

# **UNIK 5000**

# Pressure sensing platform

The new UNIK 5000 is a high performance configurable solution to pressure measurement. The use of micromachined silicon technology and analogue circuitry enables best in class performance for stability, low power and frequency response. The new platform enables you to easily build up your own sensor to match your own precise needs. This high performance, configurable solution to pressure measurement employs modular design and lean manufacturing techniques.

## **High quality**

The combination of a high technology sensor, together with advanced signal conditioning and packaging techniques, provides an ideal long term solution for reliable, accurate and economical measurements.

## **Bespoke as standard**

Custom-built from standard components, manufacturing sensors to your requirement is fast and simple; each UNIK 5000 is a "bespoke" pressure sensing solution, but with the short lead times and competitive pricing you would expect from standard products.

## **Expertise**

We have the people and the knowledge to support your needs for accurate and reliable product performance; our team of experts can help you make the right sensor selection, guiding you and providing the help and tools you need. It is important to ensure that the sensor material and performance selected are suitable for your application.

### **Features**

- Ranges from 70 mbar (1 psi) to 700 bar (10000 psi)
- Accuracy to ±0.04% Full Scale (FS) Best Straight Line (BSL)
- Stainless steel construction
- Frequency response to 3.5 kHz
- High over pressure capability
- Hazardous area certifications
- mV, mA, voltage and configurable voltage outputs
- Multiple electrical and pressure connector options
- Operating temperature ranges from -55 to +125°C (-67 to +257°F)
- Online configuration tool



# **UNIK 5000 specifications**

## Measurement Operating pressure ranges:

#### Gauge ranges

Any zero based range 70 mbar to 70 bar (1 to 1000 psi) Note: All psi values are approximate.

#### Sealed gauge ranges

Any zero based range 10 to 700 bar (145 to 10000 psi)

#### Absolute ranges

Any zero based range 100 mbar to 700 bar (1.5 to 10000 psi)

#### **Differential ranges**

Wet/Dry

Uni-directional or bi-directional 70 mbar to 35 bar (1 to 500 psi)

Wet/Wet

Uni-directional or bi-directional 350 mbar to 35 bar (5 to 500 psi)

Line pressure: 70 bar (1000 psi) maximum

#### **Barometric ranges**

Barometric ranges are available with a minimum span of 350 mbar (5.1 psi)

#### Non-zero based ranges

Non-zero based ranges are available. For non-zero based gauge ranges, please contact Druck to discuss your requirements.

#### **Over pressure**

- 10 × FS for ranges up to 150 mbar (2 psi)
- 4 × FS for ranges <350 mbar (5 psi)
- 6 × FS for ranges up to 700 mbar (10 psi)
- 2 × FS for barometric ranges
- 4 × FS for all other ranges (up to 200 bar for ranges ≤70 bar and up to 1200 bar for ranges >70 bar)\*

For differential versions the negative side must not exceed the positive side by more than:

- 6 × FS for ranges up to 150 mbar (2 psi)
- 4 × FS for ranges up to 700 mbar (10 psi)
- 2 × FS for all other ranges up to a maximum of 15 bar (200 psi)

#### **Containment pressure**

- Ranges up to 150 mbar (2 psi) gauge 10 x FS Ranges up to 70 bar (1000 psi) gauge 6 x FS (200 bar (2900 psi) max)
- Ranges up to 70 bar (1000 psi) absolute 200 bar (2900 psi)
- Ranges above 70 bar (1000 psi)
- 1200 bar (17400 psi)\*

Differential (-ve port) must not exceed positive port by more than 6 × FS (15 bar (200 psi) maximum.

\*600 bar (8700 psi) for pressure connector options PX, RA and RF

## Supply and outputs

Electronics option	Description	Supply voltage (V)	Output	Current consumption (mA)
0	mV Passive	2.5 to 12	10 mV/V^	<2 at 10 V
1	mV Linearised	7 to 12	10 mV/V^	<3
2	mA	7 to 28**	4-20 mA	<30
3	0 to 5 V 4-wire	7 to 16**	0 to 5 V	<3
4	0 to 5 V 3-wire	7 to 16**	0 to 5 V*	<3
5	Basic Configurable (3-wire)	See below	See below	<3
6	0 to 10 V 4-wire	12 to 16**	0 to 10 V	<3
7	0.5 V to 4.5 V Ratiometric	5.0 ± 0.5	0.5 to 4.5 V	<3
8	Configurable (4-wire)	7 to 36	See below	See below
9	Configurable (3-wire)	7 to 36	See below	See below

^ with a 10 V supply mV output sensors give 100 mV over the full scale pressure.

