



# Digital Pressure Gauge

Battery Powered or IO-Link



measuring  
•  
monitoring  
•  
analysing

## MAN-SC/-LC



Display rotatable in 90° steps



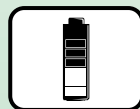
2 x 180°



With optional rubber protection sleeve



## IO-Link



- 5-digit LCD display
- Capacitive touchpads
- Peak memory
- Analogue output, frequency output, switch output (MAN-LC)
- IO-Link function (MAN-LC)
- Up to 2 relays possible (MAN-LC)
- Selectable measuring units
- Tara function
- Stainless steel process connection
- Assembly of numerous diaphragm seals possible
- Rubber protection sleeve for tough operating conditions
- MAN-SC: power supply via 9V block battery
- Battery life: up to 2 ½ years
- MAN-LC: external power supply via 24 V<sub>DC</sub>

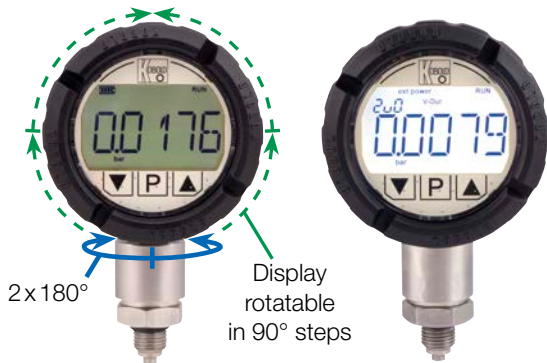


P1

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KOBOLD Messring GmbH  
Nordring 22-24  
D-65719 Hofheim/Ts.  
Head Office:  
+49(0)6192 299-0  
+49(0)6192 23398  
info.de@kobold.com  
www.kobold.com



**Description**

The intelligent KOBOLD digital manometers are used for the display, monitoring and remote transmission of pressure-dependent operating sequences in machines and installations. The pressure to be measured is sensed by a ceramic, or metal sensor, and displayed by the electronics. With the MAN-LC version, two universally configurable signal outputs are available. Instead of outputs, the optionally available relay board may drive up to two potential-free relays. The values are shown on a five-digit LCD display. The electronics module can be rotated at 90° intervals. In the pressure switch design with integrated relay, the switching point and hysteresis can be set on the membrane keypad. A wide range of process connections are available as an option. The process connection can be axially rotated as desired, after loosening the counter nut.

**Examples of Application**

- Mechanical engineering and plant construction
- Pumps and compressors
- Environmental technology
- Hydraulics and pneumatics
- Service jobs
- Process industry
- Load Capacity Measuring (e. g. Tensile Load Measurement with Pull Tester)

**Technical Details**

**General**

Display: 5-digit alpha-numeric reflective LC-display, 14-segment » better readability under direct sunlight and low ambient light « (MAN-LC with white backlight and transfective display)  
 Digit height 16 mm  
 Shows Primary Value (pressure "P") and Secondary Value (Force "F") permanent or alternating (Change time: 5 s).  
 Display Menu Level 3-digit, 7-segment, digit height 4.5 mm

Programming buttons: capacitive (touchpads)

Housing: Ø 80 mm, PA6 GK30, front display polycarbonate

Measuring ranges: -1...0...+1600 bar (special measuring ranges on request)

Accuracy class <sup>1)</sup>: 0.5 at reference conditions <sup>2)</sup> ±1 digit

<sup>1)</sup> Including non-linearity, hysteresis, zero-point- and end-value deviation (corresponds to measured error per IEC 61298-2).

<sup>2)</sup> Reference conditions: temperature 21 °C, air pressure 860 ... 1060 mbar, humidity <90 % r. F. (non-condensing)

**Temperature error at -20 ... +85 °C:**

Temperature influence (overall): ±0,25 % of full scale/ 10 K

Temperature coefficient: Zero-point ≤ ±0.2% of full scale/10 K  
 Range ≤ ±0.1 % of full scale/10 K

Long term stability: ≤ ±0.2 % of full scale/year at reference conditions

Adjustability of zero-point: ≤ ±100% of full scale (via Tara function)

Overload range: 3 x PN (to 40 bar)  
 2 x PN (60 ... 160 bar)  
 1.5 x PN (250 ... 1600 bar)

Power-up time: ca. 5 s

Response time: 0.5 ... 1 s (with display refresh time 1 s)

Conversion rate internal: 10 per second

Display and outputs refresh: 1 ... 10 s

**Software functions**

| Function                                  | MAN-SC   | MAN-LC |
|---|--|--------|
| Min/Max Peak memory                       | yes  | yes    |
| Sleep mode (Automatic power-off)          | yes  | no     |
| Password protection                       | yes  | yes    |
| Reset to factory setting                  | yes  | yes    |
| Measuring units (customer selectable)     | kPa, MPa, bar, mbar, psi, kN, N, torr, inWC, mmWC, inHg, USR (user-defined measuring unit) |        |
| Force measurement                         | yes  | yes    |
| Tara function                             | yes  | yes    |
| Control input (for MIN-/MAX-memory reset) | no   | yes    |

Calculation of Force Value F: The measured Force Value is calculated from the measured pressure value and a programmable reference area:  
 $Force [N] = 10 \times AREA \times Pressure$   
 Measured Value with AREA = Reference Area in [mm<sup>2</sup>] and Pressure Measured Value in [bar]

Rubber protection sleeve (optional): thermoplastic Elastomer, serves as protection against impact



**Supply voltage**

MAN-LC external supply 18 – 32V<sub>DC</sub> via M12x1 connector  
current consumption max. 200 mA (without outputs)

MAN-SC battery 6LR61 (nominal voltage 9V)

Battery status display: yes, via 4 segments

Sleep mode: programmable (for maximising battery lifespan)

| Sleep mode | Description   | Power consumption* | Note   |
|------------|---|--------------------|--|
| -          | -   | ~55 µA             | Normal measuring mode  |
| 0          | LC-Display is switched off.                             | ~45 µA             | Marginal energy saving via display switch-off. Measurement keeps running.  |
| 1          | LC-Display is switched off and the measurement stopped. | ~20 µA             | Fast operational readiness after wake-up (1 to 2 s).   |
| 2          | Unit in deep sleep mode. No measurement                 | ~13 µA             | Unit starts fresh after wake-up. Operational readiness after ca. 5 s. Suitable for storage with installed battery. |

\* Average current consumption with a 9 V battery

**Battery lifespan**

| Battery type 6LR61 (9V) | Lifespan (typical at 20°C)  |
|-------------------------|-----------------------------|
| Alkaline 600 mAh        | up to 9000 h (~ 1 year)*    |
| Lithium 1300 mAh        | up to 22500 h (~2.5 years)* |

\* Self battery-discharging not considered. The battery capacity reduces with low ambient temperatures.

**Wetted parts**

Sensor: ceramic (Al<sub>2</sub>O<sub>3</sub>) (meas. range ≤ 700 bar)  
st. st. (1.4571) (meas. range >700 bar)

**Gasket/Temperature of medium**

| Gasket                       | Measuring range | Temperature of medium                     |
|------------------------------|-----------------|---|
| none, stainless steel welded | > 700 bar       | -30 ... +85 °C                            |
| NBR (standard)               | ≤ 700 bar       | -30 ... +85 °C                            |
| FKM, FFKM (optional)         | ≤ 700 bar       | -30 ... +85 °C                            |
| EPDM (optional)              | ≤ 700 bar       | -30 ... +85 °C (+135 °C with cooling fin) |

**Process connections**

| Norm  | Thread size      |
|---|------------------|
| EN837   | G ¼ B (standard) |
|   | G ½ B            |
| ANSI/ASME B1.20.1                                     | ¼" NPT           |
|   | ½" NPT           |
| For other process connections see table Order Details |                  |

Ambient temp.: -10 ... +60 °C

Storage temp.: -30 ... +80 °C

Allowed relative humidity: <90 %, non-condensing

Protection class

(acc. IEC 60529): IP65

Electrical connection: M12x1 round connector (5 or 8-pin)

**Electrical outputs (MAN-LC)**

Frequency output

(OUT1/OUT2): Push-pull, max. 1000 Hz, free scalable, linear to Pressure/Force

Alarm output

(OUT1/OUT2): NPN, PNP, Push-Pull configurable max. 30V<sub>DC</sub>, max. 200 mA short-circuit proof

Analogue output

(OUT2): active, 3-wire, free scalable  
0(4) - 20 mA max. load 500 Ω  
or  
0(2) - 10V<sub>DC</sub>, (R<sub>Load</sub> ≥ 50 kΩ, load error ≤ 1 %)

Control input

(OUT1): MIN/MAX RESET  
OUT1, High active  
0 < U<sub>Low</sub> < 10V<sub>DC</sub>  
15V<sub>DC</sub> < U<sub>High</sub> < V<sub>S</sub>

IO-Link (OUT1):

Manufacturer ID: 1105 (decimal), 0x0451 (hex)  
Name of manufacturer: Kobold Messring GmbH  
IO-Link specification: V1.1  
Bit rate: COM2  
Minimal cycle time: 10 ms  
SIO-Mode: yes (OUT1 in configuration IO-Link)  
Block parameterisation: yes  
Operational readiness: 10 s  
Max. cable length: 20 m

**Configuration of outputs MAN-LC...**

| Output 1 (OUT 1, PIN 4)                    | Output 2 (OUT 2, PIN 2)                    |
|--|--|
|  | Analogue output 4-20 mA                    |
|  | Analogue output 0-20 mA                    |
|  | Analogue output 2-10 V                     |
|  | Analogue output 0-10 V                     |
| Alarm output NPN/PNP/PP                    | Alarm output NPN/PNP/PP                    |
| Frequency output PP                        | Frequency output PP                        |
| Communication mode KofiCom                 |  |
| Communication mode IO-Link                 |  |
| Control input                              |  |
| SPDT contact (optional with ZUB-MANS-KON2) | SPDT contact (optional with ZUB-MANS-KON2) |

Shock resistance

DIN EN 60068-2-27:2010: 20 g (11 ms)

Vibration resistance

DIN EN 60068-2-6:2008: 5 g (10 ... 2000 Hz)

Weight

(connection G ¼): MAN-SC: ca. 360 g  
MAN-LC: ca. 310 g  
(Weights of other process connections deviate)



Order Details (Example: MAN-SC10 G2A3000)

| Model   | Output  | Mechanical connection   | Measuring range <sup>1)</sup>  | Electrical connection | Sensor gasket   | Special version  |
|---|---|---|--|-----------------------|---|--|
| <b>MAN-SC</b><br>(digital manometer with ceramic sensor, 9 V battery)             | 10 = without                                  | <u>Meas. range</u><br><b>-1...+1600 bar:</b><br>G2 = G ¼ male<br>G4 <sup>2)</sup> = G ½ male<br>N2 = ¼" NPT male<br>N4 = ½" NPT male  | AC = -0,6...0 bar<br>AD = -1...0 bar<br>A0 = -1...+0,6 bar<br>A1 = -1...+1,5 bar<br>A2 = -1...+3 bar<br>A3 = -1...+5 bar<br>A4 = -1...+9 bar<br>A5 = -1...+15 bar<br>B1 = 0...+0,6 bar<br>B2 = 0...+1 bar<br>B3 = 0...+1,6 bar<br>B4 = 0...+2,5 bar<br>B5 = 0...+4 bar<br>B6 = 0...+6 bar<br>B7 = 0...+10 bar<br>B8 = 0...+16 bar<br>B9 = 0...+25 bar<br>B0 = 0...+40 bar<br>C1 = 0...+60 bar<br>C2 = 0...+100 bar<br>C3 = 0...+160 bar<br>C9 <sup>4)</sup> = 0...+200 bar<br>C4 = 0...+250 bar<br>C5 = 0...+400 bar<br>C6 = 0...+600 bar<br>C0 <sup>4)</sup> = 0...700 bar<br>D7 <sup>2)</sup> = 0...1000 bar<br>D8 <sup>2)</sup> = 0...1600 bar<br>EC = -20...0 inHg<br>ED = -30...0 inHg<br>E0 <sup>5)</sup> = -30...+15 inHg/psi<br>E1 <sup>5)</sup> = -30...+30 inHg/psi<br>E2 <sup>5)</sup> = -30...+60 inHg/psi<br>E3 <sup>5)</sup> = -30...+100 inHg/psi<br>E4 <sup>5)</sup> = -30...+150 inHg/psi<br>F1 = 0...+10 psi<br>F2 = 0...+15 psi<br>F3 = 0...+30 psi<br>F4 = 0...+50 psi<br>F5 = 0...+60 psi<br>F6 = 0...+100 psi<br>F7 = 0...+150 psi<br>F8 = 0...+200 psi<br>F9 = 0...+300 psi<br>F0 = 0...+500 psi<br>G1 = 0...+1000 psi<br>G2 = 0...+1450 psi<br>G3 = 0...+2000 psi<br>G4 = 0...+2300 psi<br>G5 = 0...+3000 psi<br>G6 = 0...+3600 psi<br>G7 = 0...+5000 psi<br>G8 = 0...+5800 psi<br>G9 = 0...+7500 psi<br>G0 = 0...+10000 psi<br>H1 <sup>2)</sup> = 0...+15000 psi<br>H2 <sup>2)</sup> = 0...+20000 psi | 0 = without           |   |  |
| <b>MAN-LC</b><br>(digital manometer with backlight, 18-32 V <sub>DC</sub> supply) | 30 = with 2 configurable outputs (OUT1, OUT2) | <u>Meas. range</u><br><u>up to 700 bar:</u><br>K2 = Connection bottom<br>G ¼ male, with cooling fins<br>K4 = Connection bottom<br>G ½ male, with cooling fins<br>C2 = Connection bottom<br>¼" NPT, with cooling fins<br>C4 = Connection bottom<br>½" NPT, with cooling fins<br>M1 = Connection bottom<br>M16x1.5 male<br>M2 = Connection bottom<br>M20x1.5 male<br>M6 = Connection<br>M6 female with O-ring groove<br>U7 = Connection bottom<br>7/16-20 UNF<br>DIN 3866<br>D2 = Connection bottom<br>G ¼ male<br>DIN 3852-E<br>+ FPM gasket<br>YY = on request<br>DM <sup>3)</sup> = Assembly with diaphragm seal |  | S = M12x1 connector   | 0 = NBR (standard, from 700 bar fully welded without gasket)<br>1 = FKM<br>2 = EPDM<br>3 = FFKM | 0 = without<br>Y = special (please specify in writing) |

