



RedBin-P Pressure switches 5 Pa ... 5.000 Pa

Electrical, explosion-proof binary pressure/differential pressure switches 5 Pa...100 Pa with adjustable switch activation delay 24 VAC/DC supply voltage, output potential free switching contact EC type-approved in acc. with ATEX directive 2014/34/EU for zone 2, 22

RedBin - P
RedBin - P 2
RedBin CT
RedBin OCT
RedBin VA
RedBin OVA

Subject to change!

Compact. Easy installation. Universal. Cost effective. Safe.

Туре	Switch	Supply	Range	min. Setting	max. Pressure	Activation delay	Output switch	Wiring diagram			
RedBin- P- 100	Pressure	24 VAC/DC	0 100 Pa	5 Pa	5.000 Pa	0240 s	potential free contact	SB 1.0			
RedBin- P- 500	Pressure	24 VAC/DC	0 500 Pa	25 Pa	5.000 Pa	-	potential free contact	SB 1.0			
RedBin- P-5000	Pressure	24 VAC/DC	05.000 Pa	250 Pa	50.000 Pa	-	potential free contact	SB 1.0			
RedBin- P 2	TypesP	-500 undP-50	00 as above with a	dditional switching	output		2 × potential free contact	t SB 1.0			
RedBin- P CT	RedBin- P CT Types as above with aluminium housing and seawater resistant coating (cable glands M16 brass nickel-plated, screws in stainless steel)										
RedBin- P OC	T Types as a	above, offshore v	ersion with alumin	ium housing and se	eawater resistant coating (stainless steel tubes for	or clamping ring connection,				
	cable glan	ds M20 brass nic	kel-plated, screws	in stainless steel)							
RedBin- P VA Types as above with stainless steel housing for aggressive ambient (cable glands M20 brass nickel-plated, screws in stainless steel)											
RedBin- P OVA Types as above, offshore version with stainless steel housing for aggressive ambient (tubes for clamping ring connection and screws in stainless steel,											
	cable glands M20 brass nickel-plated)										

Product views and applications

Pressure/Diff. press. switch ...Bin-P...-CT ...Bin-P...-VA Offshore ...-OCT Offshore









Figures ...Bin-P-

Description

The RedBin-P-... pressure switch generation from 5...5000 Pa (acc. to type) is a revolution for differential pressure switches in HVAC systems, in chemical, pharmaceutical, industrial and offshore/onshore plants, for use in hazardous areas zone 2 (gas) and zone 22 (dust).

Highest protection class (ATEX) and IP66 protection, small dimensions, universal functions and technical data guarantee safe operation even under difficult environmental conditions.

All pressure switches are programmable on site without any additional tools. The switching points are scalable within the maximum ranges. The integrated display is for parametrisation and an actual value indication at working mode (can be switched off as needed).

...Bin-P-...-2 switches are equipped with an additional switching output (2-stage), which can be parametrised independently.

...Bin-P-...OCT and ...-OVA offshore versions are equipped with stainless steel tubing Ø 6 mm.

Highlights

- ▶ For all types of gases, mists, vapours and dust for use in zone 2 and 22
- ► Power supply 24 VAC/DC
- ► Potential free switching contact output
- Adjustable switching threshold, hysteresis and start-up bypass time
- ► Adjustable switch activation delay (acc. to type)
- Integrated Ex terminal box
- ► No addional Ex-i module required
- ► No intrinsically safe wiring/installation between panel and sensor required
- ▶ No intrinsically safe wiring/installation and no space in the panel required
- Optional second switching output (acc. to type)
- ► Display with backlight, can be switched off
- Password locking
- ▶ Down to -20 °C ambient temperature applicable
- Compact design and small dimension
- Robust aluminium housing (optional with seawater resistant coating) or in stainless steel
- ► IP66 protection
- ▶ Offshore versions with pressure tube connection for clamping ring Ø 6 mm

