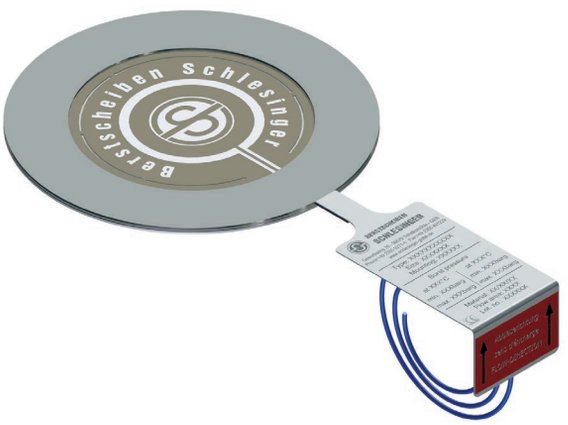
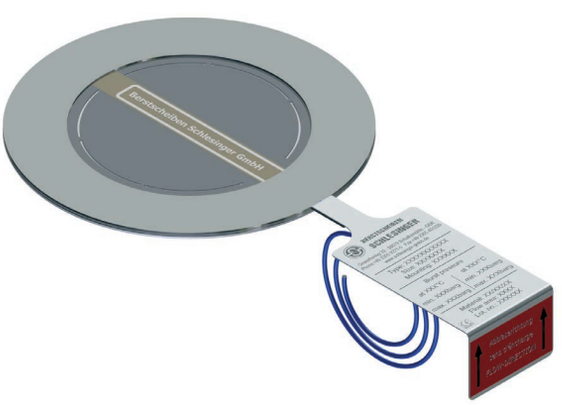
Monitoring of bursting disc

Type membrane signal transmitter

We also offer our bursting discs with a monitoring system to allow for automated monitoring of ongoing processes. This safety device accurately and immediately detects the response of a bursting disc within a plant or tank. This allows for countermeasures to be taken instantly.



Membrane signal transmitter in disc shape



Membrane signal transmitter in strip shape

Description

The membrane signal transmitter consists of a high-quality PEEK (polyether ether ketone) film equipped with a silver strip conductor. This material combination makes it particularly resistant to high temperatures.

We provide membrane signal transmitters in two versions: in strip form and in disc form. The disc is placed over the entire bursting disc, while the strip is clamped across the bursting disc. This allows for safe transmission of signals from bursting discs with a large nominal width.
We deliver it ready for installation, embedded in two Klingersil or PTFE seals and with a cable length as requested by the customer.

Function

If the pressure exceeds the permissible range during the process, the bursting disc ruptures. Thus the pressure can be released immediately. If the bursting disc is equipped with one of our membrane signal transmitter, the response of the bursting disc is detected directly and this event is conveyed to the attached process control system.

Installation

The membrane signal transmitter is a separate component. We offer the membrane signal transmitter either in combination with a suitable bursting disc or as an individual product. In the latter case, the membrane signal transmitter may be used upstream or downstream from a safety valve. The low installation height amounting to 5 mm allows for bursting discs already installed in a plant or tank to be retrofitted.

Technical data

General remarks	
Can be combined with the following bursting disc types	Composite bursting discs, Reverse buckling bursting discs, Rupture discs
Media	gas, steam, liquids
Temperature range	-30°C to +200°C

Dimensions	
Membrane signal transmitter disc shape	DN 25 - DN 200
Membrane signal transmitter strip shape	DN 200 - DN 500

Voltage/ Electricity	
max. intensity of current	100 mA
max. voltage	30V AC / DC
max. output	1 W

Materials	
Membrane film	PEEK (polyetheretherke-tone)
Conductive path	silver
Cable connection	teflon coated, attachable according to customer requirements
Seals	optional with Klingersil or PTFE

Certifications
CE marking according to Directive 2014/68 EU
QM-system according to ISO 9001:2015

Burst pressures
Our membrane signal transmitter is suitable for bursting discs with a bursting pressure in excess of 0.4 bar.