<sup>1)</sup> Custom selectable measuring units: kPa, MPa, bar, mbar, psi, kN, N, torr, inWC, mmWC, inHg, USR

<sup>2)</sup> Measuring range ≥ 1000 bar only with G ½ male





<sup>3)</sup> Diaphragm seal model and application data to be specified in clear text. Application Index on the last two pages of this data sheet to be filled out, or discuss with your local KOBOLD technical sales office. For a summary of diaphragm seal models and possible ranges, see page 11 and following. For dimensional details consult our DRM data sheet at [www.kobold.com](http://www.kobold.com).

In case of ordering a remote diaphragm seal with capillary and for mounting with wall mounting bracket MZB-709... acc. to DIN 16286, an additional ordering of the adaptor model MZB-708/... acc. to DIN 16281 for factory sided integration in diaphragm seal assembly is mandatory.




<sup>4)</sup> Measuring range for hydraulic applications




<sup>5)</sup> Display in psi

Accessories for standard versions

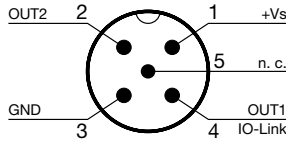
| Order code     | Description  | Image  |
|----------------|--|--|
| ZUB-MANS-KON1  | Pluggable retrofit kit with 2x potential-free SPDT contact, comprising of a relay board and 2 x socket head cap screws M2x16 (only for MAN-LC...)<br>Switching capacity per contact: 30V <sub>AC/DC</sub> , max. 1 A                         |   |
| ZUB-MANS-KON2  | Pluggable retrofit kit with 2x potential-free SPDT contact, comprising of a relay board and 2 x socket head cap screws M2x16 and 8-pin M12 connector (only for MAN-LC...)<br>Switching capacity per contact: 30V <sub>AC/DC</sub> , max. 1 A |   |
| ZUB-MANS-KAP01 | Rubber protection sleeve MAN-SC/-LC, black   |   |
| ZUB-MANS-KAP02 | Rubber protection sleeve MAN-SC/-LC, orange  |  |

Accessories for M12x1 round connector

| Round connector, M12x1 socket, straight |                           |   |   |   |   |                       |                        |                |
|---|---------------------------|---|---|---|---|-----------------------|------------------------|----------------|
| Technical Details                       | Image                     |  |  |  |   |                       |                        |                |
|   | Order code                | ZUB-KAB-12D500  | ZUB-KAB-12K502  | ZUB-KAB-12K505  | ZUB-KAB-12K510                          | ZUB-KAB-12K802        | ZUB-KAB-12K805         | ZUB-KAB-12K810 |
| Way of connection                       | Screws                    | 2 m PUR cable moulded   | 5 m PUR cable moulded   | 10 m PUR cable moulded  | 2 m PUR cable moulded                   | 5 m PUR cable moulded | 10 m PUR cable moulded |                |
| Male insert                             | PBT / PA66                | PUR   |   |   | PUR                                     |                       |                        |                |
| Ring nut                                | PA66                      | Zinc die casting / Brass, nickel-plated   |   |   | Zinc die casting / Brass, nickel-plated |                       |                        |                |
| Cable outlet/ cable diameter            | 4 - 6 mm                  | 6 mm  |   |   | 6 mm                                    |                       |                        |                |
| Cross section of wire                   | max. 0.75 mm <sup>2</sup> | 0.34 mm <sup>2</sup>  |   |   | 0.25 mm <sup>2</sup>                    |                       |                        |                |
| Number of contacts                      | 5                         | 5   |   |   | 8                                       |                       |                        |                |
| Protection                              | IP 67                     | IP 67   |   |   | IP 67                                   |                       |                        |                |
| Rated voltage                           | 60 V                      | 60 V  |   |   | 60 V                                    |                       |                        |                |
| Rated current                           | 4 A                       | 2 A   |   |   | 2 A                                     |                       |                        |                |
| Ambient temperature                     | -40 ... +85 °C            | -25 ... +80 °C  |   | -25 ... +85 °C  | -25 ... +80 °C                          |                       | -25 ... +85 °C         |                |

| Round connector, M12x1 socket, straight |                          | Round connector, M12x1 socket, angled   |   |   |   |                       |                        |                |
|---|--------------------------|---|---|---|---|-----------------------|------------------------|----------------|
| Technical Details                       | Image                    |  |  |  |   |                       |                        |                |
|   | Order code               | ZUB-KAB-12D800  | ZUB-KAB-12W502  | ZUB-KAB-12W505  | ZUB-KAB-12W510                          | ZUB-KAB-12W802        | ZUB-KAB-12W805         | ZUB-KAB-12W810 |
| Way of connection                       | Screws                   | 2 m PUR cable moulded   | 5 m PUR cable moulded   | 10 m PUR cable moulded  | 2 m PUR cable moulded                   | 5 m PUR cable moulded | 10 m PUR cable moulded |                |
| Male insert                             | PA                       | PUR   |   |   | PUR                                     |                       |                        |                |
| Ring nut                                | CuZn (brass)             | Zinc die casting / Brass, nickel-plated   |   |   | Zinc die casting / Brass, nickel-plated |                       |                        |                |
| Cable outlet/ cable diameter            | 6 - 8 mm                 | 6 mm  |   |   | 6 mm                                    |                       |                        |                |
| Cross section of wire                   | max. 0.5 mm <sup>2</sup> | 0.34 mm <sup>2</sup>  |   |   | 0.25 mm <sup>2</sup>                    |                       |                        |                |
| Number of contacts                      | 8                        | 5   |   |   | 8                                       |                       |                        |                |
| Protection                              | IP 67                    | IP 67   |   |   | IP 67                                   |                       |                        |                |
| Rated voltage                           | 30 V                     | 60 V  |   |   | 60 V                                    |                       |                        |                |
| Rated current                           | 2 A                      | 2 A   |   |   | 2 A                                     |                       |                        |                |
| Ambient temperature                     | -25 ... +85 °C           | -25 ... +85 °C  | -25 ... +80 °C  |   | -25 ... +85 °C                          | -25 ... +80 °C        |                        |                |

**Electrical connection MAN-LC**  
**Plug version, 5-pin**

|                             |   |
|-----------------------------|---|
| <b>Plug version (Basic)</b> | <b>MAN-LC30 (standard version, delivery scope)</b>                                |
|                             |  |
| <b>PIN 1</b>                | Supply +Vs  |
| <b>PIN 2</b>                | Output 2  |
| <b>PIN 3</b>                | Supply GND  |
| <b>PIN 4</b>                | Output 1 IO-Link  |
| <b>PIN 5</b>                | -   |

**Possible options for customer modification, 5-pin, with optional retrofit kit ZUB-MANS-KON1\***

| 5-pin                              | Modification   | PIN 1      | PIN 2                   | PIN 3      | PIN 4                  | PIN 5                  | Order code**       |
|------------------------------------|--|------------|-------------------------|------------|------------------------|------------------------|--------------------|
| <b>Option 5.1</b><br>(recommended) | 2 N/O contacts,<br>1 common<br>Relay COM             | Supply +Vs | Relay 2<br>N/O contact  | Supply GND | Relay 1<br>N/O contact | Relay 1+2<br>Relay COM | <b>ABG-MANLC51</b> |
| <b>Option 5.2</b>                  | 2 N/C contacts,<br>1 common<br>Relay COM             | Supply +Vs | Relay 2<br>N/C contact  | Supply GND | Relay 1<br>N/C contact | Relay 1+2<br>Relay COM | <b>ABG-MANLC52</b> |
| <b>Option 5.3</b>                  | 1 N/C contact,<br>1 N/O contact,<br>1 Relay COM      | Supply +Vs | Relay 2<br>N/C contact  | Supply GND | Relay 1<br>N/O contact | Relay 1+2<br>Relay COM | <b>ABG-MANLC53</b> |
| <b>Option 5.4</b>                  | 1 Output IO-Link,<br>1 N/O contact,<br>1 Relay COM   | Supply +Vs | Relay 2<br>N/O contact  | Supply GND | Output 1<br>IO-Link    | Relay 2<br>Relay COM   | <b>ABG-MANLC54</b> |
| <b>Option 5.5</b>                  | 1 Output IO-Link,<br>1 N/C contact,<br>1 Relay COM   | Supply +Vs | Relay 2<br>N/C contact  | Supply GND | Output 1<br>IO-Link    | Relay 1<br>Relay COM   | <b>ABG-MANLC55</b> |
| <b>Option 5.6</b>                  | 1 Output 4...20 mA,<br>1 N/O contact,<br>1 Relay COM | Supply +Vs | Output 2<br>(4...20 mA) | Supply GND | Relay 1<br>N/O contact | Relay 1<br>Relay COM   | <b>ABG-MANLC56</b> |
| <b>Option 5.7</b>                  | 1 Output 4...20 mA,<br>1 N/C contact,<br>1 Relay COM | Supply +Vs | Output 2<br>(4...20 mA) | Supply GND | Relay 1<br>N/C contact | Relay 1<br>Relay COM   | <b>ABG-MANLC57</b> |

\* Modification instructions included in instruction manual

\*\* Factory configuration, possible while ordering a new unit

**Possible options for customer modification, 8-pin, with optional retrofit kit ZUB-MANS-KON2\***

| 8-pin                              | Modification   | PIN 1      | PIN 2                   | PIN 3      | PIN 4                  | PIN 5                  | PIN 6                  | PIN 7                  | PIN 8                  | Order code**       |
|------------------------------------|--|------------|-------------------------|------------|------------------------|------------------------|------------------------|------------------------|------------------------|--------------------|
| <b>Option 8.1</b><br>(recommended) | 1 Output 4...20 mA,<br>1 N/C contact,<br>1 N/O contact,<br>1 Relay COM | Supply +Vs | Output 2<br>(4...20 mA) | Supply GND | Relay 1<br>Relay 1 COM | Relay 1<br>N/O contact | Relay 1<br>N/C contact | -                      | -                      | <b>ABG-MANLC81</b> |
| <b>Option 8.2</b>                  | 2 N/C contacts,<br>2 N/O contacts,<br>2 Relay COM*                     | Supply +Vs | Relay 2<br>Relay 2 COM  | Supply GND | Relay 1<br>Relay 1 COM | Relay 1<br>N/O contact | Relay 1<br>N/C contact | Relay 2<br>N/O contact | Relay 2<br>N/C contact | <b>ABG-MANLC82</b> |
| <b>Option 8.3</b>                  | 1 Output IO-Link,<br>1 N/C contact,<br>1 N/O contact,<br>1 Relay COM*  | Supply +Vs | Relay 2<br>Relay 2 COM  | Supply GND | Output 1<br>IO-Link    | -                      | -                      | Relay 2<br>N/O contact | Relay 2<br>N/C contact | <b>ABG-MANLC83</b> |

