

Data sheet

Torque Transfer
Wrench

Series Dm-TS

(2 N·m - 3000 N·m)



Benefits/Application

- Class 0,1 and 0,2 acc. DKD-R-3-7
- High precision
- Little weight
- Standardised connection dimensions
- For static moments
- Insensitive to changes in the lever arm length
- Easy adaption

Options/Accessories

- Temperature measurement with PT 100

Technical data

Class 0,1

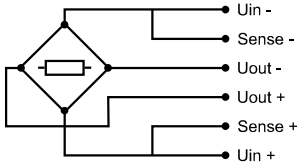
			2	5	10	20	25	50	100	200	500	1000	2000	3000			
Metrological Data	Rated Torque	M_{nom}	N·m														
	Torque measurement range		%	20 - 100													
	Interpolation error	f_c	%	0,05													
	Reversibility error	v	%	0,125													
	Repeatability error in unchanged mounting position	b, b_{rg}	%	0,05													
	Reproducibility error in different mounting positions	b', b_{rv}	%	0,1													
	Zero error	f_0	%	0,025													
	Creep		%	0,01													
	Temperature effect on characteristic value per 10 K	TK_c	%/10 K	0,05													
	Temperature effect on zero signal per 10 K	TK_0	%/10 K	0,05													
Electrical Data	Rated characteristic value	C_{nom}	mV/V	2													
	Input resistance	R_e	Ω	1100							700-800						
	Output resistance	R_a	Ω	850-1000							1700-2000						
	Insulation resistance	R_{is}	Ω	$>2 \times 10^9$													
	Operating range of excitation voltage	$B_{U,G}$	V	5 - 12													
	Protection (DIN EN 60529)			IP 60													
Limits	Mass	m	kg	0,3				0,9	1,5	2,5	3,2	4	30				
	Torque limit		%	120													
	Breaking torque		%	200													
	Lateral force limit	N	%	24	60	120	240	300	480	690	1200	2400	2900				
	Rated temperature range	$B_{T,nom}$	$^{\circ}\text{C}$	-10 - +70													
	Operating temperature range	$B_{T,G}$	$^{\circ}\text{C}$	-20 - +85													

Technical data

Class 0,2

			2	5	10	20	25	50	100	200	500	1000	2000	3000			
Metrological Data	Rated Torque	M_{nom}	N·m														
	Torque measurement range		%	20 - 100													
	Interpolation error	f_c	%	0,1													
	Reversibility error	v	%	0,25													
	Repeatability error in unchanged mounting position	b, b_{rg}	%	0,1													
	Reproducibility error in different mounting positions	b', b_{rv}	%	0,2													
	Zero error	f_0	%	0,05													
	Creep		%	0,02													
	Temperature effect on characteristic value per 10 K	TK_C	%/10 K	0,05													
	Temperature effect on zero signal per 10 K	TK_0	%/10 K	0,05													
Electrical Data	Rated characteristic value	C_{nom}	mV/V	2													
	Input resistance	R_e	Ω	1100						700-800							
	Output resistance	R_a	Ω	850-1000						1700-2000							
	Insulation resistance	R_{is}	Ω	$>2 \times 10^9$													
	Operating range of excitation voltage	$B_{U,G}$	V	5 - 12													
	Protection (DIN EN 60529)			IP 60													
Limits	Mass	m	kg	0,3			0,9		1,2	2,5	3,2	4	30				
	Torque limit		%	120													
	Breaking torque		%	200													
	Lateral force limit	N	%	24	60	120	240	300	480	690	1200	2400		2900			
	Rated temperature range	$B_{T,nom}$	$^{\circ}\text{C}$	-10 - +70													
	Operating temperature range	$B_{T,G}$	$^{\circ}\text{C}$	-20 - +85													

Cable connection



		Permanent connection end connected ¹⁾³⁾⁴⁾ 7-pin LEMO Series 1 Female ³⁾	Connection pluggable ¹⁾²⁾⁵⁾ 7-pin LEMO Series 0 Female: - Male:
Connection		Pin	Pin
Supply voltage (+)	U_{in+}	3	3
Supply voltage (-)	U_{in-}	2	2
Measurement signal (+)	U_{out+}	1	1
Measurement signal (-)	U_{out-}	4	4
Sense (+)	Sense+	5	5
Sense (-)	Sense-	6	6
Shielding		Housing	Housing

- 1) View to welding side.
- 2) Female LEMO S.A. Typ: EGG.1B.307.CLL; Male: FGG.1B.307.CLA.D72
- 3) Available up to Size 25 N·m
- 4) Cable length 0,5 m
- 5) Available from Size 50 N·m



