

# Betriebsanleitung Operating instructions Instructions d`utilisation



## Druckmessumformer Pressure transmitters Transmetteurs de pression

### Typen:

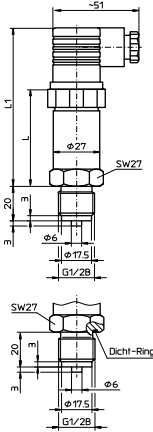
**DPS**  
**DDS**  
**DCS**  
**NCS**



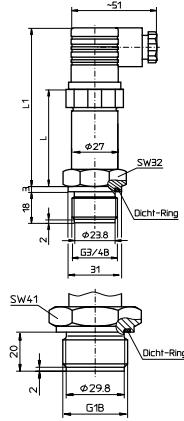


## Druck-Anschlussvarianten

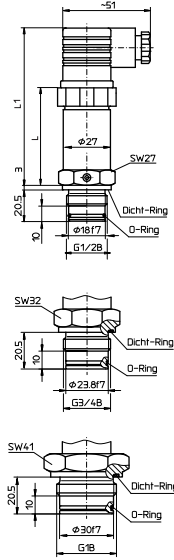
Anschluss EN 837-1  
mit Dicht-Ring



Anschluss mit frontbündiger  
Membrane und Dicht-Ring

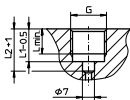


Anschluss mit frontbündiger Membrane  
mit Dicht- und O-Ring

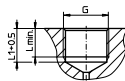


Typ	L	L1
	mm	
DPS	96	60
DDS	101	65
DCS	96	60
NCS	90	54

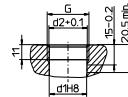
Einschraubloch  
DIN 16288



Einschraubloch für An-  
schluss mit frontbündiger  
Membrane und Dicht-Ring

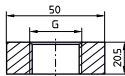


Einschraubloch für frontbündige  
Membrane mit Dicht- und O-Ring



Maße: Einschraubloch DIN 16288 und  
Schweisstützen für Anschlüsse  
EN837-1  
und EN 837-1 mit Dichtring

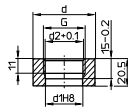
G	L <sub>min</sub>	L1 <sup>-0,5</sup>	L2 <sup>+1</sup>	d
1/4	10	13	16,5	5,5
1/2	14,5	19	24,5	7
3/4	16,5	12	15,5	-
1	19	19	15,5	-



Schweisstützen für  
Anschluss EN 837-1  
und EN 837-1 mit  
Dichtring

Einschraubloch und  
Schweisstützen für  
Frontbündigemembrane mit  
O-Ring und Profildichtung

G	d	d1	d2 <sup>+0,1</sup>
1/2"	50	18	19,4
3/4"		23,8	25
1"		30	30,5

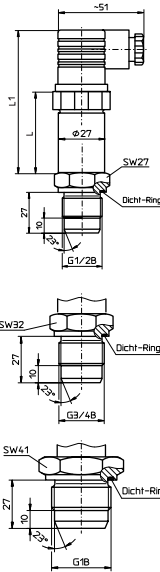


Schweisstützen für frontbündige  
Membrane mit Dicht- und O-Ring

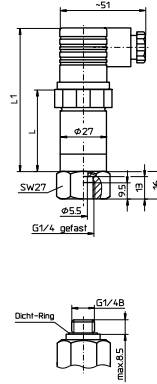




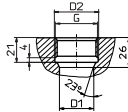
Anschluss mit frontbündiger Membrane mit Dichtring und Dichtkonus



Anschluss mit Innengewinde



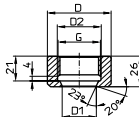
Einschraubblock für frontbündige Membrane mit Dichtring und Dichtkonus



Einschraubblock und Schweißstutzen für Frontbündigemembrane mit Profildichtung und Dichtkonus			
G	D	D1	D2
1/2"	35	16,9	21,7
3/4"	40	22,1	27
1"	50	26,8	34

## WARNUNG!

Bei gefährlichen Messstoffen wie z. B. Sauerstoff, Acetylen, brennbaren oder giftigen Stoffen, sowie bei Kälteanlagen, Kompressoren etc. müssen über die gesamten allgemeinen Regeln hinaus die einschlägigen Vorschriften beachtet werden.