- · Output is ratiometric to the supply voltage
- Output reduces pro-rata for pressure ranges below 350 mbar (5 psi)

\*0 to 5 V 3-wire output is non true zero. At pressures below 1% of span the output will be fixed at approximately 50 mV

\*\*32 V in non-hazardous area operation

~ Supply voltage is between [Maximum output + 1 V] (7 V minimum) to 16 V (32 V in non-hazardous area operation)

# Basic configurable (option 5), configurable 4-wire (option 8), configurable 3-wire (option 9)

Any pressure signal output configurations will be available, subject to the following limitations:

Output specification	Basic configurable (option 5)	Configurable (options 8, 9)
Minimum span:	4 V	2 V
Maximum span:	10 V	20 V
Maximum output limit:	11 V	±10 V
Maximum zero offset:	Span / 2	±Span
Current consumption:	< 3 mA	< 20 mA @ 7 Vdc decreasing to < 5 mA @ 32 Vdc
Reverse output response:	No	Yes
Maximum operating temperature:	+125°C	+80°C

Output voltage range can be specified to a resolution of 0.1 V.

The output will continue to respond to 110% FS. i.e. if a 0 to 10 V output is specified, the output will continue to increase proportionally to applied pressure until at least 11 V.

Option 5: Not true zero, the output will saturate at < 50 mV.

Options 8, 9: On startup <100 mA drawn for 10 ms typically.

Options 8, 9: Shunt calibration: not available with reverse output.

#### Examples

Configuration	Allowed	Not Allowed
Basic Configurable	0 to 5 V	1 to 4 V (span too small)
(Option 5)	0.5 to 4.5 V	4 to 11 V (offset too big)
	1 to 6 V	
	1 to 11 V	
Configurable (Options 8, 9)	-10 to 0 V	0 to 12 V (outside ±10 V limits)
	0 to 5 V	6 to 10 V (offset too big)
	-5 to 5 V	0 to 0.5 V (span too small)
	-2 to 10 V	
	1 to 6 V	
	10 to 0 V	

#### Power-up time

- mV, Voltage and current versions: 10 ms
- Configurable 3-wire and 4-wire versions: 500 ms

#### Insulation

- 500 Vdc: 100 MΩ
- 500 Vac: < 5 mA leakage current (mV and mA versions only)

#### Shunt calibration

Shunt calibration provides a customer accessible connection which, when applied, causes a shift in output of 80% FS in order to simulate applied pressure. It is fitted to the mV, configurable 4-wire and configurable 3-wire versions as standard. It is not available with DIN, M12 x 1 or M20 x 1.5 electrical connectors (options 7, D, G and R).

Shunt calibration is activated in different ways depending on the electrical connector and version:

- mV versions: connect shunt cal to -ve supply or where available, connect both shunt cal connections together.
- Configurable 4-wire and configurable 3-wire versions: connect Shunt cal to -ve output or, where available, connect both shunt cal connections together.

Note: Not available with reverse output.

# **Performance specifications**

There are three grades of performance specification: Industrial, Improved and Premium.

#### Accuracy

#### Voltage, current and mV linearized

Combined effects of non-linearity, hysteresis and repeatability:

- Industrial: ±0.2% FS BSL
- Improved: ±0.1% FS BSL
- Premium: ±0.04% FS BSL

#### mV passive

#### ≤ 70 bar

Industrial/Improved: ±0.25% FS BSL Premium not available

#### > 70 bar

Industrial/Improved: ±0.5% FS BSL Premium not available

Note 1: For the barometric pressure range, accuracy is of span, not full scale.

Note 2: For bi-directional ranges, accuracy is specified for each direction separately.

## Zero offset and span setting

Demountable electrical connector options allow access to potentiometers that give at least ±5% FS adjustment (see electrical connector section).

