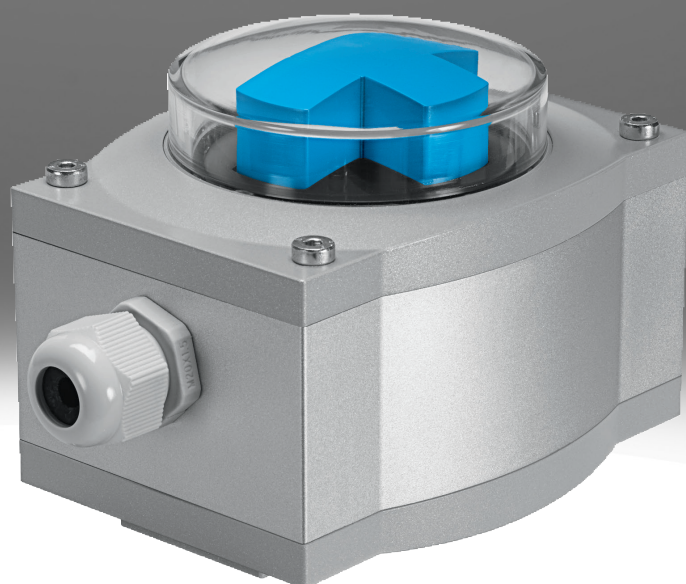


Limit switch attachment SRAP

FESTO



Characteristics

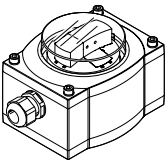
At a glance

Analogue limit switch boxes for increased functionality. The analogue limit switch box is used to monitor the position of quarter-turn actuators and reports this back to the controller via an analogue 4 ... 20 mA output signal.

- Easy to mount and commission: With teach-in function for flexible adjustment of the zero point with a range of 0 - 270°
- Everything clearly visible, even from a distance: Coloured position indicator showing the current position of the quarter-turn actuator
- Innovative, intelligent solution: Referencing to the actual swivel angle makes optimum use of the output range
- Sturdy and explosion-proof: Corrosion-resistant and waterproof metal housing also withstands harsh, corrosive and potentially explosive environments
- Insensitive to vibration. Always supplies a stable signal as there is no contact between the shaft and the sensor
- Quick and easy to integrate in existing systems thanks to industry-standard analogue output signal
- Saves costs and time thanks to the common power supply for the limit switch box and solenoid valve
- Cost-efficient control in combination with 5/3-way valve compared with positioner solution
- Festo expertise in automation: Concept and solution from a single source
- You can find information on the media resistance of the product at www.festo.com

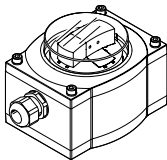
Cable connector

[M20] M20x1.5, metal



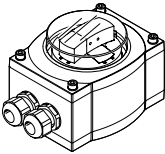
Power supply for limit switch box only

[P20] M20x1.5, polymer



Power supply for limit switch box only

[2P20] 2x M20x1.5, polymer



Common power supply for the limit switch box and solenoid valve

Type code

001	Series	
SRAP	Sensor box	
002	Product version	
M	Mainly metal	
003	Design type	
C	Sensor box	
004	Mechanical interface	
A1	Direct mounting, hole pattern 30x80 mm	
005	Display type	
	None	
BB	Position indicator blue/black	
GR	Position indicator green/red	
YB	Position indicator, yellow/black	
006	Measuring range	
270	0 ... 270°	

007	Nominal operating voltage	
1	24 V DC	
008	Electrical output 1	
A	4 ... 20 mA	
009	Electrical connection	
T	Terminal box	
010	Cable connector	
M20	M20x1.5, metal	
P20	M20x1.5, polymer	
2P20	2x M20x1.5, polymer	
011	EU certification	
	None	
EX2	II 3GD	

Datasheet

General technical data

Setting range of angular detection	0 ... 270 deg
Display type	None, Position indicator blue/black, Position indicator green/red, Position indicator, yellow/black
Based on standard	VDI/VDE 3845 (NAMUR)
Design	Angular
Mounting position	optional
Measured variable	Rotation angle
Measuring principle	Magnetic Hall
Setting options	Teach-in, Teach-in via electrical connection
No-load supply current	12 ... 20 mA
Analogue output	4 - 20 mA
Repetition accuracy analogue output in $\pm$ °	1 deg
Operational voltage range DC	15 ... 30 V
Insulation voltage	50 V
Immunity to surge	0.8 kV
Short circuit current rating	yes
Overload protection	Available
Reverse polarity protection	For all electrical connections
Electrical connection	9-pin, Screw terminal, Plug-in
Cable fitting	M20
Max. cable length	30 m
Permissible cable diameter	5 ... 13 mm
Connectable nominal cross section conductor	2.5 mm ²
Product weight	1,000 g

