

Chain hoist test set

Friction clutch testing up to 3,500 kg

Model FRKPS

WIKA data sheet FO 51.69

Applications

- Friction clutch testing on chain hoists for:
 - Service companies
 - Chain hoist users
 - Services and maintenance

Special features

- Measuring ranges 40 ... 3,500 kg
- Simple calibration of friction clutches without weights
- Single sensor concept for entire load range
- Maximum- / minimum value memory
- Relative linearity error 0.5 % F_{nom}



Chain hoist testing set, model FRKPS

Description

The FRKPS is used to test the friction clutch on chain hoists. The device consists of a force transducer with chain adapters and a display unit. To perform the test, the force transducer is inserted into the chain, travels upwards with it against the base of the chain hoist and thereby blocks the chain.

The force transducer is built as shear beam and is therefore unaffected by parasitic forces and torques. The output signal is carried via cable to the hand-held indicator. To test every kind of chain hoist in the specified load range two chain adapters and three centering sleeves are required.

The additional digital hand-held display unit has all the necessary functions to process the output signals of sensors and display the measured value directly. The large dot-matrix display makes handling particularly easy.

Delivery

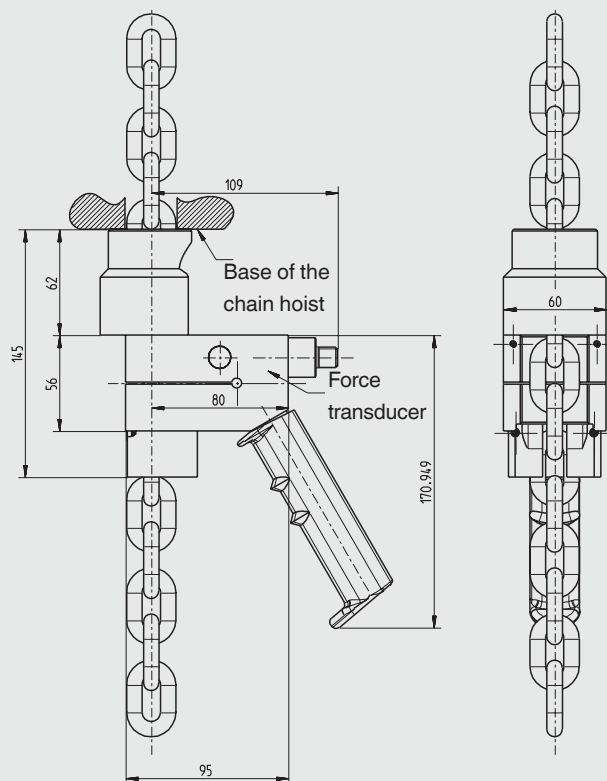
in robust aluminum case with

- Hand-held indicator
- Force transducer
- 3 centering sleeves
- 2 chain adapters
- Charger
- 10 m cable

Technical data in accordance with VDI/VDE/DKD 2638

Model FRKPS	
Nominal load F_{nom} kg	40 ... 3,500
Relative linearity error d_{lin}	$\leq 0.5 \% F_{nom}$
Force limit F_L	$200 \% F_{nom}$
Breaking force F_B	$> 300 \% F_{nom}$
Material	Stainless steel
Rated temperature range $B_{T, nom}$	0 ... 80 °C
Operating temperature range $B_{T, G}$	-20 ... +80 °C
Output signal (rated output) C_{nom}	4 ... 20 mA, 2-wire
Electrical connection	M12 x 1 connector, 4-pin Power supply: AC100-240V 50-60Hz, Output DC12V/450mA incl. cable 10 m
Hand-held indicator	LCD, 5 digits, illuminated (optional infrared interface for data evaluation via PC)
Storage function	Optional 99 data sets (serial number with 12 digits)
Additional display function	MIN, MAX, HOLD, AVG, TARA, LGT
Operating time	8 h (per rechargeable battery)
Chain adapter for chain size acc. EN 818-2	2 pieces (3 x 9 mm up to 11 x 31 mm)
Chain center sleeve	3 pieces
Protection (acc. to IEC/EN 60529)	IP67 Force transducer IP40 Hand-held indicator
Dimensions (B x H x D)	445 x 165 x 350 mm transport case
Weight	< 10 (set incl. transport case) 7 (force transducers)

Dimensions in mm



Chain dimensions according to EN 818-2:2008 (D)

Nominal size dn	Nominal size tolerance	Spacing p	Spacing tolerance	Internal width w1 _{min.}	External width w2 _{max.}	Measuring length of 11 x p	Measuring length of tolerance	Weldet joint ds _{max.}	Weight kg/m
3	± 0.1	9	+0.1/-0.05	3.6	10.2	99	+0.3/-0.15	3.3	0.2
4	± 0.2	12	+0.15/-0.1	4.8	13.6	132	+0.4/-0.2	4.3	0.35
5	± 0.2	15	+0.2/-0.1	6	17	165	+0.5/-0.25	5.4	0.54
6	± 0.2	18	+0.2/-0.1	7.2	20.4	198	+0.6/-0.3	6.5	0.78
7	± 0.3	21	+0.25/-0.15	8.4	23.8	231	+0.7/-0.35	7.5	1.1
8	± 0.3	24	+0.3/-0.15	9.6	27.2	264	+0.8/-0.4	8.6	1.4
9	± 0.4	27	+0.35/-0.15	10.8	30.6	297	+0.95/-0.45	9.7	1.75
10	± 0.4	30	+0.35/-0.15	12	34	330	+1/-0.5	10.7	2.2
11	± 0.4	33	+0.4/-0.2	13.2	37.4	363	+1.2/-0.5	11.8	2.6
12	± 0.5	36	+0.45/-0.2	14.4	40.8	396	+1.25/-0.6	12.9	3.1
13	± 0.5	39	+0.5/-0.25	15.6	44.2	429	+1.35/-0.65	14	3.65
14	± 0.6	42	+0.55/-0.25	16.8	47.6	462	+1.5/-0.7	15.1	4.2
16	± 0.6	48	+0.6/-0.3	19.2	54.4	528	+1.7/-0.8	17.3	5.5
18	± 0.9	54	+0.7/-0.3	21.6	61.2	594	+1.95/-0.95	19.4	7.0
20	± 1.0	60	+0.8/-0.4	24	68	660	+2.2/-1	21.6	8.6
22	± 1.1	66	+0.9/-0.4	26.4	74.8	726	+2.4/-1.1	23.8	10.5

Chain dimensions according to EN 818-7:2008 (D)

Nominal size dn	Nominal size tolerance	Spacing p	Spacing tolerance	Internal width w1 _{min.}	External width w2 _{max.}	Measuring length of 11 x p	Measuring length of tolerance	Weldet joint ds _{max.}	Weight kg/m
4	± 0.2	12	+0.15/-0.1	4.8	13.6	132	+0.4/-0.2	4.3	0.35
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