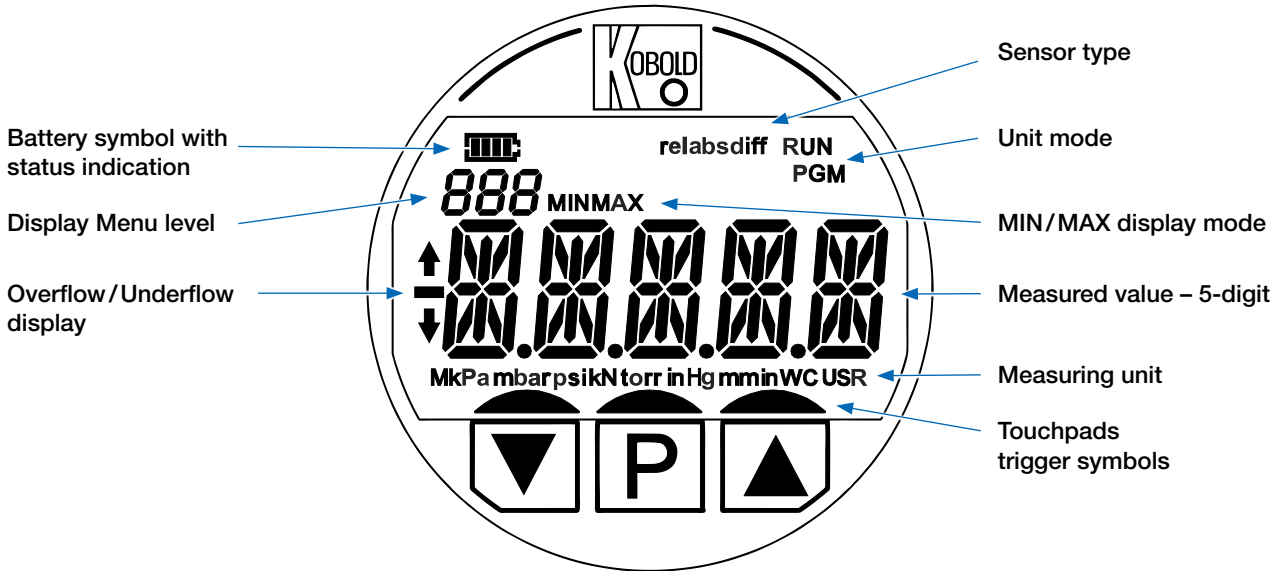
\* Modification instructions included in instruction manual

\*\* Factory configuration, possible while ordering a new unit

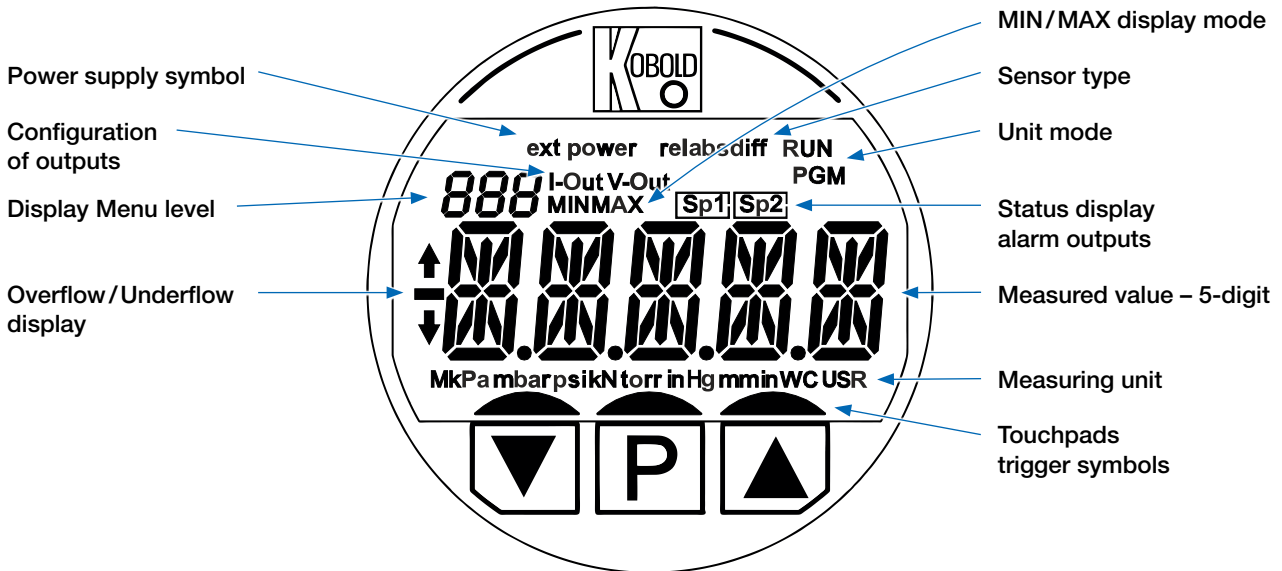


Display Layout

MAN-SC

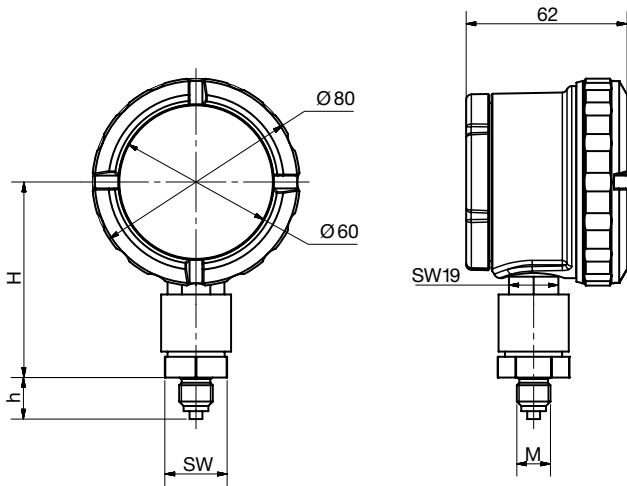


MAN-LC

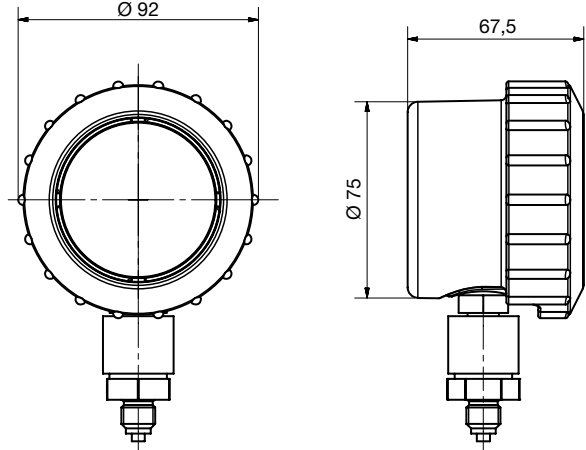


**Dimensions [mm]**

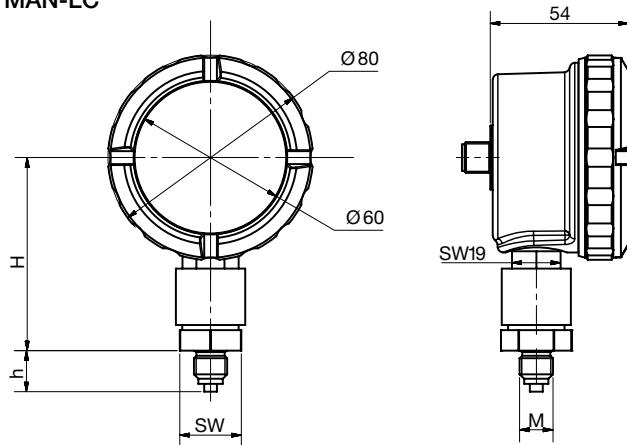
**MAN-SC**



**Rubber protection sleeve ZUB-MANS-KAP01 (optional)**



**MAN-LC**



| Mechanical connection                              | Code | M          | SW [mm] | H+2 mm [mm]* | h [mm] |
|--|------|------------|---------|--------------|--------|
| G 1/4 male   | G2   | G 1/4 male | 24      | 75           | 16.5   |
| G 1/2 male   | G4   | G 1/2 male | 24      | 75           | 25.5   |
| 1/4" NPT male                                      | N2   | 1/4" NPT   | 24      | 75           | 14.5   |
| 1/2" NPT male                                      | N4   | 1/2" NPT   | 24      | 75           | 19     |
| G 1/4 male *** 1000 + 1600 bar / 15+20 k PSI       | G2   | G 1/4 male | 27      | 83           | 16.5   |
| G 1/2 male *** 1000 + 1600 bar / 15+20 k PSI       | G4   | G 1/2 male | 27      | 83           | 25.5   |
| 1/4" NPT male *** 1000 + 1600 bar / 15+20 k PSI    | N2   | 1/4" NPT   | 27      | 83           | 14.5   |
| 1/2" NPT male *** 1000 + 1600 bar / 15+20 k PSI    | N4   | 1/2" NPT   | 27      | 84           | 19     |
| Connection bottom G 1/4 male with cooling fins *** | K2   | G 1/4 male | 24      | 94.5         | 16.5   |
| Connection bottom G 1/2 male with cooling fins *** | K4   | G 1/2 male | 24      | 94.5         | 25.5   |
| Connection bottom 1/4" NPT with cooling fins ***   | C2   | 1/4" NPT   | 24      | 94.5         | 14.5   |
| Connection bottom 1/2" NPT with cooling fins ***   | C4   | 1/2" NPT   | 24      | 94.5         | 19     |
| Connection bottom M20x1.5 male                     | M2   | M20x1.5    | 24      | 78           | 23.5   |
| Connection bottom M16x1.5 male                     | M1   | M16x1.5    | 24      | 78           | 23.5   |
| Connection M6 female with O-ring groove            | M6   | M6 female  | 24      | 75           | -      |
| 7/16 UNF DIN 3866 stainless steel                  | U7   | 7/16 UNF   | 24      | 75           | 15     |
| G 1/4 male DIN 3852-E stainless steel + FPM gasket | D2   | G 1/4 male | 24      | 75           | 12     |

\* The counter nut at the sensor can be loosened by the customer and the electronic housing rotated max. 360°. This changes the height H by approx. +1.75 mm (corresponds to thread slope). This rotation enables any orientation of the unit after final mounting is done.



Example of MAN-SC/-LC direct assembled with diaphragm seal  
(for dimensional details, see DRM data sheet)

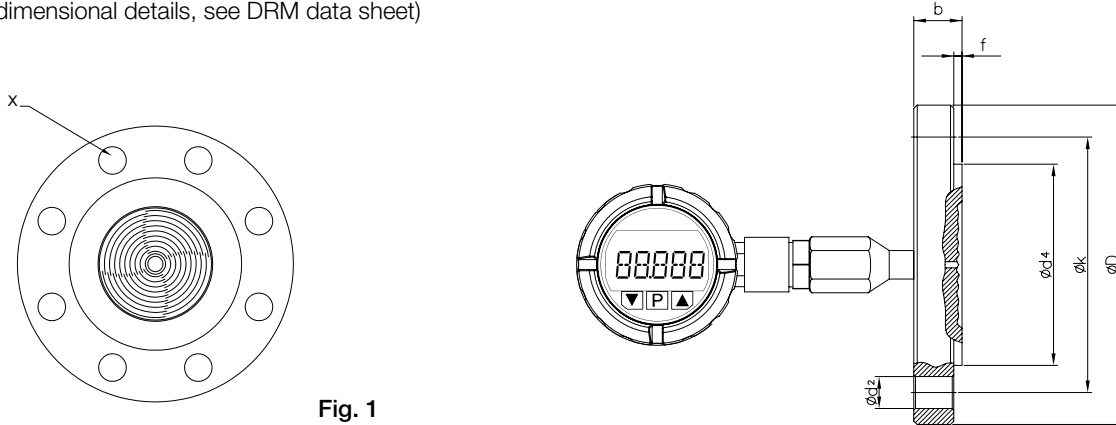


Fig. 1

Example of MAN-SC/-LC remote assembled with diaphragm seal and capillary  
(for dimensional details, see DRM data sheet)

