

Pressure transmitter DfYggi fjl 'G



Features

- Measuring ranges 0...1 bar up to 0...400 bar
- Linearity error including hysteresis $<+ 0.2\%$ f.s.
- Piezoresistive measuring system
- Internal diaphragm
- Flush mounted diaphragm
- Wetted parts of stainless steel; completely welded
- Stainless steel housing as standard or field housing
- Degree of protection IP 65, IP 67 option
- Output signal: 4...20 mA
- Process temperature up to 140 °C (short term, for sterilization)

Application area

- Chemical and petrochemical industry
- Process engineering
- General process technology

Technical data

Case design

Designs

- field housing IP 65 or IP 67, with cable gland
- right-angle plug per DIN EN 175301-803-A (DIN 43650, model A), IP 65
- cable connection, IP 67
- circular connector M12, IP 65

case material stainless steel

electronics encapsulated with silicone.

Inner chamber aeration for measuring ranges < 16 bar over case thread or connection cable (depending on design)

Process connection

Variant / material see order code

Measuring system

Sensor type	piezoresistiv	thin film
Sensor filling	foodstuff oil as per FDA	---

Materials (wetted parts)

Sensor type	piezoresistiv	thin film
Sensor diaphragm	1.4404/1.4435 (316L)	1.4542 (630)
Socket	1.4404/1.4435 (316L)	1.4301/1.4404 (304/316L)

Temperature ranges

ambient temperature range: -25...+70 °C

storage temperature range: -40...+90 °C

process temperature:

- standard: -10...+80 °C
- with temperature decoupler -10...+140 °C

(short term, for sterilization)

other temperature ranges upon request

Application

The device converts pressure measurements into a load-independent current signal. Because of their robust design these transmitters are suitable for use in tough environments. The process temperature is allowed up to 140 °C (short term). The flush mounted diaphragm allows dead-zone free measuring. The transmitters have extensive circuitry which ensures electromagnetic compatibility.

Measuring ranges/overload limits

see order details

intermediate measuring ranges upon request

Response time

≤ 20 ms

Measuring accuracy

linearity error incl. hysteresis: $<+ 0.2\%$ f.s.

($<+ 0.3\%$ f.s. for measuring ranges $\geq 0...60$ bar)

fixed-point adjustment

accuracy of adjustment: $<\pm 0.2\%$ f.s.

temperature effect im compensated temperature range 0...50 °C:

- zero point $< 0.2\%$ /10 K f.s.
- span $< 0.2\%$ /10 K f.s.

other values upon request

Auxiliary energy supply

standard design:

- nominal voltage 24 V DC
- function range 6...30 V DC
- max. allowable operating voltage 30 V DC

Supply voltage influence

$\leq 0.01\%$ f.s. / V

Signal output

4...20 mA, 2-wire circuitry

Current limitation in output signal

max. output current approx. 30 mA

Adjusting range

approx. $\pm 5\%$ f.s.

zero point and measuring span separately adjustable

Technical data

Burden

2-wire circuitry

standard design $R_a = \frac{U_b - 6 V}{20 \text{ mA}}$ (KOhm)

U_b = operating voltage

R_a = max. permissible burden resistance (incl. lead)

Burden influence

for 500 ohm burden change: $\leq 0.1 \%$ f.s.

Weights

- case with connector approx. 200 g
- field housing: + approx. 260 g
- with temperature decoupler + approx. 50 g

