

Data sheet

Force-
standard

Series KTN-LF

(1 MN – 30 MN)



Benefits/Application

- Class 0.5 acc. ISO 376
- For static compressive forces
- Extremely robust
- Especially to calibrate testing machines
- Outstanding overload-tolerance
- 6-wire connection technology

Options/Accessories

- Bending moment circuits
- Transport case

Technical data

Class 0,5

		Nominal force	F_{nom}	MN	1	2	3	5	10	20	30
Metrological Data	Force measurment range			%	20 - 100						
	Interpolation error		f_c	%	0,045						
	Reversibility error		v	%	0,14						
	Repeatability error in unchanged mounting position		b, b_{rg}	%	0,045						
	Reproducibility error in different mounting positions		b', b_{rv}	%	0,09						
	Zero error		f_0	%	0,02						
	Creep		180 s...20 min	%	0,03						
	Temperature effect on characteristic value per 10 K		TK_C	%/10K	0,02						
	Temperature effect on zero signal per 10 K		TK_0	%/10K	0,02						
Electrical Data	Rated characteristic value		C_{nom}	mV/V	2						
	Input resistance		R_e	Ω	ca. 750						
	Output resistance		R_a	Ω	ca. 700						
	Insulation resistance		R_{is}	Ω	>10 ⁹						
	Operating range of excitation voltage		$B_{U,G}$	V	5 - 12						
	Protection (DIN EN 60529)				54						
Mechanical Data	Mass transducer		m	kg	6	18	35	65	143	308	527
	Mass thrust piece		m	kg	3	6	13	30	70	186	314
	Force limit			%	110						
	Breaking force			%	200						
	Permissible eccentricity		e_G	mm	10						
	Rated temperature range		$B_{T,nom}$	°C	17 - 27						
	Operating temperature range		$B_{T,G}$	°C	10 - 35						

Cable connection

Connection pluggable¹⁾²⁾

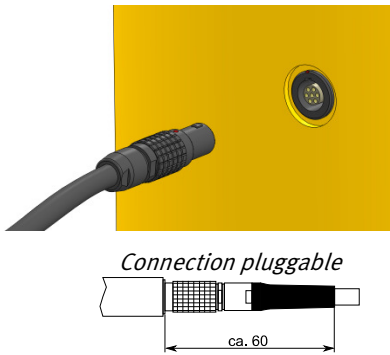
7-pin LEMO Series 1

Female: Male:

Connection		Pin
Supply voltage (+)	U _{in+}	3
Supply voltage (-)	U _{in-}	2
Measurement signal (+)	U _{out+}	1
Measurement signal (-)	U _{out-}	4
Sense (+)	Sense+	5
Sense (-)	Sense-	6
Shielding		Housing