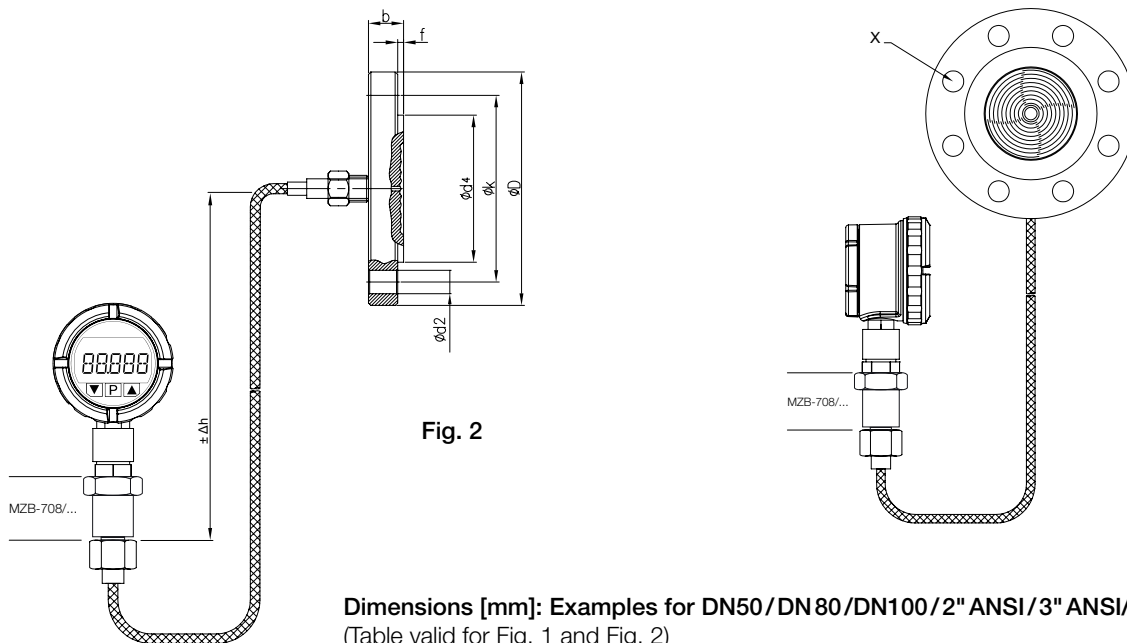


Fig. 2

Dimensions [mm]: Examples for DN50/DN 80/DN100/ 2" ANSI/3" ANSI/4" ANSI  
(Table valid for Fig. 1 and Fig. 2)

| Flange type     | D     | k     | d <sup>2</sup> | b    | f   | d <sup>4</sup> | X |
|-----------------|-------|-------|----------------|------|-----|----------------|---|
| DN50 PN16       | 165   | 125   | 18             | 18   | 2   | 102            | 4 |
| DN50 PN40       | 165   | 125   | 18             | 20   | 2   |                | 4 |
| 2" ANSI Cl. 150 | 152.4 | 120.6 | 19             | 19.1 | 2   | 92             | 4 |
| 2" ANSI Cl. 300 | 165.1 | 127   | 19             | 22.3 | 2   |                | 8 |
| DN80 PN16       | 200   | 160   | 18             | 20   | 2   | 138            | 8 |
| DN80 PN40       | 200   | 160   | 18             | 24   | 2   |                | 8 |
| 3" ANSI Cl. 150 | 190.5 | 152.4 | 19             | 23.9 | 1.6 | 127            | 4 |
| 3" ANSI Cl. 300 | 209.5 | 168.3 | 22             | 28.4 | 1.6 |                | 8 |
| DN100 PN16      | 220   | 180   | 18             | 20   | 2   | 149            | 8 |
| DN100 PN40      | 235   | 190   | 22             | 24   | 2   |                | 8 |
| 4" ANSI Cl. 150 | 228.6 | 190.5 | 19             | 24   | 1.6 | 157.2          | 8 |
| 4" ANSI Cl. 300 | 254   | 200   | 22             | 32   | 1.6 |                | 8 |

Example of MAN-SC/LC remote assembled with extended diaphragm seal and capillary  
 (for dimensional details, see DRM data sheet)

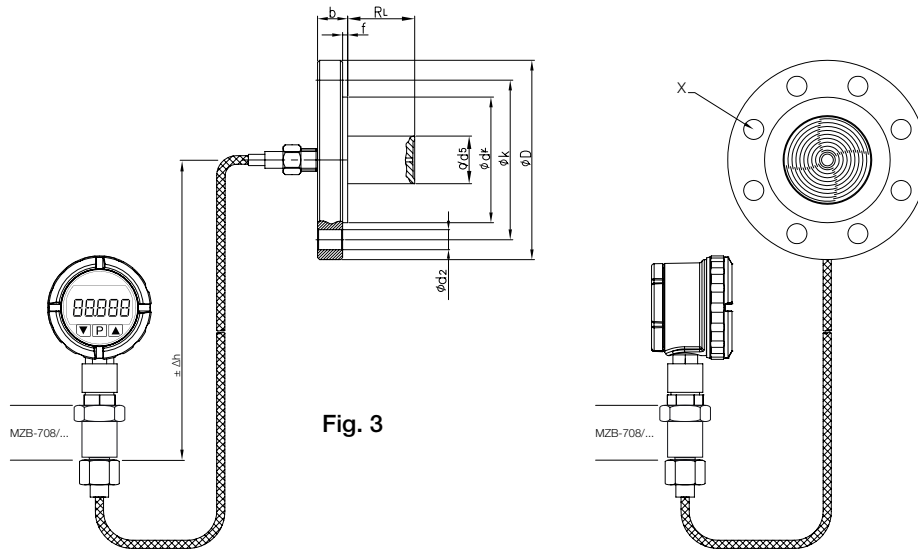


Fig. 3

Dimensions [mm]: Examples for DN50/DN80/DN100/2" ANSI/3" ANSI/4" ANSI

| Flange type     | D     | k     | d <sup>2</sup> | b    | f   | d <sup>4</sup> | X | d <sup>5</sup> | R <sub>L</sub>   |
|-----------------|-------|-------|----------------|------|-----|----------------|---|----------------|--|
| DN50 PN16       | 165   | 125   | 18             | 18   | 2   | 102            | 4 | 48             | 50 mm (2")/<br>100 mm (4")/<br>150 mm (6")/<br>200 mm (8")/<br>(customer<br>specified) |
| DN50 PN40       | 165   | 125   | 18             | 20   | 2   |                | 4 | 48             |  |
| 2" ANSI Cl. 150 | 152.4 | 120.6 | 19             | 19.1 | 2   | 92             | 4 | 48             |  |
| 2" ANSI Cl. 300 | 165.1 | 127   | 19             | 22.3 | 2   |                | 8 | 48             |  |
| DN80 PN16       | 200   | 160   | 18             | 20   | 2   | 138            | 8 | 76             |  |
| DN80 PN40       | 200   | 160   | 18             | 24   | 2   |                | 8 | 76             |  |
| 3" ANSI Cl. 150 | 190.5 | 152.4 | 19             | 23.9 | 1.6 | 127            | 4 | 76             |  |
| 3" ANSI Cl. 300 | 209.5 | 168.3 | 22             | 28.4 | 1.6 |                | 8 | 76             |  |
| DN100 PN16      | 220   | 180   | 18             | 20   | 2   | 149            | 8 | 89             |  |
| DN100 PN40      | 235   | 190   | 22             | 24   | 2   | 149            | 8 | 89             |  |
| 4" ANSI Cl. 150 | 228.6 | 190.5 | 19             | 24   | 1.6 | 157.2          | 8 | 89             |  |
| 4" ANSI Cl. 300 | 254   | 200   | 22             | 32   | 1.6 | 157.2          | 8 | 89             |  |


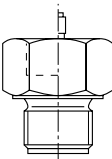
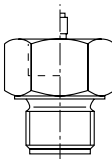
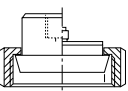
**Diaphragm seal models (direct or remote assembly)**

(Standard device without additional options (e.g. coatings, special materials etc.).

For dimensions/technical data, see DRM data sheet. Accuracy: Class 0.5 + influence of seal).

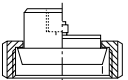
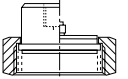

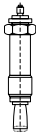
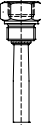



Over and under ranges of the min./max. span might be possible, but must be verified by Kobold for each application.

The indicated min./max. spans do not consider any coating of diaphragm seals. For additional information contact Kobold.


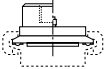
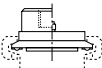




| Model DRM  | Size code   | Size       | Note                              | Ø Diaphragm              | Max. medium temperature | Min. span [bar]                  | Max. span [bar] |
|--|---|------------|-----------------------------------|--------------------------|-------------------------|----------------------------------|-----------------|
| <b>DRM-189</b><br>                | <b>F23</b>  | Ø 18       | for homogenising machines, direct | Ø 18                     | +120 °C                 | 0...4                            | 1000            |
|  |   |            |                                   |                          |                         |                                  |                 |
| <b>DRM-600</b><br>               | <b>R15</b>  | G ½        | fixed male thread, direct         | Ø 18                     | +100 °C                 | 0...4*                           | 1000            |
|  | <b>R20</b>  | G ¾        |                                   | Ø 23.8                   |                         | 0...1.6*                         | 1000            |
|  | <b>R25</b>  | G 1        |                                   | Ø 29.5                   |                         | 0...1                            | 600             |
|  | <b>R32</b>  | G 1 ¼      |                                   | Ø 38                     |                         | 0...0.6                          | 600             |
|  | <b>R40</b>  | G 1 ½      |                                   | Ø 40                     |                         | 0...0.6                          | 600             |
|  | <b>N15</b>  | ½" NPT     |                                   | Ø 18                     |                         | 0...4*                           | 1000            |
|  | <b>N20</b>  | ¾" NPT     |                                   | Ø 18                     |                         | 0...4*                           | 1000            |
|  | <b>N25</b>  | 1" NPT     |                                   | Ø 23.8                   |                         | 0...1.6                          | 600             |
|  | <b>N32</b>  | 1 ¼" NPT   |                                   | Ø 34.5                   |                         | 0...1                            | 600             |
|  | <b>M20</b>  | M20 x 1,5  |                                   | Ø 18                     |                         | 0...4                            | 600             |
|  | <b>M48</b>  | M 48 x 3   |                                   | Ø 40                     |                         | 0...0.6                          | 600             |
|  | <b>DRM-601</b><br> | <b>R15</b> |                                   | G ½                      |                         | fixed male thread with capillary | Ø 18            |
| <b>R20</b>   |   | G ¾        | Ø 23.8                            | 0...1.6*                 | 1000                    |                                  |                 |
| <b>R25</b>   |   | G 1        | Ø 29.5                            | 0...1                    | 600                     |                                  |                 |
| <b>R32</b>   |   | G 1 ¼      | Ø 38                              | 0...0.6                  | 600                     |                                  |                 |
| <b>R40</b>   |   | G 1 ½      | Ø 40                              | 0...0.6                  | 600                     |                                  |                 |
| <b>N15</b>   |   | ½" NPT     | Ø 18                              | 0...4*                   | 1000                    |                                  |                 |
| <b>N20</b>   |   | ¾" NPT     | Ø 18                              | 0...4*                   | 1000                    |                                  |                 |
| <b>N25</b>   |   | 1" NPT     | Ø 23.8                            | 0...1.6                  | 600                     |                                  |                 |
| <b>N32</b>   |   | 1 ¼" NPT   | Ø 34.5                            | 0...1                    | 600                     |                                  |                 |
| <b>M20</b>   |   | M20 x 1,5  | Ø 18                              | 0...4                    | 600                     |                                  |                 |
| <b>M48</b>   |   | M 48 x 3   | Ø 40                              | 0...0.6                  | 600                     |                                  |                 |
| <b>DRM-602</b><br>DIN 11851<br> |   | <b>R20</b> | DN 20                             | dairy connection, direct | Ø 18                    |                                  | +100 °C         |
|  | <b>R25</b>  | DN 25      | Ø 23.8                            |                          | 0...1.6                 | 40                               |                 |
|  | <b>R32</b>  | DN 32      | Ø 29.5                            |                          | 0...1                   | 40                               |                 |
|  | <b>R40</b>  | DN 40      | Ø 38                              |                          | 0...0.6                 | 40                               |                 |
|  | <b>R50</b>  | DN 50      | Ø 45.5                            |                          | 0...0.4                 | 25                               |                 |
|  | <b>R65</b>  | DN 65      | Ø 64                              |                          | 0...0.25                | 25                               |                 |
|  | <b>R80</b>  | DN 80      | Ø 64                              |                          | 0...0.25                | 25                               |                 |
|  | <b>R1H</b>  | DN 100     | Ø 64                              |                          | 0...0.25                | 25                               |                 |