RedBin-P_er V02 - 18-Oct-2016

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RedBin-P...-2





Supply voltage, frequency 24 VAC/DC ± 20 % (19.228.8 VAC/DC); 50/60 Hz Carrent, power consumption 150 mA, ~ 4 W, internal fuse 500 mAT, without bracket, not removable Carrent, power consumption 150 mA, ~ 4 W, internal fuse 500 mAT, without bracket, not removable Carbon Ecionaction Supply for relay output min. 1, 5k V Electrical connection 2 mminals 0,14.2.2, 8 mm² at integrated Ex terminal box, stripping length 9 mm, torque 0,40,5 Nm, equipotential bonding 4 mm² Cable glands 2 m M16 x 1,5 mm, Ex approved, brass nickel-plated, for cable diameter ~ 0 610 m VA,,OCT,VA 2 M M10 x 1,5 mm, Ex approved, brass nickel-plated, for cable diameter ~ 0 613 m Protection class Class 1 (grounded) Display LCD bighy, backlit, for configuration, user guidance, parameter and actual value indication. Status indicator via LEDs Control elements 3 buttons for configuration Status indicator via LEDs Nousing material A luminium due cast housing, statistat statel tousing - 195 x 127 x 70 mm (each without connectors) Weight ~ 950 g aluminium housing, statiness steel value - 2,5 kg Armbient temperature -2060 °C, strage temperature - 35+70 °C Ramient steel thousing T6 (150 °C) at -20+60 °C Statiness steel housing T6 (160 °C) at -20+60 °C St											
Current power consumption 510 % A - 4 W, internal visue S000 MAT, without brack between visue solution is S040 Galvanic isolation Visue for transported, the single and the twee solution is S040 Cable glands 2 × M16 × 1.5 mm, Ex approved, the single and the lambet = 0.6 13 mm = 1.5	Technical data	P-100	P-500	P-5000							
Galvanic isolation Supply for relay output min. 1.5 kV Electrical connection Terminals 0, 142,5 mm? at integrated Ex terminal box, stripping length 9 mm, torque 0, 40,5 Nm, equipotential bonding 4 mm? Cable glands 2 × M16 × 1,5 mm, Ex approved, tora shickel-plated, for cable diameter ~ 0 610 mm vA,OCT,OVA 2 × M00 × 1,5 mm, Ex approved, torass nickel-plated, for cable diameter ~ 0 613 mm Protection class Class 1 (grounded) Display Cl-Display, backlik, for configuration, user guidance, parameter and actual value indication. Status indicator via LEDs Control elements 3 buttons for configuration Net 14.581 / UNA-SU92000 / similar AISI 316Nb (VA/OVA) Dimensions (L × W × H) Aluminium housing ~ 180 × 107 × 66 mm, stainless stel housing ~ 195 × 127 × 70 mm (each without connectors) -950 g aluminium housing, tainless stel version - 2,5 kg Ambient temperature -9050 °C, starage temperature - 3570 °C. Stainless stel housing T5 (T95 °C) at -20+60 °C Stainless stel housing T5 (T95 °C) at -20+50 °C Ambient temperature -0500 Pa 0500 Pa 0500 Pa Resorcincut Internal intrinsically safe (S) circut Sensor circut Internal intrinsically safe (S) of circut Sensor circut 0100	Supply voltage, frequency	24 VAC/DC ± 20 % (19,228,8 VAC/D	C), 50/60 Hz								
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Cable glands 2 × M16 × 1,5 mm, Ex approved, for cable diameter ~ Ø 59 mm Cable glands 2 × M16 × 1,5 mm, Ex approved, brass nickel-plated, for cable diameter ~ Ø 610 mm VA,OCT,OVA 2 × M20 × 1,5 mm, Ex approved, brass nickel-plated, for cable diameter ~ Ø 613 mm Protection class Class I (grounded) Display LC-Display, backlit, for configuration, user guidance, parameter and actual value indication. Status indicator via LEDs Control elements 3 buttons for configuration Neusing material A luminium discast housing, coated. Optional with seawater resistant coating (CTLOCT) or stainless steel housing, Nei 1.4S81 / UNS-J92900 / similar AISI 316Nb (VA/OVA) Nei 1.4S81 / UNS-J92900 / similar AISI 316Nb (VA/OVA) Dimensions (L × W × H) Aluminium housing 1 160 × 107 × 66 mm, stainless steel housing - 195 × 127 × 70 mm (each without connectors) Weight ~ 950 g aluminium housing 15 (195 °C) at ~ 20+60 °C Temperature class Aluminium housing 15 (195 °C) at ~ 20+60 °C Ambient temperature Stainless steel housing 15 (195 °C) at ~ 20+60 °C Sensor circuit Internal intrinsically safe (IS) circuit Response time of sensor Pi / P - slewes 0 46 mm. OCT versions have 2 stainless steel (3161, lube connections for clamp ring fittings Ø 6 mm Accuracy of pressure < 4.1 %	Galvanic isolation	Supply for relay output min. 1,5 kV									
