SIEMENS

Datasheet for

SITRANS P Transmitter Compact for pressure and absolut pressure for food, pharmaceu- ticals and biotechnology, with diaphragm flush at front. 2-wire system, process tempera- ture up to 140 deg. Cel., accuracy 0.2 % of f.s.v. output signal: 4...20 mA,

Ordering data: 7MF80101AG311CA1

General

Manufacturer	Siemens
Supplier	Siemens
Product designation	gauge pressure transmitter
Brand name	SITRANS P Compact
Type designation	SITRANS P Transmitter Compact for pressure and absolut pressure for food, pharmaceu- ticals and biotechnology, with diaphragm flush at front. 2-wire system, process tempera- ture up to 140 deg. Cel., accuracy 0.2 % of f.s.v. output signal: 4...20 mA,
Net weight	0.2 kg
Slogan	The specialist for basic measuring requirements

Mode of operation and application

Measuring principle	piezo-resistive

Input

Measurand	Pressure, relative

Measuring range

Measuring range, relative	0 mbar...1 bar

Measuring span

Measuring span (maximum)	1 bar

Output

Current output

Signal range	4 ... 20 mA
Output current	3.6 mA...30 mA
Load (maximum)	200 Ohm

Operating conditions

Medium temperature	-10 °C...+140 °C

Pressure

Operating pressure, relative	-1 bar...10 bar

Environmental conditions

Ambient temperature during operation	-10 °C...+70 °C
Ambient temperature during storage	-10 °C...+90 °C
Relative humidity with condensation (maximum)	100 %

Degree of protection

IP rating	IP65

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Electromagnetic compatibility EMC

Standard for EMC	EN 61326-1

Structural Design

Mechanical design

Design of the device	single chamber housing
Model of the measuring transmitter	compact version, sensor integrated

Process connection

Design	cone spigot with union nut
Design	Dairy coupling
Standard	DIN 11851
Nominal size	DN 50
Pressure rating	PN 25

Material

Process connection

Material	stainless steel
Material number according to DIN EN 10027-2	1.4404
Material number according to AISI	316L
Material number according to UNS	S 31603
Grade according to DIN EN 10027-1	X2CrNiMo17-12-2

Enclosure

Material	stainless steel
Material number according to DIN EN 10027-2	1.4404
Material number according to AISI	316L

Separation & Measuring Membrane

Material of the separation membrane	stainless steel
Material number of the separation membrane according to DIN EN 10027-2	1.4404
Material number of the separation membrane according to AISI	316L
Material number of the separation membrane according to UNS	S 31603
Grade of the separation membrane according to EN 10027-1	X2CrNiMo17-12-2

Miscellaneous

Filling liquid in the measuring cell	Food-grade-oil
Material of the nameplate	plastic

Electrical connections

Connection technology	2-wire technology
Design of the electrical connection	plug, 2-pole
Design of the electrical connection	A
Material of the electrical connection of the enclosure	polyamide (PA)
Standard of the electrical connection	EN 175301-803

Power supply

Electrical

Voltage type	DC
Nominal voltage, DC	24 V
Supply voltage, DC	10 V...30 V

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Certificates and approvals

Verification of suitability	CE
Pressure device category according to PED 97/23/EC	Article 3.3
Conformity rating procedure according to PED 97/23/EG	Module H
Fluid group according to PED 97/23/EG	gas group 1, liquid group 1

Reliability (MTBF)

MTBF	557 a
Standard for MTBF	SN 29500
Determination procedure	Calculation with component load
Reference temperature	40 °C
Applicability	Measuring device

The information provided in this data sheet contains descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.