\* On request only after technical clarification


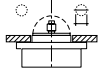

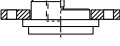
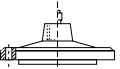
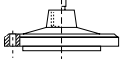
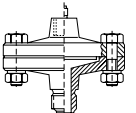
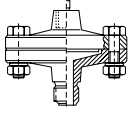
Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM  | Size code | Size      | Note  | Ø Diaphragm   | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|--|-----------|-----------|---|---------------|-------------------------|-----------------|-----------------|
| <b>DRM-603</b><br>DIN 11851<br> | R20       | DN 20     | dairy connection, capillary                 | Ø 18          | +200 °C                 | 0...4           | 40              |
|  | R25       | DN 25     |   | Ø 23.8        |                         | 0...1.6         | 40              |
|  | R32       | DN 32     |   | Ø 29.5        |                         | 0...1           | 40              |
|  | R40       | DN 40     |   | Ø 38          |                         | 0...0.6         | 40              |
|  | R50       | DN 50     |   | Ø 45.5        |                         | 0...0.4         | 25              |
|  | R65       | DN 65     |   | Ø 64          |                         | 0...0.25        | 25              |
|  | R80       | DN 80     |   | Ø 64          |                         | 0...0.25        | 25              |
| R1H  | DN 100    | Ø 64      | 0...0.25                                    | 25            |                         |                 |                 |
| <b>DRM-604</b><br>IDF<br>       | R25       | 1"        | IDF socket with union nut, direct           | Ø 29.5        | +100 °C                 | 0...1.6         | 40              |
|  | R40       | 1 ½"      |   | Ø 42          |                         | 0...1           | 40              |
|  | R50       | 2"        |   | Ø 56          |                         | 0...0.6         | 40              |
| <b>DRM-605</b><br>IDF<br>     | R25       | 1"        | IDF socket with union nut, capillary        | Ø 29.5        | +200 °C                 | 0...1           | 40              |
|  | R40       | 1 ½"      |   | Ø 42          |                         | 0...0.6         | 40              |
|  | R50       | 2"        |   | Ø 56          |                         | 0...0.4         | 40              |
| <b>DRM-606</b><br>            | R20       | G¾        | capsule seal with rotatable male, capillary | short capsule | +350 °C                 | 0...6           | 600             |
|  | R28       | M28 x 1.5 |   |               |                         | 0...6           | 600             |
| <b>DRM-607</b><br>            | R15       | G½        | capsule seal with fixed male, direct        | long capsule  | +100 °C                 | 0...1           | 600             |
|  | R20       | G¾        |   |               |                         | 0...1           | 600             |
| <b>DRM-607/1</b><br>          | R15       | G¾        | Capsule seal with fixed male, direct        | long capsule  | +100 °C                 | 0...1           | 600             |
|  | R20       | G1        |   |               |                         | 0...1           | 600             |
| <b>DRM-608/1</b><br>          | R20       | G¾        | capsule seal with union nut, capillary      | long capsule  | +350 °C                 | 0...1           | 600             |
|  | R25       | G1        | capsule seal with union nut, capillary      | long capsule  |                         | 0...1           | 600             |
| <b>DRM-610</b><br>SMS<br>     | R40       | 1 ½"      | SMS socket with union nut, direct           | Ø 34.5        | +100 °C                 | 0...1           | 40              |
|  | R50       | 2"        |   | Ø 45.5        |                         | 0...0.4         | 40              |





Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM  | Size code | Size    | Note                                 | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|--|-----------|---------|--------------------------------------|-------------|-------------------------|-----------------|-----------------|
| <b>DRM-611</b><br>SMS<br>       | R40       | 1 ½"    | SMS socket with union nut, capillary | Ø 34.5      | +200 °C                 | 0...1           | 40              |
|  | R50       | 2"      |                                      | Ø 45.5      |                         | 0...0.4         | 40              |
| <b>DRM-612</b><br>Clamp<br>     | R25       | 1"      | Tri-Clamp®, direct                   | Ø 18        | +100 °C                 | 0...4           | 16              |
|  | F40       | 1 ½"    |                                      | Ø 35.5      |                         | 0...1           | 16              |
|  | F50       | 2"      |                                      | Ø 45.5      |                         | 0...0.4         | 16              |
|  | R65       | 2 ½"    |                                      | Ø 52        |                         | 0...0.4         | 16              |
|  | R80       | 3"      |                                      | Ø 64        |                         | 0...0.25        | 10              |
| <b>DRM-613</b><br>Clamp<br>   | R25       | 1"      | Tri-Clamp®, capillary                | Ø 18        | +200 °C                 | 0...4           | 16              |
|  | F40       | 1 ½"    |                                      | Ø 35.5      |                         | 0...1           | 16              |
|  | F50       | 2"      |                                      | Ø 45.5      |                         | 0...0.4         | 16              |
|  | R65       | 2 ½"    |                                      | Ø 52        |                         | 0...0.4         | 16              |
|  | R80       | 3"      |                                      | Ø 64        |                         | 0...0.25        | 10              |
| <b>DRM-614</b><br>APV-RJT<br> | R20       | 1"      | union-nut, direct                    | Ø 29.5      | +100 °C                 | 0...1.6         | 100             |
|  | R40       | 1 ½"    |                                      | Ø 42.5      |                         | 0...0.6         | 100             |
|  | R50       | 2"      |                                      | Ø 56        |                         | 0...0.4         | 100             |
| <b>DRM-615</b><br>APV-RJT<br> | R20       | 1"      | union-nut, capillary                 | Ø 29.5      | +200 °C                 | 0...1.6         | 100             |
|  | R40       | 1 ½"    |                                      | Ø 42.5      |                         | 0...0.6         | 100             |
|  | R50       | 2"      |                                      | Ø 56        |                         | 0...0.4         | 100             |
| <b>DRM-616</b><br>            | R45       | M45 x 2 | union-nut, direct                    | Ø 23.8      | +100 °C                 | 0...1.6         | 1600            |
| <b>DRM-617</b><br>            | R45       | M45 x 2 | union-nut, capillary                 | Ø 23.8      | +120 °C                 | 0...1.6         | 1600            |

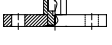
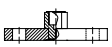
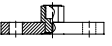
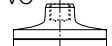
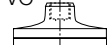
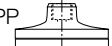
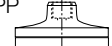

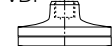
Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM  | Size code | Size                   | Note                 | Ø Diaphragm          | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|--|-----------|------------------------|----------------------|----------------------|-------------------------|-----------------|-----------------|
| <br>DRM-620     | R20       | G $\frac{3}{4}$        | union-nut, capillary | Ø 23.8               | +350 °C                 | 0...1.6         | 600             |
|  | DRM-620/1 | R20                    | G $\frac{3}{4}$      | union-nut, capillary | Ø 23.8                  | +350 °C         | 0...1.6         |
| <br>DRM-621     | F38       | Ø 38 mm                | flange, direct       | Ø 38                 | +250 °C                 | 0...0.4         | 40              |
| <br>DRM-622   | F48       | Ø 48 mm                | flange, direct       | Ø 48                 | +100 °C                 | 0...0.4         | 40              |
|  | F48 1     | Ø 48 mm                |                      | Ø 48                 |                         | 0...0.4         | 40              |
|  | F48 2     | Ø 48 mm                |                      | Ø 48                 |                         | 0...0.4         | 40              |
| <br>DRM-622/1 | F48       | Ø 48 mm                | flange, capillary    | Ø 48                 | +200 °C                 | 0...0.4         | 40              |
|  | F48 1     | Ø 48 mm                |                      | Ø 48                 |                         | 0...0.4         | 40              |
|  | F48 2     | Ø 48 mm                |                      | Ø 48                 |                         | 0...0.4         | 40              |
| <br>DRM-624   | F1H       | Ø 100 mm               | flange, direct       | Ø 63.5               | +100 °C                 | 0...0.25        | 40              |
|  | F1H T     | Ø 100 mm               | flange, direct       |                      |                         | 0...0.25        | 40              |
| <br>DRM-624/1 | F1H       | Ø 100 mm               | flange, capillary    |                      | +250 °C                 | 0...0.25        | 40              |
| <br>DRM-625   | R15       | G $\frac{1}{2}$        | fix male, direct     | Ø 63.5               | +100 °C                 | 0...0.25        | 40              |
|  | N15       | $\frac{1}{2}$ " NPT    |                      |                      |                         | 0...0.25        | 40              |
|  | I15       | G $\frac{1}{2}$ female |                      |                      |                         | 0...0.25        | 40              |
| <br>DRM-625/1 | R15       | G $\frac{1}{2}$        | fix male, capillary  | Ø 63.5               | +250 °C                 | 0...0.25        | 40              |
|  | N15       | $\frac{1}{2}$ " NPT    |                      |                      |                         | 0...0.25        | 40              |
|  | I15       | G $\frac{1}{2}$ female |                      |                      |                         | 0...0.25        | 40              |

Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM  | Size code       | Size        | Note                       | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|--|-----------------|-------------|----------------------------|-------------|-------------------------|-----------------|-----------------|
| <b>DRM-626</b><br>PN25<br>    | <b>R08 A025</b> | G ¼ male    | fix male, direct           | Ø 56        | +80 °C                  | 0...0.4         | 25              |
|  | <b>R08 I025</b> | G ¼ female  | fix female, direct         | Ø 56        |                         | 0...0.4         | 25              |
|  | <b>R15 A025</b> | G ½ male    | fix male, direct           | Ø 56        |                         | 0...0.4         | 25              |
|  | <b>R15 I025</b> | G ½ female  | fix female, direct         | Ø 56        |                         | 0...0.4         | 25              |
|  | <b>N15 A025</b> | ½" NPT male | fix male, direct           | Ø 56        |                         | 0...0.4         | 25              |
| <b>DRM-626</b><br>PN100<br>   | <b>R08 A100</b> | G ¼ male    | fix male, direct           | Ø 56        | +80 °C                  | 0...0.4         | 100             |
|  | <b>R08 I100</b> | G ¼ female  | fix female, direct         | Ø 56        |                         | 0...0.4         | 100             |
|  | <b>R15 A100</b> | G ½ male    | fix male, direct           | Ø 56        |                         | 0...0.4         | 100             |
|  | <b>R15 I100</b> | G ½ female  | fix female, direct         | Ø 56        |                         | 0...0.4         | 100             |
|  | <b>N15 A100</b> | ½" NPT male | fix male, direct           | Ø 56        |                         | 0...0.4         | 100             |
| <b>DRM-626</b><br>PN250<br>   | <b>R08 A250</b> | G ¼ male    | fix male, direct           | Ø 56        | +80 °C                  | 0...0.4         | 250             |
|  | <b>R08 I250</b> | G ¼ female  | fix female, direct         | Ø 56        |                         | 0...0.4         | 250             |
|  | <b>R15 A250</b> | G ½ male    | fix male, direct           | Ø 56        |                         | 0...0.4         | 250             |
|  | <b>R15 I250</b> | G ½ female  | fix female, direct         | Ø 56        |                         | 0...0.4         | 250             |
|  | <b>N15 A250</b> | ½" NPT male | fix male, direct           | Ø 56        |                         | 0...0.4         | 250             |
| <b>DRM-627</b><br>PN25<br>  | <b>R08 A025</b> | G ¼ male    | fix male, capillary        | Ø 56        | +250 °C                 | 0...0.4         | 25              |
|  | <b>R08 I025</b> | G ¼ female  | fix female, capillary      | Ø 56        |                         | 0...0.4         | 25              |
|  | <b>R15 A025</b> | G ½ male    | fix male, capillary        | Ø 56        |                         | 0...0.4         | 25              |
|  | <b>R15 I025</b> | G ½ female  | fix female, capillary      | Ø 56        |                         | 0...0.4         | 25              |
|  | <b>N15 A025</b> | ½" NPT male | fix male, capillary        | Ø 56        |                         | 0...0.4         | 25              |
| <b>DRM-627</b><br>PN100<br> | <b>R08 A100</b> | G ¼ male    | fix male, capillary        | Ø 56        | +250 °C                 | 0...0.4         | 100             |
|  | <b>R08 I100</b> | G ¼ female  | fix female, capillary      | Ø 56        |                         | 0...0.4         | 100             |
|  | <b>R15 A100</b> | G ½ male    | fix male, capillary        | Ø 56        |                         | 0...0.4         | 100             |
|  | <b>R15 I100</b> | G ½ female  | fix female, capillary      | Ø 56        |                         | 0...0.4         | 100             |
|  | <b>N15 A100</b> | ½" NPT male | fix male, capillary        | Ø 56        |                         | 0...0.4         | 100             |
| <b>DRM-627</b><br>PN250<br> | <b>R08 A250</b> | G ¼ male    | fix male, capillary        | Ø 56        | +250 °C                 | 0...0.4         | 250             |
|  | <b>R08 I250</b> | G ¼ female  | fix female, capillary      | Ø 56        |                         | 0...0.4         | 250             |
|  | <b>R15 A250</b> | G ½ male    | fix male, capillary        | Ø 56        |                         | 0...0.4         | 250             |
|  | <b>R15 I250</b> | G ½ female  | fix female, capillary      | Ø 56        |                         | 0...0.4         | 250             |
|  | <b>N15 A250</b> | ½" NPT male | fix male, capillary        | Ø 56        |                         | 0...0.4         | 250             |
| <b>DRM-628</b><br>PN06<br>  | <b>F25P06</b>   | DN25        | flange to EN1092-1, direct | Ø 24        | +80 °C                  | 0...1.6         | 6               |
|  | <b>F32P06</b>   | DN32        |                            | Ø 30        |                         | 0...1.6         | 6               |
|  | <b>F40P06</b>   | DN40        |                            | Ø 38        |                         | 0...0.6         | 6               |
|  | <b>F50P06</b>   | DN50        |                            | Ø 48        |                         | 0...0.4         | 6               |
|  | <b>F65P06</b>   | DN65        |                            | Ø 64        |                         | 0...0.25        | 6               |
|  | <b>F80P06</b>   | DN80        |                            | Ø 64        |                         | 0...0.25        | 6               |
|  | <b>N1HP06</b>   | DN100       |                            | Ø 64        |                         | 0...0.25        | 6               |
| <b>DRM-628</b><br>PN16<br>  | <b>F25P16</b>   | DN25        | flange to EN1092-1, direct | Ø 24        | +80 °C                  | 0...1.6         | 16              |
|  | <b>F32P16</b>   | DN32        |                            | Ø 30        |                         | 0...1.6         | 16              |
|  | <b>F40P16</b>   | DN40        |                            | Ø 38        |                         | 0...0.6         | 16              |
|  | <b>F50P16</b>   | DN50        |                            | Ø 48        |                         | 0...0.4         | 16              |
|  | <b>F65P16</b>   | DN65        |                            | Ø 64        |                         | 0...0.25        | 16              |
|  | <b>F80P16</b>   | DN80        |                            | Ø 64        |                         | 0...0.25        | 16              |
|  | <b>N1HP16</b>   | DN100       |                            | Ø 64        |                         | 0...0.25        | 16              |
| <b>DRM-628</b><br>PN40<br>  | <b>F25P40</b>   | DN25        | flange to EN1092-1, direct | Ø 24        | +80 °C                  | 0...1.6         | 40              |
|  | <b>F32P40</b>   | DN32        |                            | Ø 30        |                         | 0...1.6         | 40              |
|  | <b>F40P40</b>   | DN40        |                            | Ø 38        |                         | 0...0.6         | 40              |
|  | <b>F50P40</b>   | DN50        |                            | Ø 48        |                         | 0...0.4         | 40              |
|  | <b>F65P40</b>   | DN65        |                            | Ø 64        |                         | 0...0.25        | 40              |
|  | <b>F80P40</b>   | DN80        |                            | Ø 64        |                         | 0...0.25        | 40              |
|  | <b>N1HP40</b>   | DN100       |                            | Ø 64        |                         | 0...0.25        | 40              |