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VA,OCT,OVX 2 × M20 × 1,5 mm, Ex approved, brass nickel-plated, for cable diameter ~ 0 613 mm Protection class Class I (grounded) Display LC-Display, backlit, for configuration, user guidance, parameter and actual value indication. Status indicator via LEDs Control elements 3 buttons for configuration Housing material Auminium die-cast housing, coated. Optional with seawater resistant coating (CT/OCT) or stainless steel housing. Ne 1.4561 / UNS.J92900 / similar AISI 316Nb (VA/OVA) Dimensions (L × W × H) Aluminium housing - 1100 × 107 × 66 mm, stainless steel housing ~ 195 × 127 × 70 mm (each without connectors) Weight -950 g aluminium housing, stainless steel version ~ 2.5 kg Temperature class Aluminium housing ~ 1100 × 107 × 66 mm, stainless steel housing ~ 195 × 127 × 70 mm (each without connectors) Stainless steel housing T 6 (T80 °C) at -20+40 °C T Temperature class Aluminium housing ~ 160 × 100 °C at -20+40 °C, 14 (T13 °C) at -20+50 °C Stainless steel housing T 16 (T80 °C) at -20+40 °C, 41 (T13 °C) at -20+50 °C Stainless steel housing T 100 °C at -20+50 °C Sensor oricruit Internal intrinsically safe (IS) circuit Sensor Sor Sor Sor Sor Sor Sor Sor Sor Sor S	Cable glands	2 × M16 × 1,5 mm, Ex approved, for cable diameter ~ Ø 59 mm									
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Control elements 3 buttons for configuration Housing material Aluminium die-cast housing, coated. Optional with seawater resistant coating (CT/OCT) or stainless steel housing. Na 1.4581 / UNS-J92900 / similar AISI 316Nb (VA/OVA) Dimensions (L × W × H) Aluminium housing, 180 × 107 × 66 mm, stainless steel housing - 195 × 127 × 70 mm (each without connectors) Weight - 950 g aluminium housing, stainless steel housing - 195 × 127 × 70 mm (each without connectors) Temperature class Aluminium housing, 16 (T80 °C) at -20+50 °C Temperature class Aluminium housing, 176 (T80 °C) at -20+60 °C Stainless steel housing T5 (T95 °C) at -20+60 °C - Ambient humidity 095 % /H, non condensing Sensor circuit Internal intrinsically safe (IS) circuit Measuring range 0500 Pa 0500 Pa Measuring range 000 Pa 0500 Pa Minimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa switch) - Response time of sensor T90 / 5 s - Accuracy of pressure 41.% typically, max±5 % of end value ±1 Pa - Setting range hysteresis 0.110 Pa (factory setting 2 Pa) 0.550 Pa (factory setting 10 Pa) 5500 Pa (factory setting 100 Pa) Setting zore point Vi	Protection class										
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Ambient temperature -20+50 °C, storage temperature -35+70 °C Temperature class Aluminium housing TG (T80 °C) at -20+50 °C Stainless steel housing TS (T95 °C) at -20+40 °C, T4 (T130 °C) at -20+50 °C Ambient humidity 095 % rH, non condensing Sensor circuit Internal intrinsically safe (IS) circuit Sensor O Piezo pressure transmitter, installation in Ex zone Pressure connection P+ / P - sleeves Ø 46 mm. OCT versions have 2 stainless steel (316L) tube connections for clamp ring fittings Ø 6 mm Measuring range 0100 Pa 0500 Pa 0500 Pa Minimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa switch) 500 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) Start delay 5 s 5500 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) Start delay 0240 s (factory setting 20 s) 500 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) Start delay 0240 s (factory setting 0 s / Off) – – Start up bypass time (AUB) 0240 s (factory setting 0 s / Off) – – Start up bypass time (AUE) Via menu. Short-circuit mechanically both tube connectors P+ / P- for the moment of zero point setting Output	Dimensions (L × W × H)	Aluminium housing ~ 180 × 107 × 66 mr									
Temperature class Aluminium housing T6 (780 °C) at -20+50 °C Stainless steel housing 15 (795 °C) at -20+40 °C, T4 (T130 °C) at -20+50 °C Ambient humidity 095 % rH, non condensing Sensor circuit Internal intrinsically safe (IS) circuit Sensor circuit Internal intrinsically safe (IS) circuit Pressure connection Piezo pressure transmitter, installation in Ex zower Measuring range 0100 Pa Minimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa witch) Response time of sensor T90 / 5 s Accuracy of pressure 9100 Pa (factory setting 2 Pa) 0.550 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) Staft delay 5 s 550 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) Staft delay 0400 s (factory setting 2 Pa) 0.550 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) Staft delay 0400 s (factory setting 2 Pa) 0.550 Pa (factory setting 10 Pa) 5500 Pa (factory setting 10 Pa) Staft delay 0400 s (factory setting 2 Pa) 0400 s (factory setting 0 s / Of) – – Staft delay 0400 s (factory setting 0 s / Of) –	Weight	~ 950 g aluminium housing, stainless ste	eel version ~ 2,5 kg								