#### Factory set to:

Product Description	Industrial	Improved and Premium
Current and voltage versions (Demountable electrical connections and cable gland)	±0.5% FS	±0.2% FS
Current and voltage versions (All other electrical connections)	±1.0% FS	±1.0% FS
mV versions	±3.0 mV	±3.0 mV

#### Long term stability

±0.05% FS typical (±0.1% FS maximum) per year increasing pro-rata for pressure ranges below 350 mbar

#### **Temperature effects**

Four compensated temperature ranges can be chosen.

Industrial accuracy performance:

- -10 to +50°C (+14 to +122°F): ±0.75% FS TEB\*
- -20 to +80°C (-4 to +176°F): ±1.5% FS TEB
- -40 to +80°C (-40 to +176°F): ±2.25% FS TEB
- -40 to +125°C (-40 to +257°F): ±2.25% FS TEB

\*TEB = Temperature Error Band

Improved and premium accuracy performance:

- -10 to +50°C (+14 to +122°F): ±0.5% FS TEB
- -20 to +80°C (-4 to +176°F): ±1.0% FS TEB
- -40 to +80°C (-40 to +176°F): ±1.5% FS TEB
- -40 to +125°C (-40 to +257°F): ±1.5% FS TEB

Temperature effects increase pro-rata for pressure ranges below 350 mbar (5 psi) and are doubled for barometric ranges.

#### Line pressure effects (differential version only)

Zero shift: <±0.03% span/bar of line pressure Span shift: <±0.03% span/bar of line pressure

Effects increase pro-rata for differential pressure ranges below 700 mbar (10 psi).

# **Physical specifications**

#### **Environmental protection**

- See electrical connector section
- Hyperbaric pressure: 20 bar (300 psi) maximum

#### Operating temperature range

See Electrical Connector section

#### Pressure media

Fluids compatible with stainless steel 316L and Hastelloy C276.

For the wet/dry differential version, negative pressure port: Fluids compatible with stainless steel 316L, stainless steel 304, Pyrex, silicon and structural adhesive.

#### **Enclosure materials**

Stainless steel (body), nitrile- or silicone-rubber (o-rings, gaskets), EPDM (gaskets), PVDF (depth cone), PTFE (vent filter), nickel plated brass (lock rings), glass filled nylon (electrical connector assemblies), delrin (depth cone). Cable sheaths as specified (see Electrical Connector).

#### **Pressure connector**

Available options are:

- G1/4 female\*
- G1/4 male flat
- G1/4 male 60° internal cone
- G1/4 male flat long
- G1/4 male flat with snubber
- G1/4 male flat with cross bore protection
- G1/4 male with nipple
- G1/4 quick connect
- G1/8 male 60° internal cone
- G1/2 male via adaptor\*
- 1/4 NPT female\*
- 1/4 NPT male
- 1/8 NPT male
- 1/8-27 NPT female
- 1/2 NPT male via adaptor
- 7/16-20 UNJF female\*
- 7/16-20 UNF male short flat\*
- 7/16 UNF long 37° flare tip\*
- 7/16-20 UNJF male 74° external cone
- 3/8-24 UNJF
- 1/4 swagelok bulkhead
- M10 X 1 80° internal cone
- M12 X 1 60° internal cone
- M14 X 1.5 60° internal cone
- M20 X 1.5 male (3 mm bore)

- M20 X 1.5 male (8 mm bore)
- Depth cone (G1/4 female open face)
- M12 x 1.0 74° external cone
- Quick release male
- VCR female\*
- VCR male\*
- NW16 flange
- R3/8 male
- R1/4 male

Choose connectors marked \* for pressure ranges over 70 bar. Other pressure connectors may be available, contact Druck to discuss your requirement.

#### **General certifications**

CRN Certified 0F13650.517890YTN ADD1/REV1, 0F13828.2 (sensor types K and O) and CSA 0F13650.56 ADD1 for pressure ranges up to and including 350 bar (5000 psi).

