

# Limit switch boxes - handmade and high-quality!

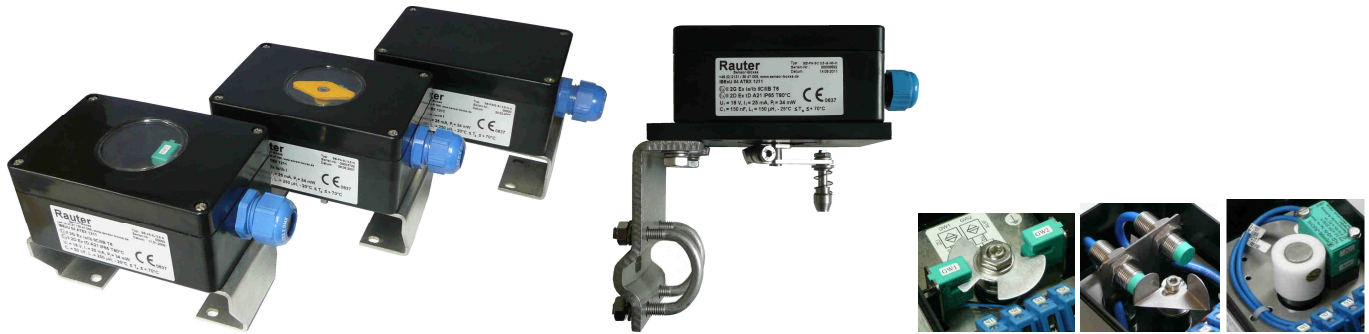
for rotary- and linear actuators on industrial valves

## Product cataloge 2020

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## Ex i ... 8 V DC inductive vestamide limit switch boxes for zone 1, 2 or 21, 22



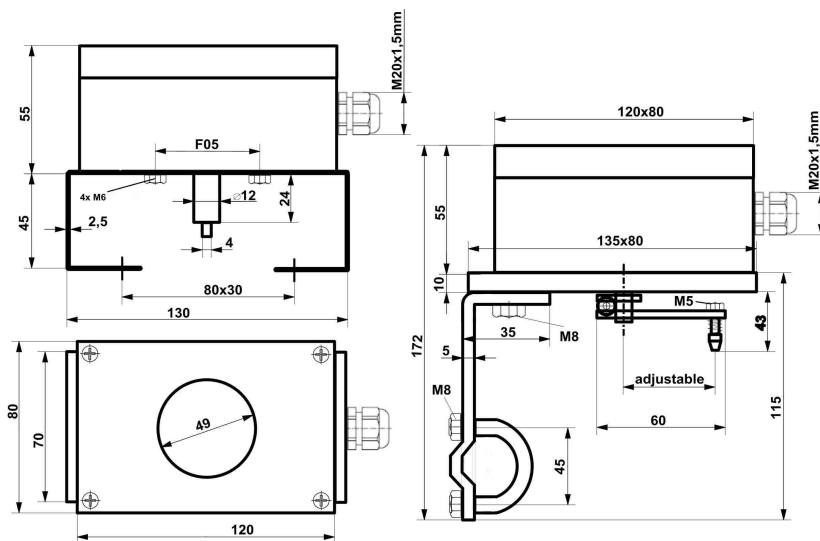
Pepperl+Fuchs limit switches

### technical data limit switch boxes

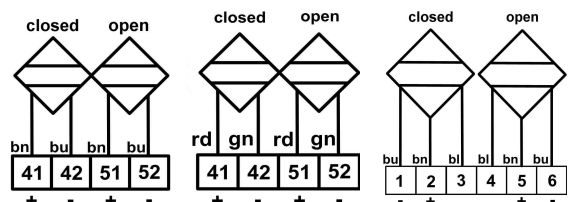
ATEX identification	II 2G Ex ia/ib IIC/IIB T6 Gb II 2D Ex ia/ib IIIC T 80°C Db
temperature range	$-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
protection class	IP 65
material housing	PA = polyamide black, $R_o \leq 10^9 \Omega$ , RAL 9005
dimensions housing	120x80x55mm
cable gland	M20x1,5mm plastic blue/black, $\varnothing$ 13-5,5mm
weight without bracket	0,3kg
options	<ul style="list-style-type: none"> <li>- cover with window or closed cover</li> <li>- 2D indicator yellow</li> <li>- membrane vent for avoidance of condensation water</li> <li>- Harting connection = rapid changing the box</li> </ul>
bracket connection	F05 slot

### technical data limit switches

Pepperl+Fuchs sensor types	1) SJ 3,5-N 2) SC 3,5-NO 3) NJ2-12GK-N 4) NJ 2-V3-N 5) SJ 3,5-SN, NJ2-12GK-SN 6) SJ 3,5-S1N, NJ3-18GK-S1N
nominal voltage	8 V DC
nominal current 1)-5)	detected $\leq 1 \text{ mA}$ / undetected $\geq 3 \text{ mA}$
nominal current 6)	detected $\geq 3 \text{ mA}$ / undetected $\leq 1 \text{ mA}$
switching range	$0^{\circ} + 90^{\circ}$ , $0^{\circ} + 180^{\circ}$ or adjustable
output wire	2-wire 1)-6), 3-wire NJ3-18GK-S1N
switching function	NC 1)-5), NO 6)
output polarity	NAMUR 1)-4) safety function 5)-6)
acc. to IEC 61508	usable up to SIL2 1)-4), SIL3 5)-6)

