

GENERAL FEATURES

- Spring system
- Potentiometric measurement
- Potentiometric, 4-20 mA or 0-10V analog output options
- Body mouting or front nut mounting
- Standard IP40, optional IP65 protection
- Optionally cable or DIN 43650-C socket connection
- Measurement lengths between 10 mm and 150 mm
- Long life up to 100 million movements
- High accuracy
- Operating speed up to 5 m/s

LFR series is the industry proven system on both actuator shaft and spring. There are 2 types, which are mounting from the body and mounting with a nut from the front.

They work as ABSOLUTE because they are measuring with the potentiometric principle, that is, they do not lose their position in case of power off. Potentiometric, 4-20 mA (optional 0-20 mA) or 0-10V analog output options are available.

Because of their linearized conductive plastic resistance alloy and special contacts, they are not affected by wear and operate for a long time with a life cycle of up to 100 million. They are stable by being linear and they measure evenly.

TECHNICAL SPECIFICATIONS

Model	LFR 010	LFR 025	LFR 050	LFR 075	LFR 100	LFR 125	LFR 150
Electrical Stroke (mm)	10	25	50	75	100	125	150
Mechanical Stroke (mm)	12	27	52	77	102	127	152
Independent Linearity	±%1	±%0,5	±%0,4	±%0,25	±%0,2	±%0,2	±%0,2
Repeatability	0.01 mm						
Max Operating Speed	5 m/s						
Resistance Element	Conductive Plastic						
Output Signal	Potentiometric		4-20 mA (opt. 0...20 mA) or 0-10V				
Supply Voltage	42V max.		12...30 VDC				
Resistance	5K, 10K (optional other)		-				
Resistance Tolerance (±%)	20		-				
Electrical Connection	DIN 43650-C socket or 3 x 0,14 mm ² shielded PVC cable						
Operating Temperature	-30°C...+100°C						
IP Protection Class	IP40 (optional IP65)						
Life	100 million movements						
Rod Material	Stainless Steel						
Body Material	Aluminum						

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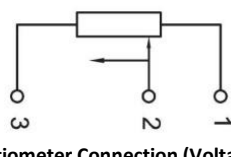
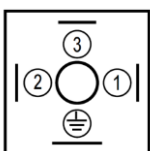
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ELECTRICAL CONNECTION

SIGNAL	CABLE COLOR	DIN 43650-C SOCKET
+VDC	Red	Pin 1
Output Signal*	Yellow	Pin 2
-VDC	Black	Pin 3

* Output Signal may be potentiometric, 0-10 VDC or 4-20 mA depending on the model (See Product code table).

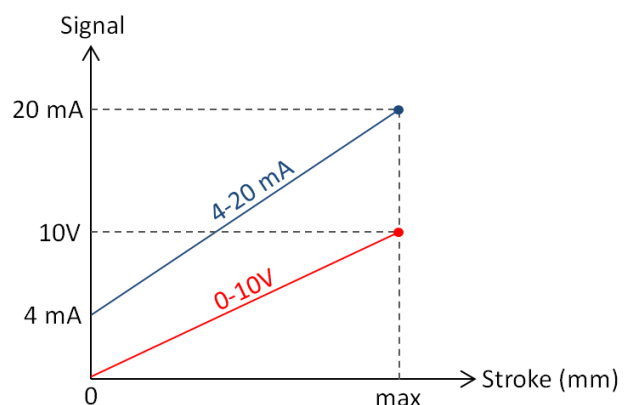
DIN 43650-C SOCKET



Potentiometer Connection (Voltage Divider)

Note: The GND line of the feed and signal output is common. Therefore it can be connected with 3-wire cable

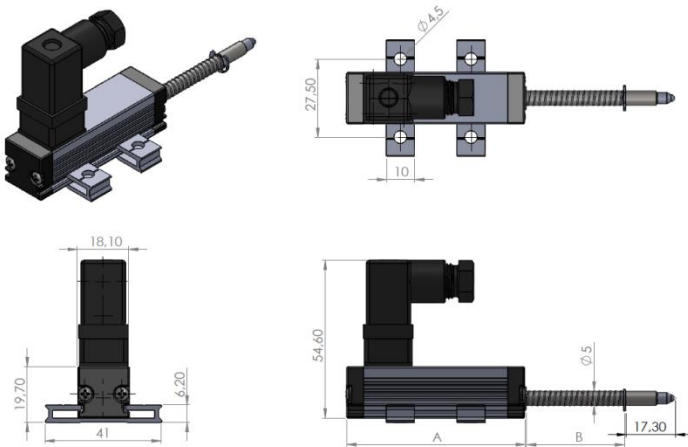
Analog Output Signal Graphic



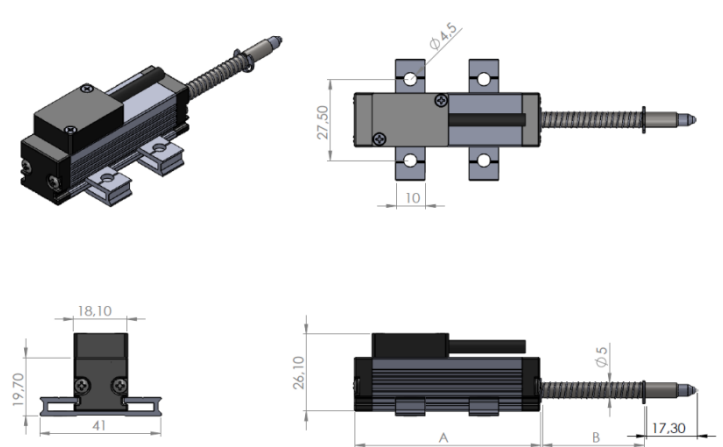
MECHANICAL DIMENSIONS (mm)