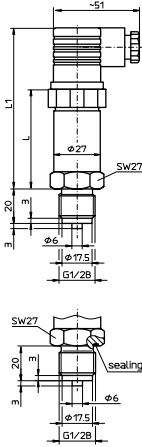
Schweißstutzen für frontbündige Membrane mit Dichtkonus



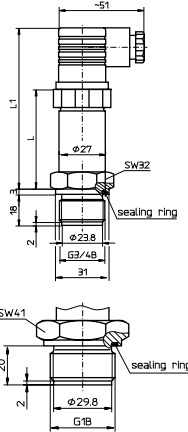
# Pressure-connection variants



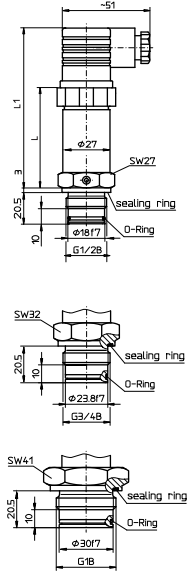
Connection EN 837-1 with sealing ring



Connection with flush diaphragm and sealing ring

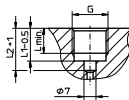


Connection with flush diaphragm with sealing ring and O-ring

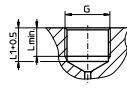


Type	L	L1
	mm	mm
DPS	96	60
DDS	101	65
DCS	96	60
NCS	90	54

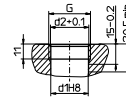
Socket DIN 16288



Socket for Connection with flush diaphragm and sealing ring



Socket for Connection with flush diaphragm with sealing ring and O-ring



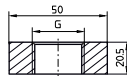
Socket DIN 16288 and welding adaptor for connections EN837-1 and EN 837-1 with sealing ring

G	L <sub>min</sub>	L <sub>1</sub> <sup>+0.5</sup>	L <sub>2</sub> <sup>-1</sup>	d
1/4	10	13	16,5	5,5
1/2	14,5	19	24,5	7
3/4	16,5	12	15,5	-
1	19	19	15,5	-

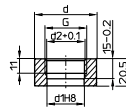
Socket and Welding adaptor for Connection with flush diaphragm with sealing ring and O-ring

G	d	d1	d <sub>2</sub> <sup>+0.1</sup>
1/2"		18	19,4
3/4"	50	23,8	25
1"		30	30,5

Welding adaptor for Connection EN 837-1 and EN 837-1 with sealing ring



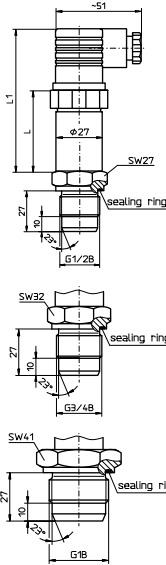
Welding adaptor for Connection with flush diaphragm with sealing ring and O-ring



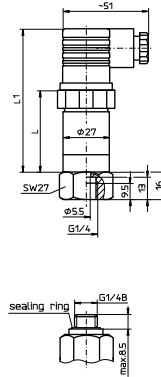


## Pressure-connection variants

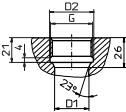
Connection with flush diaphragm with sealing ring and sealing cone



Connection with female thread

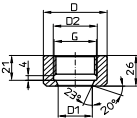


Socket for connection with flush diaphragm with sealing ring and sealing cone



Socket and Welding adaptor for connection with flush diaphragm with sealing ring and sealing cone

G	D	D1	D2
1/2"	35	16,9	21,7
3/4"	40	22,1	27
1"	50	26,8	34



Welding adaptor for connection with flush diaphragm with sealing ring and sealing cone

### WARNING!

For hazardous media such as oxygen, acetylene, flammable or toxic gases or liquids, and refrigeration plants, compressors, etc., in addition to all standard regulations, the appropriate existing codes or regulations must also be followed.



## 1.0 Installation and Commissioning

The pressure tapping points should be prepared in accordance with the indications given for the sockets. For more details, see e.g. rule VDE/VDI 3512, sheet 3. Suitable for sealing are sealing washers to DIN 16258. The correct tightening torque is depending on material and shape of the used seal. It should not exceed 80 Nm. The mounting position should not be subject to strong vibration and radiation heat. The mounting position which the transmitter is adjusted for, is indicated on the rating plate. If the device is installed in a different position, the zero point may be offset. The transmitters are immediately ready for service after the pressure and electrical connections have been made.

## 2.0 Wiring

Electrical connection is made by means of plug or shielded cable with capillary tube. Precise wiring schemes can be seen in the drawings. In addition, wiring details and required power supply are given on the rating plate.

Significance of applied terminal designations:

supply voltage: Ub+ / Ub-

output signal: S+ / S-

cable shield/case, earth: shield / PE

2.1 Current output		2.2 V Signal	
output signal:	4 ... 20 mA / 2 wire-system	output signal:	0 ... 10 V / 3 wire-system
Power supply:	Ub = 7,5 ... 30 V DC	Power supply:	Ub = 12 ... 30 V DC
Admissible load:	Ra = (Ub - 7,5 V) / 20 mA	Admissible load:	Ra ≥ 10 kΩ

## 3.0 Service and Maintenance

The transmitter described here under is maintenance free. If incorporates no components which have to be repaired or replaced on the site. Repairs can only be carried out at the factory. Depending on working conditions, the pressure transmitters should be checked about once a year to ensure that they are within their specifications and be adjusted if necessary.