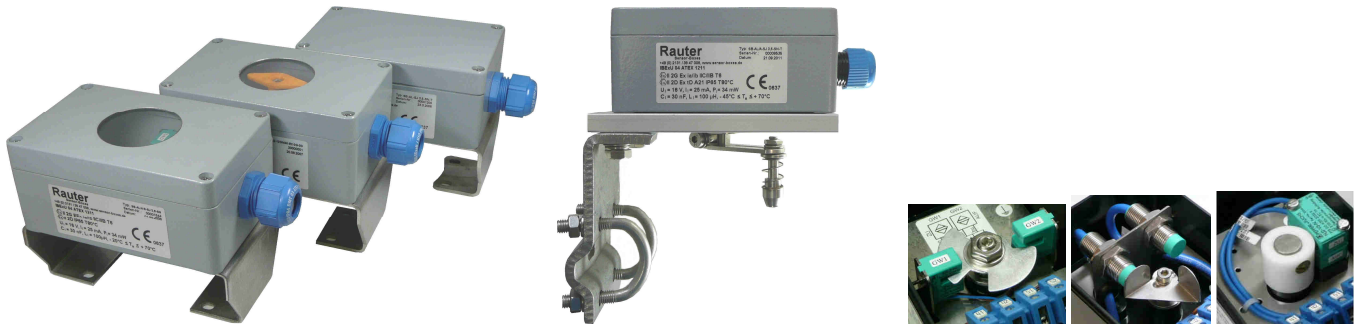


dimensions



wiring diagrams: left general, middle SJ 3,5-S1N and right NJ3-18GK-S1N

## Ex i ... 8 V DC inductive aluminium limit switch boxes for zone 1,2 or 21, 22



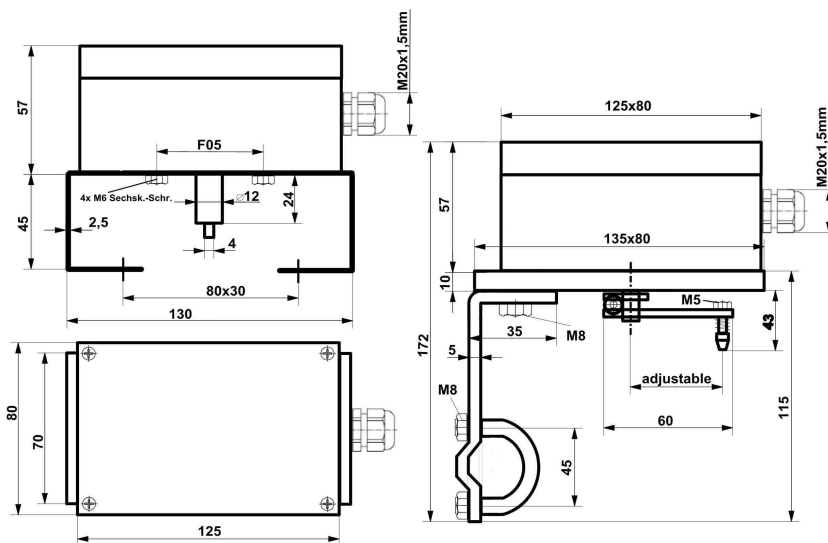
Pepperl+Fuchs limit switches

### technical data limit switch boxes

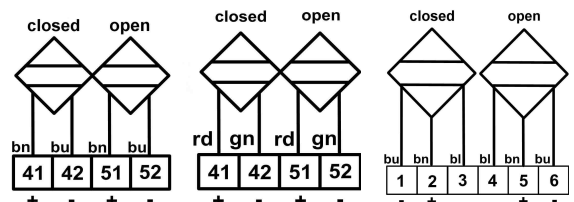
ATEX identification	II 2G Ex ia/ib IIC/IIB T6 Gb II 2D Ex ia/ib IIIC T 80°C Db
temperature range	-25°C ≤ T <sub>a</sub> ≤ +70°C
protection class	IP 65
material housing	AL = aluminium = ALSi-12, grey RAL 7001
dimensions housing	125x80x57mm
cable gland	M20x1,5mm, Ms or stainless steel, Ø 13-9,0mm
weight without bracket	0,5kg
options	<ul style="list-style-type: none"> <li>- cover with window or closed cover</li> <li>- 2D indicator yellow</li> <li>- membrane vent for avoidance of condensation water</li> <li>- Harting connection = rapid changing the box</li> </ul>
bracket connection	F05 slot
actuator connection	<ul style="list-style-type: none"> <li>- acc. to VDI/VDE 3845, steam high: 20, 30 and 50mm, hole spacings 80x30mm a. 130x30mm</li> <li>- mounting set f. linear actuators acc. to IEC 534</li> </ul>

### technical data limit switches

Pepperl+Fuchs sensor types	1) SJ 3,5-N 2) SC 3,5-N0 3) NJ2-12GK-N 4) NJ 2-V3-N 5) SJ 3,5-SN, NJ2-12GK-SN 6) SJ 3,5-S1N, NJ3-18GK-S1N
nominal voltage	8 V DC
nominal current 1)-5)	detected ≤ 1 mA / undetected ≥ 3 mA
nominal current 6)	detected ≥ 3 mA / undetected ≤ 1 mA
switching range	0° + 90°, 0° + 180° or adjustable
output wire	2-wire 1)-6), 3-wire NJ3-18GK-S1N
switching function	NC 1)-5), NO 6)
output polarity	NAMUR 1)-4) safety function 5)-6)
acc. to IEC 61508	usable up to SIL2 1)-4), SIL3 5)-6)

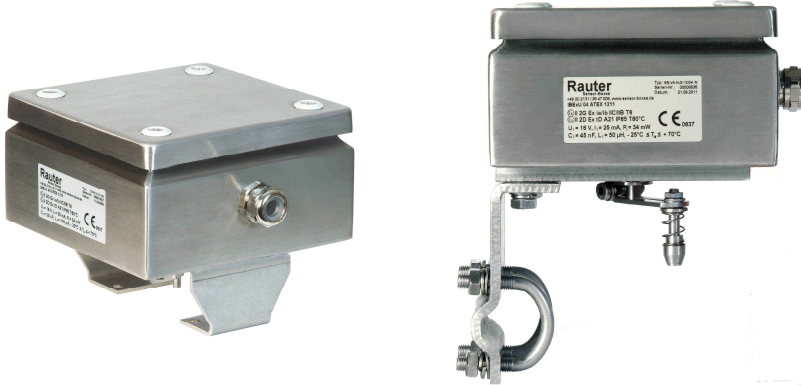


dimensions



wiring diagrams: left general, middle SJ 3,5-S1N and right NJ3-18GK-S1N

## Ex i ... 8 V DC inductive stainless steel limit switch boxes for zone 1, 2 or 21, 22



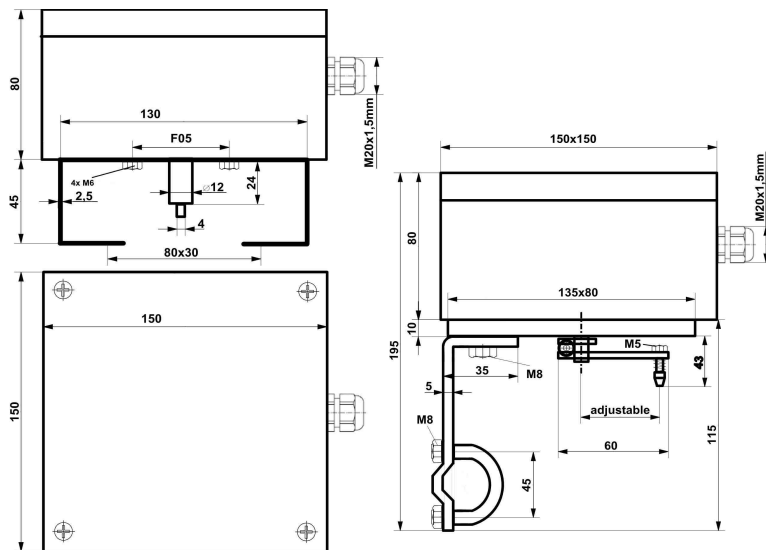
Pepperl+Fuchs limit switches

### technical data limit switch box

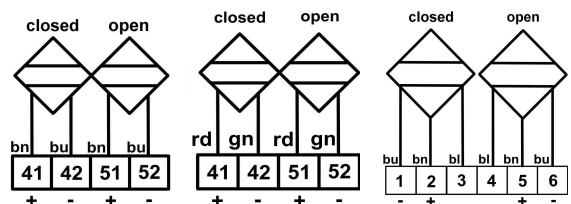
ATEX identification	II 2G Ex ia/ib IIC/IIB T6 Db II 2D Ex ia/ib IIIC T 80°C Gb
temperature range	- 25°C ≤ T <sub>a</sub> ≤ + 70°C
protection class	IP 65
material housing	stainless steel 304 (1.4301 = A2)
dimension housing	150x150x80mm
cable gland	M20x1,5mm, Ms or A2, Ø 13-9,0mm
weight without bracket	1,8kg
options	- membrane vent for avoidance of condensation water - stainless steel 316Ti (1.4571 = A4)
bracket connection	F05 slot
actuator connection	- acc. to VDI/VDE 3845, steam high: 20, 30 and 50mm, hole spacings 80x30mm a.130x30mm - mounting set f. linear actuators acc. to IEC 534