Stainless steel housing T5 (T95 °C) at -20+40 °C, T4 (T130 °C) at -20+50 °C Ambient humidity 095 % rH, non condensing Sensor circuit Internal intrinsically safe (IS) circuit Sensor Piezo pressure transmitter, installation in Ex zone Pressure connection P+ /P - sleeves Ø 46 mm. OCT versions have 2 stainless steel (316L) tube connections for clamp ring fittings Ø 6 mm Measuring range 0100 Pa 0500 Pa 0500 Pa Minimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa switch) measuring 190 / 5 s Start delay Accuracy of pressure < 1 % typically, max. ±5 % of end value ± 1 Pa	Ambient temperature										
Ambient humidity095 % rH, non condensingSensor circuitInternal intrinsically safe (IS) circuitSensor circuitPiezo pressure transmitter, installation in Ex zonPressure connectionP+ / P- sleeves Ø 46 mm. OCT versions have 2 stainless steel (316L) tube connections for clamp ring fittings Ø 6 mmMeasuring range0100 Pa0500 PaMinimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa switch)0500 PaResponse time of sensorT90 / 5 s5Accuracy of pressure< ± 1 % typically, max. ± 5 % of end value ± 1 P	Temperature class										
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SensorPiezo pressure transmitter, installation in Ex zoorPressure connectionP+ / P- sleeves Ø 46 mm. OCT versions hz 2 stainless steel (316L) tube connections for Jump Ø 6 mmMeasuring range0100 Pa0500 Pa0500 PaMeasuring rangeT90 / 5T90 / 5TTAccuracy of pressure< ±1 % typically, max. ±5 % of end value ±1 P	Ambient humidity	095 % rH, non condensing									
Pressure connection P+ / P - sleeves Ø 46 mm. OCT versions have 2 stainless steel (316L) tube connections for clamp ring fittings Ø 6 mm Measuring range 0100 Pa 0500 Pa 0500 Pa Minimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa switch) Expose Expose Response time of sensor T90 / 5 s T90 / 5 s Setting range hysteresis 0,110 Pa (factory setting 2 Pa) 0,550 Pa (factory setting 10 Pa) 5500 Pa (factory setting 100 Pa) Start delay 5 s S Setting zero point S240 s (factory setting 120 s) Switch activation delay 0240 s (factory setting 0 s / Off) - - Output Potential free switching contact – breaking/making contact, adjustable per menu max. rating load: 0,5 A (30 VAC/DC) – 0,1 A (250 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) - as above as above Duration of life Mechanical 10 × 10 ⁶ s above as above Wiring diagram SB 1.0 SB 1.0 SB 1.0 SB 1.0	Sensor circuit	Internal intrinsically safe (IS) circuit									
Measuring range 0100 Pa 0500 Pa 0500 Pa Minimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa switch) Image hystepsis 790 / 5 s Accuracy of pressure <±1 % typically, max. ±5 % of end value ±1 Pa	Sensor	Piezo pressure transmitter, installation ir	n Ex zone								
Minimum measuring range is 5 % of full range (e.g. 25 Pa at500 Pa switch) Response time of sensor T90 / 5 s Accuracy of pressure < ± 1 % typically, max. ± 5 % of end value ± 1 Pa	Pressure connection	P+ / P- sleeves Ø 46 mm. OCT versio	ns have 2 stainless steel (316L) tube connections	s for clamp ring fittings Ø 6 mm							
Response time of sensor T90 / 5 s Accuracy of pressure < ±1 % typically, max. ±5 % of end value ±1 Pa	Measuring range	0100 Pa	0500 Pa	05000 Pa							
Accuracy of pressure < ± 1 % typically, max. ± 5 % of end value ± 1 Pa		Minimum measuring range is 5 % of full	range (e.g. 25 Pa at500 Pa switch)								
Setting range hysteresis 0,110 Pa (factory setting 2 Pa) 0,550 Pa (factory setting 10 Pa) 5500 Pa (factory setting 100 Pa) Start delay 5 s Start-up bypass time (AUB) 3240 s (factory setting 120 s) Switch activation delay 0240 s (factory setting 0 s / Off) – Setting zero point Via menu. Short-circuit mechanically both tube connectors P+ / P- for the moment of zero point setting Output Potential free switching contact – breaking/making contact, adjustable per menu max. rating load: 0,550 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) – as above as above Duration of life Mechanical 10 × 10 ⁶ 10 × 10 ⁶ setting 100 × 10 ³ Wiring diagram SB 1.0 SB 1.0 SB 1.0 SB 1.0	Response time of sensor	T90 / 5 s									