#### **Electrical connector**

Various electrical connector options are available offering different features:

Code No.	Description	Maximum o temperature		IP rating	Zero/ span
		°C	٩F		adjust
0	No connector	-55 to +125	-67 to +257	-	Y
1	Cable Gland	-40 to +80	-40 to +176	65	Ν
2	Raychem Cable	-55 to +125	-67 to +257	65	Ν
3	Polyurethane Depth	-40 to +80	-40 to +176	68	Ν
4	Hytrel Depth	-40 to +80	-40 to +176	68	Ν
6/E	Bayonet MIL-C-26482	-55 to +125	-67 to +257	67	Ν
7	DIN 43650 Form A Demountable	-40 to +80	-40 to +176	65	Y
A/F	Bayonet MIL-C-26482 Demountable	-55 to +125	-67 to +257	65	Y
С	1/2 NPT Conduit	-40 to +80	-40 to +176	65	Ν
D	Micro DIN (9.4 mm pitch)	-40 to +80	-40 to +176	65	Ν
G	M12x1 4pin	-55 to +125	-67 to +257	67	Ν
К	Zero Halogen Cable Demountable	-40 to +80	-40 to +176	65	Y
Ν	Kynar Depth	-40 to +80	-40 to +176	68	Ν
R	M20 x 1.5 Inline	-40 to +80	-40 to +176	65	Y

Note 1: Electronics output options 8 and 9 are restricted to a maximum operating temperature of 80°C (176°F).

Note 2: Hazardous area approved versions are restricted to a maximum operating temperature range of  $-40^{\circ}$ C to  $+80^{\circ}$ C ( $-40^{\circ}$ F to  $+176^{\circ}$ F).

Note 3: Electrical connector option R IP65 rating only with suitable conduit/ cable fitting.

#### **CE conformity**

- RoHS 2011/65/EU
- Pressure equipment directive 2014/68/EU sound engineering practice
- ATEX 2014/34/EU (Optional)
- EMC directive 2014/30/EU
- BS EN 61000-6-1: 2007: Susceptibility light industrial
- BS EN 61000-6-2: 2005: Susceptibility heavy industrial\*
- BS EN 61000-6-3: 2007+A1:2011: Emissions light industrial
- BS EN 61000-6-4: 2007+A1:2011: Emissions heavy industrial
- BS EN 61326-1: 2013: Electrical equipment for measurement, control and laboratory use
- BS EN 61326-2-3: 2013: Particular requirements for pressure transducers

\*PMP/PTX models with electrical connector options 6, A, C, E, F, G, N and R with cable screen connected to case.

#### Hazardous area approvals (optional)

General applications:

- IECEx/ATEX intrinsically safe 'ia' group IIC
- INMETRO intrinsically safe 'ia' group IIC
- NEPSI intrinsically safe 'ia' group IIC
- FM approved (Canada & US) intrinsically safe Exia Class I, Division 1, Groups A, B, C & D and Class I, Zone 0 AEx/Ex ia Group IIC; Single Seal

Mining applications:

- IECEx/ATEX intrinsically safe 'ia' group I
- INMETRO intrinsically safe 'ia' group I

For full certification details, refer to the type-examination certificates (or approval listings) and supplied hazardous area installation instructions.

## **Electrical connector**

			Electronics opti	on				
Connector type	Option code		4 to 20 mA	Voltage (3- wire) and basic configurable	Voltage (4-wire)	Configurable voltage (4-wire)	Configurable voltage (3-wire)	mV
Molex	0	1 Red	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
		2 Yellow	-	+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
		3 Green	-	-	-ve Output	-ve Output	0V Common	-ve Output
		4 Blue	-ve Supply	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		5 Orange	-	-	-	Shunt Cal	Shunt Cal	Shunt Cal
		6 Black	Case	Case	Case	Case	Case	-
Cable	1, 3, 4,	Red	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
(Not Raychem)	C, N	Yellow	-	+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
		Blue	-	-	-ve Output	-ve Output	0V Common	-ve Output
		White	-ve Supply	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		Orange	-	-	-	Shunt Cal	Shunt Cal	Shunt Cal
		Black	-	_	-	-	-	-
		Screen	-	_	-	_	-	-
aychem Cable	2	Red	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
cuychem cubie		White	-	+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
		Green	_	-	-ve Output	-ve Output	0V Common	-ve Output
		Blue	-ve Supply	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		Black	-	-	-	Shunt Cal	Shunt Cal	Shunt Cal
		Screen	-	_	_	-	-	
ayonet 6, A								
Bayonet	0, 4	A	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
		B	-ve Supply -	+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
			_		-ve Output	-ve Output	0V Common	-ve Output
		D	-	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		E	-	-	-	Shunt Cal	Shunt Cal	Shunt Cal
	7	F				-	-	Shunt Cal
DIN A	7	1	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
/icro DIN	D	2	-ve Supply -	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		3		+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
		E	Case	Case	-ve Output	-ve Output	0V Common	-ve Output
Bayonet	E, F	Α	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
Iternative Wiring Options		В	-	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		С	-	+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
		D	-ve Supply	-	-ve Output	-ve Output	0V Common	-ve Output
		E	-	-	-	Shunt Cal	Shunt Cal	Shunt Cal
		F	-	-	- Shunt Cal		Shunt Cal	-
112 X 1	G	1	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
-Pin		2		+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
		3	-ve Supply	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		4	Case	Case	-ve Output	-ve Output	0V Common	-ve Output
ero Halogen Cable	к	Pink	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply	+ve Supply
Demountable)		White	-	+ve Output	+ve Output	+ve Output	+ve Output	+ve Output
		Green	-	-	-ve Output	-ve Output	0V Common	-ve Output
		Blue	-ve Supply	0V Common	-ve Supply	-ve Supply	0V Common	-ve Supply
		Grey	-	-	-	Shunt Cal	Shunt Cal	Shunt Cal
		Brown	-	-	-	-	-	-
		Yellow	-	-	-	-	-	-
		Screen	-	-	-	-	-	-
120 x 1.5 Female	R	+ve	+ve Supply	-	-	-	-	-
Demountable		-ve	-ve Supply	-	-	-	-	-