### technical data limit switches

Pepperl+Fuchs sensor types	1) SJ 3,5-N 2) SC 3,5-N0 3) NJ2-12GK-N 4) NJ 2-V3-N 5) SJ 3,5-SN, NJ2-12GK-SN 6) SJ 3,5-S1N, NJ3-18GK-S1N
nominal voltage	8 V DC
nominal current 1)-5)	detected ≤ 1 mA / undetected ≥ 3 mA
nominal current 6)	detected ≥ 3 mA / undetected ≤ 1 mA
switching range	0° + 90°, 0° + 180° or adjustable
output wire	2-wire 1)-6), 3-wire NJ3-18GK-S1N
switching function	NC 1)-5), NO 6)
output polarity	NAMUR 1)-4) safety function 5)-6)
acc. to IEC 61508	usable up to SIL2 1)-4), SIL3 5)-6)



dimensions



wiring diagrams: left general, middle SJ 3,5-S1N and right NJ3-18GK-S1N

## Ex i ... - 45°C 8 V DC inductive aluminium limit switch boxes for zone 1, 2 or 21, 22



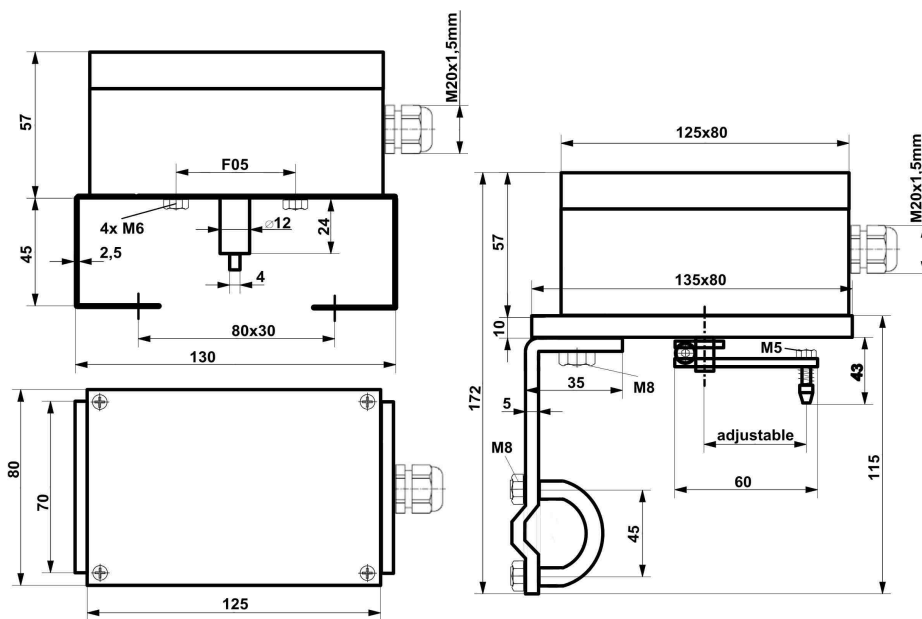
Pepperl+Fuchs SJ 3,5-SN

### technical data limit switch box

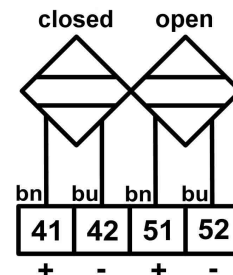
ATEX identification	II 2G Ex ia/ib IIC/IIB T6 Db II 2D Ex ia/ib IIIC T 80°C Gb
temperature range	- 45°C ≤ T <sub>a</sub> ≤ + 70°C
protection class	IP 65
material housing	AL = aluminium = ALSi-12, grey RAL 7001
dimensions housing	125x80x57mm
cable glands	M20x1,5mm, Ms or stainless steel, Ø 13-9,0mm
weight without bracket	0,5kg
option	membrane vent for avoidance of condensation water
braket connection	F05 slot
actuator connection	- acc. to VDI/VDE 3845, steam hight: 20, 30 and 50mm, hole spacings 80x30mm a. 130x30mm - mounting set f. linear actuators acc. to IEC 534

### technical data limit switches

sensor type	Pepperl+Fuchs SJ 3,5-SN
nominal voltage	8 V DC
nominal current	detected ≤ 1 mA / undetected ≥ 3 mA
switching frequency	0 ... 3000 Hz
switching range	0° + 90°, 0° + 180° or adjustable
output wire	2-wire
switching function	NAMUR normally closed = NC
output polarity	safety function
acc. to IEC 61508	usable up to SIL3

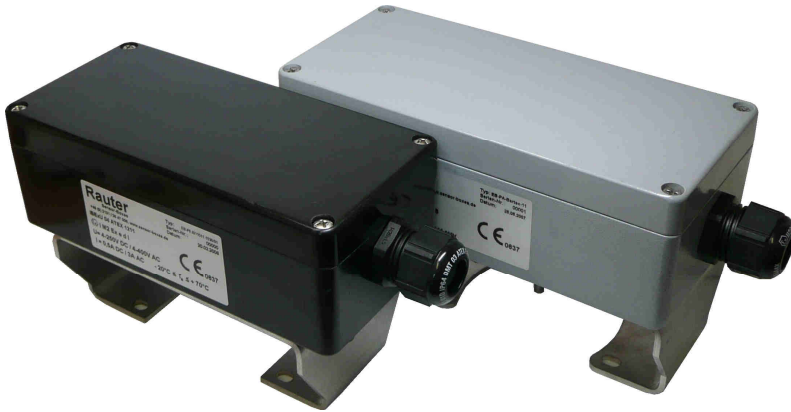


dimensions



wiring diagram

## Ex eb db ... 4 - 250 V AC/DC mechanical polyester- and aluminium limit switch boxes for zone 1, 2 or 21, 22



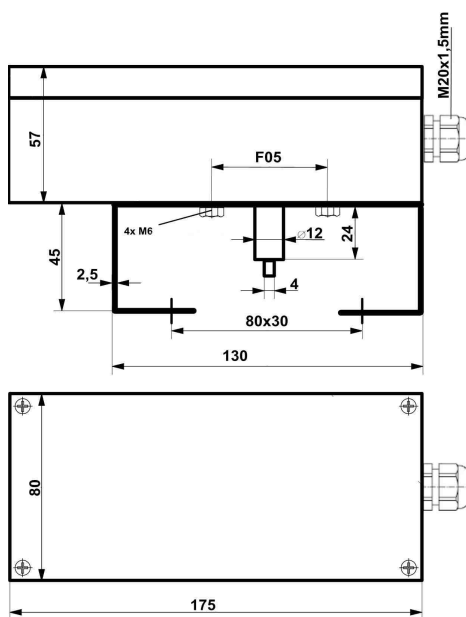
Bartec limit switches

### technical data limit switch boxes

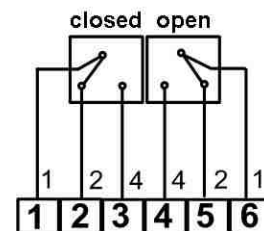
ATEX identification	II 2G Ex eb db IIC T6 Gb II 2D Ex t IIIIC T 80°C Db
temperature range	- 25°C ≤ T <sub>a</sub> ≤ + 70°C
protection class	IP 65
material housing	- PE = polyester black, R <sub>o</sub> ≤ 10 <sup>9</sup> Ω, RAL 9005 - AL = aluminium = ALSi-12, grey RAL 7001
dimensions housing	PE = 165x75x55mm, AL = 175x80x57mm
cable gland	M20x1,5mm plastic black, Ø 13-7mm
weight without bracket	PE = 0,66kg, AL = 0,81kg
bracket connection	F05 slot
actuator connection	acc. to VDI/VDE 3845, steam high: 20, 30 and 50mm, hole spacings 80x30mm a. 130x30mm

### technical data limit switches

limit switch type	Bartec 07/1511-1330/01
voltage	4 - 250 V AC/DC
current	0,03 - 7 A
max. switching rate	1000 operations / h
switching range	0° + 90°, 0° + 180° or adjustable
output polarity	3-wire
switching function	changer

