Sensor SKDA

FESTO

Characteristics

At a glance

- Used to determine tensile and/or compression forces in machine and system building
- Suitable for static and dynamic measurement tasks in direct force flow
- The force transducer is used to measure axial forces on electric screw presses and for force measurement
- Corrosion resistance, CrNi steel design
- Sturdy construction
- High shock and vibration resistance
- Good reproducibility, easy to mount
- Suitable for the production of Li-ion batteries

Force measuring range

[100]	Up to 100 kN

Force direction

[AB]	For tensile and pressure forces

Type code

001	Series	
SKDA	Sensor	

002	Force measuring range	
0.8	Up to 0.8 kN	
1.5	Up to 1.5 kN	
4	Up to 4 kN	
7	Up to 7 kN	
12	12 kN	
17	17 kN	
30	Up to 30 kN	
50	Up to 50 kN	
100	Up to 100 kN	

003	Force direction	
AB	For tensile and pressure forces	

Datasheet

General technical data 0.8 to 12 kN					
Force measuring range	Up to 0.8 kN	Up to 1.5 kN	Up to 4 kN	Up to 7 kN	12 kN
Operational voltage range DC	10 ... 30 V				
Calibration range	-0.2 ... 1 kN	-0.2 ... 2 kN	-0.5 ... 4.5 kN	-0.5 ... 7.5 kN	-1 ... 13 kN
Maximum load	1.5 kN	3.75 kN	11.25 kN	15 kN	30 kN
Analogue output	4 - 20 mA				
Accuracy analogue output in ± %FS	0.2 %FS				
Electrical connection	5-pin A-coded Socket M12x1				
Product weight	0.2 kg		0.3 kg		0.7 kg

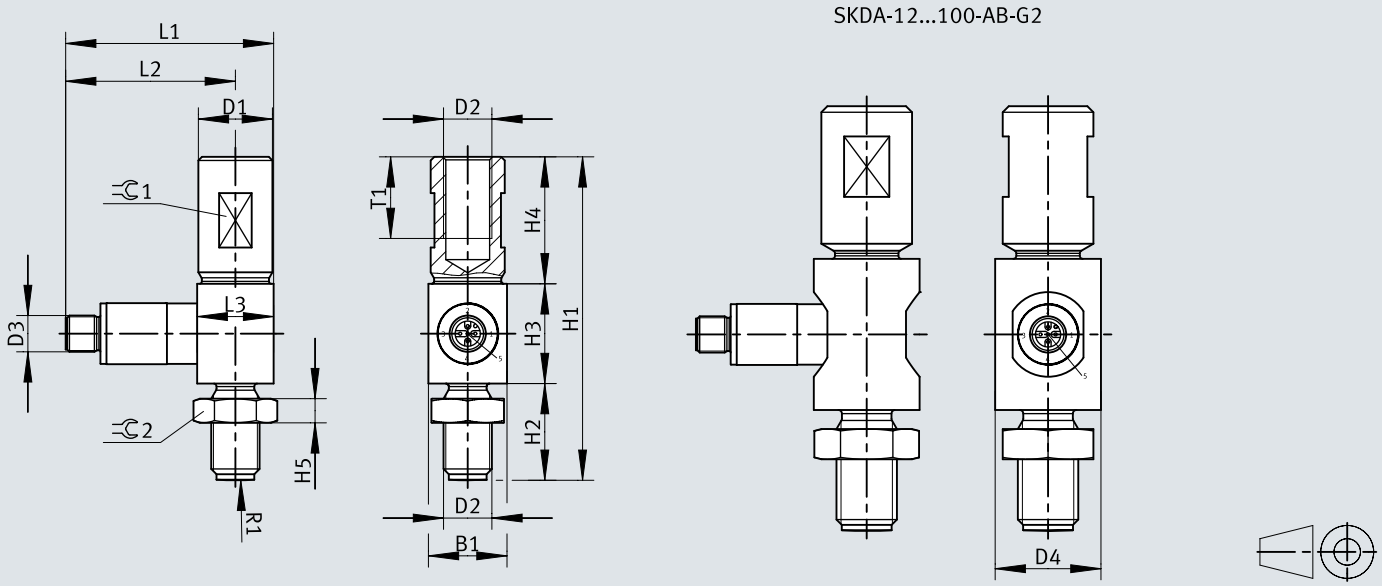
General technical data 17 to 100 kN				
Force measuring range	17 kN	Up to 30 kN	Up to 50 kN	Up to 100 kN
Operational voltage range DC	10 ... 30 V			
Calibration range	-1 ... 18 kN	-2.5 ... 32.5 kN	-4 ... 54 kN	-8 ... 108 kN
Maximum load	37.5 kN	45 kN	75 kN	150 kN
Analogue output	4 - 20 mA			
Accuracy analogue output in ± %FS	0.2 %FS			
Electrical connection	5-pin A-coded Socket M12x1			
Product weight	0.7 kg	0.9 kg	1.5 kg	2.5 kg

