



Pressure transducers DMU 30 Industrial version



Benefits

- For pressure ranges up to 1,000 bar
- Suitable for high overloads
- Insensitive to pressure peaks
- Ex version (optional)



Application

For electronic pressure measurement in machines and systems with technical gases (e.g. oxygen, oil-free, grease-free) and for use in hydrogen applications.

Description

Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 30 is equipped with a welded stainless steel measuring cell.



Technical specifications

Measuring accuracy

Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability)
 $< \pm 0.5 \% \text{ FSO}$

Long-term stability

$\leq \pm 0.2 \% \text{ FSO/Jahr}$ at reference conditions

Measuring range

See ordering table

Overpressure safety

16 bar: At least 3 x FS
 > 16 bar: 2 x FS
 > 600 bar: At least 1.5 x FS

Burst pressure

< 600 bar: At least 5 x FS
 $\geq 600 \text{ bar}$: At least 3 x FS
 1000 bar: 3 x FS
 Vacuum resistance: Unlimited

Operating temperature range

Medium: $-40/+125\text{ }^{\circ}\text{C}$
 Ambient: $-40/+100\text{ }^{\circ}\text{C}$
 in Ex zZone 0: $-20/+60\text{ }^{\circ}\text{C}$
 from Ex zone 1: $-20/+70\text{ }^{\circ}\text{C}$
 Storage: $-40/+85\text{ }^{\circ}\text{C}$

Temperature error band

$\leq \pm 0.2 \% \text{ FSO/10 K}$ In compensated range $-25/+85\text{ }^{\circ}\text{C}$

Dynamic characteristics

Response time: $\leq 10 \text{ ms}$

Process connection

G $\frac{1}{4}$ B (EN 837-1/7.3)
 G $\frac{1}{2}$ B (EN 837-1/7.3)
 $\frac{1}{4}$ -18 NPT

Material

Housing: Stainless steel 316 L
 Pressure connection: Stainless steel 316 L
 Diaphragm: Stainless steel 316 L
 Seal: Without (welded)
 Degree of cleanliness: Oil- and grease-free version, based on ISO 15001
 Residual particles: No particles > 100 μm (with reference to 10 dm^2)
 Residual grease: Residual grease content < 0.2 mg/dm^2

Supply voltage

Standard version: DC 8 – 32 V
 Ex version: DC 10 – 28 V

Output signal

4–20 mA, 2-wire

Load

$R_{\text{Max}} = [(UB - UB_{\text{Min}})/0.02 \text{ A}] \Omega$

Current input

< 25 mA

Electrical protection

Short circuit proof and protected against reverse polarity

Electrical connection

M12 x 1, 4-pin,
 Cable outlet with PVC cable

Degree of protection

IP 67 (EN 60529)

CE conformity

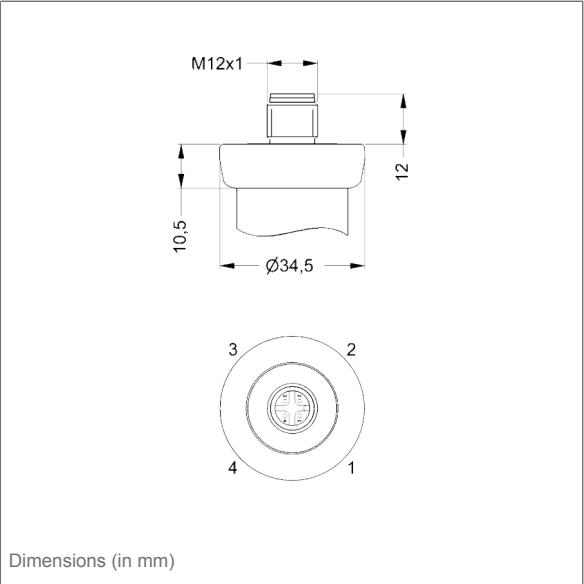
EMC Directive 2014/30/EU
 RoHS Directive 2011/65/EU
 Pressure Equipment Directive 2014/68/EU