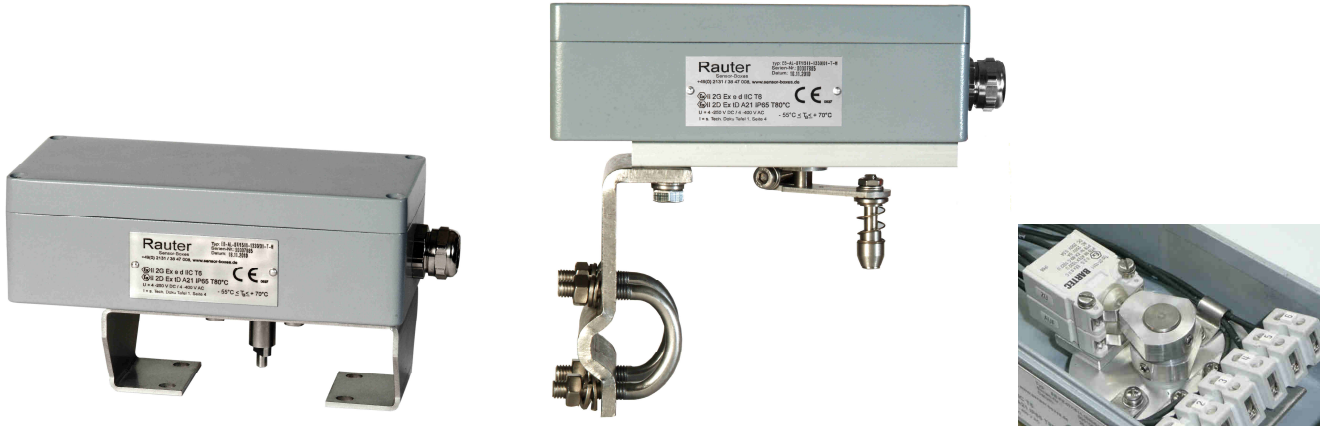


dimensions



wiring diagram

## Ex eb db ... - 55°C 4 - 250 V AC/DC mechanical aluminium limit switch boxes for zone 1, 2 or 21, 22



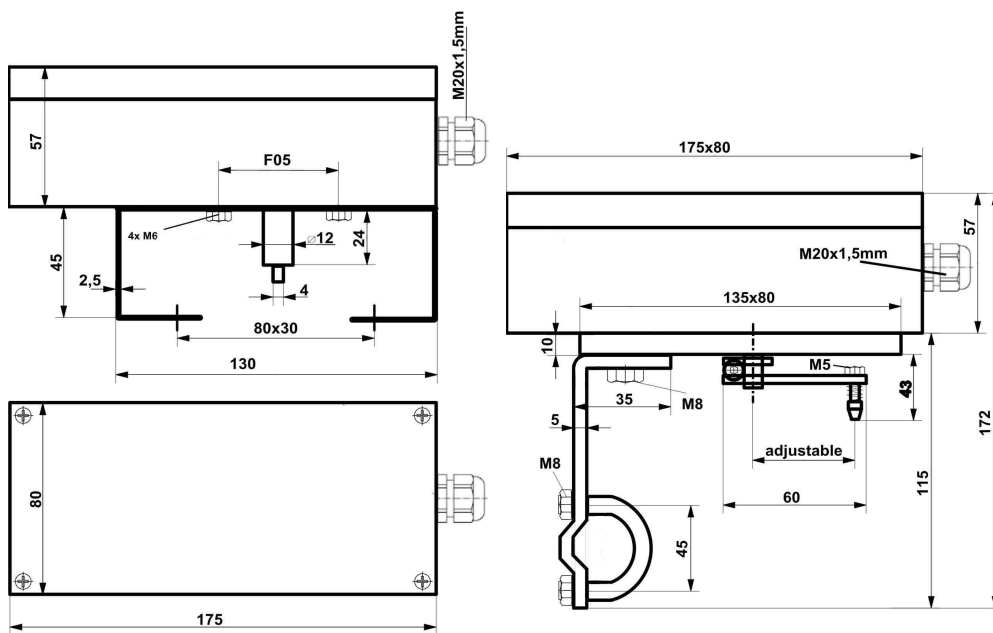
Bartec limit switches

### technical data limit switch box

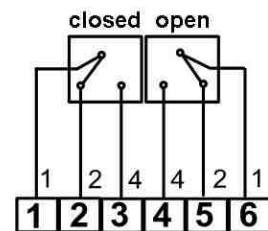
ATEX identification	II 2G Ex ed IIC T6 Gb II 2D Ex t IIIC T 80°C Db
temperature range	- 55°C ≤ T <sub>a</sub> ≤ + 70°C
protection class	IP 65
material housing	AL = aluminium = ALSi-12, grey RAL 7001
dimensions housing	175x80x57mm
cable gland	M20x1,5mm, Ms or stainless steel, Ø 13-9,0mm
weight without bracket	0,8kg
bracket connection	F05 slot
actuator connection	- acc. to VDI/VDE 3845, steam hight: 20, 30 and 50mm, hole spacings 80x30mm a. 130x30mm - mounting set f. linear actuators acc. to IEC 534

### technical data limit switches

limit switch type	Bartec 07/1511-1330/01
voltage	4 - 250 V AC/DC
current	0,03 - 7 A
max. switching rate	1000 operations / h
switching range	0° + 90°, 0° + 180° or adjustable
output polarity	3-wire
switching function	changer

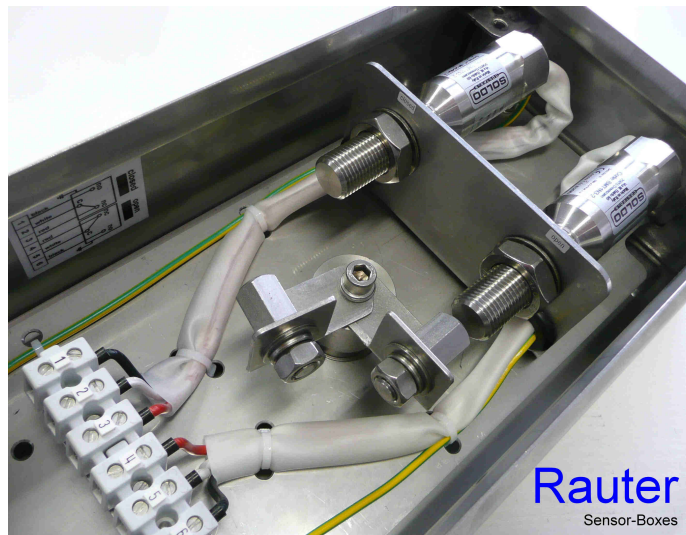



dimensions



wiring diagram

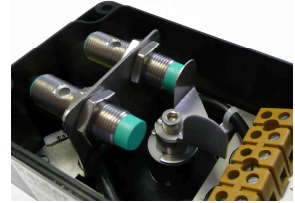
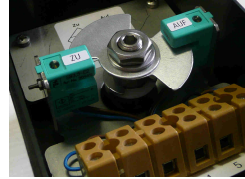
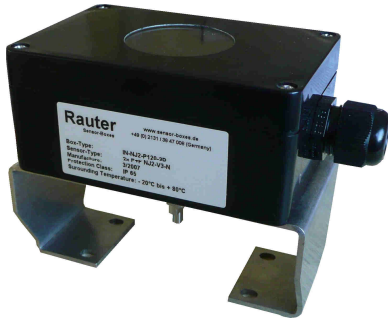
**Ex eb mb ... / eb db ... 4 - 250 V AC/DC reed stainless steel limit switch boxes** for zone 1, 2 or 21, 22



 **emb ... / ed ... 4 - 250 V AC/DC Reed limit switch boxes** with the **highly competitive** about magnet operated **reed limit switches** from **Bernstein** with silver coated contacts and about magnet operated **reed limit switches** from **Soldo** with gold coated contacts suitable for **ex areas** in zone 1, 2 and 21, 22.