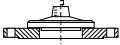
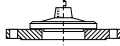
Diaphragm seal models (direct or remote assembly) (continued)


| Model DRM   | Size code     | Size          | Note                          | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|---|---------------|---------------|-------------------------------|-------------|-------------------------|-----------------|-----------------|
| <b>DRM-629</b><br>PN06<br>     | <b>F25P06</b> | DN25          | flange to EN1092-1, capillary | Ø 24        | +250 °C                 | 0... 1.6        | 6               |
|   | <b>F32P06</b> | DN32          |                               | Ø 30        |                         | 0... 1.6        | 6               |
|   | <b>F40P06</b> | DN40          |                               | Ø 38        |                         | 0... 0.6        | 6               |
|   | <b>F50P06</b> | DN50          |                               | Ø 48        |                         | 0... 0.4        | 6               |
|   | <b>F65P06</b> | DN65          |                               | Ø 64        |                         | 0... 0.25       | 6               |
|   | <b>F80P06</b> | DN80          |                               | Ø 64        |                         | 0... 0.25       | 6               |
|   | <b>F1HP06</b> | DN100         |                               | Ø 64        |                         | 0... 0.25       | 6               |
| <b>DRM-629</b><br>PN16<br>     | <b>F25P16</b> | DN25          | flange to EN1092-1, capillary | Ø 24        | +250 °C                 | 0... 1.6        | 16              |
|   | <b>F32P16</b> | DN32          |                               | Ø 30        |                         | 0... 1.6        | 16              |
|   | <b>F40P16</b> | DN40          |                               | Ø 38        |                         | 0... 0.6        | 16              |
|   | <b>F50P16</b> | DN50          |                               | Ø 48        |                         | 0... 0.4        | 16              |
|   | <b>F65P16</b> | DN65          |                               | Ø 64        |                         | 0... 0.25       | 16              |
|   | <b>F80P16</b> | DN80          |                               | Ø 64        |                         | 0... 0.25       | 16              |
|   | <b>F1HP16</b> | DN100         |                               | Ø 64        |                         | 0... 0.25       | 16              |
| <b>DRM-629</b><br>PN40<br>   | <b>F25P40</b> | DN25          | flange to EN1092-1, capillary | Ø 24        | +250 °C                 | 0... 1.6        | 40              |
|   | <b>F32P40</b> | DN32          |                               | Ø 30        |                         | 0... 1.6        | 40              |
|   | <b>F40P40</b> | DN40          |                               | Ø 38        |                         | 0... 0.6        | 40              |
|   | <b>F50P40</b> | DN50          |                               | Ø 48        |                         | 0... 0.4        | 40              |
|   | <b>F65P40</b> | DN65          |                               | Ø 64        |                         | 0... 0.25       | 40              |
|   | <b>F80P40</b> | DN80          |                               | Ø 64        |                         | 0... 0.25       | 40              |
|   | <b>F1HP40</b> | DN100         |                               | Ø 64        |                         | 0... 0.25       | 40              |
| <b>DRM 630</b><br>PVC<br>    | <b>R08</b>    | G ¼ female    | fix female, direct            | Ø 64        | +40 °C                  | 0... 0.25       | 10              |
|   | <b>R15</b>    | G ½ female    |                               | Ø 64        |                         | 0... 0.25       | 10              |
|   | <b>N15</b>    | ½" NPT female |                               | Ø 64        |                         | 0... 0.25       | 10              |
| <b>DRM-630/1</b><br>PVC<br>  | <b>R08</b>    | G ¼ female    | fix female, capillary         | Ø 64        | +40 °C                  | 0... 0.25       | 10              |
|   | <b>R15</b>    | G ½ female    |                               | Ø 64        |                         | 0... 0.25       | 10              |
|   | <b>N15</b>    | ½" NPT female |                               | Ø 64        |                         | 0... 0.25       | 10              |
| <b>DRM-631</b><br>PP<br>     | <b>R08</b>    | G ¼ female    | fix female, direct            | Ø 64        | +40 °C                  | 0... 0.25       | 10              |
|   | <b>R15</b>    | G ½ female    |                               | Ø 64        |                         | 0... 0.25       | 10              |
|   | <b>N15</b>    | ½" NPT female |                               | Ø 64        |                         | 0... 0.25       | 10              |
| <b>DRM-631/1</b><br>PP<br>   | <b>R08</b>    | G ¼ female    | fix female, capillary         | Ø 64        | +40 °C                  | 0... 0.25       | 10              |
|   | <b>R15</b>    | G ½ female    |                               | Ø 64        |                         | 0... 0.25       | 10              |
|   | <b>N15</b>    | ½" NPT female |                               | Ø 64        |                         | 0... 0.25       | 10              |
| <b>DRM-632</b><br>PVDF<br>   | <b>R08</b>    | G ¼ female    | fix female, direct            | Ø 64        | +50 °C                  | 0... 0.25       | 16              |
|   | <b>R15</b>    | G ½ female    |                               | Ø 64        |                         | 0... 0.25       | 16              |
|   | <b>N15</b>    | ½" NPT female |                               | Ø 64        |                         | 0... 0.25       | 16              |
| <b>DRM-632/1</b><br>PVDF<br> | <b>R08</b>    | G ¼ female    | fix female, capillary         | Ø 64        | +50 °C                  | 0... 0.25       | 16              |
|   | <b>R15</b>    | G ½ female    |                               | Ø 64        |                         | 0... 0.25       | 16              |
|   | <b>N15</b>    | ½" NPT female |                               | Ø 64        |                         | 0... 0.25       | 16              |

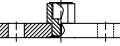





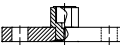
Diaphragm seal Models (direct or remote assembly) (continued)

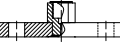
| Model DRM  | Size code | Size   | Note                                | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|--|-----------|--------|-------------------------------------|-------------|-------------------------|-----------------|-----------------|
|  <b>DRM-633</b>   | F50       | DN50   | flange to DIN2527 Form C, direct    | Ø 64        | +100 °C                 | 0...0.25        | 40              |
|  | F1H       | DN 100 |                                     | Ø 64        |                         | 0...0.25        | 40              |
|  <b>DRM-633/1</b> | F50       | DN50   | flange to DIN2527 Form C, capillary | Ø 64        | +250 °C                 | 0...0.25        | 40              |
|  | F1H       | DN 100 |                                     | Ø 64        |                         | 0...0.25        | 40              |

|   |         |      |                              |      |        |          |    |
|---|---------|------|------------------------------|------|--------|----------|----|
|  <b>DRM-634</b><br>150 lbs | A25P150 | 1"   | flange to ASME B16.5, direct | Ø 30 | +80 °C | 0... 1.6 | 10 |
|   | A32P150 | 1¼"  |                              | Ø 38 |        | 0...0.6  | 10 |
|   | A40P150 | 1 ½" |                              | Ø 38 |        | 0...0.6  | 10 |
|   | A50P150 | 2"   |                              | Ø 48 |        | 0...0.4  | 10 |
|   | A65P150 | 2 ½" |                              | Ø 48 |        | 0...0.4  | 10 |
|   | A80P150 | 3"   |                              | Ø 64 |        | 0...0.25 | 10 |
|   | A90P150 | 3 ½" |                              | Ø 64 |        | 0...0.25 | 10 |
|   | A1HP150 | 4"   |                              | Ø 64 |        | 0...0.25 | 10 |

|   |         |      |                              |      |        |          |    |
|---|---------|------|------------------------------|------|--------|----------|----|
|  <b>DRM-634</b><br>300 lbs | A25P300 | 1"   | flange to ASME B16.5, direct | Ø 30 | +80 °C | 0... 1.6 | 20 |
|   | A32P300 | 1¼"  |                              | Ø 38 |        | 0...0.6  | 20 |
|   | A40P300 | 1 ½" |                              | Ø 38 |        | 0...0.6  | 20 |
|   | A50P300 | 2"   |                              | Ø 48 |        | 0...0.4  | 20 |
|   | A65P300 | 2 ½" |                              | Ø 48 |        | 0...0.4  | 20 |
|   | A80P300 | 3"   |                              | Ø 64 |        | 0...0.25 | 20 |
|   | A90P300 | 3 ½" |                              | Ø 64 |        | 0...0.25 | 20 |
|   | A1HP300 | 4"   |                              | Ø 64 |        | 0...0.25 | 20 |