Start delay 5 s Start-up bypass time (AUB) 3240 s (factory setting 120 s) Switch activation delay 0240 s (factory setting 0 s / Off) – Setting zero point Via menu. Short-circuit mechanically both tube connectors P+ / P- for the moment of zero point setting Output Potential free switching contact – breaking/making contact, adjustable per menu max. rating load: 0,5 A (30 VAC/DC) – 0,1 A (250 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) – as above as above Duration of life Mechanical 10 × 10 ⁶ I00 × 10 ³ I00 × 10 ³ Wiring diagram SB 1.0 SB 1.0 Interval of the set of the s	Accuracy of pressure	< ±1 % typically, max. ±5 % of end value	e ±1 Pa								
Start-up bypass time (AUB) 3240 s (factory setting 120 s) Switch activation delay 0240 s (factory setting 0 s / Off) – Setting zero point Via menu. Short-circuit mechanically both tube connectors P+ / P- for the moment of zero point setting Output Potential free switching contact – breaking/making contact, adjustable per menu max. rating load: 0,5 A (30 VAC/DC) – 0,1 A (250 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) – as above as above Duration of life Mechanical 10 × 10 ⁶ I00 × 10 ³ Wiring diagram SB 1.0 SB 1.0 SB 1.0	Setting range hysteresis	0,110 Pa (factory setting 2 Pa)	0,550 Pa (factory setting 10 Pa)	5500 Pa (factory setting 100 Pa)							
Switch activation delay 0240 s (factory setting 0 s / Off) - - Setting zero point Via menu. Short-circuit mechanically both tube connectors P+ / P- for the moment of zero point setting Output Potential free switching contact – breaking/making contact, adjustable per menu max. rating load: 0,5 A (30 VAC/DC) – 0,1 A (250 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) - as above as above Duration of life Mechanical 10 × 10 ⁶ - - Electrical (rated load) 100 × 10 ³ - -	Start delay	5 s									
Setting zero point Via menu. Short-circuit mechanically both tube connectors P+ / P- for the moment of zero point setting Output Potential free switching contact – breaking/making contact, adjustable per menu max. rating load: 0,5 A (30 VAC/DC) – 0,1 A (250 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) – as above as above Duration of life Mechanical telectrical (rated load) 10 × 10 ⁶ 10 × 10 ³ Wiring diagram SB 1.0 SB 1.0 SB 1.0	Start-up bypass time (AUB)	3240 s (factory setting 120 s)									
Output Potential free switching contact – breaking/making contact, adjustable per menu max. rating load: 0,5 A (30 VAC/DC) – 0,1 A (250 VAC) – 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) – as above as above Duration of life Mechanical 10 × 10 ⁶ Electrical (rated load) 100 × 10 ³ Electrical (rated load) SB 1.0	Switch activation delay	0240 s (factory setting 0 s / Off)	-	-							
max. rating load: 0,5 A (30 VAC/DC) - 0,1 A (250 VAC) - 0,1 A (220 VDC); min. rating load: 10 mW / 0,1 V / 1 mA Additional relay output (type2) - as above as above Duration of life Mechanical 10 × 10 ⁶ Electrical (rated load) 100 × 10 ³ Wiring diagram SB 1.0	Setting zero point	Via menu. Short-circuit mechanically both	th tube connectors P+ / P- for the moment of zero	point setting							
Additional relay output (type2) - as above as above Duration of life Mechanical 10 × 10 ⁶ Electrical (rated load) 100 × 10 ³ Wiring diagram SB 1.0 SB 1.0 SB 1.0	Output	Potential free switching contact - breaki	ng/making contact, adjustable per menu								
Duration of life Mechanical 10 × 10 ⁶ Electrical (rated load) 100 × 10 ³ Wiring diagram SB 1.0		max. rating load: 0,5 A (30 VAC/DC) -	0,1 A (250 VAC) - 0,1 A (220 VDC); min. rating	load: 10 mW / 0,1 V / 1 mA							
Electrical (rated load) 100 × 10 ³ Wiring diagram SB 1.0	Additional relay output (type2)	-	as above	as above							
Wiring diagram SB 1.0	Duration of life Mechanical	10 × 10 ⁶									
	Electrical (rated load) 100 × 10 ³									
Scope of delivery Pressure switch, 3 self-tapping screws 4,2 × 13 mm resp. in stainless steel (with CT and VA versions), short circuit tube	Wiring diagram	SB 1.0									
	Scope of delivery	Pressure switch, 3 self-tapping screws 4	,2 × 13 mm resp. in stainless steel (withCT and	1VA versions), short circuit tube							