## 24 V DC inductive vestamide limit switch box



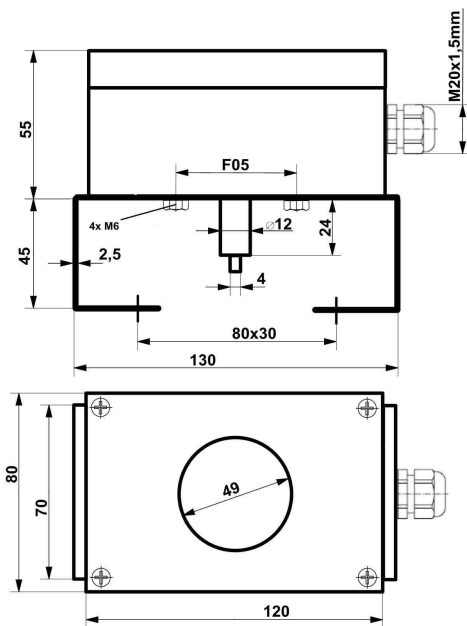
Pepperl+Fuchs SB 3,5-E2 or NJ2-12GM40-E2

### technical data limit switch boxes

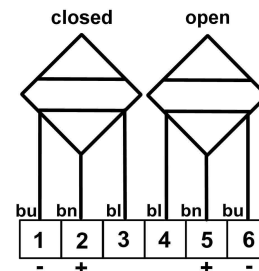
temperature range	$-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
protection class	IP 65
material housing	PA = polyamide black, $R_o \leq 10^9 \Omega$ , RAL 9005
dimensions housing	120x80x55mm
cable gland	M20x1,5mm plastic black, $\varnothing$ 13-5,5mm
weight without bracket	0,3kg
options	<ul style="list-style-type: none"> <li>- cover with window or closed cover</li> <li>- 2D indicator yellow</li> <li>- membrane vent for avoidance of condensation water</li> <li>- Harting connection = rapid changing the box</li> </ul>
bracket connection	F05 slot
actuator connection	acc. to VDI/VDE 3845, steam high: 20, 30 and 50mm, for hole spacings 80x30mm a. 130x30mm

### technical data limit switches

voltage	24 V DC, 10 - 30 V DC for SB 3,5-E2, 10 - 60 V DC for NJ2-12GM40-E2
current	0 - 100 mA for SB 3,5-E2, 0 - 200 mA for NJ2-12GM40-E2
switching frequency	0 ... 2000 Hz for SB 3,5-E2, 0 ... 3000 Hz for NJ2-12GM40-E2
switching range	$0^{\circ} - 180^{\circ}$ adjustable for SB 3,5-E2, $0^{\circ} + 90^{\circ}$ for NJ2-12GM40-E2
output wire	3-wire
switching function	PNP normally open = NO
output polarity	DC

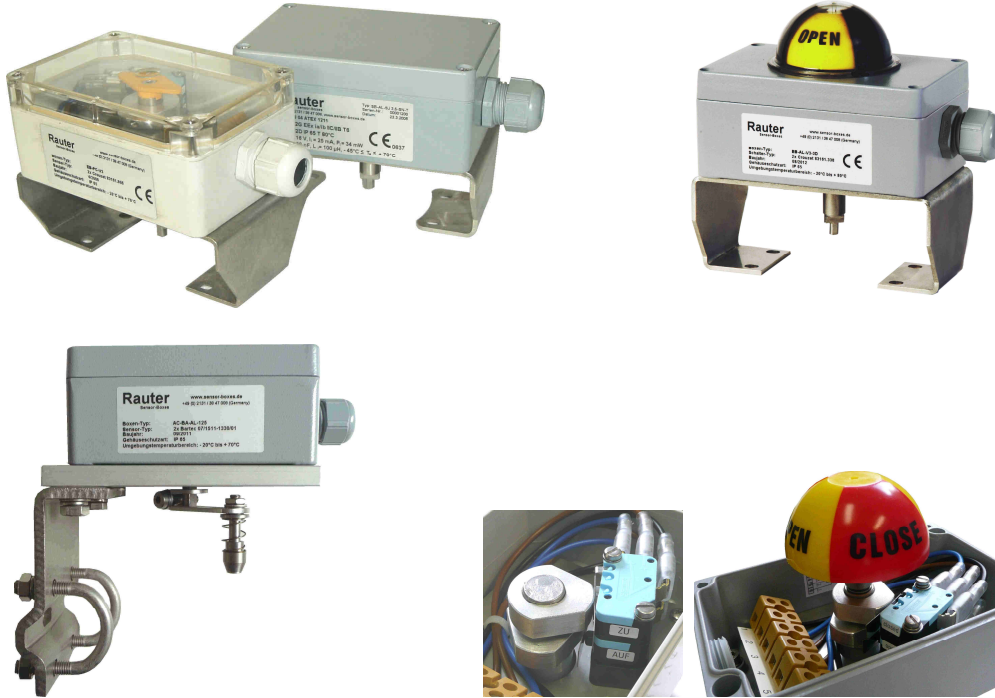


dimensions



wiring diagram

## 4 - 250 V AC/DC mechanical plastic- and aluminium limit switch boxes

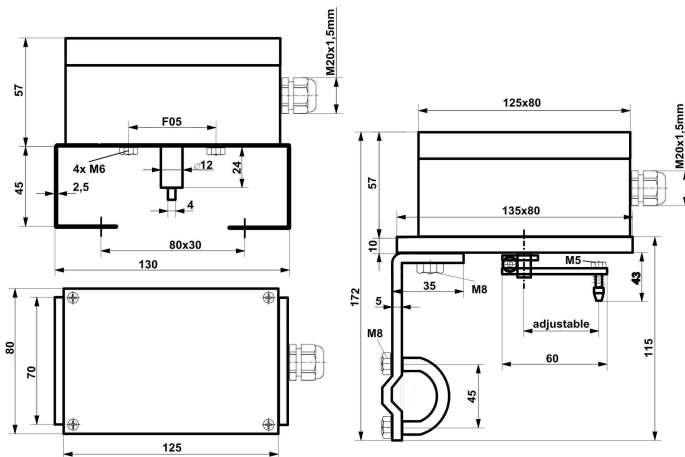


### technical data limit switch boxes

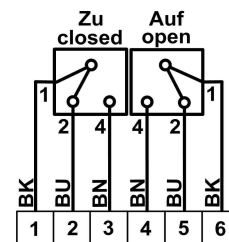
temperature range	- 20°C ≤ T <sub>a</sub> ≤ + 70°C
protection class	IP 65
material housing	PC = polycarbonat white or AL = aluminium ALSi-12, grey RAL 7001
dimensions housing	125x80x57mm
cable gland	M20x1,5mm plastic white or grey, Ø 13-8,0mm
weight without bracket	PC = 0,3kg or AL= 0,5kg
options	- 2D indicator yellow - aluminium housing with closed cover or cover with window
et connection	F05 slot
actuator connection	- acc. to VDI/VDE 3845, steam high: 20, 30 and 50mm, for hole space 80x30mm a. 130x30mm - mounting set for linear actuators acc. to NAMUR IEC 534

### technical data limit switches

Crouzet	83161.338 with silver contacts
limit switch type	83161.806 with gold coated contacts
voltage	4 - 250 V AC/DC
current	max. 3 A I = 1 - 100 mA (only 83161.806)
switching range	0° + 90°, 0° + 180° or adjustable
output wire	3-wire
switching function	mechanical changer




dimensions




wiring diagram

## Special limit switch boxes mounting positioners



 i ... 8 V DC limit switch box for mounting **Samson positioner**, aluminium housing, 125x80x57mm, 2x Pepper+Fuchs sensor SJ 3,5-S1N, IP 65, - 25°C up to + 70°C




 i ... 8 V DC limit switch box for mounting Samson positioner, aluminium housing, 220x120x90mm, 3x Pepperl+Fuchs sensor SJ 3,5-SN, IP 65, - 25°C up to + 70°C




**Ex** ed ... 4 - 250 V AC/DC aluminium limit switch box, Abm.: 125x80x57, F05/F05-stainless steel bracket with Eckardt-Foxboro positioner and stainless steel bracket for actuators acc. to VDI/VDE 3845, Temperature range limit switch box: - 40°C up to + 70°C

