

5050

SUBSEA / SUBMERGED LOAD PINS

Design for underwater applications.



Model 5050



Features

- o Custom-made dimensioning
- o Sturdy design
- o Material: stainless steel
- o Protection class: IP68
- o Easy to install
- o Depth: up to -7500 m / -24 606 ft (750 bars / 11 000 psi) - deeper on request
- o Cable length: 6 m (other lengths available on request)

Most popular options



Ex d

Ex i



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

- Shipbuilding / Monitoring system / Tank test / Oil exploration,
- Working at sea / Seabed mooring / ROV subsea tethers,
- Force testing / weighing inside pressure vessels.

Capacities

from 0.5 to 2000 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	mVV
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.



ISO 9001 certified

5050 > TECHNICAL SPECIFICATIONS

Load pins range



5000 (1 to 2000 t)
CUSTOM-MADE LOAD PIN



5050 (1 to 2000 t)
SUBSEA LOAD PIN



5300 (0.5 to 125 t)
STANDARD LOAD PIN



5600 (0.5 to 14 t)
ECONOMICAL LOAD PIN

TOOLS

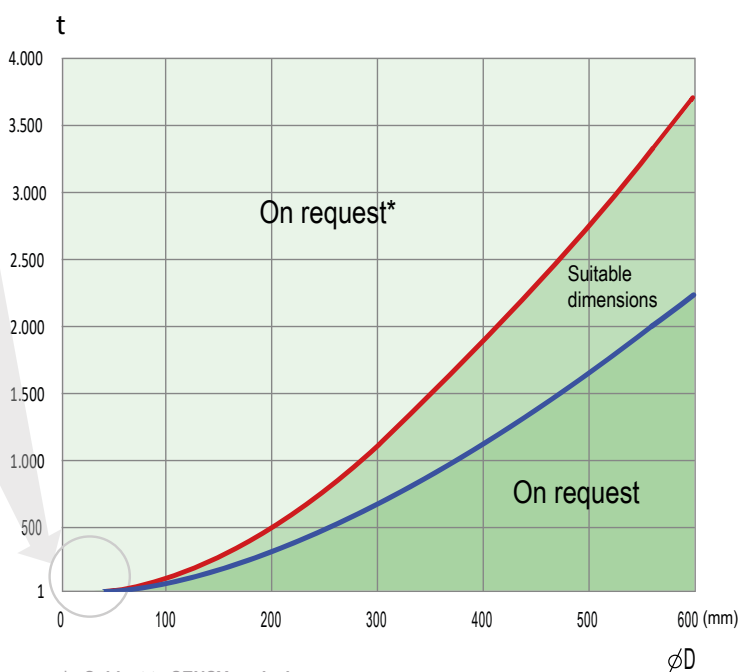
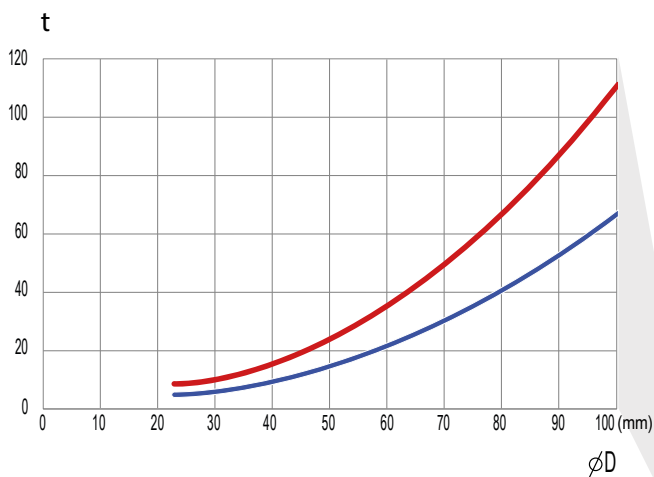
CONFIGURATOR