*Permanent connection
end connected
(up to size 10 N·m)*



Connection pluggable

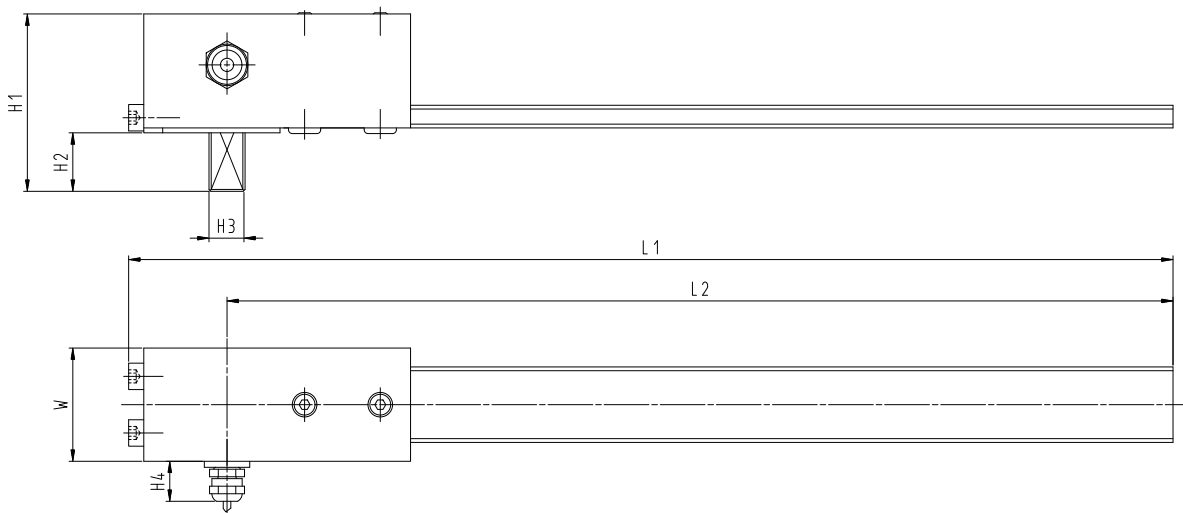
- Available types of connectors for the cable:
D-Sub 9 pol ;D-Sub 15pol ;M-S 7pol ;LEMO Series1 7pol
- Configuration with customer defined connection is possible

Mating dimensions

up to 25 N·m

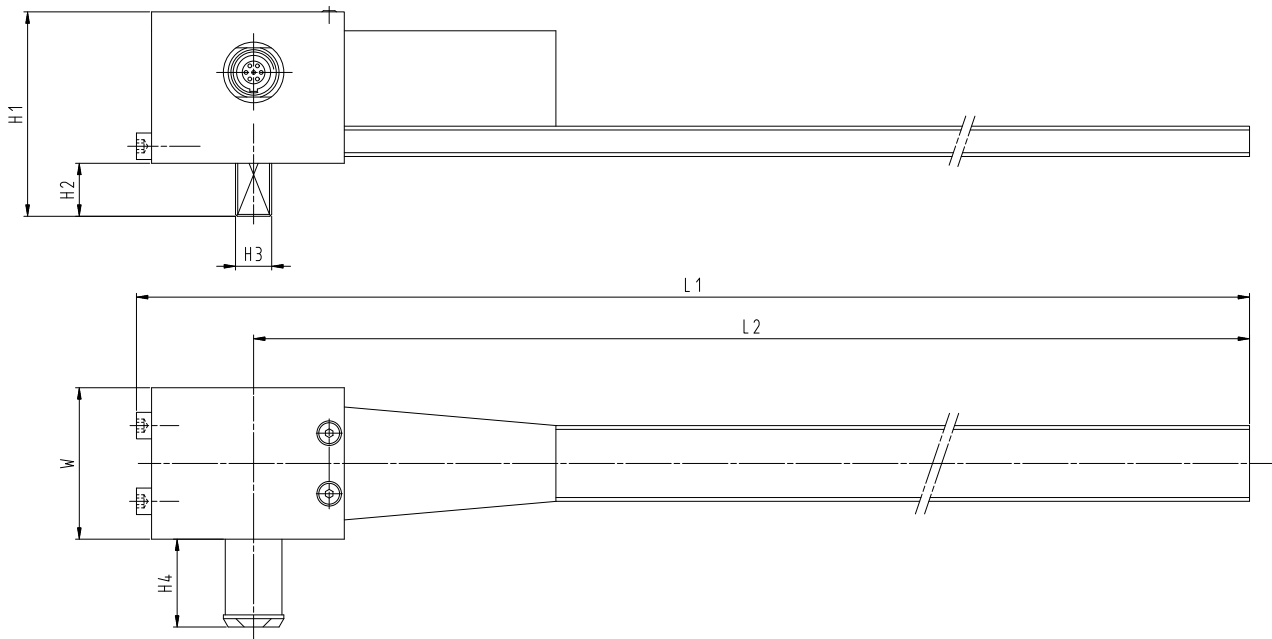
Rated Torque	M_{nom}	N·m	2	5	10	20	25
Height	H_1	mm			47		
Height	H_2	mm			15,5		
Height	H_3	mm			3/8"		
Height	H_4	mm			11		
Lenght	L_1	mm			276		
Lenght	L_2	mm			250		
Width	W	mm			30		