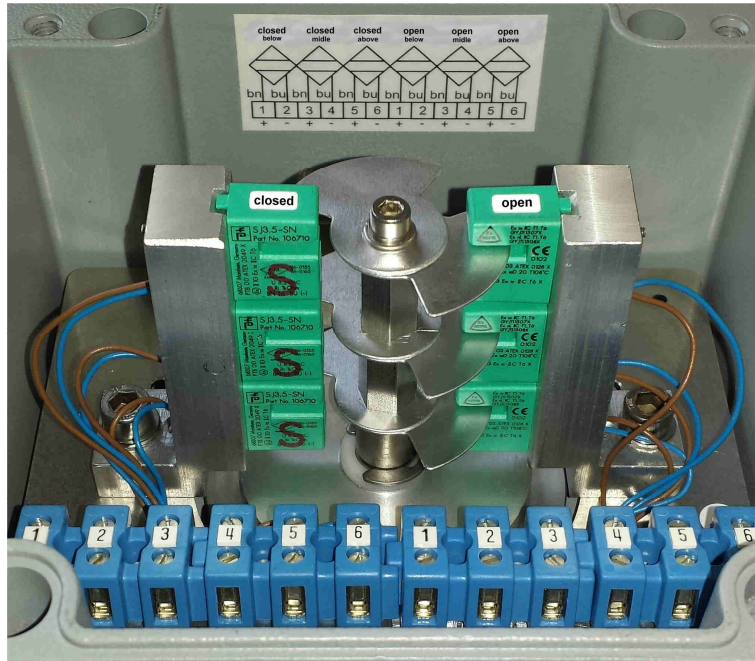



 i ... 8 V DC limit switch box for mounting Bar positioner, aluminium housing, 125x80x57mm, 2x Pepperl+Fuchs sensor SJ 3,5-S1N, IP 65, - 25°C up to + 70°C

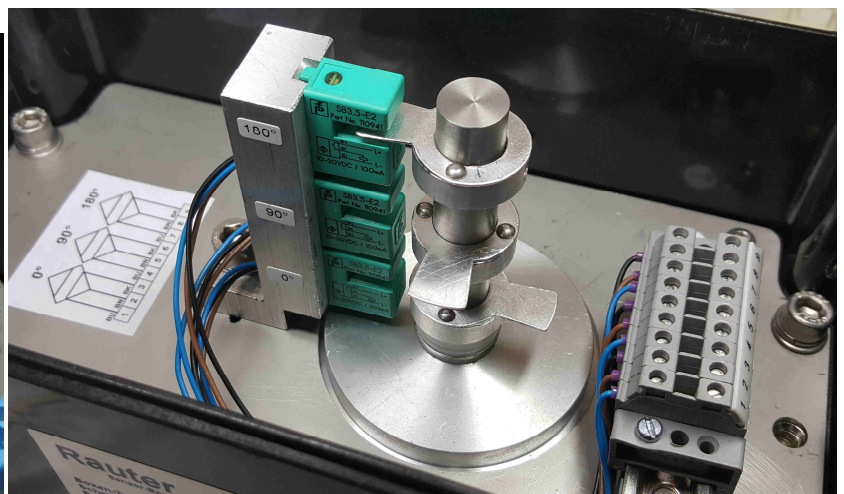
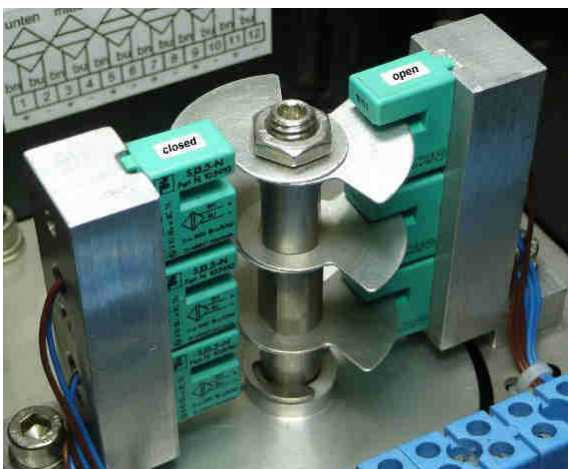



 i ... 8 V DC limit switch box for mounting positioner, aluminium housing, 125x80x57mm, 2x Pepperl+Fuchs sensor SJ 3,5-N, IP 65, - 25°C up to + 70°C

## Special limit switch boxes 3 - 6 sensors/switches



 i ... 8 V DC limit switch box security, aluminium housing, 160x160x90mm, 6x Pepperl+Fuchs sensor SJ 3,5-SN , IP 65, , - 45°C up to + 70°C



 i ... 8 V DC limit switch box 6 sensors, 6x SJ 3,5-N, 24 V DC limit switch box 3 sensors, 3x P+F SB 3,5-E2



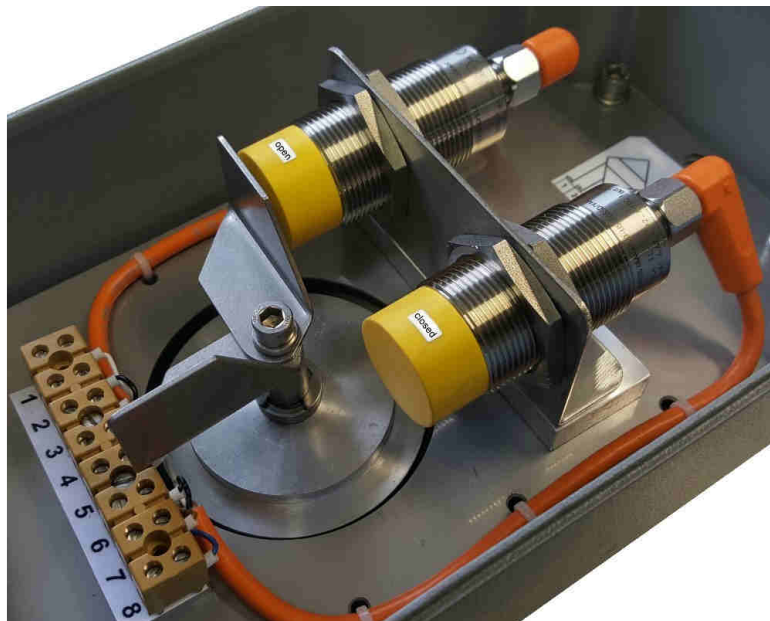
**4 - 250 V AC/DC limit switch box security**, aluminium housing, 160x160x90mm,  
**6x mechanical Crouzet switches SPDT**, IP 65, - 20°C up to + 80°C



**4 - 250 V AC/DC limit switch box**, 6 mechanical Crouzet switches and 4x mechanical Crouzet switches, IP 65, - 20°C up to + 80°C



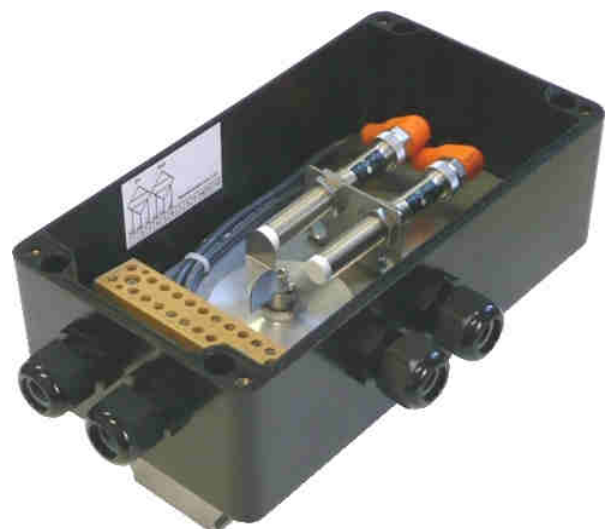
## Special limit switch boxes big sensors/switches