Options

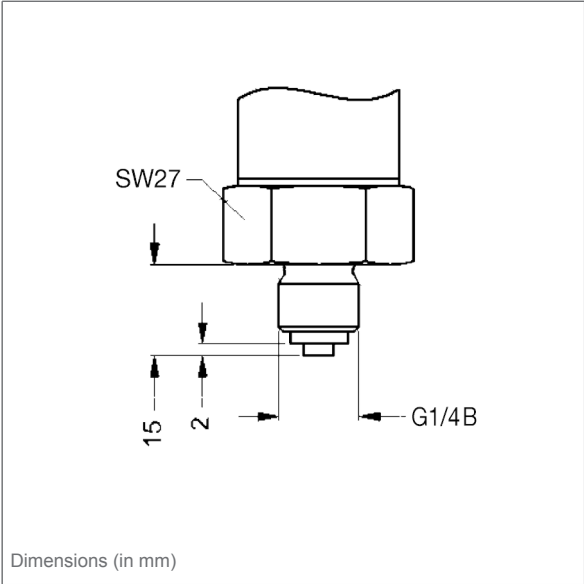
- Ex version zone 0+20 (II 1G Ex ia IIC T4 Ga, II 1D Ex ia IIIC T135 $^{\circ}\text{C}$ Da)
- Other electrical connections
- Other output signal
- Fitting of chemical seal

Technical drawings

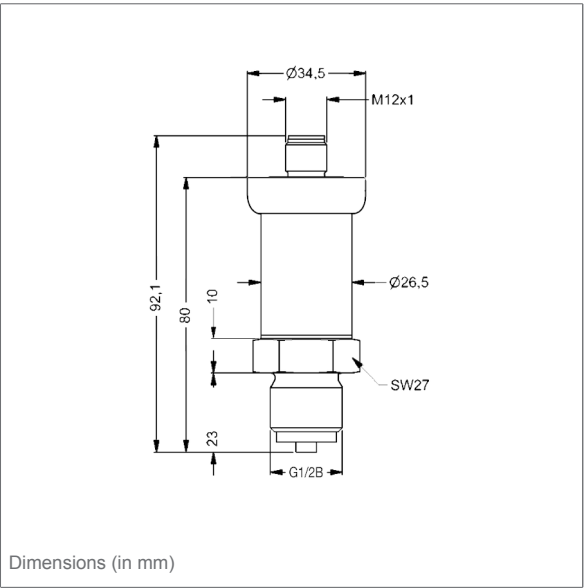
electrical connections – M12 x 1, 4-pin (IP 67)



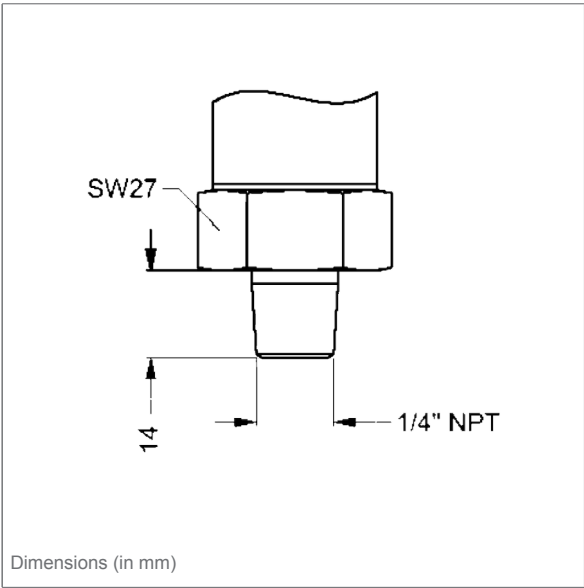
Connection G1/4B (EN 837-1/7.3)



Connection G1/2B (EN 837-1/7.3)

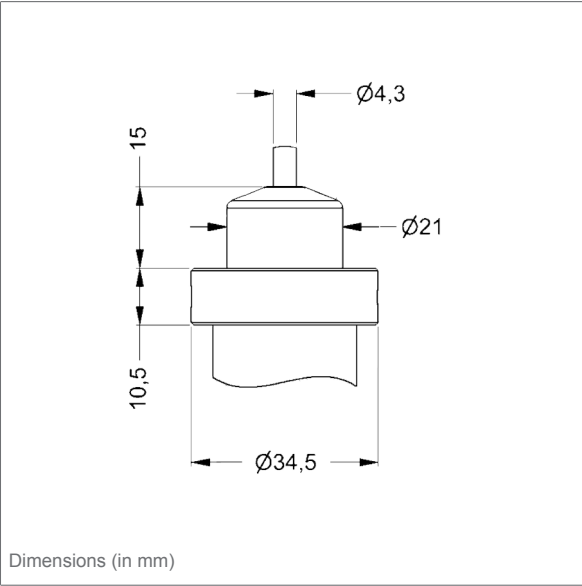


Connection 1/4"-18 NPT





electrical connections – Cable outlet with PVC cable (IP 67)



