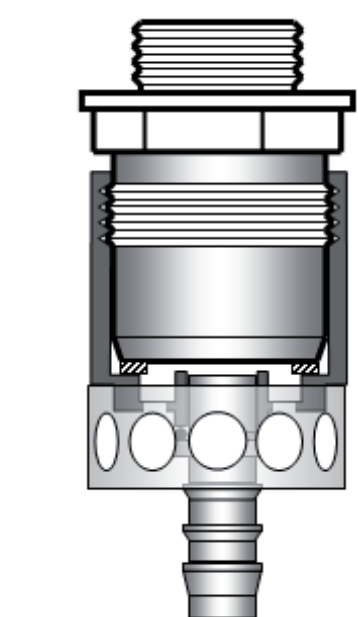
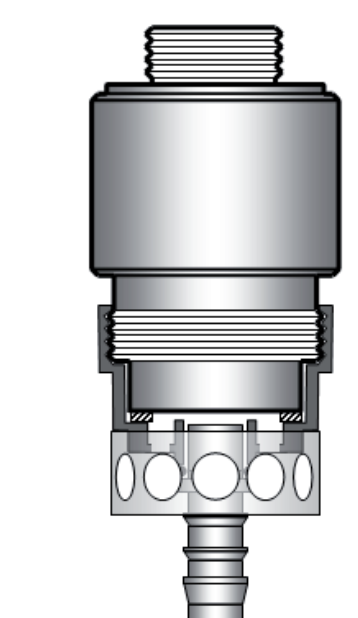


## Remote calibration adapter DQ (68 12 480):



## Remote calibration adapter LC (68 12 482):



**de**

### Zu Ihrer Sicherheit

**1 Gebrauchsanweisung beachten**  
Jede Handhabung an dem Gerät setzt die genaue Kenntnis und Beachtung dieser Gebrauchsanweisung und der den Messköpfe zugeordneten Gebrauchsanweisung, z. B. Messköpfe Polytren SE Ex ... DQ (Bestellnr. 90 33 176) voraus.

**2 Verwendungszweck**  
Die Fernkalibrieradapter DQ und LC bestehen aus Edelstahl und sind für die Fernüberprüfung ("bump test") oder die Fernkalibrierung der DrägerSensoren DD/DQ/LC mit einem geeigneten Prüfgas vorgesehen, wenn diese sich an schwer zugänglichen Orten befinden oder eine häufige, z. B. tägliche Überprüfung der Gaswarnanlage erforderlich ist. Je nach Auslegungswinde des Sensors sind zwei unterschiedliche Fernkalibrieradapter einsetzbar:

DrägerSensor	Bestellnr.	Gewinde	zugehöriger Fernkalibrieradapter	Bestellnr.
PR M DQ	68 14 140	M 30 x 1,5	Fernkalibrieradapter DQ	68 12 480
PR NPT DQ	68 14 150	M 30 x 1,5	Fernkalibrieradapter DQ	68 12 480
HT M DQ	68 14 145	M 30 x 1,5	Fernkalibrieradapter DQ	68 12 480
LC M	68 10 350	M 36 x 1,5	Fernkalibrieradapter LC	68 12 482
LC NPT	68 10 675	M 36 x 1,5	Fernkalibrieradapter LC	68 12 482

Der Fernkalibrieradapter ist so konstruiert, dass er ständig am Sensor montiert verbleiben kann. Die Befestigung erfolgt über die Schlauchleitung, die für Schweißungen mit einem Innendurchmesser von ca. 5 mm vorgesehen ist. Um einen Rohranschluss zu ermöglichen, können die Fernüberprüfungsausrüstungen durch Schneidringverschraubungen ersetzt werden. Das Einschraubgewinde ist vom Typ G 1/8 nach DIN EN ISO 228-1.

**3 Montage**  
Der Fernkalibrieradapter muss in senkrechter Gebrauchslage (Schlauchanschluss nach unten weisend) betrieben werden.