...-VA

Special so	olutions and accessories	CSA – Hazaro
CT	Types in aluminium housing with seawater resistant coating,	Group A,
	parts nickel-plated	CET ÉQUIPEMEI
OCT	Offshore version in aluminium housing with seawater resistant coating,	CLASSE I, DIVIS
	parts nickel-plated	OU DES EMPLAC
VA	Types in stainless steel housing, parts nickel-plated	Substitut
- OVA	Offshore version in stainless steel housing, parts nickel-plated	AVERTISSEMEN
MKR	Mounting bracket for round ducts up to Ø 600 mm	LA SUBSTITUTIO
Kit 2	Flexible pressure tube, 2 m, inner Ø 6 mm, 2 connection nipples	INACCEPTABLE
Kit-S8-CBR	2 cable glands M16 \times 1.5 mm, Ex-e, brass nickel-plated, for cable Ø 510 mm	Do not co
Kit-Offs-GL-	CBR 2 cable glands M20 × 1.5 mm, Ex-d, Ms-Ni, for armoured cables	been ren
Kit-PTC-CBF	R 2 connecting tubes for tube fittings Ø 6 mm, stainless steel 316 L	AVERTISSEMEN
		NE PAS BRACHE

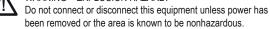
dous Location – EMPLACEMENTS DANGEREUX

uipment is suitable for installation in Class I, Division 2, A, B, C, D hazardous locations or nonhazardous locations only. ENT EST SEULEMENT APPROPRIÉ À L'INSTALLATION DANS LA SION 2, GROUPES A, B, C, D DES EMPLACEMENTS DANGEREUX CEMENTS NON DANGEREUX.

NG – EXPLOSION HAZARD:

tion of components may impair suitability for Class I, Division 2. NT - RISQUE D'EXPLOSION : ON DE COMPOSANTS PEUT RENDRE CE MATERIEL

POUR LES EMPLACEMENTS DE CLASSE I, DIVISION 2. NG – EXPLOSION HAZARD:



NT - RISQUE D'EXPLOSION :

PAS BRACHER OU DÉBRANCHER TANT QUE LE CIRCUIT EST SOUS TENSION, À MOINS QU'IL NE S'AGISSE D'UN EMPLACEMENT NON DANGEREUX. V02 – 18-Oct-2016

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Electrical connection

All pressure switches require a 24 VAC/DC power supply. The electrical wiring must be realized via the integrated Ex terminal box acc. to ATEX.

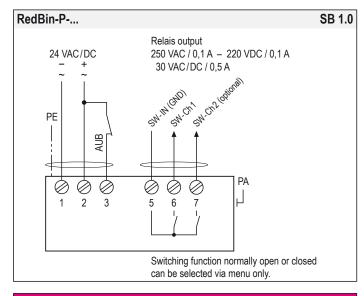
Attention: Before opening the terminal box cover, the supply voltage must be shut off!

The supply has to be connected at terminals 1 (-/~) and 2 (+/~).

The start-up bypass delay (AUB) can be activated by bridging terminals 2-3. Activation is indicated by a flashing green LED.

 Λ

At different relay and supply voltages (24 VAC/DC) the cable installation must be considered (see "Information for Installation") !



Zero point compensation

...Bin-P-... pressure switches are equipped with a zero point compensation to adjust the module to the installation position. The pressure nipples P+ / P- must be connected with a short circuit tube and the zero point compensation performed by following the menu for parametrisation (menu 14).

Before starting the zero point compensation, the device should be connected to power supply for a minimum of 15 minutes to reach the uniform working temperature!

Approbations

Approvations							
ATEX directive	2014/34/EU						
EC type-approved	EPS 14 ATEX 1 658						
IECEx certified	IECEx EPS 14.0075						
Approval for gas	II 3 (1) G Ex nC [ia Ga] IIC T6T4 Gc						
TypesCT,OCT	II 3 (1) G Ex nC [ia Ga] IIB T6 Gc						
Approval for dust	II 3 (1) D Ex tc [ia Da] IIIC T80°CT130°C Dc IP66						
CE identification	CE № 0158						
EMC directive	2014/30/EU						
Enclosure protection	IP66 in acc. with EN 60529						
EAC	ТС RU C-DE.ГБ08.В.01510						
CSA	13.2672226 Aluminium housing						
Class Division	Class I, Division 2, Groups ABCD, T6, IP66						
	Ex nA IIC Gc						
TypesCT,OCT	Ex nA IIB Gc						
Class Zone	Class I, Zone 2, AEx nA IIC T6 Gc, IP66						
TypesCT,OCT	Class I, Zone 2, AEx nA IIB T6 Gc, IP66						

Display, buttons and parameters



Change operation – parametrisation mode

To change from operation to parametrisation mode and vice versa, push — ENTER button for minimum of 3 seconds. Back to operation mode with menu "save".

Indication of data logging

A flashing unit symbol (star) in the display shows that data is received and the device is working.

Password input

The default/delivery setup is 0000. In this configuration the password input is not activated. To activate the password protection (menu 15) change the 4 digits into your choosen numbers (e.g. 1234) and press ENTER.

Please keep your password in mind for next parameter change! Due to a new parameter setup the password is requested.

