

Our model 5000 is designed to measure a force or constraint, without any change to the mechanical structure, simply by replacing the clevis pin with our custom-made load pin.



Features

- o Material: stainless steel
- o Protection class: IP65 (up to IP68: see options)
- o Sturdy design
- o Easy to install
- o Complete range of CE certified electronics, load limiters and displays available for hoisting applications and lifts
- o Cable length: 6 m (other lengths available on request)

Model 5000-XY-188 kN



Most popular options



Ex i



IP67
MARINE

IP68
see 5050

Application(s) SENSY's load cells 5000 are perfectly designed for the following applications:

SL - FORCE: - Force measurement on cylinders, industrial weighing / Winches monitoring, agriculture machinery, general machinery, test benches.

SL - HOIST: Hoisting devices and crane's security in combination with a load limitation electronic,

SL - LIFT: - Load limitation for elevators and cable cars / Rigging of theater equipment.

Capacities

from 0.5 to 2000 t

Specifications	SL - FORCE	SL - HOIST	SL - LIFT	
Combined error (non-linearity + hysteresis)	0.25 - 1**	0.5 - 2**	0.5 - 2**	% F.S.*
Repeatability error	<± 0.25	<± 0.25	<± 0.25	% F.S.*
Creep error over 30 min.	<± 0.3	<± 0.3	<± 0.2	% F.S.*
Zero shift after loading	<± 0.5	<± 0.5	<± 0.5	% F.S.*
Reference temperature	23	23	23	°C
Compensated temperature range	-10...+45	-10...+45	-10...+45	°C
Service temperature range	-25...+70	-25...+70	-25...+70	°C
Storage temperature range	-50...+85	-50...+85	-50...+85	°C
Temperature coefficient of the sensitivity	<± 0.2	<± 0.2	<± 0.2	% F.S./10°C
Temperature coefficient of zero signal	<± 0.2	<± 0.2	<± 0.2	% F.S./10°C
Zero balance	± 0.02	± 0.02	± 0.02	mV/V
Nominal sensitivity	± 1.5	± 1	± 0.5	mV/V
Input resistance	350 ± 2	350 ± 2	350 ± 2	ohm(s)
Output resistance	350 ± 2	350 ± 2	350 ± 2	ohm(s)
Insulation resistance (50 V)	> 5000	> 5000	> 5000	Mohm(s)
Reference excitation voltage	10	10	10	VDC
Permissible nominal range of excitation voltage	3...12	3...12	3...12	VDC
Safe load limit	150	200	300	% F.S.*
Breaking load	> 300	> 500	> 1000	% F.S.*
Permissible dynamic loading	50	75	100	% F.S.*
Static lateral force limit	100	150	200	% F.S.*

*F.S. : Full Scale.

** Typical range of accuracy, depending on design and dimensions.

Specifications subject to change without notice.

5000 > 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

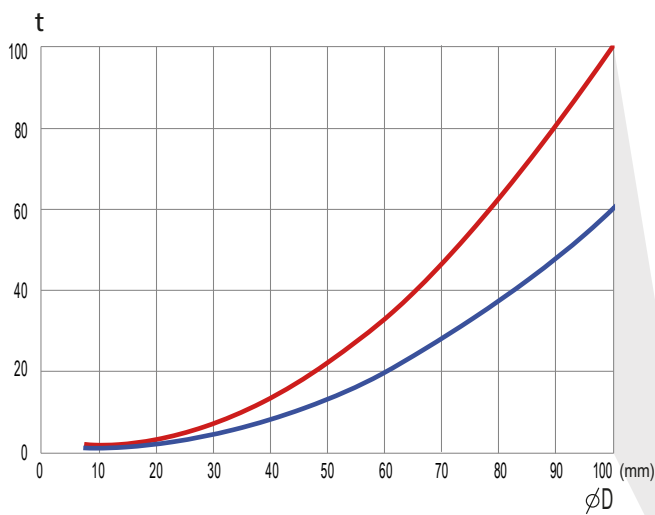
CONFIGURATOR

<https://www.sensy.com/en/load-pins-configurator/load-pin>

LOAD PIN DESIGN

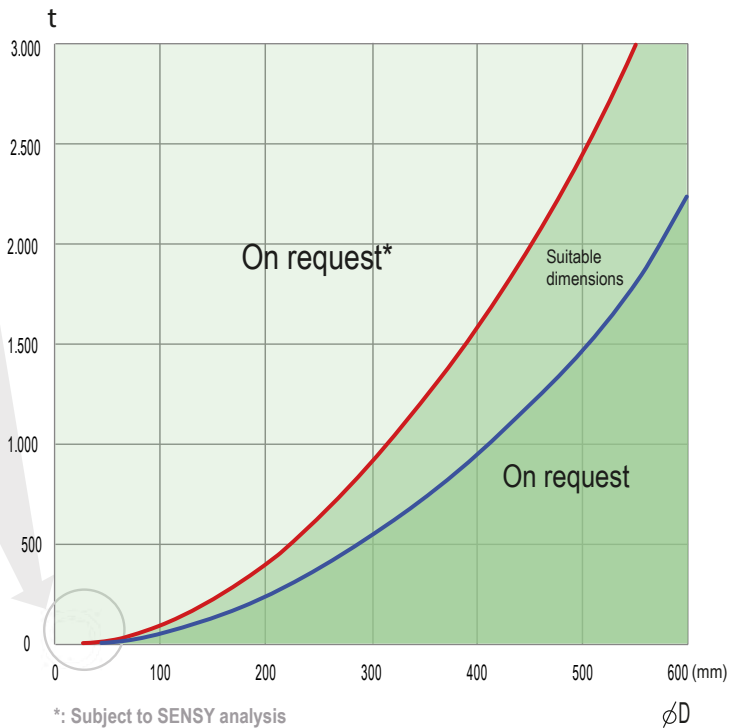
<https://www.sensy.com/en/load-pins-configurator/load-pin-design>