Operating and environmental conditions	
Ambient temperature	-20 ... 80°C
Degree of protection	IP67
Corrosion resistance class CRC	0 - No corrosion stress
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions

Materials	
Material housing	Wrought aluminium alloy, High-alloy stainless steel
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Metals with more than 1% by mass of copper are excluded from use. Exceptions are printed circuit boards, cables, electrical plug connectors and coils Metals with more than 1% of copper as an alloy component are excluded from use. Exceptions are printed circuit boards, cables, electrical connectors and coils Metals with more than 5% by mass of copper are excluded from use. Exceptions are printed circuit boards, cables, electrical plug connectors and coils Metals with more than 5% of copper as an alloy component are excluded from use. Exceptions are printed circuit boards, cables, electrical connectors and coils Metals with more than 5% by mass of copper, zinc or nickel are excluded from use Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils

Dimensions

Dimensions – SKDA Download CAD data www.festo.com



	B1	D1 ø	D2	D3	D4 ø	H1	H2	H3	H4
SKDA-0,8	24	14	M10x1,25	M12x1	–	78	22	24	32
SKDA-1,5	24	16	M12x1,25	M12x1	–	81	24	24	33
SKDA-4	26	24,5	M16x1,5	M12x1	–	107	32	33	42
SKDA-7	26	24,5	M16x1,5	M12x1	–	107	32	33	42
SKDA-12	–	30	M20x1,5	M12x1	35	140,5	40	50	50,5
SKDA-17	–	30	M20x1,5	M12x1	35	140,5	40	50	50,5
SKDA-30	–	42	M30x2	M12x1	35	194,5	75	40	79,5
SKDA-50	–	52	M39x3	M12x1	40	221	92	40	89
SKDA-100	–	65	M45x3	M12x1	50	241	105	40	96

	H5	L1	L2	L3	R1	T1	⌀1	⌀2
SKDA-0,8	5	69	56	25,3	60	21	13	17
SKDA-1,5	6	69	56	25,3	60	22	15	19
SKDA-4	8	69	56	25,3	100	27	22	24
SKDA-7	8	69	56	25,3	100	27	22	24
SKDA-12	10	74	57	–	150	35	26	30
SKDA-17	10	74	57	–	150	35	26	30
SKDA-30	15	78	57	–	150	56	36	46
SKDA-50	19,5	86	60	–	200	65	46	60
SKDA-100	22,5	98	65	–	250	68	55	70

Ordering data

Sensor SKDA		
Force measuring range	Part no.	Type
Up to 0.8 kN	**8176314**	**SKDA-0.8-AB-G2**
Up to 1.5 kN	**8176315**	**SKDA-1.5-AB-G2**
Up to 4 kN	**8176316**	**SKDA-4-AB-G2**
Up to 7 kN	**8176317**	**SKDA-7-AB-G2**
12 kN	**8176318**	**SKDA-12-AB-G2**
17 kN	**8176319**	**SKDA-17-AB-G2**
Up to 30 kN	**8161503**	**SKDA-30-AB-G2**
Up to 50 kN	**8161504**	**SKDA-50-AB-G2**
Up to 100 kN	**8161505**	**SKDA-100-AB-G2**