**4 Messtechnik**  
Die folgenden messtechnischen Angaben gelten nur für den Fernkalibrieradapter DQ.

Der Fernkalibrieradapter ist so konstruiert, dass die Messwerte bei unbewegter Luft der tatsächlichen Gaskonzentration entsprechen. Bei höheren Windgeschwindigkeiten kann die Messung beeinflusst werden (z. B. bei 6 m/s um bis zu 70 % höhere Messwerte).

Durch den aufgesetzten Fernkalibrieradapter sind die Ansprechnzeiten im sog. Diffusionsbetrieb (Strömungsgeschwindigkeit 0 m/s, d. h. ohne gerichtete Anströmung):

$t_{50} \leq 12$ s, $t_{90} \leq 23$ s für Methan, und $t_{50} \leq 16$ s, $t_{90} \leq 31$ s für Propan.
Kalibrierung und Fernüberprüfung dürfen nur mit einem Volumenstrom von 2 Litern Prüfgas pro Minute durchgeführt werden, die Windgeschwindigkeit darf maximal 6 m/s, bei Anströmung vom unten maximal 4 m/s betragen.

## 6 Controllo a distanza

Per superare in modo sicuro la soglia di allarme A durante un controllo a distanza ("bump test"), è necessario utilizzare un sistema di misurazione che utilizzi una concentrazione di gas campione maggiore del 40% del limite inferiore di esplosività  $i = 1,8 = 22,2\%$  del limite inferiore di esplosività.

Concentrazione minima di gas campione per il bump test	Dräger Sensor DQ	Dräger Sensor DD	Dräger Sensor LC
Polytren SE Ex, PEX 3000	> A/1,7	> A/1,5	> A/1,5
Polytren 5200/8200, PointGard 2200	> A/1,8	> A/1,6	> A/1,5

**Esempio:**  
Per l'attivazione di una soglia di allarme A = 40 % UEG di un DrägerSensor DQ con Polytren 8200, è necessario utilizzare una concentrazione di gas campione maggiore del 40% del limite inferiore di esplosività  $i = 1,8 = 22,2\%$  del limite inferiore di esplosività.

## nl

### 1 Voor uw veiligheid

**Gebbruksaanwijzing opvolgen**  
Elke handeling met of aan het instrument vereist de exacte kennis en opvolging van deze gebruiksaanwijzing en van de bij de meetkoppen horende gebruiksaanwijzing, bijv. meetkoppen Polytren SE Ex ... DQ (bestelnr. 90 33 176).

### 2 Beoogd gebruik

De remote kalibratieadapter DQ en LC zijn van roestvast staal en bedoeld voor de test op afstand ("bump test") of de kalibratie op afstand van de DrägerSensoren DD/DQ/LC met een geschikt testgas, wanneer deze zich op moeilijk toegankelijke plaatsen bevinden of wanneer veelvuldige, bijv. dagelijkse controle van de gasdetectie-installatie noodzakelijk is. Afhankelijk van de buitenside kalibratie van de sensor zijn twee verschillende remote-kalibratieadapter te gebruiken:

Dräger-Sensor	Schroefdraad	Bijbehorende remote-kalibratieadapter	Bestellnr.
PR M DQ	68 14 140	M 30 x 1,5 Fernkalibratieadapter DQ	68 12 480
PR NPT DQ	68 14 150	M 30 x 1,5 Fernkalibratieadapter DQ	68 12 480
HT M DQ	68 14 145	M 30 x 1,5 Fernkalibratieadapter DQ	68 12 480
LC M	68 10 350	M 36 x 1,5 Fernkalibratieadapter LC	68 12 482
LC NPT	68 10 675	M 36 x 1,5 Fernkalibratieadapter LC	68 12 482

De remote kalibratieadapter is zo geconstrueerd dat hij permanent aan de sensor gemonteerd kan blijven zitten. De bevestiging vindt plaats via het slangmondstuk dat is bedoeld voor slangen met een inwendige diameter van ca. 5 mm. Om een buisansluiting mogelijk te maken, kunnen de slangmondstukken ter plekke door snijring-schroefverbindingen worden vervangen. De Schroefdraad is van het type G 1/8 volgens ISO 228-1.

### 3 Montage

De remote kalibratieadapter moet in verticale gebruikspositie (slangaansluiting naar beneden wijzend) worden gebruikt.