Load-diameter relationship

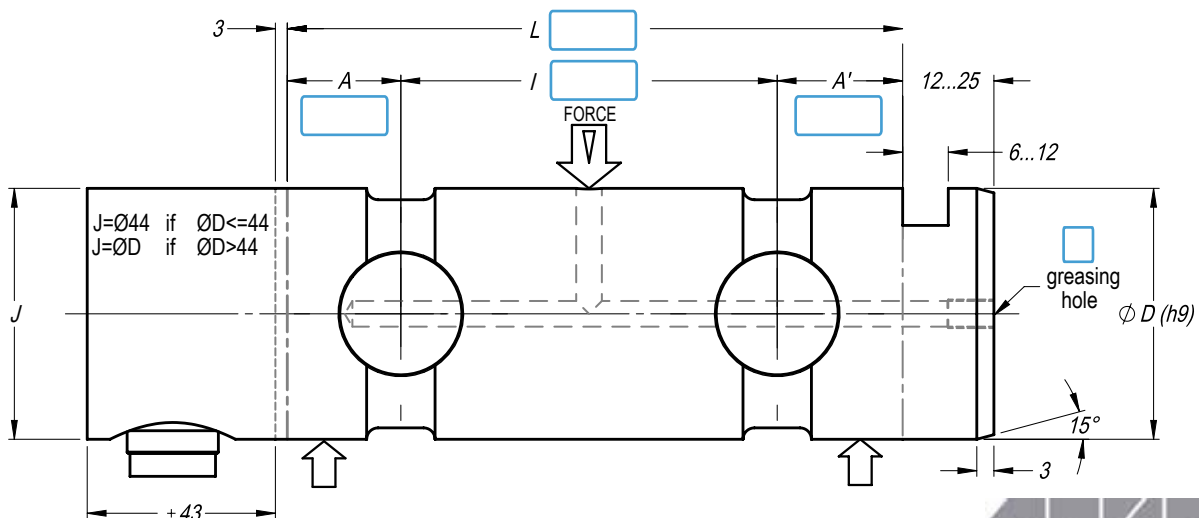


CAPACITY

DIAMETER ØD



Mechanical dimensions



TECHNICAL DRAWINGS: CUSTOM-MADE LOAD PINS

5000 > **OPTIONS**

Configuration

<p>Example:</p> <p>CB HN</p> <p>C: Connector B: Cable entry: 180°</p> <p>H: Fixing plate: 0° N: Position code</p>	<p>Example:</p> <p>PB HC</p> <p>P: Cable gland B: Cable entry: 180°</p> <p>H: Fixing plate: 0° C: Position code</p>	<p>Example:</p> <p>PA DN</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	2	4	4

Options

Type of application	FORCE (BL* > 300 %)		static dynamic		HOISTING (BL* > 500 %)		LIFT (BL* > 1000 %)		
Environment	IP65		IP66		IP67		IP67 MARINE		
	NORMAL		INDUSTRIAL		NUCLEAR		AERONAUTICS		
	SUBSEA		Immersion depth:		Immersion time:		Other:		
Output signal	mV/V	4-20 mA 2 wires	3 wires	0-10 V (force)	1-5 V (hoisting)	RS-485	WIRELESS	Other:	
Service temperature range	<p>Standard temperature range: -20°C to 70°C</p> <p>Temperature range available (option): -50°C to +200°C</p>								
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

Std. cable (mV/V)

Exc.- (YELLOW) Exc.+ (BROWN)

Sig.- (WHITE) Sig.+ (GREEN)

4-20 mA (3 wires) 4-20 mA (2 wires)

Common (YELLOW) Exc.+ (BROWN)

 Sig.+ (GREEN)

Or Exc.- (YELLOW) Exc.+ (BROWN)

 Exc.- (WHITE)

Load direction

FX

FY

FORCE

5000 > EXAMPLES

5000-HOIS003158-12 t - SIL3



5000-FORC000678-12 t



5000-HOIS003629-60 t



5000-HOIS003043-15 klb
3053-3.5 klb



5000-FORC000474-778 t



5000-HOIS003025-16 t



5000-FORC003812-8 t



5000-FORC000025-150 kg



5000-FORC000492-226 t



5000-HOIS001860-105 t



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