Important information for installation and operation

A. Installation, commissioning, maintenance

All national and international standards, rules and regulations must be complied with. Certified apparatus must be installed in accordance with manufacturer instructions. If the equipment is used in a manner not specified by the manufacturer, the safety protection provided by the equipment may be impaired. For electrical installations design, selection and erection, EN/IEC 60079-14 can be used. Canada: Install per Canadian Electrical Code (CEC).

USA: Install per National Electrical Code (NEC).



Attention: Apply all Ex rules and regulation before opening the internal terminal box. Do not open cover when circuits are live!

Draw the wiring cables through the cable glands. For connection use the internal Ex terminal box and connect equipotential bonding.

After connection install the cables in a fixed position and protect them against mechanical and thermical damage. Close all openings and ensure IP protection (min. IP66).

Avoid temperature transfer and ensure not to exceed max. ambient temperature! For outdoor installation a protective shield against sun, rain and snow should be applied. After mounting and installation a zero point compensation must be done to ensure correct measurement results (see description).

Sensors are maintenance free. An annual inspection is recommended. For electrical installations inspection and maintenance, EN/IEC 60079-17 can be used. Clean with damp cloth only.

Ex sensors must not be opened and repaired by the end user.

B. Long cabling

We recommend using shielded signal wires and to connect one end of the shield to the ...Bin-... terminal box.

C. Separate ground wires

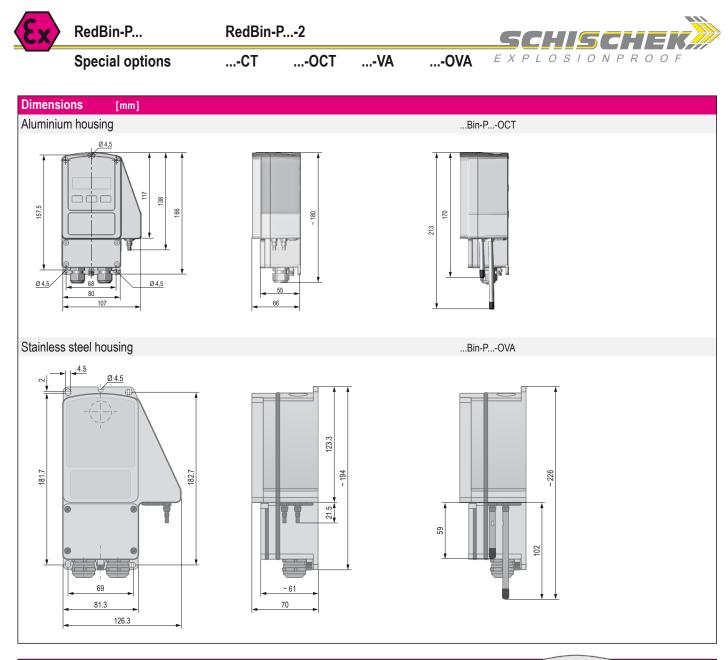
For supply and signal wires use separate grounds.

D. Relais output

Wires for safety extra-low voltage must be installed separately from other circuits. At 24 VAC/DC only supply and signal wires are permitted in one cable, in all other cases use separate or double isolated cables. An over-current protection fuse < 10 A has to be provided by the installer.

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Parametrisation and commissioning To change from operation to parametrisation mode

push the "ENTER" button in for minimum 3 seconds.

If password protected: type password and push -.

Skip menu wi menu "save".	th ►, back to operation mode									
Menu	Function		ENTER	Indication	Select	ENTER	Next indication	Select	ENTER	Next menu
Menu 1	Preset Select application	PSEF	◄		FAN, FILT, PRO					
Menu 2	Unit sensor Select physical unit	Nenu ?+		Menu 2 Pa	Pa, mbar, inH ₂ O					
Menu 3	set 1 Select switching point 1	5 <u>6</u> 71		Menu 3	enter setpoint					
Menu 4	set 2 (optional) * Select switching point 2	56F5	Ł		enter setpoint	Ł				
Menu 5	hysteresis ** Select hysteresis	+Menu S+ Z HYSE	Ł	Menu 5 D Pa	enter hysteresis	Ł				
Menu 6	mode ** Select switching properties (break contact, make contact)	Mode	Ł		Up, Down, Mid *	Ł		C , no		
Menu 7	no function – menu skip									
Continue next p	age								V0	RedBin-P_en 2 – 18-Oct-2016

 $\mathsf{Operation} \to \mathsf{Parametrisation}$

push 🛥 for min. 3 s

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1 2





Special options ...-CT ...-OCT ...-VA ...-OVA

Continue Parametrisation

RedBin-P...