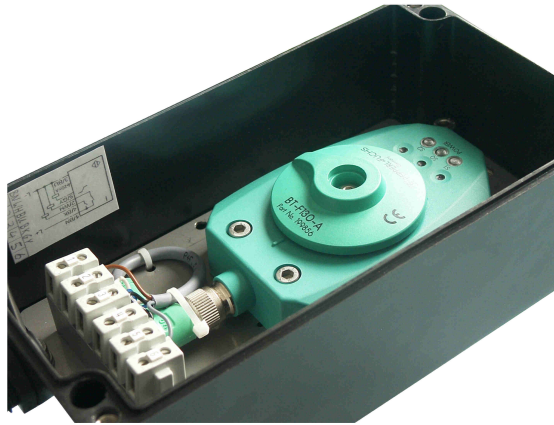
19,2 - 30 V DC IFM sensors **GI701S** with **EVT401** for position open and closed aluminium housing, 260x160x90mm, IP 65, - 20°C up to + 60°C



**20 - 265 V AC/DC limit switch box**, aluminium housing, 220x120x90mm, 2x Siemens-Bero sensors, IP 65, - 20°C up to + 60°C



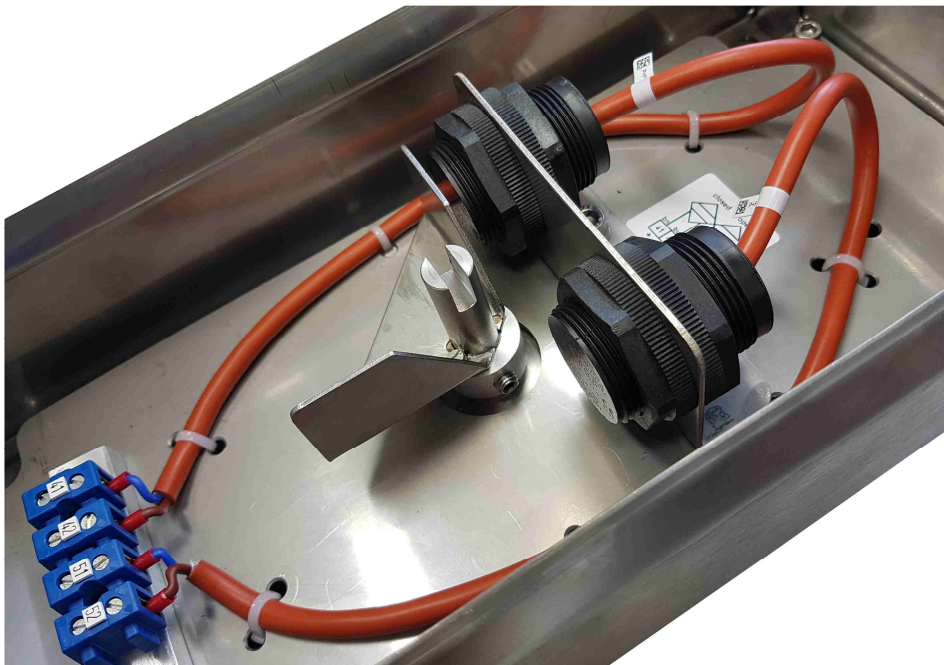
**10 - 36 V DC limit switch box**, polyester housing, 220x120x90mm, 2x IFM sensors, IP 65, - 20°C up to + 60°C




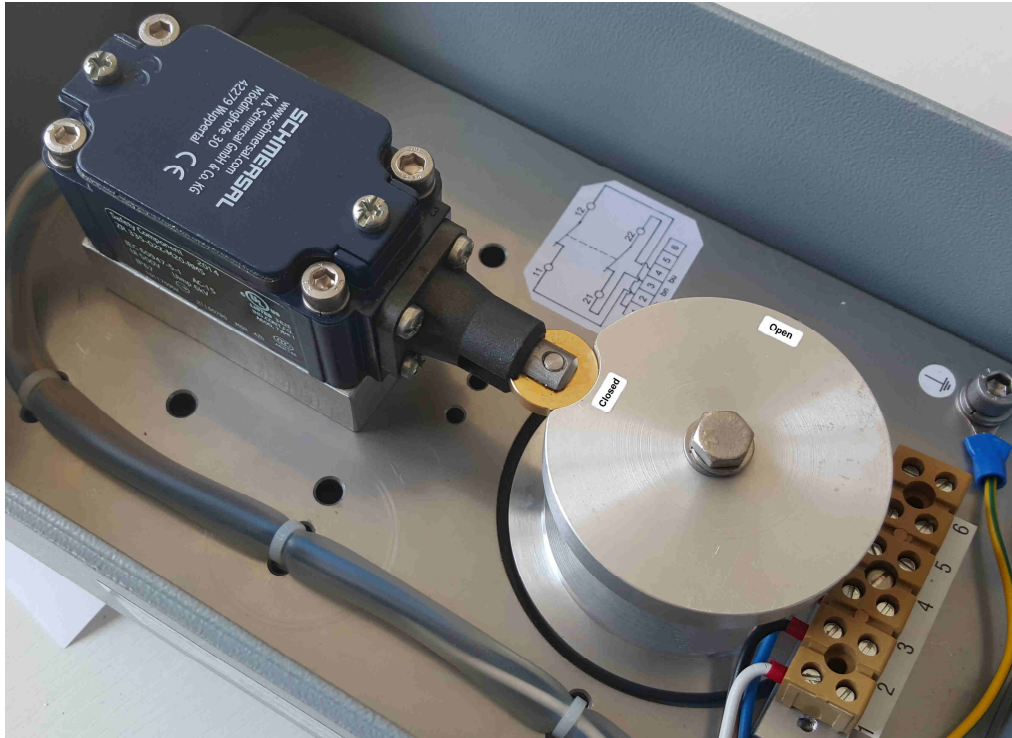
**4 - 20 mA inductive limit switch box:** The device orders beside his **4 - 20 mA analogous exit** for the analogous representation of the corner positions more than 2 independently switch exits parametrierbare of each other by means of their two important positions (e.g., start and stop position) can be shown.



**Ex i ... 8 V DC limit switch box hydraulic actuators with 75mm switch radius,** aluminium housing, 230x200x110mm, 2x Pepperl+Fuchs sensor NCB5-18GM40-N0, IP 65, - 25°C up to + 70°C



 i ... 8 V DC limit switch box, stainless steel housing 300x150x80mm, 2x Pepperl+Fuchs sensors NJ10-30GK-SN, IP 65, - 40°C up to + 70°C




**4 - 250 V AC/DC limit switch box**, mechanical **Schmersal** limit switch for position open and closed



**4 - 250 V AC/DC limit switch box**, aluminium housing, 260x120x90mm, 2x mechanical Schmersal switches, IP 65, - 20°C up to + 60°C



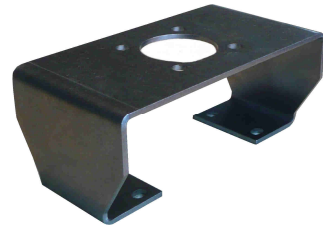
 **i ... 8 V DC limit switch box with 3D indicator**, stainless steel housing, 150x150x80mm, 2x P+F SJ 3,5-S1N, IP 65, - 25°C up tp + 70°C



**4 - 250 V AC/DC limit switch box with 3D indicator**, aluminium housing, 160x160x90mm, 4x mechanical Crouzet switches SPDT, IP 65, - 20°C up to + 70°C

