

Data sheet

Force standard

Series KTN-LF

(1 MN – 30 MN)



Benefits/Application

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

Options/Accessories

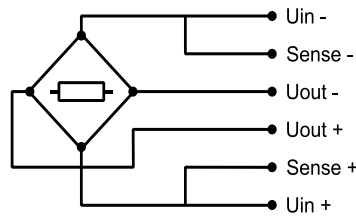
- Bending moment circuits
- Transport case

Technical data

Class 0,5

		F_{nom}	MN	1	2	3	5	10	20	30
Metrological Data	Nominal force	F_{nom}	MN	1	2	3	5	10	20	30
	Force measurement 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	$B_{T,nom}$	$^{\circ}\text{C}$	17 - 27						
	Operating temperature range	$B_{T,G}$	$^{\circ}\text{C}$	10 - 35						

Cable connection



Connection
pluggable¹⁾²⁾

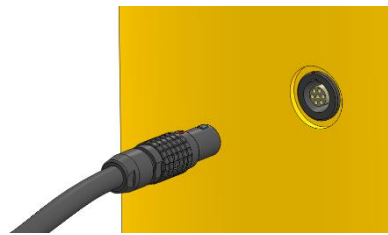
7-pin LEMO Series 1
Female: - Male:



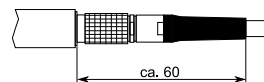
Connection		Pin
Supply voltage (+)	U_{in+}	3
Supply voltage (-)	U_{in-}	2
Measurement signal (+)	U_{out+}	1
Measurement signal (-)	U_{out-}	4
Sense (+)	Sense+	5
Sense (-)	Sense-	6
Shielding		Housing

1) View too weldingside

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



Pluggable connection



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

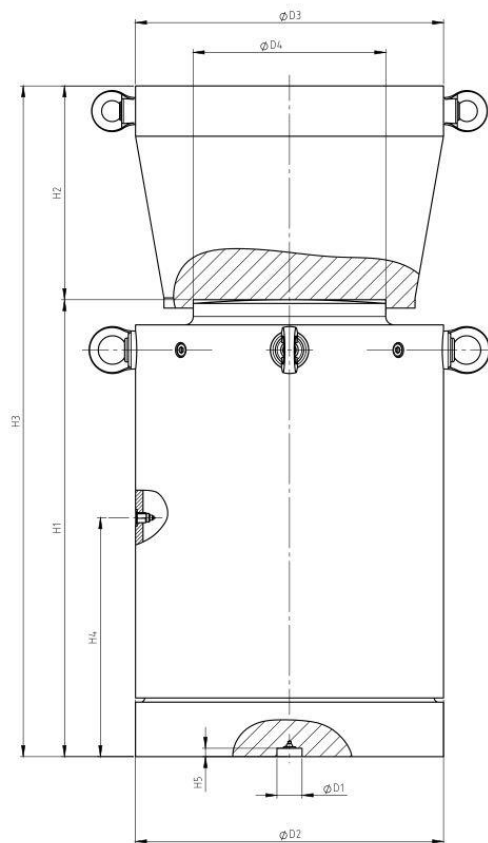
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- ▶ All standard variants are equipped with a pluggable LEMO socket. Suitable measuring cables S-CAB / C-CAB are available as accessories.
 - ▶ We recommend S-CAB-DMC-L-5M-F as a suitable measuring cable.
 - ▶ More cable types and lengths on request.
 - ▶ Connector types on cable end: D-Sub 9; D-Sub 15; M-S 7pol.
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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_o	%/10K	0,2						
Input resistance	R_e	Ω	400						
Operating range of excitation voltage	$B_{U,G}$	V	5 - 12						

- The bending moment circuits may be advantageously used for the adjustment of the force introduction

Mating dimensions



Nominal force	F_{norm}	MN	1	2	3	5	10	20	30
Diameter	$\varnothing D_1$	mm	-	30H7					
Diameter	$\varnothing D_2$	mm	80	120	145	200	273	368	440
Diameter	$\varnothing D_3$	mm	80	120	145	200	273	368	440
Diameter	$\varnothing D_4$	mm	52	80	100	150	158	230	275
Height	H_1	mm	170	220	320	345	455	545	600
Height	H_2	mm	75	80	110	125	180	255	300
Height	H_3	mm	245	300	430	470	635	800	900
Height	H_4	mm	88,5	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.

GTM
DEFINING PRECISION

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