## 5 Kalibrierung

Um Messabweichungen im Messbetrieb zu kompensieren, müssen folgende Kalibrierfaktoren berücksichtigt werden:

Kalibrierfaktoren	Dräger Sensor DQ	Dräger Sensor DD	Dräger Sensor LC
Polytren SE Ex, PEX 3000	1,7	1,5	1,5
Polytren 5200/8200, PointGard 2200	1,8	1,6	1,5

**Beispiel:**  
Bei Kalibrierung des DrägerSensor DQ mit Polytren 8200 mit einer Prüfgaskonzentration von 50 % UEG Methan folgende Justierkonzentration am Gerät einstellen: 50 % UEG x 1,8 = 90 % UEG.

## 6 Fernüberprüfung

Um die Alarmschwelle A bei einer Fernüberprüfung ("bump test") sicher zu überschreiten, muss folgende Mindestprüfgaskonzentration verwendet werden:

Mindestprüfgaskonzentration für Begangstest	Dräger Sensor DQ	Dräger Sensor DD	Dräger Sensor LC
Polytren SE Ex, PEX 3000	> A/1,7	> A/1,5	> A/1,5
Polytren 5200/8200, PointGard 2200	> A/1,8	> A/1,6	> A/1,5

**Beispiel:**  
Für Auslösung einer Alarmschwelle A = 40 % UEG eines DrägerSensors DQ mit Polytren 8200 muss eine Prüfgaskonzentration größer als 40 % UEG / 1,8 = 22,2 % UEG verwendet werden.

## en

### 1 For your safety

**Follow the instructions for use**  
Any use of the device requires full understanding and strict observation of the relevant instructions for use, e.g. Sensing Heads Polytren SE Ex ... DQ (Order no. 90 33 176).

### 2 Intended use

The remote calibration adapters DQ and LC are made of stainless steel and shall be used to remotely apply a suitable test gas to the DrägerSensoren DD/DQ/LC for the purpose of bump test or calibration in those cases where the gas detection system needs to be tested frequently (e.g. daily) or cannot be easily accessed. Two different remote calibration adapters can be used depending on the external thread of the sensor:

Dräger-Sensor	Order no.	Thread	Remote calibration adapter to be used	Order no.
PR M DQ	68 14 140	M 30 x 1,5	Remote calibration adapter DQ	68 12 480
PR NPT DQ	68 14 150	M 30 x 1,5	Remote calibration adapter DQ	68 12 480
HT M DQ	68 14 145	M 30 x 1,5	Remote calibration adapter DQ	68 12 480
LC M	68 10 350	M 36 x 1,5	Remote calibration adapter LC	68 12 482
LC NPT	68 10 675	M 36 x 1,5	Remote calibration adapter LC	68 12 482

The remote calibration adapter is so constructed, that the measured values remain constant when the sensor is permanently mounted. The fastening is carried out via the hose fitting, which is intended for hoses with an inner diameter of approx. 5 mm. To provide an adequate pipe connection, the nozzle can be replaced by a suitable tube fitting on site. The input thread is of type G 1/8 according to DIN EN 228-1.

**3 Mounting**  
The remote calibration adapter must be operated in vertical orientation (nozzle pointing downwards).

**4 Measuring performance**  
The following information relating to measurement technology applies only to the remote calibration adapter DQ.

The remote calibration adapter is designed in such a way that in calm air the measured value equals the current gas concentration. At higher wind speeds, the measured values will increase (e.g. at 6 m/s they will be up to 70% higher).

Caused by the permanently installed remote calibration adapter, the response times in diffusion operation mode (wind speed 0 m/s, non-directional flow) are:

$t_{50} \leq 12$ s, $t_{90} \leq 23$ s for methane, and $t_{50} \leq 16$ s, $t_{90} \leq 31$ s for propane.
Calibration and remote testing may only be carried out with a flow rate of 2 litres of test gas per minute. Furthermore, the wind speed shall not exceed 6 m/s, and in case of wind coming from the bottom, the wind speed shall not exceed 4 m/s.