Versions

M12 x 1, 4-pin Standard version

Connection	Measuring range	Part no.
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/16 bar	DMU 30111150201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/25 bar	DMU 30111160201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/40 bar	DMU 30111170201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/60 bar	DMU 30111180201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/100 bar	DMU 30111190201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/160 bar	DMU 30111200201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/250 bar	DMU 30111210201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/400 bar	DMU 30111220201
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/600 bar	DMU 30111230201
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/16 bar	DMU 30111150401
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/25 bar	DMU 30111160401
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/40 bar	DMU 30111170401
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/60 bar	DMU 30111180401
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/100 bar	DMU 30111190401
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/160 bar	DMU 30111200401

Blue part no. = in-stock items



Connection	Measuring range	Part no.
G½B (EN 837-1/7.3)	0/250 bar	DMU 30111210401
G½B (EN 837-1/7.3)	0/400 bar	DMU 30111220401
G½B (EN 837-1/7.3)	0/600 bar	DMU 30111230401
G½B (EN 837-1/7.3)	0/1,000 bar	DMU 30111240401
¼-18 NPT	0/16 bar	DMU 30111150601
¼-18 NPT	0/25 bar	DMU 30111160601
¼-18 NPT	0/40 bar	DMU 30111170601
¼-18 NPT	0/60 bar	DMU 30111180601
¼-18 NPT	0/100 bar	DMU 30111190601
¼-18 NPT	0/160 bar	DMU 30111200601
¼-18 NPT	0/250 bar	DMU 30111210601
¼-18 NPT	0/400 bar	DMU 30111220601
¼-18 NPT	0/600 bar	DMU 30111230601
¼-18 NPT	0/1,000 bar	DMU 30111240601

Blue part no. = in-stock items

Cable outlet with PVC cable Standard version

Connection	Measuring range	Part no.
G¼B (EN 837-1/7.3)	0/16 bar	DMU 30211150201
G¼B (EN 837-1/7.3)	0/25 bar	DMU 30211160201
G¼B (EN 837-1/7.3)	0/40 bar	DMU 30211170201
G¼B (EN 837-1/7.3)	0/60 bar	DMU 30211180201
G¼B (EN 837-1/7.3)	0/100 bar	DMU 30211190201
G¼B (EN 837-1/7.3)	0/160 bar	DMU 30211200201
G¼B (EN 837-1/7.3)	0/250 bar	DMU 30211210201
G¼B (EN 837-1/7.3)	0/400 bar	DMU 30211220201
G¼B (EN 837-1/7.3)	0/600 bar	DMU 30211230201
G½B (EN 837-1/7.3)	0/16 bar	DMU 30211150401
G½B (EN 837-1/7.3)	0/25 bar	DMU 30211160401
G½B (EN 837-1/7.3)	0/40 bar	DMU 30211170401

Blue part no. = in-stock items



Connection	Measuring range	Part no.
G½B (EN 837-1/7.3)	0/60 bar	DMU 30211180401
G½B (EN 837-1/7.3)	0/100 bar	DMU 30211190401
G½B (EN 837-1/7.3)	0/160 bar	DMU 30211200401
G½B (EN 837-1/7.3)	0/250 bar	DMU 30211210401
G½B (EN 837-1/7.3)	0/400 bar	DMU 30211220401
G½B (EN 837-1/7.3)	0/600 bar	DMU 30211230401
G½B (EN 837-1/7.3)	0/1,000 bar	DMU 30211240401
¼-18 NPT	0/16 bar	DMU 30211150601
¼-18 NPT	0/25 bar	DMU 30211160601
¼-18 NPT	0/40 bar	DMU 30211170601
¼-18 NPT	0/60 bar	DMU 30211180601
¼-18 NPT	0/100 bar	DMU 30211190601
¼-18 NPT	0/160 bar	DMU 30211200601
¼-18 NPT	0/250 bar	DMU 30211210601
¼-18 NPT	0/400 bar	DMU 30211220601
¼-18 NPT	0/600 bar	DMU 30211230601
¼-18 NPT	0/1,000 bar	DMU 30211240601