# **Ordering information** (see the online configuration tool at Druck.com)

	oduct Variant								
2	Amplified Pressure T								
R	mV Pressure Transd 4-20 mA Pressure Tr								
	4-20 mA Pressure Tr Product Series	unsmiller							
	5 UNIK 500	0							
		r and Mater	ial						
	0		ainless Steel	Note C)					
		Electrical 0	Connector (	al Connecto	or (Note 7)				
		1	Caple Glar	nd (Polyuret	hane Cable	e)			
		2	Raychem (			~)			
		3		ne Cable (E	epth)				
		4 6	Hytrel Cab	le (Depth)		(Mating a	onnostor	r not supplied)	
		6 7	DIN 43650	Form A Dem	nell Size IU) nountable (	Matina co	nnector	supplied)	
		Á	Demounta	ble MIL-C-2	6482 (6-pi	n Shell Siz	e 10) (Ma	ting connecto	r not supplied)
		С	1/2" NPT Co	onduit (Poly	urethane co	able)			
		D	Micro DIN (	9.4 mm Pito	h) (Mating	connecto	or supplie	d)	
		E F	MIL-C-264	82 (6 pin Sn ble Mil -C-2	6482 (6 pir	Shell Size	e wiring	(Mating conn rnative Wiring	ector not supplied) (Mating connector not supplied)
		G		in male (Ma				manie winng	(Mating connector not supplied)
		ĸ		en Cable De					
		N	Kynar Cab					->	
		R		line Female	Conduit De	emountat	ole (Note	8)	
			Electronics 0	<b>s Option</b> mV Passive	A-wire (PC		a 1)		
				mV Linearis			- 1)		
			2	4 to 20 mA					
			3	0 to 5 V 4-v	vire (PMP)				
			4	0 to 5 V 3-v		Niro (DAD	<b>`</b>		
			5 6	Basic Confi 0 to 10 V 4-		wire (PMP	)		
			7	0.5 to 4.5 V	Ratiometri	c 3-wire (	PMP) <b>(No</b>	te 5)	
			8	Configurat	ole 4-wire (I	PMP) <b>(Not</b>	e 4, 5)	-	
			9	Configurat	ole 3-wire (F	PMP) <b>(Not</b>	e 4, 5)		
				Compenso TA	-10 to +50 °				
				тв	-20 to +80	°C (-4 to	+176 °F)		
				тс	-40 to +80	°C (-40 to	> +176 °F)		
				TD	-40 to +125	°C (-40 t	o +257 °É	) (Note 2, 5)	
					Accuracy	Industrial			
						Industrial Improvec			
						Premium			
					1	Calibrati			
						CA		pan Data	
						CB CC	Room T Full The	emperature ermal	
						CR			leasured Reading
					1	1			roval (Note 6)
							H0	None	
							H1 H2		(Intrinsically Safe 'ia' Group IIC (Intrinsically Safe 'ia' Group I
							HZ H6		( Intrinsically Safe 'ia' Group I 5) Intrinsically Safe 'ia' Group IIC/ABCD
							HA	IECEX/ATEX	(Intrinsically Safe 'ia' Groups I/IIC [H1 + H2]
					1		HS	IECEX/ATE>	(/FM (C & US) Intrinsically Safe 'ia' Groups
								IIC/ABCD	
							J1 JA	ILCEX/AIE	(/NEPSI Intrinsically Safe 'ia' Group IIC htrinsically Safe 'ia' Group IIC
							JB	INMETRO Ir	ntrinsically Safe 'ia' Group I
							JF	INMETRO Ir	ntrinsically Safe 'ia' Group I/IIC [JA + JB]
								Pressure C	Connector
					1			PA	GI/4 Female (Note 3)
								PB PC	G1/4 Male Flat G1/4 Male 60º Internal Cone
								PD	G1/8 Male 60° Internal Cone
								PE	1/4 NPT Female ( <b>Note 3)</b>
								PF	1/4 NPT Male
								PG	1/8 NPT Male
					1			PH PJ	M20x1.5 Male (3 mm bore) M14x1.5 60° Internal Cone
								PK	M14x1.5 00 Internal Cone
								PL	7/16-20 UNJF Male 74° External Cone
								PN	G1/2 Male via Adaptor (Note 3)
								PQ	G1/4 Quick Connect
								PR PS	1/2 NPT Male via Adaptor <b>(Note 3)</b> 1/4 Swagelok Bulkhead
					1			PT	G1/4 Male Flat Lona
								PU	7/16-20 UNE Long 37º Flare Tip (Note 3)
								PV	7/16-20 UNJF Female (Note 3)
								PW PX	Depth Cone (G1/4 Female Open Face) 7/16-20 UNF Male Short Flat <b>(Note 3, 9)</b>
								PX PY	3/8-24 UNJF
					1			PZ	M10 x 1 80° Internal Cone
								RA	VCR Female (Note 3, 9)
					1			RB	G1/4 Male Flat with Snubber
								RC RD	G1/4 Male Flat with Cross Bore Protection
								RD RE	M12 x 1.0 74° External Cone Quick Release Mount
								RF	VCR Male (Note 3, 9)
								RJ	M20 x 1.5 Male (8 mm bore)
								RQ	NW16 Flange
								RT RU	1/8-27 NPT Female
								RU RV	R3/8 Male R1/4 Male
								RW	G1/4 Male with Nipple
	$\checkmark$ $\checkmark$	₩	¥	★	¥	¥	\	★	
	· ·	•	•						