Operating and ambient conditions without explosion protection

Approval	RCM trademark, c UL us - Recognized (OL)
Ambient temperature	-20 ... 80°C
Degree of protection	IP65
CE mark (see declaration of conformity)	To EU EMC Directive, In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC, To UK RoHS instructions
Protection class	III
Pollution degree	3
Corrosion resistance class CRC ¹⁾	3 - high corrosion stress

1) More information www.festo.com/catalogue/ukb

Datasheet

Operating and ambient conditions with explosion protection

Approval	RCM trademark, c UL us - Recognized (OL)
Ambient temperature	-20 ... 80°C
Degree of protection	IP65
CE mark (see declaration of conformity)	To EU EMC Directive, To EU Explosion Protection Directive (ATEX), In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC, To UK EX instructions, To UK RoHS instructions
ATEX category gas	II 3G
Explosion ignition protection type for gas	Ex ec IICT5 Gc X
ATEX category dust	II 3D
Explosion ignition protection type for dust	Ex tc IIIC T90°C Dc X
Explosion ambient temperature	-20°C ≤ Ta ≤ +80°C
Explosion protection certification outside the EU	EPL Dc (GB), EPL Gc (GB)
Protection class	III
Pollution degree	3
Corrosion resistance class CRC ¹⁾	3 - high corrosion stress

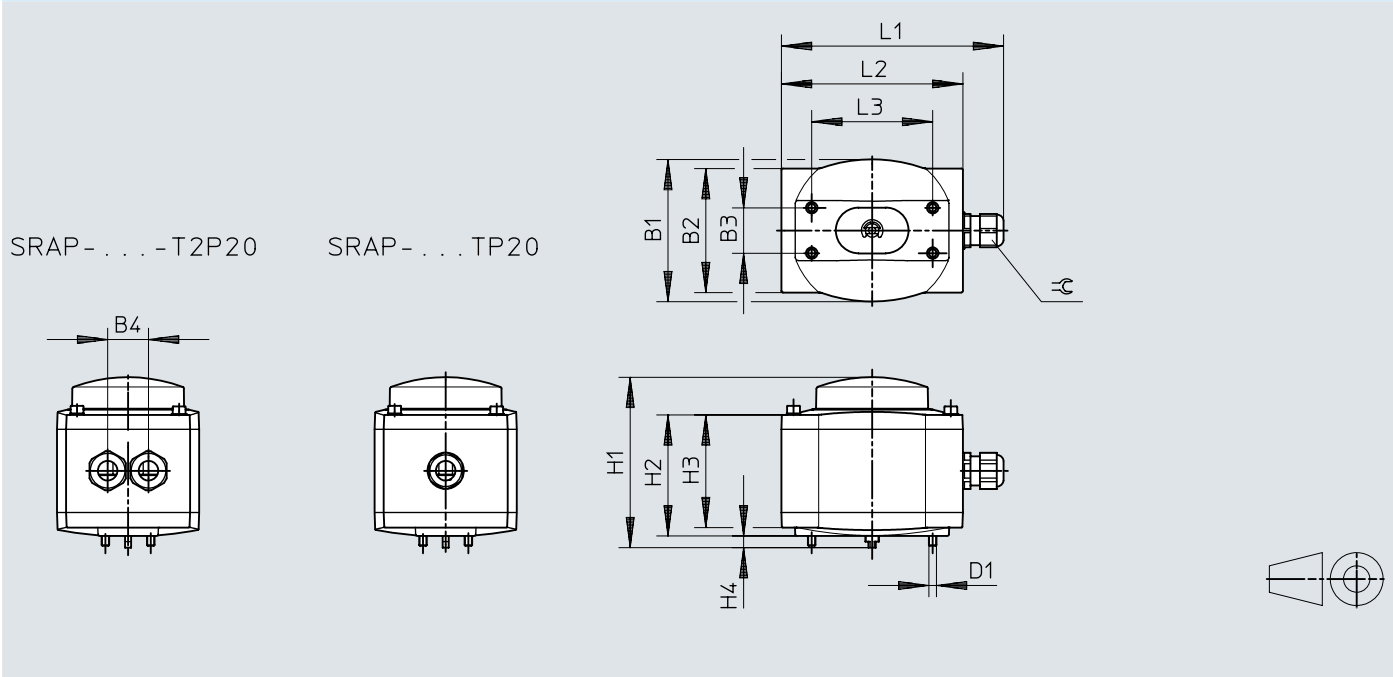
¹⁾ More information www.festo.com/catalogue/ukb