LFR SERIES

MODEL WITH DIN 43650-C SOCKET



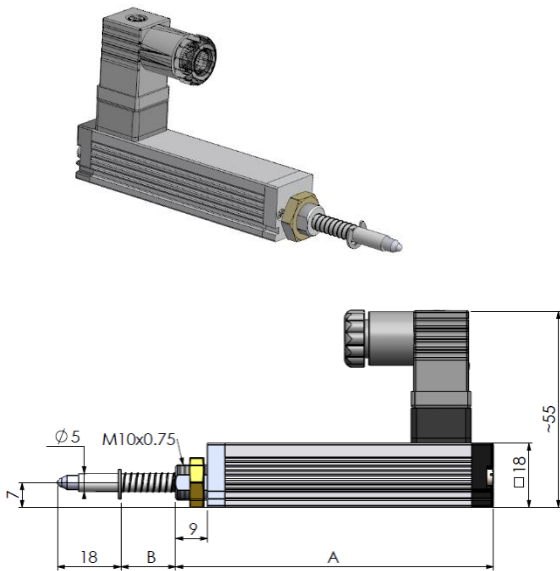
MODEL WITH 3 x 0,14 mm² CABLE



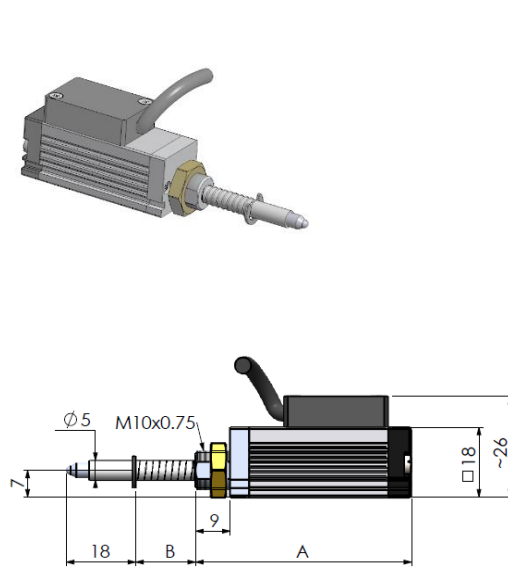
		Stroke (mm)		10	25	50	75	100	125	150
Potentiometric Output (with cable or socket)	A	For IP40		48	63	88	113	138	163	188
		For IP65		58	73	98	123	148	173	198
	B		15,5	34,5	65,5	96,5	127,5	161,5	192,5	
0-10 V or 4-20 mA Output (with cable)	A	For IP40		48	63	88	113	138	163	188
		For IP65		58	73	98	123	148	173	198
	B		15,5	34,5	65,5	96,5	127,5	161,5	192,5	
0-10 V or 4-20 mA Output (with socket)	A	For IP40		82	97	122	147	172	197	222
		For IP65		92	107	132	157	182	207	232
	B		15,5	34,5	65,5	96,5	127,5	161,5	192,5	

LFR 2 SERIES

MODEL WITH DIN 43650-C SOCKET



MODEL WITH 3 x 0,14 mm² CABLE



		Stroke (mm)		10	25	50	75	100	125	150
Potentiometric Output (with cable or socket)	A	For IP40		56	71	96	121	146	171	196
		For IP65		66	81	106	131	156	181	206
	B		15,5	34,5	65,5	96,5	127,5	161,5	192,5	
0-10 V or 4-20 mA Output (with cable)	A	For IP40		56	71	96	121	146	171	196
		For IP65		66	81	106	131	156	181	206
	B		15,5	34,5	65,5	96,5	127,5	161,5	192,5	
0-10 V or 4-20 mA Output (with socket)	A	For IP40		90	105	130	155	180	205	230
		For IP65		100	115	140	165	190	215	240
	B		15,5	34,5	65,5	96,5	127,5	161,5	192,5	

SAMPLE APPLICATION FIELDS

- Measuring /control technology
- Manufacturing engineering like woodwork machines, riveting machines, packaging machines and welding machines etc.
- Assembly / test devices
- Medical applications
- Building technology

ORDER CODE

Order Code for Analog Output

Model

LFR : Body mounting
LFR2 : Front nut mounting

Output Signal

A: 4-20 mA (*Optional 0-20 mA)
V: 0-10 VDC

Protection

No code: IP40
E065: IP65

LFRX - XXX - X - XX - XXXX

Measuring Lengths (stroke)

Different measuring lengths between 10 mm and 150 mm

Electrical Connection

No Code: DIN43650-C socket
2M: 2 meters PVC cable (standard)
(*Optionally different cable lengths)

Order Code for Potentiometric Output

Model

LFR : Body mounting
LFR2 : Front nut mounting

Resistance Value

5K: 5K Ω
10K: 10K Ω

Protection

No code: IP40
E065: IP65

LFRX - XXX - XXX - XX - XXXX

Measuring Lengths (stroke)

Different measuring lengths between 10 mm and 150 mm

Electrical Connection

No Code: DIN43650-C socket
2M: 2 meters PVC cable (standard)
(*Optionally different cable lengths)

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