#### **Ordering notes**

Note 1: Premium accuracy is not available on this version

Note 2: Please ensure that the electrical connector selected is option 0, 2, 6, A, E, F or G.

Note 3: Select one of these pressure connectors for pressure ranges over 70 bar

Note 4: Maximum operating temperature is 80°C (176°F)

Note 5: Hazardous area certifications not available

Note 6: Hazardous area certifications are restricted by electrical connector options in line with the following table:

Connector														
Approval	0	1	2	3	4	6/E	7	A/F	с	D	G	к	N	R
HO	Y	γ	Y	Y	Y	Y	Y	Y	Υ	Y	Y	Y	Υ	Y
HI	Y	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	Y
H2	Υ	-	Y	Y	Y	Y	-	-	Y	-	Y	-	-	-
H6	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	Y
HA	Y	-	Y	Y	Y	Y	-	-	Y	-	Y	-	-	-
HS	Υ	Y	Y	Y	Y	Y	Y	Y	Υ	Y	Y	-	-	Y
Jl	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	Y
JA	Υ	Y	Y	Y	Y	Y	Y	Y	Υ	Y	Y	-	-	Y
JB	Y	-	Y	Y	Y	Y	-	-	Υ	-	Y	-	-	-
JF	Y	-	Y	Y	Y	Y	-	-	Y	-	Y	-	-	-

Note 7: Available with component certification, use of which requires incorporation into certified apparatus with an IP rated enclosure appropriate to the certification type supplied

Note 8: Electronics option 2 only

Note 9: Pressure ranges less than 500 bar

#### 2) State pressure range and units

(e.g., 0 to 10 bar, -5 to +5 bar)