Materials

Material housing	Wrought aluminium alloy
Note on materials	RoHS-compliant

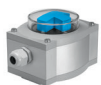
Dimensions

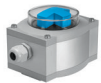
Dimensions – Limit switch boxes SRAP, analogue Download CAD data www.festo.com



	B1	B2 ±1	B3	B4	D1	H1	H2	H3	H4	L1	L2 ±1	L3	≡
SRAP-M-CA1-BB270-1-A-TP20	94	82	30	-	M5	112,7	80	74,5	7,8	148	120	80	24
SRAP-M-CA1-BB270-1-A-TP20-EX2										147			22
SRAP-M-CA1-GR270-1-A-TM20										148			24
SRAP-M-CA1-GR270-1-A-TP20										147			22
SRAP-M-CA1-GR270-1-A-TP20-EX2										148			24
SRAP-M-CA1-YB270-1-A-TM-20													
SRAP-M-CA1-YB270-1-A-TP-20													
SRAP-M-CA1-YB270-1-A-TP-20-EX2													
SRAP-M-CA1-GR270-1-A-T2P20													
SRAP-M-CA1-GR270-1-A-T2P20-EX2													
SRAP-M-CA1-270-1-A-T2P20													
SRAP-M-CA1-270-1-A-T2P20-EX2													