1)View too weldingside

2) Female LEMO S.A. Typ: EGG.1B.307.CLL; Male: FGG.1B.307.CLA.D72



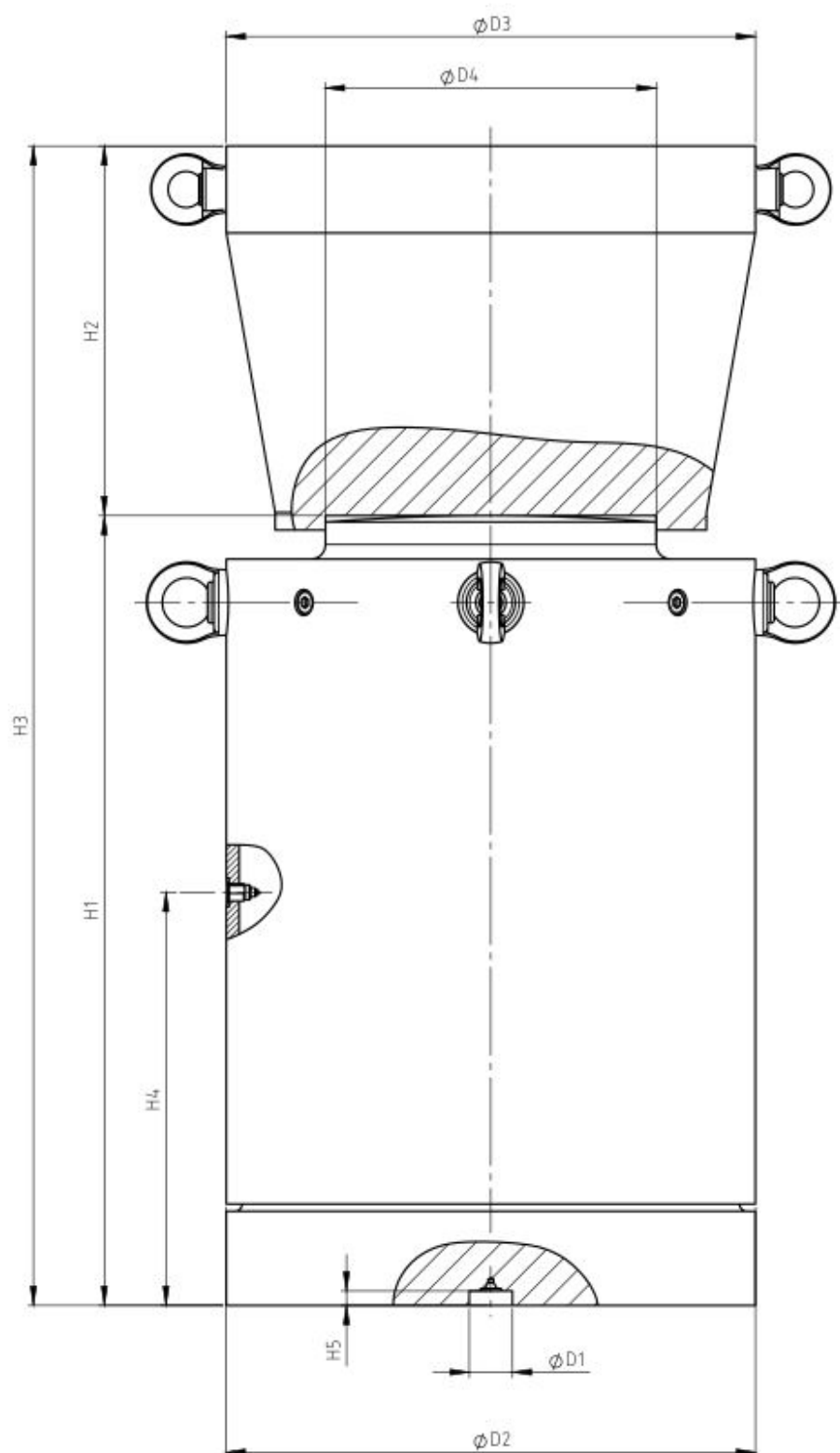
- More cable types and lengths on request
- Connector types on cable end: D-Sub 9; D-Sub 15; M-S 7pol

Option: Bending moment

Nominal load	F_{nom}	MN	1	2	3	5	10	20	30
Temperature effect on characteristic value per 10 K	TK_C	%/10K				0,2			
Temperature effect on zero signal per 10 K	TK_0	%/10K				0,2			
Input resistance	R_e	Ω				400			
Operating range of excitation voltage	$B_{U, G}$	V				5 - 12			

- The bending moment circuits M_x and M_y can be measured advantageous with a multichannel amplifier to check the load introduction.

Mating dimensions



Mating dimensions

Nominal force	F_{norm}	MN	2	3	5	10	20	30
Diameter	$\varnothing D_1$	mm	30 _{H7}					
Diameter	$\varnothing D_2$	mm	120	145	200	273	368	440
Diameter	$\varnothing D_3$	mm	120	145	200	273	368	440
Diameter	$\varnothing D_4$	mm	80	100	150	158	230	275
Height	H_1	mm	220	320	345	455	545	600
Height	H_2	mm	80	110	125	180	255	300
Height	H_3	mm	300	430	470	635	800	900
Height	H_4	mm	97,5	120	185	232,5	285	290
Height	H_5	mm	10					

Änderungen vorbehalten. Alle Angaben beschreiben unsere Produkte in allgemeiner Form. Sie stellen keine vereinbarte Beschaffenheit im Sinne des § 434 Abs. 1 BGB dar



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