#### Pressure unit options are:

Symbol	Description
bar	bar
mbar	millibar
psi	pounds/sq. inch
Pa	Pascal
hPa	hectoPascal
kPa	kiloPascal
MPa	MegaPascal
mmH <sub>2</sub> O	mm water
cmH <sub>2</sub> O	cm water
mH <sub>2</sub> O	metres water
inH <sub>2</sub> O	inches water
ftH <sub>2</sub> O	feet water
mmHg	mm mercury
inHg	inches mercury
kgf/cm <sub>2</sub>	kg force/sq. cm
atm	atmosphere
Torr	torr

#### 3) State pressure reference (e.g., gauge)

#### Reference options are:

- gauge
- absolute
- barometric
- sealed gauge
- wet/dry differential
- wet/wet differential

#### 4) State cable lengths and units

Integer values only, e.g. 1 m cable, 8 ft. Minimum length 1 m (3 ft) cable (only required with certain electrical connectors).

Maximum cable length 100 m (300 ft) for approval options not H0; 200 m (600 ft) for approval option H0.

#### 5) Output options 5, 8 and 9

State voltage output at minimum and maximum pressure (e.g., output –1 to 9 V)

#### **Typical order examples**

PTX5012-TB-A2-CA-H0-PA: 0 to 10 bar, gauge, 3 m cable

PMP5028-TC-A3-CC-H0-PE: -15 to 75 psi, gauge, 15 ft cable, output voltage -1 to 5 volts

PDCR5071-TB-A1-CB-H0-PA: 0 to 100 bar, sealed gauge

#### Accessories (order as separate line items)

P/N 202-034-05: Sensor termination enclosure P/N 600-914: Desiccant gel pack for STE P/N 222-117-01: Short sink weight (to fit G1/4 female) P/N 222-179-01: Depth cone injection moulded for PW connection

P/N 163-009: Mating connector for MIL-C-26482 (Electrical connector options 6, A, E, and F) (Note 10)

# Cable assemblies (Note 10)

A made up electrical connector with a length of cable.

#### 1) Select part number

Main product	(Note 10)						
UNIKCABLE	Cable o	Cable assembly					
l I	Electric	al conne	ector				
	6	MIL-C-	26482				
	7	DIN 436	50				
	D	MICRO	DIN (9.4 mm Pitch)				
		Cable					
		1	Polyurethane cable (Note 11)				
		2	Raychem cable				
UNIKCABLE -	• 6 -	2	(Example part number)				
		/					

#### 2) State cable length and units (Integer value only)

Minimum length 1 m (3 ft)

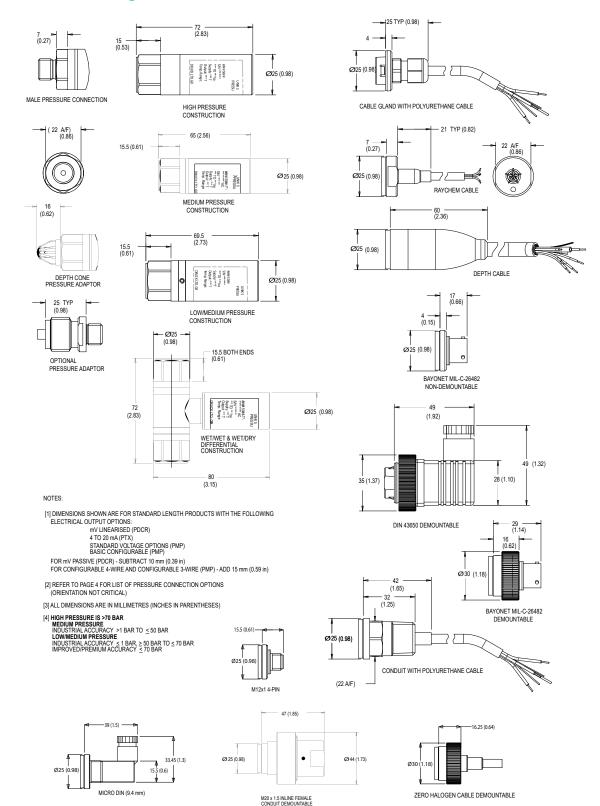
Maximum length 200 m (600 ft)

Example: UNIKCABLE-6-2 5 m

Note 10: Not considered suitable for use in hazardous areas.

Note 11: This cable is the same as that used in the electrical connector cable gland (Option 1 in the main product).

# **Mechanical drawings**





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