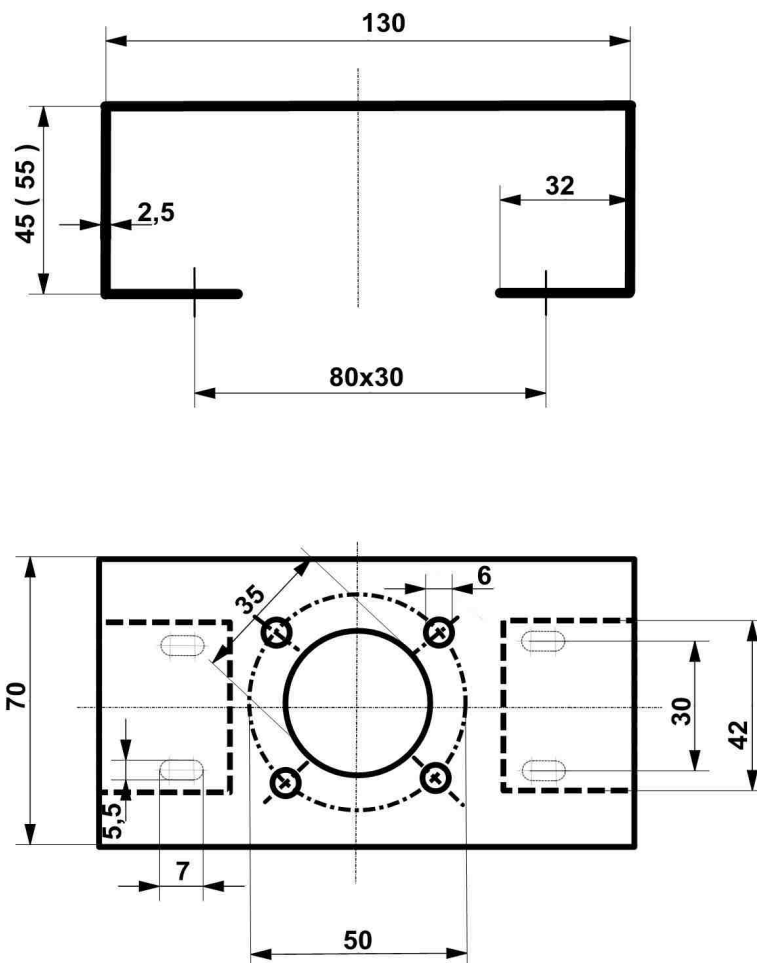
**Accessories,** brackets for rotary actuators

**stainless steel brackets size 1 - 4 for limit switch boxes**



**image.:** brackets size 1 - 2 for actuators acc. to VDI/VDE 3845, steam hight 20mm and 30mm, hole spacing 80x30mm

**dimensions: without ( ) = bracket size 1 ( ) = bracket size 2**



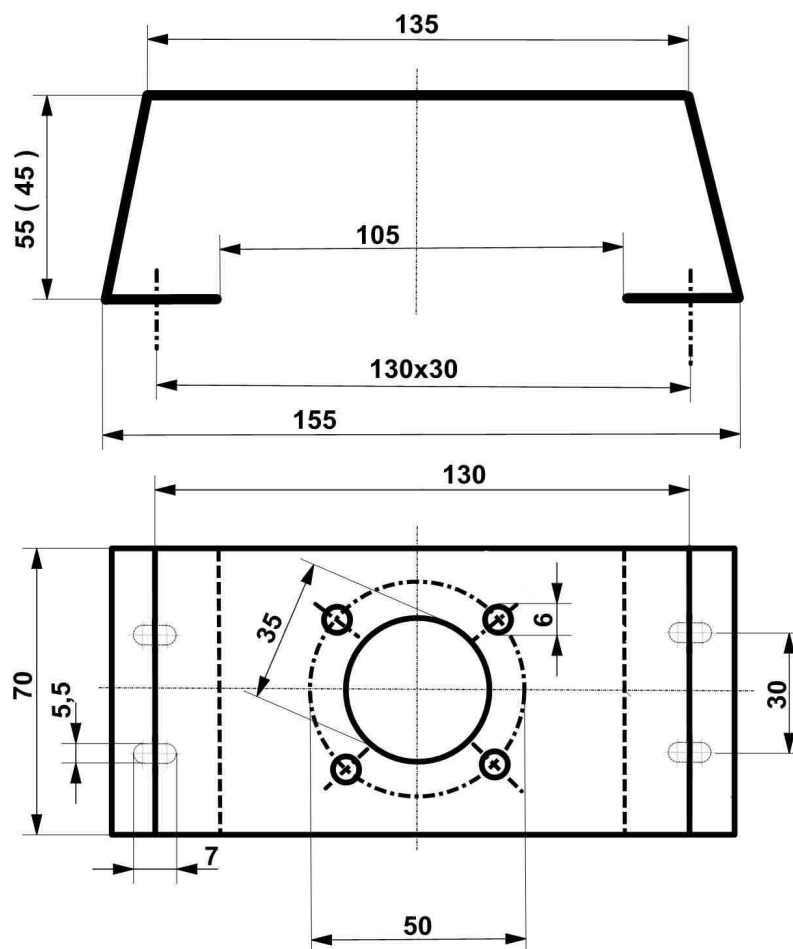
**material = stainless steel 304 (1.4301 = A2)**

**Accessories,** brackets for rotary actuators



**image.:** brackets size 3 - 4 for actuators acc. to VDI/DE 3845, steam hight 30mm and 50mm, hole spacing 130x30mm

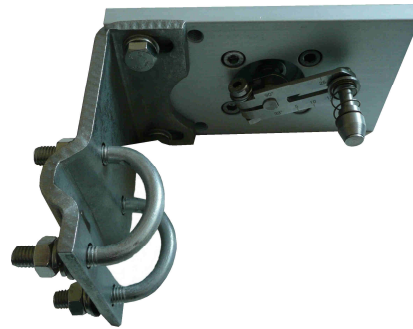
**dimensions:** without ( ) = bracket size 3 ( ) = bracket size 4



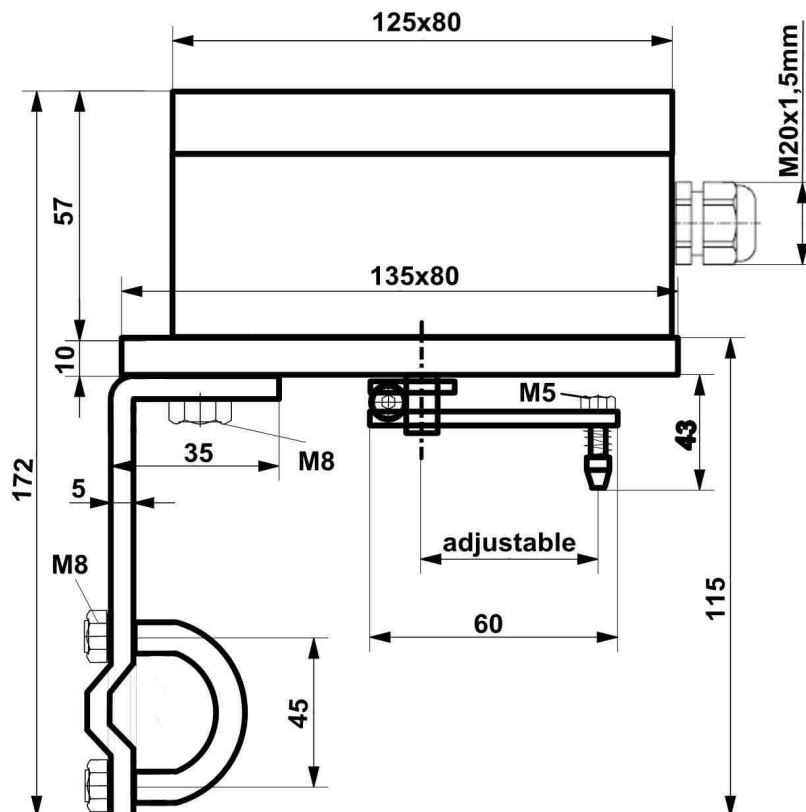
**material = stainless steel 304 (1.4301 = A2)**

**Accessories limit switch boxes,** mounting set for linear actuators

**mounting set for linear actuators acc. to NAMUR IEC 534**



**image:** mounting set for linear actuators acc. to NAMUR IEC 534 with aluminium plate, the aluminium plate is not included in the set.



**material = stainless steel 304 (1.4301 = A2) and aluminium**