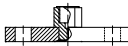

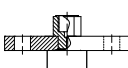
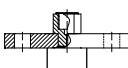
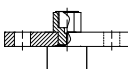
|   |         |      |                              |      |        |          |    |
|---|---------|------|------------------------------|------|--------|----------|----|
|  <b>DRM-634</b><br>600 lbs | A25P600 | 1"   | flange to ASME B16.5, direct | Ø 30 | +80 °C | 0... 1.6 | 40 |
|   | A32P600 | 1¼"  |                              | Ø 38 |        | 0...0.6  | 40 |
|   | A40P600 | 1 ½" |                              | Ø 38 |        | 0...0.6  | 40 |
|   | A50P600 | 2"   |                              | Ø 48 |        | 0...0.4  | 40 |
|   | A65P600 | 2 ½" |                              | Ø 48 |        | 0...0.4  | 40 |
|   | A80P600 | 3"   |                              | Ø 64 |        | 0...0.25 | 40 |
|   | A90P600 | 3 ½" |                              | Ø 64 |        | 0...0.25 | 40 |
|   | A1HP600 | 4"   |                              | Ø 64 |        | 0...0.25 | 40 |

|  |         |      |                              |      |        |          |     |
|--|---------|------|------------------------------|------|--------|----------|-----|
|  <b>DRM-634</b><br>1500 lbs | A25P1K5 | 1"   | flange to ASME B16.5, direct | Ø 30 | +80 °C | 0... 1.6 | 100 |
|  | A32P1K5 | 1¼"  |                              | Ø 38 |        | 0...0.6  | 100 |
|  | A40P1K5 | 1 ½" |                              | Ø 38 |        | 0...0.6  | 100 |
|  | A50P1K5 | 2"   |                              | Ø 48 |        | 0...0.4  | 100 |
|  | A65P1K5 | 2 ½" |                              | Ø 48 |        | 0...0.4  | 100 |
|  | A80P1K5 | 3"   |                              | Ø 64 |        | 0...0.25 | 100 |
|  | A90P1K5 | 3 ½" |                              | Ø 64 |        | 0...0.25 | 100 |
|  | A1HP1K5 | 4"   |                              | Ø 64 |        | 0...0.25 | 100 |

|   |         |      |                                 |      |         |          |    |
|---|---------|------|---------------------------------|------|---------|----------|----|
|  <b>DRM-635</b><br>150 lbs | A25P150 | 1"   | flange to ASME B16.5, capillary | Ø 30 | +250 °C | 0... 1.6 | 10 |
|   | A32P150 | 1¼"  |                                 | Ø 38 |         | 0...0.6  | 10 |
|   | A40P150 | 1 ½" |                                 | Ø 38 |         | 0...0.6  | 10 |
|   | A50P150 | 2"   |                                 | Ø 48 |         | 0...0.4  | 10 |
|   | A65P150 | 2 ½" |                                 | Ø 48 |         | 0...0.4  | 10 |
|   | A80P150 | 3"   |                                 | Ø 64 |         | 0...0.25 | 10 |
|   | A90P150 | 3 ½" |                                 | Ø 64 |         | 0...0.25 | 10 |
|   | A1HP150 | 4"   |                                 | Ø 64 |         | 0...0.25 | 10 |

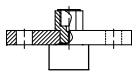
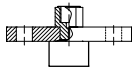
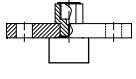
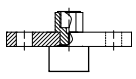
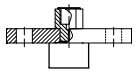
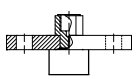


Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM   | Size code | Size  | Note                               | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|---|-----------|-------|------------------------------------|-------------|-------------------------|-----------------|-----------------|
| <b>DRM-635</b><br>300 lbs<br>    | A25P300   | 1"    | flange to ASME B16.5,<br>capillary | Ø 30        | +250 °C                 | 0...1.6         | 20              |
|   | A32P300   | 1 ¼"  |                                    | Ø 38        |                         | 0...0.6         | 20              |
|   | A40P300   | 1 ½"  |                                    | Ø 38        |                         | 0...0.6         | 20              |
|   | A50P300   | 2"    |                                    | Ø 48        |                         | 0...0.4         | 20              |
|   | A65P300   | 2 ½"  |                                    | Ø 48        |                         | 0...0.4         | 20              |
|   | A80P300   | 3"    |                                    | Ø 64        |                         | 0...0.25        | 20              |
|   | A90P300   | 3 ½"  |                                    | Ø 64        |                         | 0...0.25        | 20              |
|   | A1HP300   | 4"    |                                    | Ø 64        |                         | 0...0.25        | 20              |
| <b>DRM-635</b><br>600 lbs<br>    | A25P600   | 1"    | flange to ASME B16.5,<br>capillary | Ø 30        | +250 °C                 | 0...1.6         | 40              |
|   | A32P600   | 1 ¼"  |                                    | Ø 38        |                         | 0...0.6         | 40              |
|   | A40P600   | 1 ½"  |                                    | Ø 38        |                         | 0...0.6         | 40              |
|   | A50P600   | 2"    |                                    | Ø 48        |                         | 0...0.4         | 40              |
|   | A65P600   | 2 ½"  |                                    | Ø 48        |                         | 0...0.4         | 40              |
|   | A80P600   | 3"    |                                    | Ø 64        |                         | 0...0.25        | 40              |
|   | A90P600   | 3 ½"  |                                    | Ø 64        |                         | 0...0.25        | 40              |
|   | A1HP600   | 4"    |                                    | Ø 64        |                         | 0...0.25        | 40              |
| <b>DRM-635</b><br>1500 lbs<br> | A25P1K5   | 1"    | flange to ASME B16.5,<br>capillary | Ø 30        | +250 °C                 | 0...1.6         | 100             |
|   | A32P1K5   | 1 ¼"  |                                    | Ø 38        |                         | 0...0.6         | 100             |
|   | A40P1K5   | 1 ½"  |                                    | Ø 38        |                         | 0...0.6         | 100             |
|   | A50P1K5   | 2"    |                                    | Ø 48        |                         | 0...0.4         | 100             |
|   | A65P1K5   | 2 ½"  |                                    | Ø 48        |                         | 0...0.4         | 100             |
|   | A80P1K5   | 3"    |                                    | Ø 64        |                         | 0...0.25        | 100             |
|   | A90P1K5   | 3 ½"  |                                    | Ø 64        |                         | 0...0.25        | 100             |
|   | A1HP1K5   | 4"    |                                    | Ø 64        |                         | 0...0.25        | 100             |
| <b>DRM-637</b><br>PN06<br>     | F25P06    | DN25  | flange to EN1092-1, direct         | Ø 24        | +80 °C                  | 0...1.6         | 6               |
|   | F32P06    | DN32  |                                    | Ø 30        |                         | 0...1.6         | 6               |
|   | F40P06    | DN40  |                                    | Ø 38        |                         | 0...1           | 6               |
|   | F50P06    | DN50  |                                    | Ø 48        |                         | 0...0.6         | 6               |
|   | F65P06    | DN65  |                                    | Ø 64        |                         | 0...0.25        | 6               |
|   | F80P06    | DN80  |                                    | Ø 64        |                         | 0...0.25        | 6               |
|   | N1HP06    | DN100 |                                    | Ø 64        |                         | 0...0.25        | 6               |
| <b>DRM-637</b><br>PN16<br>     | F25P16    | DN25  | flange to EN1092-1, direct         | Ø 24        | +80 °C                  | 0...1.6         | 16              |
|   | F32P16    | DN32  |                                    | Ø 30        |                         | 0...1.6         | 16              |
|   | F40P16    | DN40  |                                    | Ø 38        |                         | 0...1           | 16              |
|   | F50P16    | DN50  |                                    | Ø 48        |                         | 0...0.6         | 16              |
|   | F65P16    | DN65  |                                    | Ø 64        |                         | 0...0.25        | 16              |
|   | F80P16    | DN80  |                                    | Ø 64        |                         | 0...0.25        | 16              |
|   | N1HP16    | DN100 |                                    | Ø 64        |                         | 0...0.25        | 16              |
| <b>DRM-637</b><br>PN40<br>     | F25P40    | DN25  | flange to EN1092-1, direct         | Ø 24        | +80 °C                  | 0...1.6         | 40              |
|   | F32P40    | DN32  |                                    | Ø 30        |                         | 0...1.6         | 40              |
|   | F40P40    | DN40  |                                    | Ø 38        |                         | 0...1           | 40              |
|   | F50P40    | DN50  |                                    | Ø 48        |                         | 0...0.6         | 40              |
|   | F65P40    | DN65  |                                    | Ø 64        |                         | 0...0.25        | 40              |
|   | F80P40    | DN80  |                                    | Ø 64        |                         | 0...0.25        | 40              |
|   | N1HP40    | DN100 |                                    | Ø 64        |                         | 0...0.25        | 40              |

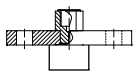
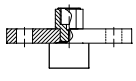
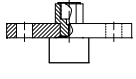
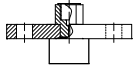
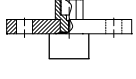


Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM  | Code    | Size  | Note                          | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|--|---------|-------|-------------------------------|-------------|-------------------------|-----------------|-----------------|
| <b>DRM-638</b><br>PN06<br>      | F25P06  | DN25  | flange to EN1092-1, capillary | Ø 24        | +250 °C                 | 0...1.6         | 6               |
|  | F32P06  | DN32  |                               | Ø 30        |                         | 0...1.6         | 6               |
|  | F40P06  | DN40  |                               | Ø 38        |                         | 0...1           | 6               |
|  | F50P06  | DN50  |                               | Ø 48        |                         | 0...0.6         | 6               |
|  | F65P06  | DN65  |                               | Ø 64        |                         | 0...0.25        | 6               |
|  | F80P06  | DN80  |                               | Ø 64        |                         | 0...0.25        | 6               |
|  | F1HP06  | DN100 |                               | Ø 64        |                         | 0...0.25        | 6               |
| <b>DRM-638</b><br>PN16<br>      | F25P16  | DN25  | flange to EN1092-1, capillary | Ø 24        | +250 °C                 | 0...1.6         | 16              |
|  | F32P16  | DN32  |                               | Ø 30        |                         | 0...1.6         | 16              |
|  | F40P16  | DN40  |                               | Ø 38        |                         | 0...1           | 16              |
|  | F50P16  | DN50  |                               | Ø 48        |                         | 0...0.6         | 16              |
|  | F65P16  | DN65  |                               | Ø 64        |                         | 0...0.25        | 16              |
|  | F80P16  | DN80  |                               | Ø 64        |                         | 0...0.25        | 16              |
|  | F1HP16  | DN100 |                               | Ø 64        |                         | 0...0.25        | 16              |
| <b>DRM-638</b><br>PN40<br>    | F25P40  | DN25  | flange to EN1092-1, capillary | Ø 24        | +250 °C                 | 0...1.6         | 40              |
|  | F32P40  | DN32  |                               | Ø 30        |                         | 0...1.6         | 40              |
|  | F40P40  | DN40  |                               | Ø 38        |                         | 0...1           | 40              |
|  | F50P40  | DN50  |                               | Ø 48        |                         | 0...0.6         | 40              |
|  | F65P40  | DN65  |                               | Ø 64        |                         | 0...0.25        | 40              |
|  | F80P40  | DN80  |                               | Ø 64        |                         | 0...0.25        | 40              |
|  | F1HP40  | DN100 |                               | Ø 64        |                         | 0...0.25        | 40              |
| <b>DRM-639</b><br>150 lbs<br> | A25P150 | 1"    | flange to ASME B16.5, direct  | Ø 30        | +80 °C                  | 0... 15 psi     | 145 psi         |
|  | A32P150 | 1¼"   |                               | Ø 38        |                         | 0... 15 psi     | 145 psi         |
|  | A40P150 | 1½"   |                               | Ø 38        |                         | 0... 15 psi     | 145 psi         |
|  | A50P150 | 2"    |                               | Ø 48        |                         | 0... 10 psi     | 145 psi         |
|  | A63P150 | 2½"   |                               | Ø 48        |                         | 0... 10 psi     | 145 psi         |
|  | A75P150 | 3"    |                               | Ø 64        |                         | 0... 4 psi      | 145 psi         |
|  | A85P150 | 3½"   |                               | Ø 64        |                         | 0... 4 psi      | 145 psi         |
| A1HP150  | 4"      | Ø 64  | 0... 4 psi                    | 145 psi     |                         |                 |                 |
| <b>DRM-639</b><br>300 lbs<br> | A25P300 | 1"    | flange to ASME B16.5, direct  | Ø 30        | +80 °C                  | 0... 15 psi     | 290 psi         |
|  | A32P300 | 1¼"   |                               | Ø 38        |                         | 0... 15 psi     | 290 psi         |
|  | A40P300 | 1½"   |                               | Ø 38        |                         | 0... 15 psi     | 290 psi         |
|  | A50P300 | 2"    |                               | Ø 48        |                         | 0... 10 psi     | 290 psi         |
|  | A63P300 | 2½"   |                               | Ø 48        |                         | 0... 10 psi     | 290 psi         |
|  | A75P300 | 3"    |                               | Ø 64        |                         | 0... 4 psi      | 290 psi         |
|  | A85P300 | 3½"   |                               | Ø 64        |                         | 0... 4 psi      | 290 psi         |
| A1HP300  | 4"      | Ø 64  | 0... 4 psi                    | 290 psi     |                         |                 |                 |
| <b>DRM-639</b><br>600 lbs<br> | A25P600 | 1"    | flange to ASME B16.5, direct  | Ø 30        | +80 °C                  | 0... 15 psi     | 580 psi         |
|  | A32P600 | 1¼"   |                               | Ø 38        |                         | 0... 15 psi     | 580 psi         |
|  | A40P600 | 1½"   |                               | Ø 38        |                         | 0... 15 psi     | 580 psi         |
|  | A50P600 | 2"    |                               | Ø 48        |                         | 0... 10 psi     | 580 psi         |
|  | A63P600 | 2½"   |                               | Ø 48        |                         | 0... 10 psi     | 580 psi         |
|  | A75P600 | 3"    |                               | Ø 64        |                         | 0... 4 psi      | 580 psi         |
|  | A85P600 | 3½"   |                               | Ø 64        |                         | 0... 4 psi      | 580 psi         |
| A1HP600  | 4"      | Ø 64  | 0... 4 psi                    | 580 psi     |                         |                 |                 |