www.sensy.com/load-pins-configurator/5050

LOAD PIN DESIGN

www.sensy.com/load-pins-configurator/load-pin-design

Load-diameter relationship

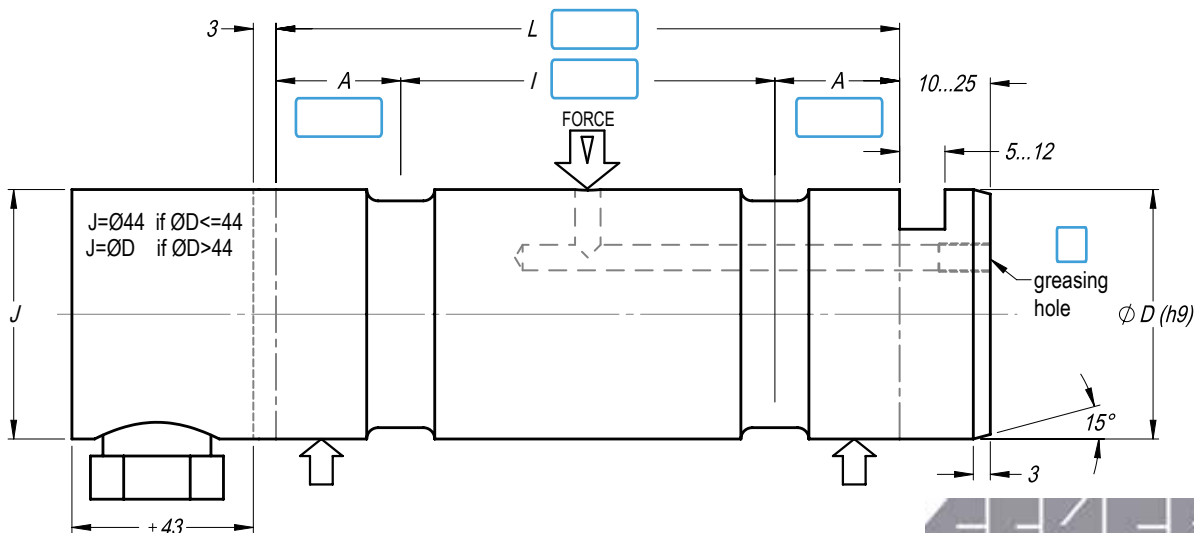


CAPACITY:

DIAMETER ØD:

* : Subject to SENSY analysis

Mechanical dimensions



5050 > OPTIONS

Configuration

<p>Example:</p> <p>C: Connector B: Cable entry: 180°</p> <p>H: Fixing plate: 0° N: Position code</p>		<p>Example:</p> <p>P: Cable gland B: Cable entry: 180°</p> <p>H: Fixing plate: 0° C: Position code</p>		<p>Example:</p> <p>P: Cable gland A: Cable entry: axial</p> <p>D: Fixing plate: 90° N: Position code</p>	
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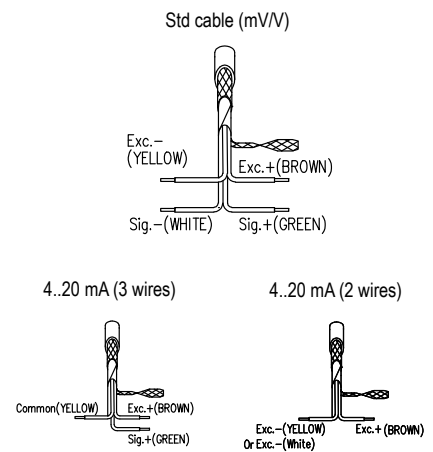
Cable entry	Connector	Cable Gland	if ØD ≤ 100		if ØD > 100	
			Fixing plate nr 1	Fixing plate nr 2	Fixing plate nr 4	Fixing plate nr 4
	C	P	N	C	2	V2 , V4 , P2 , P4 , VC , PC

Options

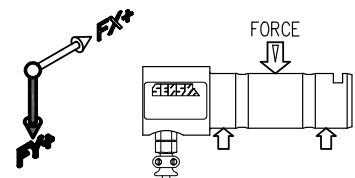
Type of application	FORCE (BL* > 300 %)		HOISTING (BL* > 500 %)		LIFT (BL* > 1000 %)	
Environment	static					
	dynamic					
Environment	NORMAL	INDUSTRIAL	NUCLEAR	AERONAUTICS	Other:	
	SUBSEA		Immersion depth:		Immersion time:	
Output signal	mV/V	4-20 mA 2 wires	0-10 V (force) 3 wires	1-5 V (hoisting)	RS-485	WIRELESS
Service temperature range	Standard temperature range					
Dual bridge circuit	NO		YES		Redundancy Safety SIL / PL Biaxial load pin, directions X and Y	
Cable length (m)	6	12	20	50	100	Other:
Intrinsically safe	Not applicable	ATEX	IECEX/ ATEX	CSA (US/Canada)	Triple certification	

*BL = Breaking load

Wiring



Load direction



5050 > EXAMPLES

5050-CHHN-50 t



5050-CHxx-20 t



5050-SIL



5050-15 MN



5050-75 t



5050-CHHN-50 t



5050-30-kN



5050-75 t



5050-4.5 MN



5050-60 t