Blue part no. = in-stock items

M12 x 1, 4-pin Ex version

Connection	Measuring range	Part no.
G¼B (EN 837-1/7.3)	0/16 bar	DMU 30111150202
G¼B (EN 837-1/7.3)	0/25 bar	DMU 30111160202
G¼B (EN 837-1/7.3)	0/40 bar	DMU 30111170202
G¼B (EN 837-1/7.3)	0/60 bar	DMU 30111180202
G¼B (EN 837-1/7.3)	0/100 bar	DMU 30111190202
G¼B (EN 837-1/7.3)	0/160 bar	DMU 30111200202
G¼B (EN 837-1/7.3)	0/250 bar	DMU 30111210202
G¼B (EN 837-1/7.3)	0/400 bar	DMU 30111220202
G¼B (EN 837-1/7.3)	0/600 bar	DMU 30111230202

Blue part no. = in-stock items



Connection	Measuring range	Part no.
G½B (EN 837-1/7.3)	0/16 bar	DMU 30111150402
G½B (EN 837-1/7.3)	0/25 bar	DMU 30111160402
G½B (EN 837-1/7.3)	0/40 bar	DMU 30111170402
G½B (EN 837-1/7.3)	0/60 bar	DMU 30111180402
G½B (EN 837-1/7.3)	0/100 bar	DMU 30111190402
G½B (EN 837-1/7.3)	0/160 bar	DMU 30111200402
G½B (EN 837-1/7.3)	0/250 bar	DMU 30111210402
G½B (EN 837-1/7.3)	0/400 bar	DMU 30111220402
G½B (EN 837-1/7.3)	0/600 bar	DMU 30111230402
G½B (EN 837-1/7.3)	0/1,000 bar	DMU 30111240402
¼-18 NPT	0/16 bar	DMU 30111150602
¼-18 NPT	0/25 bar	DMU 30111160602
¼-18 NPT	0/40 bar	DMU 30111170602
¼-18 NPT	0/60 bar	DMU 30111180602
¼-18 NPT	0/100 bar	DMU 30111190602
¼-18 NPT	0/160 bar	DMU 30111200602
¼-18 NPT	0/250 bar	DMU 30111210602
¼-18 NPT	0/400 bar	DMU 30111220602
¼-18 NPT	0/600 bar	DMU 30111230602
¼-18 NPT	0/1,000 bar	DMU 30111240602

Blue part no. = in-stock items

Cable outlet with PVC cable Ex version

Connection	Measuring range	Part no.
G¼B (EN 837-1/7.3)	0/16 bar	DMU 30211150202
G¼B (EN 837-1/7.3)	0/25 bar	DMU 30211160202
G¼B (EN 837-1/7.3)	0/40 bar	DMU 30211170202
G¼B (EN 837-1/7.3)	0/60 bar	DMU 30211180202
G¼B (EN 837-1/7.3)	0/100 bar	DMU 30211190202
G¼B (EN 837-1/7.3)	0/160 bar	DMU 30211200202

Blue part no. = in-stock items



Connection	Measuring range	Part no.
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/250 bar	DMU 30211210202
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/400 bar	DMU 30211220202
G $\frac{1}{4}$ B (EN 837-1/7.3)	0/600 bar	DMU 30211230202
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/16 bar	DMU 30211150402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/25 bar	DMU 30211160402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/40 bar	DMU 30211170402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/60 bar	DMU 30211180402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/100 bar	DMU 30211190402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/160 bar	DMU 30211200402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/250 bar	DMU 30211210402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/400 bar	DMU 30211220402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/600 bar	DMU 30211230402
G $\frac{1}{2}$ B (EN 837-1/7.3)	0/1,000 bar	DMU 30211240402
$\frac{1}{4}$ -18 NPT	0/16 bar	DMU 30211150602
$\frac{1}{4}$ -18 NPT	0/25 bar	DMU 30211160602
$\frac{1}{4}$ -18 NPT	0/40 bar	DMU 30211170602
$\frac{1}{4}$ -18 NPT	0/60 bar	DMU 30211180602
$\frac{1}{4}$ -18 NPT	0/100 bar	DMU 30211190602
$\frac{1}{4}$ -18 NPT	0/160 bar	DMU 30211200602
$\frac{1}{4}$ -18 NPT	0/250 bar	DMU 30211210602
$\frac{1}{4}$ -18 NPT	0/400 bar	DMU 30211220602
$\frac{1}{4}$ -18 NPT	0/600 bar	DMU 30211230602
$\frac{1}{4}$ -18 NPT	0/1,000 bar	DMU 30211240602

Blue part no. = in-stock items