## 4.0 Electrical connections

L-plug EN 175301-803 Form A	2-wire	3-wire	L-plug M12 x 1	2-wire	3-wire		
	Ub+	1	1		Ub+	1	1
	Ub-	2	2		Ub-	3	3
	S+	-	3		S+	-	4
Bayonet connector DIN 72585	2-wire	3-wire	Cable connection	2-wire	3-wire		
	Ub+	1	1		Ub+	white	white
	Ub-	2	2		Ub-	grey	grey
	S+	-	3		S+	-	green
AMP Superseal 1,5 3-pin	2-wire	3-wire	AMP Micro Quadlock 3-pin	2-wire	3-wire		
	Ub+	3	3		Ub+	3	3
	Ub-	1	1		Ub-	1	1
	S+	-	2		S+	-	2
Deutsch DT04-3P 3-pin	2-wire	3-wire					
	Ub+	A	A	Ub+	supply		
	Ub-	B	B	Ub-			
	S+	-	C	S+	output signal		

### Attention!

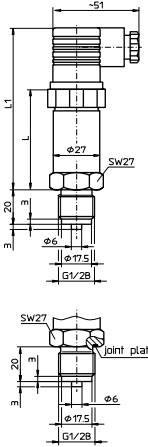
The connecting cable with capillary must not be pinched or bended to avoid interruption of pressure compensation to ambient pressure.

Minimum bending radius: fixed = 20mm / flexible application = 100mm

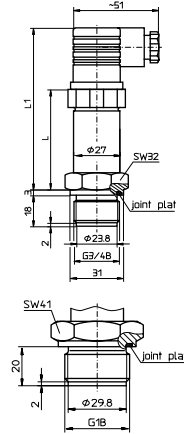


## Variantes de raccordement

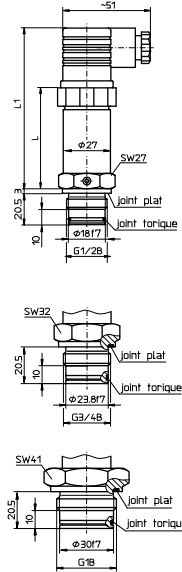
Raccord EN 837-1  
avec joint plat



Raccord avec membrane  
affleurante et joint plat

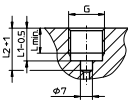


Raccord avec membrane affleurante  
avec joint plat et joint torique

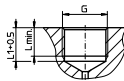


Type	L mm	L1 mm
DPS	96	60
DDS	101	65
DCS	96	60
NCS	90	54

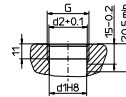
Trou avec  
taraufrage  
DIN 16288



Trou pour raccord avec membrane  
affleurante et joint plat

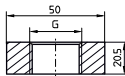


Trou pour Raccord avec membrane  
affleurante avec joint plat et joint torique



Trou DIN 16288 et  
Raccord à souder pour EN 837-1

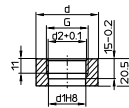
G	L <sub>min</sub>	L1 <sup>-0.5</sup>	L2 <sup>+1</sup>	d
1/4	10	13	16,5	5,5
1/2	14,5	19	24,5	7
3/4	16,5	12	15,5	-
1	19	19	15,5	-



Raccord à souder pour EN 837-1

Trou et raccord à souder  
pour raccord avec  
membrane affleurante avec  
joint plat et joint torique

G	d	d1	d2 <sup>+0.1</sup>
1/2"	50	18	19,4
3/4"		23,8	25
1"		30	30,5

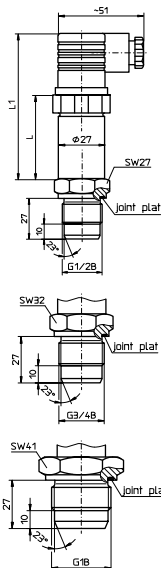


Raccord à souder pour Raccord avec  
membrane affleurante avec joint plat et  
joint torique

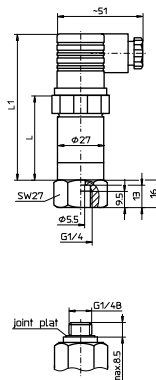




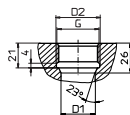
Raccord avec membrane affleurante avec joint plat et cône d'étanchéité



Raccord avec taraudage femelle

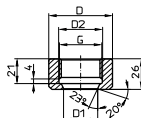


Trou pour raccord avec membrane affleurante avec joint plat et cône d'étanchéité



Trou et raccord à souder pour membrane affleurante avec cône d'étanchéité

G	D	D1	D2
1/2"	35	16,9	21,7
3/4"	40	22,1	27
1"	50	26,8	34



Raccord à souder pour membrane affleurante, avec cône d'étanchéité

### AVERTISSEMENT !

Dans le cas de fluides de mesure dangereux comme notamment l'oxygène, l'acétylène, les substances combustibles ou toxiques, ainsi que dans le cas d'installations de réfrigération, de compresseurs etc., les directives appropriées existantes doivent être observées en plus de l'ensemble des règles générales.