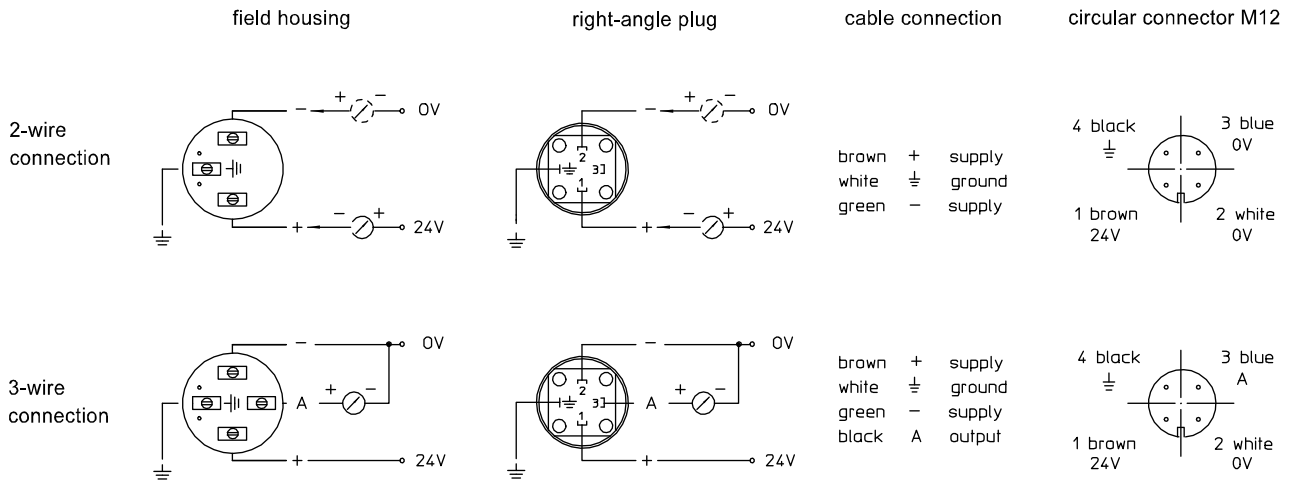
Installation position

any

EMC test

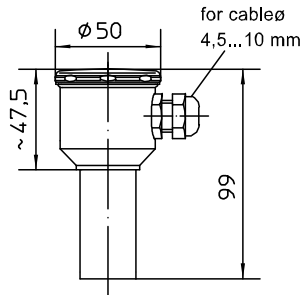
- noise immunity according to EN 50082 section 2, version March 1995 issue for industry
 - emitted interference according to EN 50081 section 1, 1993 issue for residential and industrial areas
- Device emits no radiation of its own

Connection diagram

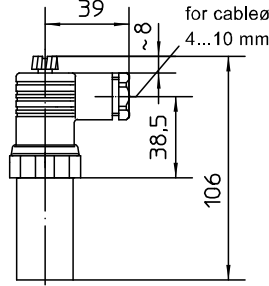


Dimensions/Designs

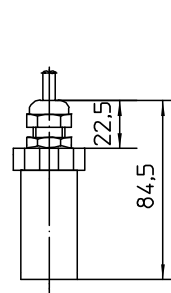
field housing
material stainless steel,
degree of protection IP 65
IP 67 (option)



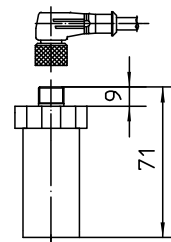
right angle plug
DIN EN 175301-803-A
(DIN 43650 Form A)
degree of protection IP 65



cable connection
degree of protection IP 67
(cable aeration)



circular connector M12
degree of protection IP 65

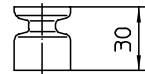


angular screw joint
(accessories
upon request)



direct
for process temperatures
up to 80°C

temperature decoupler
for process temperatures up to 140°C
(short term, for sterilization)