## 5 Calibration

To compensate for possible deviations in measuring mode, the following calibration factors must be observed:

Calibration factors	Dräger Sensor DQ	Dräger Sensor DD	Dräger Sensor LC
Polytren SE Ex, PEX 3000	1,7	1,5	1,5
Polytren 5200/8200, PointGard 2200	1,8	1,6	1,5

The remote calibration adapter is intended to be permanently installed at the sensor. Gassing is done via the plastic nozzle, which is suitable for hoses with an inner diameter of approx. 5 mm. To provide an adequate pipe connection, the nozzle can be replaced by a suitable tube fitting on site. The input thread is of type G 1/8 according to DIN EN 228-1.

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HT M DQ	68 14 145	M 30 x 1,5	Remote calibration adapter DQ	68 12 480
LC M	68 10 350	M 36 x 1,5	Remote calibration adapter LC	68 12 482
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Calibration factors	Dräger Sensor DQ	Dräger Sensor DD	Dräger Sensor LC
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HT M DQ	68 14 145	M 30 x 1,5	Remote calibration adapter DQ	68 12 480
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## 5 Calibration

To compensate for possible deviations in measuring mode, the following calibration factors must be observed:

measure, par ex.telles de mesure Polytren SE Ex ... DQ (référéncia 90 33 176).

## 2 Domaine d'application

Les adaptateurs de calibration à distance DQ et LC, en acier inoxydable, sont conçus pour le contrôle à distance (« test au gaz ») ou le calibration à distance des DrägerSensoren DD/DQ/LC avec un gaz étalon approprié, lorsque ces derniers se situent à des endroits difficiles d'accès ou si un contrôle régulier voire quotidien de l'équipement de détection de fuites de gaz est requis. En fonction du filetage extérieur du capteur, deux adaptateurs de calibration à distance différents peuvent être utilisés :

Dräger-Sensor	Référence	Filetage	Adaptateur de calibration à distance approprié	Référence
PR M DQ	68 14 140	M 30 x 1,5	Adaptateur de calibration à distance DQ	68 12 480
PR NPT DQ	68 14 150	M 30 x 1,5	Adaptateur de calibration à distance DQ	68 12 480
HT M DQ	68 14 145	M 30 x 1,5	Adaptateur de calibration à distance DQ	68 12 480
LC M	68 10 350	M 36 x 1,5	Adaptateur de calibration à distance LC	68 12 482
LC NPT	68 10 675	M 36 x 1,5	Adaptateur de calibration à distance LC	68 12 482

## es

### 1 Para su seguridad

**Observar las instrucciones de uso**  
Cualquier trabajo en el aparato presupone el conocimiento exacto y el seguimiento de estas instrucciones de uso y de las instrucciones de uso de los cabezales de medición Polytren SE Ex ... DQ (referencia 90 33 176).

### 2 Uso previsto

Los adaptadores de calibración remota DQ y LC están hechos de acero inoxidable y están diseñados para la comprobación remota ("bump test") o la calibración remota de los sensores DrägerSensor DD/DQ/LC con un gas de prueba adecuado, cuando estos se encuentran en un lugar de difícil acceso o se requiere una comprobación frecuente (por ejemplo, a diario) de la instalación de alarma de gas. En función de la rosca exterior del sensor, hay dos adaptadores de calibración remota distintos disponibles:

Dräger-Sensor	Referencia	Rosca	Adaptador de calibración remota correspondiente	Referencia
PR M DQ	68 14 140	M 30 x 1,5	Adaptador de calibración remota DQ	68 12 480
PR NPT DQ	68 14 150	M 30 x 1,5	Adaptador de calibración remota DQ	68 12 480
HT M DQ	68 14 145	M 30 x 1,5	Adaptador de calibración remota DQ	68 12 480
LC M	68 10 350	M 36 x 1,5	Adaptador de calibración remota LC	68 12 482

L'adaptateur de calibration à distance a été construit de sorte qu'il puisse rester en permanence sur le capteur. La fixation s'effectue par le raccord coude adapté aux tuyaux présentant un diamètre intérieur d'environ 5 mm. L'utilisateur peut remplacer les raccords



