

SIGNALLING DEVICES

Automated processes use intelligent signalling systems to keep you informed at all times about the status of your entire plant and any faults that may arise. You can even install signalling devices for rupture discs that have already been installed.

Also for our
signalling devices:



SK

The SK signalling unit uses the closed-circuit current principle. A signalling cable is integrated into the rupture disc during the manufacturing process to create a highly reliable unit. When the rupture disc opens, the signalling cable circuit is broken and a corresponding signal sent to the process control system.

SR: As an installation aid, the SK signalling device can be supplemented with an additional spacer ring and cable gland.



SNR

This signalling unit was specially developed for bi-directional rupture discs. The SNR uses a proximity switch, which offers inductive, intrinsically safe monitoring in accordance with NAMUR (DIN EN 60947-5-6) for compliance with the highest safety standards.

Signalling devices



BIRD

The BIRD signalling device contains a ceramic barg with integrated electrical conductors which are broken when the rupture disc opens. The standard version of BIRD is temperature-resistant up to 150 °C, the high temperature version is capable of operating at temperatures of up to 400 °C.



SLL

The SLL sensor transmits infra-red beams using optical fibres. These hit the reflector on a rupture disc and are registered by the SLL receiver. Both the transmitter and receiver are integrated in the SLL sensor head. When the rupture disc opens, the reflection is broken and a signal is transmitted from the SLL receiver to the connected process control system.

NIMU

NIMU (Non-Invasive Monitoring Unit) is a reusable monitoring system, which informs the operator as soon as the rupture disc responds to an overpressure or vacuum situation. The unit is installed in a blind tapping in the outlet section of the rupture disc holder. This completely isolates NIMU from the process and prevents potential leakages.

After a rupture disc has opened, only the rupture disc itself must be replaced. This reduces production downtime and associated costs to a minimum. NIMU is based on tried and tested, intrinsically safe, closed circuit technology and is therefore easy to integrate into process control systems.





SB/SB-S

Like the SK signalling device, this signalling system uses the principle of closed circuit technology. The signalling membrane is mounted directly between the flanges on the venting side of the rupture disc. When the rupture disc breaks, the pressure of the discharging process medium destroys the SB-S membrane and the intrinsically safe circuit is broken. This sends an error message to the process control system. Also available without a relief bore for monitoring leakages.

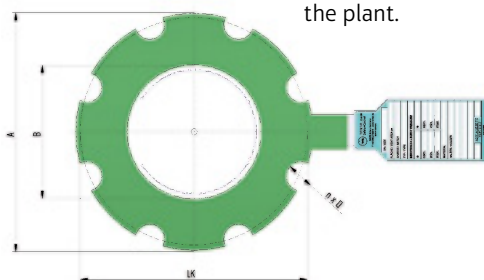


FOS

The fibre optic FOS rupture membrane is used to monitor leakages and the response of rupture discs under highly corrosive conditions and in hazardous areas where electrical connections are not possible.

The signalling element carries no current and consists of a glass fibre with a thickness of < 250 µm. When the rupture disc opens, the optical fibre circuit tears and the circuit is broken.

The downstream evaluation unit transmits a signal, which can be used to trigger visual or acoustic alarms and to shut down the plant.



Technical data SB/SB-S and FOS

NPS [in]	DN [mm]	pressure class		A [mm]	B [mm]	BC [mm]	n [mm]	D [mm]	SB/SB-S: signalling and response pressures at 22 °C
		PN	ANSI						
¾"	20	6-40	150-900	73	22	75	4.0	14	3.2
1"	25	6-40	150-900	76	29	80	4.0	16	2.3
1½"	40	6-40	150-900	95	45	100	4.0	18	1.5
2"	50	6-40	150-900	107	58	120	4.0	20	1.1
2½"	65	6-40	150-900	-	-	-	-	-	1.0
3"	80	6-40	150-900	165	84	156	8.0	24	0.80
4"	100	6-40	150-900	190	108	186	8.0	24	0.60
6"	150	6-40	150-900	247	160	244	8.0	26	0.40
8"	200	6-40	150-900	276	208	280	8.0	18	0.30
10"	250	6-40	150-900	-	-	-	-	-	0.20
12"	300	6-40	150-900	-	-	-	-	-	0.20
14"	350	6-40	150-900	-	-	-	-	-	0.20
16"	400	6-40	150-900	-	-	-	-	-	0.10
18"	450	6-40	150-900	-	-	-	-	-	0.10
20"	500	6-40	150-900	-	-	-	-	-	0.10
24"	600	6-40	150-900	-	-	-	-	-	0.10

Different sizes, pressure classes, temperatures, materials and fittings available on request.

You can find detailed information and contact details for enquiries relating to signalling devices at www.rembe.de.
Or just give us a call: T +49 2961 7405-0, info@rembe.de.

