
5050M-3 3/4"	100 t	130 t	70 t	95	3 3/4"	147±5	95	400	238	208	647±25	117	389	±19	150
5050M-4 1/8"	110 t	150 t	85 t	105	4 1/8"	169±5	108	410	275	240	688±18	130	399	±12	190
5050M-5 1/8"	200 t	300 t	150 t	130	5 1/8"	205±6	140	554	305	308	904±22	165	541.5	±14	320
5050M-5 1/2"	250 t	300 t	150 t	140	5 1/2"	205±6	150	618	305	335	996±27	180	603	±18	350
5050M-6 11/16"	300 t	400 t	240 t	170	6 11/16"	231±6	175	668	325	387	1114±27	200	655	±18	585

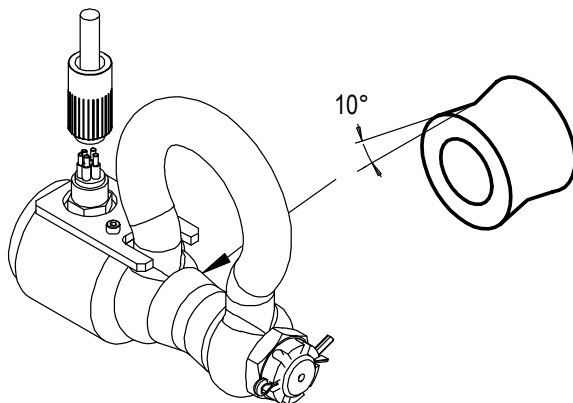
* Very resistant load cell, special design

** Breaking load (% full scale)

→ Other capacities and dimensions available on request

Dimensions in mm

Other view



Wiring

SUBSEA CONNECTOR

Load direction