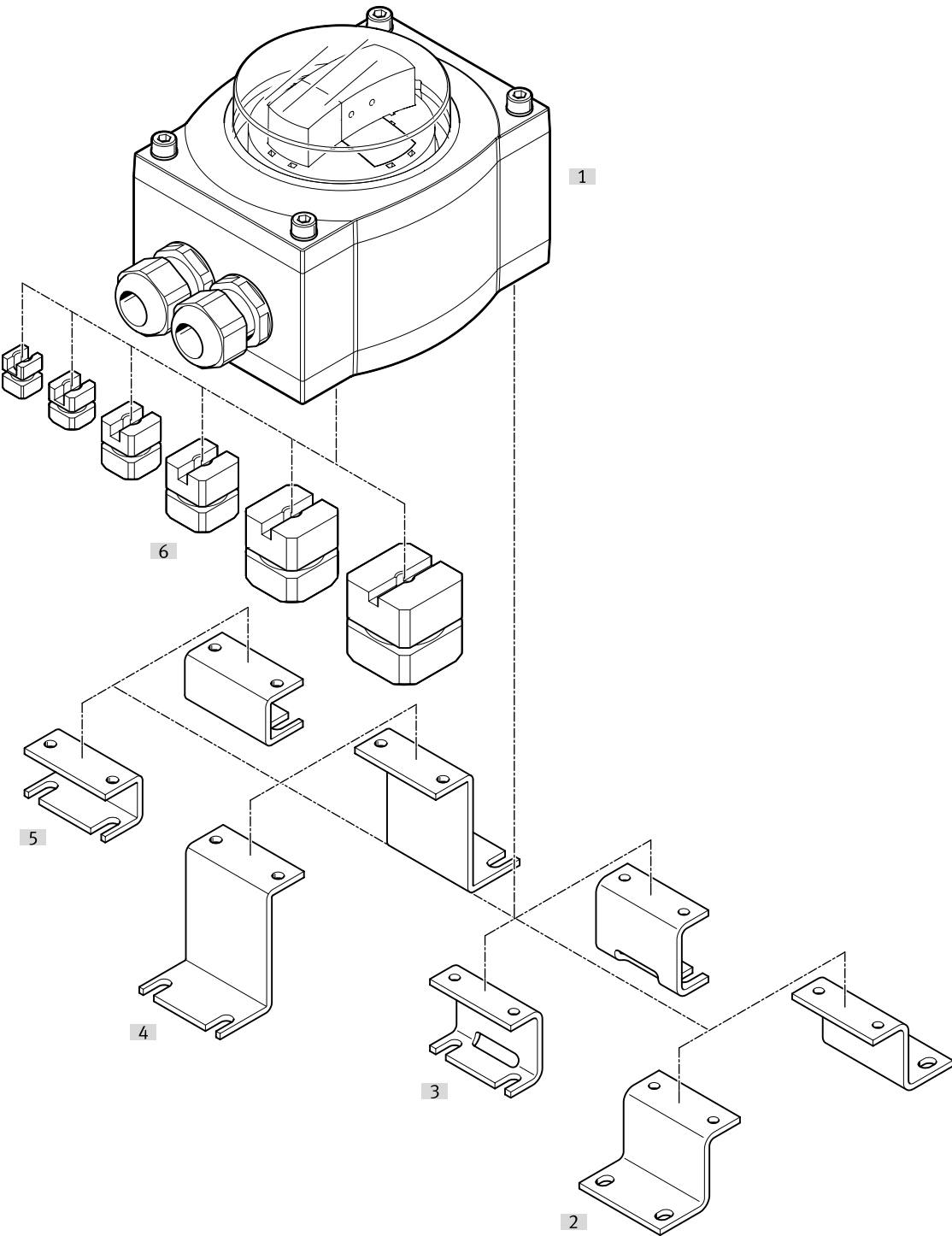
Ordering data

Limit switch boxes SRAP, analogue, without explosion protection			
	Display type	Part no.	Type
	None	570527	SRAP-M-CA1-270-1-A-T2P20
	Position indicator blue/black	568236	SRAP-M-CA1-BB270-1-A-TP20
	Position indicator green/red	568238	SRAP-M-CA1-GR270-1-A-TM20
		568246	SRAP-M-CA1-GR270-1-A-T2P20
	Position indicator, yellow/black	568243	SRAP-M-CA1-YB270-1-A-TP20

Limit switch boxes SRAP, analogue, with explosion protection			
	Display type	Part no.	Type
	Position indicator green/red	568241	SRAP-M-CA1-GR270-1-A-TP20-EX2
		568247	SRAP-M-CA1-GR270-1-A-T2P20-EX2

Peripherals

Peripherals overview

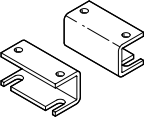


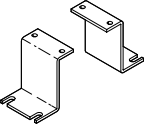
Accessories		→ Link
Type/order code	Description	
[1] Limit switch box SRAP	Sensor box, analogue	srp
[2] Adapter kit DASB-P1-HC-SB	Hole pattern 30x130 mm, height 30 mm	10
[3] Adapter kit DASB-P1-HB-SB	Hole pattern 30x80 mm, height 30 mm	10
[4] Adapter kit DASB-P1-HL-SB	Hole pattern 30x130 mm, height 50 mm	10
[5] Adapter kit DASB-P1-HA-SB	Hole pattern 30x80 mm, height 20 mm	10
[6] Coupling DARQ-C	For direct mounting of the limit switch attachments SRAP, spanner size 9	
[6] Coupling DARQ-C	For direct mounting of the limit switch attachments SRAP, A/F 11	
[6] Coupling DARQ-C	For direct mounting of the limit switch attachments SRAP, A/F 14	
[6] Coupling DARQ-C	For direct mounting of the limit switch attachments SRAP, A/F 17	

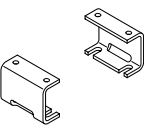
Peripherals

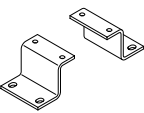
Accessories		→ Link
Type/order code	Description	
[6] Coupling DARQ-C	For direct mounting of the limit switch attachments SRAP, A/F 22	
[6] Coupling DARQ-C	For direct mounting of the limit switch attachments SRAP, A/F 27	

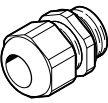
Accessories

Adapter kits DASB-P1-HA for DAPS			
	Description	Part no.	Type
	Shaft height 20 mm, hole pattern 80x30 mm	568275	DASB-P1-HA-SB

Adapter kits DASB-P1-HL for DAPS			
	Description	Part no.	Type
	Shaft height 50 mm, hole pattern 130x30 mm	568276	DASB-P1-HL-SB

Adapter kits DASB-P1-HB for DAPS			
	Description	Part no.	Type
	Shaft height 30 mm, hole pattern 80x30 mm	572418	DASB-P1-HB-SB

Adapter kits DASB-P1-HC for DAPS			
	Description	Part no.	Type
	Shaft height 30 mm, hole pattern 130x30 mm	572419	DASB-P1-HC-SB

Cable connectors			
	Description	Part no.	Type
	Polymer cable connector M20x1.5	568278	NETC-P-M20-KA
	Cable fitting M20x1.5 made of metal	568279	NETC-M-M20-KA