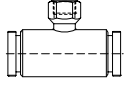
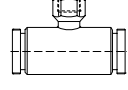
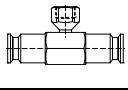
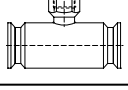


Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM   | Size code      | Size | Note                            | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|---|----------------|------|---------------------------------|-------------|-------------------------|-----------------|-----------------|
| <b>DRM-639</b><br>1500 lbs<br>   | <b>A25P1K5</b> | 1"   | flange to ASME B16.5, direct    | Ø 30        | +80 °C                  | 0... 15 psi     | 1450 psi        |
|   | <b>A32P1K5</b> | 1 ¼" |                                 | Ø 38        |                         | 0... 15 psi     | 1450 psi        |
|   | <b>A40P1K5</b> | 1 ½" |                                 | Ø 38        |                         | 0... 15 psi     | 1450 psi        |
|   | <b>A50P1K5</b> | 2"   |                                 | Ø 48        |                         | 0... 10 psi     | 1450 psi        |
|   | <b>A63P1K5</b> | 2 ½" |                                 | Ø 48        |                         | 0... 10 psi     | 1450 psi        |
|   | <b>A75P1K5</b> | 3"   |                                 | Ø 64        |                         | 0... 4 psi      | 1450 psi        |
|   | <b>A1HP1K5</b> | 4"   |                                 | Ø 64        |                         | 0... 4 psi      | 1450 psi        |
| <b>DRM-640</b><br>150 lbs<br>    | <b>A25P150</b> | 1"   | flange to ASME B16.5, capillary | Ø 30        | +250 °C                 | 0... 15 psi     | 145 psi         |
|   | <b>A32P150</b> | 1 ¼" |                                 | Ø 38        |                         | 0... 15 psi     | 145 psi         |
|   | <b>A40P150</b> | 1 ½" |                                 | Ø 38        |                         | 0... 15 psi     | 145 psi         |
|   | <b>A50P150</b> | 2"   |                                 | Ø 48        |                         | 0... 10 psi     | 145 psi         |
|   | <b>A63P150</b> | 2 ½" |                                 | Ø 48        |                         | 0... 10 psi     | 145 psi         |
|   | <b>A75P150</b> | 3"   |                                 | Ø 64        |                         | 0... 4 psi      | 145 psi         |
|   | <b>A85P150</b> | 3 ½" |                                 | Ø 64        |                         | 0... 4 psi      | 145 psi         |
| <b>A1HP150</b>  | 4"             | Ø 64 | 0... 4 psi                      | 145 psi     |                         |                 |                 |
| <b>DRM-640</b><br>300 lbs<br>  | <b>A25P300</b> | 1"   | flange to ASME B16.5, capillary | Ø 30        | +250 °C                 | 0... 15 psi     | 290 psi         |
|   | <b>A32P300</b> | 1 ¼" |                                 | Ø 38        |                         | 0... 15 psi     | 290 psi         |
|   | <b>A40P300</b> | 1 ½" |                                 | Ø 38        |                         | 0... 15 psi     | 290 psi         |
|   | <b>A50P300</b> | 2"   |                                 | Ø 48        |                         | 0... 10 psi     | 290 psi         |
|   | <b>A63P300</b> | 2 ½" |                                 | Ø 48        |                         | 0... 10 psi     | 290 psi         |
|   | <b>A75P300</b> | 3"   |                                 | Ø 64        |                         | 0... 4 psi      | 290 psi         |
|   | <b>A85P300</b> | 3 ½" |                                 | Ø 64        |                         | 0... 4 psi      | 290 psi         |
| <b>A1HP300</b>  | 4"             | Ø 64 | 0... 4 psi                      | 290 psi     |                         |                 |                 |
| <b>DRM-640</b><br>600 lbs<br>  | <b>A25P600</b> | 1"   | flange to ASME B16.5, capillary | Ø 30        | +250 °C                 | 0... 15 psi     | 580 psi         |
|   | <b>A32P600</b> | 1 ¼" |                                 | Ø 38        |                         | 0... 15 psi     | 580 psi         |
|   | <b>A40P600</b> | 1 ½" |                                 | Ø 38        |                         | 0... 15 psi     | 580 psi         |
|   | <b>A50P600</b> | 2"   |                                 | Ø 48        |                         | 0... 10 psi     | 580 psi         |
|   | <b>A63P600</b> | 2 ½" |                                 | Ø 48        |                         | 0... 10 psi     | 580 psi         |
|   | <b>A75P600</b> | 3"   |                                 | Ø 64        |                         | 0... 4 psi      | 580 psi         |
|   | <b>A85P600</b> | 3 ½" |                                 | Ø 64        |                         | 0... 4 psi      | 580 psi         |
| <b>A1HP600</b>  | 4"             | Ø 64 | 0... 4 psi                      | 580 psi     |                         |                 |                 |
| <b>DRM-640</b><br>1500 lbs<br> | <b>A25P1K5</b> | 1"   | flange to ASME B16.5, capillary | Ø 30        | +250 °C                 | 0... 15 psi     | 1450 psi        |
|   | <b>A32P1K5</b> | 1 ¼" |                                 | Ø 38        |                         | 0... 15 psi     | 1450 psi        |
|   | <b>A40P1K5</b> | 1 ½" |                                 | Ø 38        |                         | 0... 15 psi     | 1450 psi        |
|   | <b>A50P1K5</b> | 2"   |                                 | Ø 48        |                         | 0... 10 psi     | 1450 psi        |
|   | <b>A63P1K5</b> | 2 ½" |                                 | Ø 48        |                         | 0... 10 psi     | 1450 psi        |
|   | <b>A75P1K5</b> | 3"   |                                 | Ø 64        |                         | 0... 4 psi      | 1450 psi        |
|   | <b>A1HP1K5</b> | 4"   |                                 | Ø 64        |                         | 0... 4 psi      | 1450 psi        |



Diaphragm seal models (direct or remote assembly) (continued)

| Model DRM  | Size code | Size | Note              | Ø Diaphragm | Max. medium temperature | Min. span [bar] | Max. span [bar] |
|--|-----------|------|-------------------|-------------|-------------------------|-----------------|-----------------|
| <b>DRM 500</b><br>ISO Sterile<br>         | D15       | DN15 | inline, direct    | inline      | +80 °C                  | 0...1.6         | 40              |
|  | D20       | DN20 |                   | inline      |                         | 0...1.6         | 40              |
|  | D25       | DN25 |                   | inline      |                         | 0...0.6         | 40              |
|  | D32       | DN32 |                   | inline      |                         | 0...0.6         | 40              |
|  | D40       | DN40 |                   | inline      |                         | 0...0.4         | 40              |
|  | D50       | DN50 |                   | inline      |                         | 0...0.4         | 40              |
| <b>DRM 501</b><br>ISO Sterile<br>         | D15       | DN15 | inline, capillary | inline      | +80 °C                  | 0...1.6         | 40              |
|  | D20       | DN20 |                   | inline      |                         | 0...1.6         | 40              |
|  | D25       | DN25 |                   | inline      |                         | 0...0.6         | 40              |
|  | D32       | DN32 |                   | inline      |                         | 0...0.6         | 40              |
|  | D40       | DN40 |                   | inline      |                         | 0...0.4         | 40              |
|  | D50       | DN50 |                   | inline      |                         | 0...0.4         | 40              |
| <b>DRM 502</b><br>Clamp<br>ISO 2852<br> | D15       | DN15 | inline, direct    | inline      | +80 °C                  | 0...1.6         | 40              |
|  | D20       | DN20 |                   | inline      |                         | 0...1.6         | 40              |
|  | D25       | DN25 |                   | inline      |                         | 0...0.6         | 40              |
|  | D32       | DN32 |                   | inline      |                         | 0...0.6         | 40              |
|  | D40       | DN40 |                   | inline      |                         | 0...0.4         | 40              |
|  | D50       | DN50 |                   | inline      |                         | 0...0.4         | 40              |
| <b>DRM 503</b><br>Clamp<br>ISO 2852<br> | D15       | DN15 | inline, capillary | inline      | +80 °C                  | 0...1.6         | 40              |
|  | D20       | DN20 |                   | inline      |                         | 0...1.6         | 40              |
|  | D25       | DN25 |                   | inline      |                         | 0...0.6         | 40              |
|  | D32       | DN32 |                   | inline      |                         | 0...0.6         | 40              |
|  | D40       | DN40 |                   | inline      |                         | 0...0.4         | 40              |
|  | D50       | DN50 |                   | inline      |                         | 0...0.4         | 40              |

Application Index

Please fill out the following Application Data Sheet while inquiring/ordering model MAN-SC/-LC assembly with diaphragm seal model DRM

Order/ Inquiry Ref./ Item No.

|  |  |
|--|--|
| <b>Pressure Transmitter</b> (Model, calibration range) |  |
| Diaphragm seal (Model, size code)                      |  |
| Diaphragm material of DRM (wetted part)                |  |

|                     |                   |
|---------------------|-------------------|
| <b>Medium:</b>      |                   |
| Operating density   | g/cm <sup>2</sup> |
| Operating viscosity | cSt               |

|                                    |         |         |         |       |
|------------------------------------|---------|---------|---------|-------|
| <b>Temperature:</b>                | nominal | minimal | maximal |       |
| Medium temperature                 |         |         |         | °C/°F |
| Ambient temperature                |         |         |         | °C/°F |
| Rinsing temperature diaphragm seal |         |         |         | °C/°F |
| Rinsing temperature capillary      |         |         |         | °C/°F |



**Application Index (continued)**

Please fill out the following Application Data Sheet while inquiring/ordering model MAN-SC/-LC assembly with diaphragm seal model DRM

Order/ Inquiry Ref./ Item No.

| Pressure specification:                                 | Value  |         |
|---|--------|---------|
| 1.1) Operating pressure static                          | or 1.2 | bar/psi |
| 1.2) Operating pressure dynamic min + max               | or 1.3 | bar/psi |
| 1.3) Operating pressure as frequency in Hz              |        | Hz      |
| 2.) Max. negative pressure                              |        |         |
| 3.) Max. over pressure                                  |        |         |
| 4.1) Display damping: without / light / middle / strong | or 4.2 |         |
| 4.2) Pressure decrease with time + range                |        |         |

| Arrangement with direct mounting:                               |        |
|---|--------|
| 1.) Standard (DRM six o'clock position)                         | or 2.0 |
| 2.) Left (DRM nine o'clock position)                            | or 3.0 |
| 3.) Right (DRM three o'clock position, see Fig. 1)              | or 4.0 |
| 4.) Special, with description                                   | or 5.0 |
| 5.) Position (vertically/horizontally) with pipe diaphragm seal |        |

| Arrangement with capillary:                                     |        |
|---|--------|
| 1.) Standard (DRM six o'clock position)                         | or 2.0 |
| 2.) on the side (DRM three or 9 o'clock position)               | or 3.0 |
| 3.) Top (DRM twelve o'clock position)                           | or 4.0 |
| 4.) Special, with description                                   | or 5.0 |
| 5.) Position (vertically/horizontally) with pipe diaphragm seal |        |

| Capillary (stainless steel 1.4571/316Ti): |    |
|---|----|
| Length in 'mm'                            | mm |
| Protection hose required (Yes/No)         |    |

| Height adjustment:   |          |
|--|----------|
| No   |          |
| 1.) MAN-SC/-LC same level as DRM (diaphragm - pressure transmitter)        | or 2.)   |
| Yes  |          |
| 2.) MAN-SC/-LC higher than DRM (specify $\Delta h$ as in Fig. 2 or Fig. 3) | or 3.) m |
| 3.) MAN-SC/-LC lower than DRM (specify $\Delta h$ as in Fig. 2 or Fig. 3)  | m        |

| Options:  |  |
|---|--|
| Extended diaphragm seal (Tick mark the desired box)                             |  |
| No  |  |
| Yes   |  |
| If Yes, length 'R <sub>L</sub> ' of extended diaphragm seal (in mm)             |  |
| If Yes, length 'R <sub>L</sub> ' of extended diaphragm seal (in inches)         |  |
| Filling liquid (Tick mark the desired box)                                      |  |
| Glycerine oil (silicone free, food grade) for operation temp. (-10 ... +80 °C)  |  |
| Paraffine oil (silicone free, food grade) for operation temp. (-10 ... +120 °C) |  |
| Silicone oil for operation temp. (-40 ... +200 °C)                              |  |
| Silicone oil for operation temp. (-20 ... +350 °C)                              |  |
| Silicone oil for operation temp. (-20 ... +400 °C)                              |  |