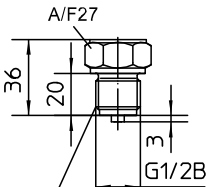
Process connections



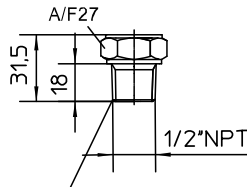
Process connections piezoresistiv

Process connections thin film

type series CB6000
internal diaphragm

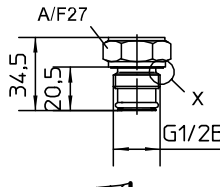


connection per
DIN EN 837-1



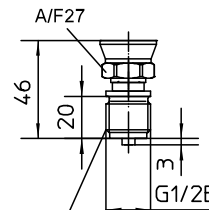
connection per
DIN EN 837-1

type series CE6100
flush mounted diaphragm
and with O-ring seal

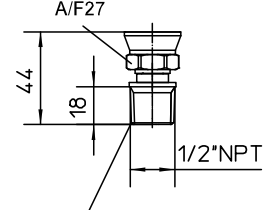


X
additional gasket
per DIN 3852-11 model E

type series CB6000
internal diaphragm



connection per
DIN EN 837-1



connection per
DIN EN 837-1



**EU-Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de Conformité**

**FAFNIR GmbH
Schnackenburgallee 149 c
22525 Hamburg / Germany**

erklärt als Hersteller in alleiniger Verantwortung, dass das Produkt
declares as manufacturer under sole responsibility that the product
déclare sous sa seule responsabilité en qualité de fabricant que le produit

**Druckmessumformer
Pressure Transmitter
Transmetteur de pression**

PRESSURIX ...

den Vorschriften der europäischen Richtlinien
complies with the regulations of the European directives
est conforme aux réglementations des directives européennes suivantes

2011/65/EU	Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten	RoHS
2011/65/EU	Restriction of the use of certain hazardous substances in electrical and electronic equipment	RoHS
2011/65/EU	Limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques	RoHS
2014/30/EU	Elektromagnetische Verträglichkeit	EMV
2014/30/EU	Electromagnetic compatibility	EMC
2014/30/EU	Compatibilité électromagnétique	CEM
2014/34/EU	Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen	ATEX
2014/34/EU	Equipment and protective systems intended for use in potentially explosive atmospheres	ATEX
2014/34/EU	Appareils et systèmes de protection destinés à être utilisés en atmosphères explosibles	ATEX
2014/68/EU	Bereitstellung von Druckgeräten auf dem Markt	DGRL
2014/68/EU	Making available on the market of pressure equipment	PED
2014/68/EU	Mise à disposition sur le marché des équipements sous pression	DESP

durch die Anwendung folgender harmonisierter Normen entspricht
by applying the harmonised standards
par l'application des normes

RoHS / RoHS / RoHS	EN 50581:2012
EMV / EMC / CEM	EN 61326-1:2013
ATEX / ATEX / ATEX	EN 60079-0:2012
	EN 60079-11:2012
	EN 60079-26:2007

Das Produkt entspricht den EMV-Anforderungen
The product complies with the EMC requirements
Le produit est conforme aux exigences CEM

Störaussendung / Emission / Émission	Klasse B / Class B / Classe B
Störfestigkeit / Immunity / D'immunité	Industrielle elektromagnetische Umgebung / Industrial electromagnetic environment / Environnement électromagnétique industriel

Die notifizierte Stelle TÜV NORD CERT GmbH, 0044 hat eine EG-Baumusterprüfung durchgeführt und folgende Bescheinigung ausgestellt
The notified body TÜV NORD CERT GmbH, 0044 performed a EC-type examination and issued the certificate
L'organisme notifié TÜV NORD CERT GmbH, 0044 a effectué examen CE de type et a établi l'attestation

PRESSURIX ... Ex ...	TÜV 13 ATEX 118658 X
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Das druckhaltende Ausrüstungsteil entspricht dem DGRL-Konformitätsbewertungsverfahren
The pressure accessory complies with the PED conformity assessment procedure
L'accessoire sous pression est conforme avec la procédure d'évaluation DESP de la conformité

PRESSURIX ...	Modul A / Module A / Module A
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Hamburg, 19.07.2016
Ort, Datum / Place, Date / Lieu, Date

Geschäftsführer / Managing Director / Gérant: René Albrecht