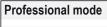
Menu	Function		ENTER	Indication	Select	ENTER	Next indication	Select	ENTER	Next menu
Menu 8	no function – menu skip									
Menu 9	no function – menu skip									
Menu 10	no function – menu skip									
Menu 11	no function – menu skip									
Menu 12	time Select bypass (AUB) time	+Menui?+	ł	Menul2	enter seconds for AU					
Menu 13	display setting Select display	^{+Menul∃+}	ł		on, off					
Menu 14	Zero point compensation Sensor's calibration for its installation position	-Menuly-	ł							
Menu 15	security Select password protection	SECU	┫		enter password					
Menu 16	save Select: save data, discard, back to menu, factory setting	SA'VE		Menul6 9E5	Yes, no, menu, dset (d	default setting)	(operation mode after	er "save")		

* for ...Bin-P-...-2 only (2-stage)

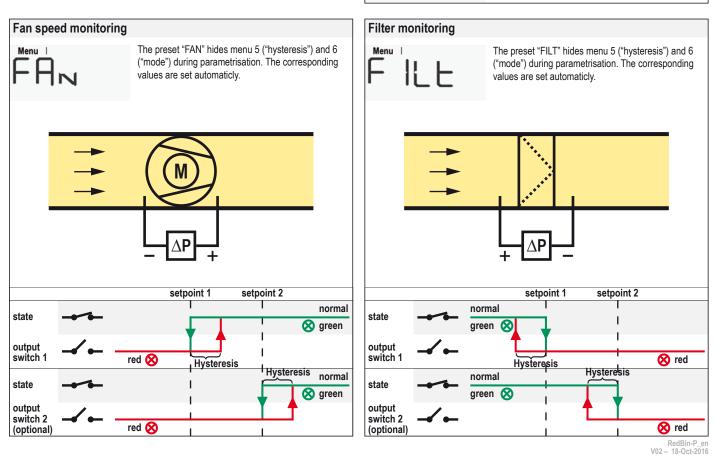
** adjustable in professional mode only (menu 1)

Menu 1 "pset" – Preset

For some applications you can select presetting to ease parametrisation. Besides fan belt ("FAN") and filter monitoring ("FILT") the professional mode ("PRO") is available for further applications.



 When this mode is selected the switching properties can be set at will per menu 5 ("hysteresis") and 6 ("mode") acc. to requirements.

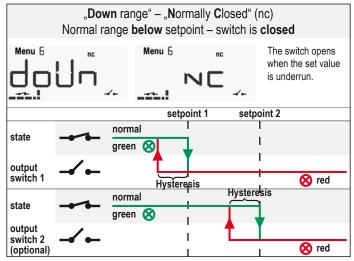


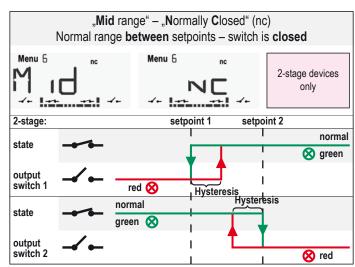
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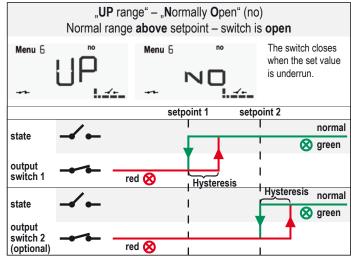
Menu 6 "mode" – Switching properties

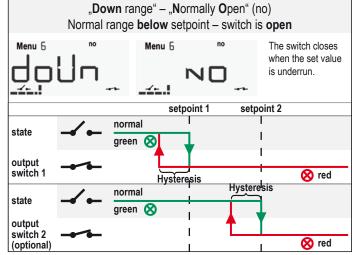
- 1. Define the device's normal range first:
 - The device should indicate (green LED) when the temperature/humidity is
 - above the setpoints mode "up-range" has to be selected.
 - under the setpoints mode "down-range" has to be selected.
 - between the setpoints mode "mid-range" has to be selected. This mode is available for 2-stage devices only (...Bin-P...-2).
- "UP range" "Normally Closed" (nc) Normal range above setpoint - switch is closed Menu 6 The switch opens Menu 6 when the set value is underrun 4. setpoint 1 setpoint 2 normal state 🚫 green output switch 1 red 🚫 Hysteresis Hysteresis normal state 🚫 green output switch 2 red 🚫 (optional)

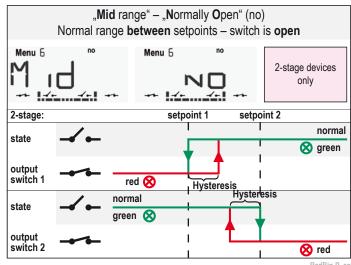




- 2. Select the switching charateristic of the output relay:
 - When the measured value is in normal range, the corresponding relays shall
 - close select "normally closed" (nc)
 - open select "normally open" (no)







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