# Data Sheet SDD-30 and SDD-40 

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# BRISTRTOL 

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## Differential pressure- Pressure sensor with internal diaphragm

## Accuracy: 1.0 \%

## Standard output: <br> 4... 20 mA ; 3-wire system <br> or $\quad 0 . .10$ VDC; 3-wire system or / and with 2 alarm contacts

## Characteristics

Cost savings, because of the connection of positive and negative pressurized connection by wire.
Highly resistant to shock and vibration.
Contact element and dead spot programmable with storage of $\mathrm{min} / \mathrm{max}$ values
Plus- / Minus-pressure connection interchangeable by programming.

## Application

Used for all gaseous and liquid pressure media, which do not tend to crystallize, highly viscous or attack the measuring material.

Winner of the Innovation award 2006!
Patent-no.: 102005043752


Instrument range
Environmental engineering, filter monitoring
Mechanical / plant engineering

|  | internal diaphragm | front flush diaphragm |
| :---: | :---: | :---: |
| Model | SDD-30 | SDD-40 |
| Accuracy | 1.0 \% of full scale value |  |
| Connection thread | $2 \times \mathrm{G} 1 / 2$, stainless steel 316L | $2 \times \mathrm{G} 1 / 2 \mathrm{~B}$ front flush |
| Display | LCD blue-white, two-line with backlighting |  |
| Display ranges in mbar | 0... 40, 60, 100, 160, 250, 400, 600 |  |
| Display ranges in bar | 0... 1, 1,6, 2,5, 4, 6, 10, 16, 25, 40, 60, 100, 160, 250, 400 |  |
| Max. static pressure | 10 x full scale value |  |
| Sensor element | Sensor element Stainless steel measuring cell piezoresistive or in thin-film technology (depending on measuring range) |  |
| Housing | Aluminum anodized |  |
| Wetted parts | CrNi-steel 316L,, O-ring Viton (FKM) |  |
| Pressure connection | $2 \times$ SW 27, CrNi-steel 316L |  |
| Electrical connection | via circular plug M 12x1, 4-pole |  |
| Power supply | 14... 30 VDC , max. 70 mA |  |
| Contact output | 2 relays as change-over contact, $6 \mathrm{~A} 250 \mathrm{~V} \mathrm{AC} ,\mathrm{but} \mathrm{min}$.12 V 10 mA via cable junction box |  |
| Permissible load | current 2-wire: $\mathrm{R}_{\max }=\left(\left(\mathrm{UB}-\mathrm{UB}_{\text {min }}\right) / 0,02\right)$ Ohm, voltage: $\mathrm{R}_{\text {min }}=10 \mathrm{~K}$ ohms |  |
| Short circuit strength | S + against U- |  |
| Reverse polarity protection | U + against U - |  |
| CE-conformity | Pressure equipment directive - 97/23 / EC <br> EMC Directive - Emissivity and immunity (industrial area) according to EN 61326 |  |
| Service life | > 50 million load cycles |  |
| Temp. comp. Range | $-20 . . .80^{\circ} \mathrm{C}$ |  |
| Protection class | IP 65 according to EN 60529 / IEC 529 |  |
| Temperatures | Medium: $-30^{\circ} \mathrm{C}$ to $100^{\circ} \mathrm{C}$, ambient: $-20^{\circ} \mathrm{C}$ to $80^{\circ} \mathrm{C}$ |  |
| Weight | 0.8 kg |  |

Dimensions and Design
Model SDD-30

Standard version
Circular connector M $12 \times 1$, 4-pin


3-wire system
4... 20 mA and $0 . . .5 / 10 \mathrm{~V}$

cable outlet with 2 meters securely connected PVC-cable,

## 3-wire system

4... 20 mA and $0 . . .5 / 10 \mathrm{~V}$


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## Dimensions and Design

## Model SDD-30

Standard version
Male plug M $12 \times$ 1, 4-pin
optionally with one or two switching contacts


## 3-wire system

4... 20 mA and $0 . . .5 / 10 \mathrm{~V}$


Connection of the switch contacts


## Dimensions and Design

## Model SDD-40

Standard version
Male plug M $12 \times 1$, 4-pin


3-wire system
4... 20 mA and $0 . . .5 / 10 \mathrm{~V}$


Cable outlet with 2 meter PVC-cable, shielded

## 3-wire system

4... 20 mA and $0 . .5 / 10 \mathrm{~V}$


Dimensions and Design
M ESSTECHNIK

## Model SDD-40

Standard version
Male plug M $12 \times 1$, 4-pin
optionally with one or two switching contacts


3-wire system
$4 . .20 \mathrm{~mA}$ and $0 . .5 / 10 \mathrm{~V}$


## Connection of the switch contacts


shield

1. contact 2. contact

Dimensions and Design
MESSTECHNIK

## Model SDD-40

optionally with one or two switching contacts optional DIN flange connection DN 25, PN 40


## 3-wire system

4... 20 mA and $0 . . .5 / 10 \mathrm{~V}$


## Connection of the switch contacts

 shield

1. contact
2. contact

## Dimensions and Design

## Model SDD-30 and SDD-40

## optional with two external pressure sensors and back flange



3-wire system
$4 \ldots 20 \mathrm{~mA}$ and $0 . .5 / 10 \mathrm{~V}$


Connection of the switch contacts



1. contact
2. contact

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