2 N·m - 25 N·m



Mating dimensions

up to 200 N·m

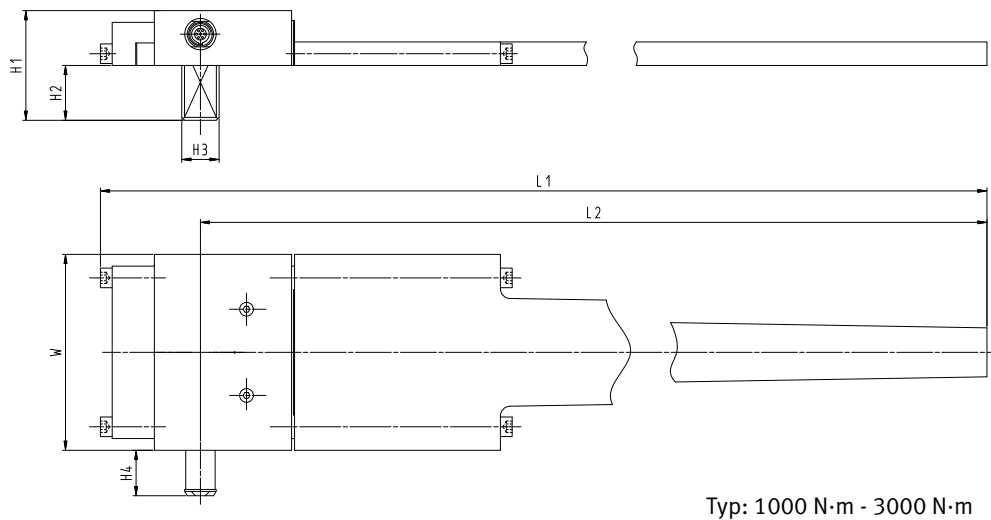
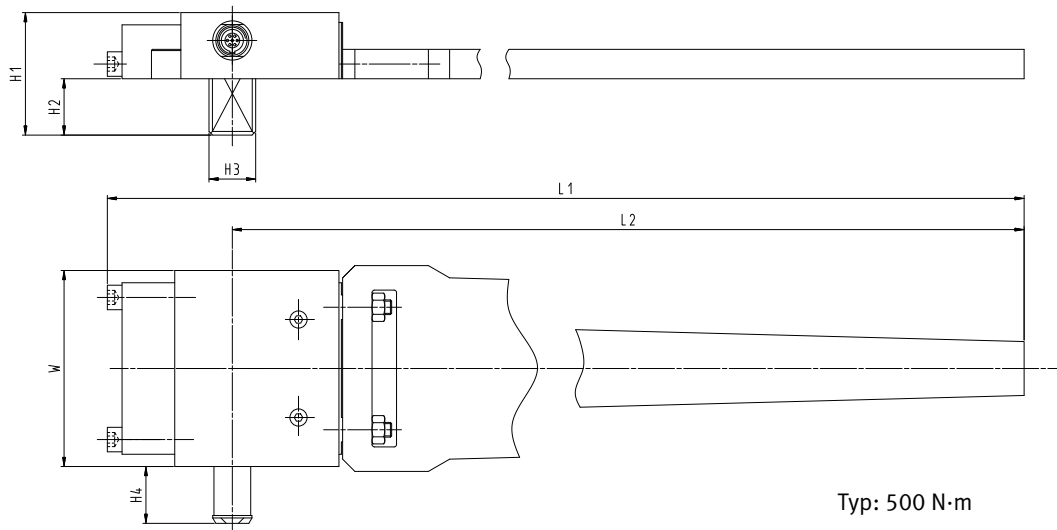


Typ: 50 N·m - 200 N·m

Rated Torque	M_{nom}	N·m	50	100	200
Height	H_1	mm	54	63,5	28
Height	H_2	mm	14	23,5	20
Height	H_3	mm	3/8"		1/2"
Height	H_4	mm	23		
Length	L_1	mm	481	582	799
Length	L_2	mm	450	550	756
Width	W	mm	40		60

Mating dimensions

from 3000 N·m



Rated Torque	M_{nom}	N·m	500	1000	2000	3000 ¹⁾
Height	H_1	mm	50	56	62	83,5
Height	H_2	mm	23	28		33,5
Height	H_3	mm	3/4"	1"		1 ^{1/2} "
Height	H_4	mm		25		
Lenght	L_1	mm	1113	1115	1124	2587
Lenght	L_2	mm	1062	1064		2500
Width	W	mm	80	100	132	197

1) Lever arm is divided for transportation provided.

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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