



Pressure Transducers



Compact, G1/4

- 0.5% accuracy
- Stainless steel wetted parts
- Ranges from 0 - 10 bar to 0 - 600 bar
- 4-20mA and 0 - 10v outputs



Technical specification

Type	0610	0620
Output signal (Option 0.5-4.5V)	0 - 10 V (3-wire)	4 - 20 mA (2-wire)
Supply voltage U_b	10 - 32 VDC	12 - 32 VDC
Maximum load	$\geq 4.7 \text{ k}\Omega$	$\leq (U_b - 12 \text{ V}) / 20 \text{ mA}$
Current consumption (without load)	$\leq 15 \text{ mA}$	-
Pressure ranges p_{range}	-1 - 0 bar; 0 - 10 bar; 0 - 100 bar; 0 - 250 bar; 0 - 600 bar; 0 - 1000 bar	
Accuracy	$\pm 0.5\%$ FS at room temperature	
Response time (10 - 90%)	Max. 2 ms	
Temperature range	-40°C to +105°C	-40°C to +100°C
Temperature drift	approx. $\pm 0.2\%$ / 10 K	
Mechanical life expectancy	10^7 pulses up to nominal p_{range}	
Materials	Body material: 1.4301 diaphragm: 1.4301 (<500 bar); 1.4542 (>500 bar)	

Overpressure safety ¹⁾	2 x p_{range} up to 350 bar; 1.5 x p_{range} up to 600 bar
Bursting pressure ¹⁾	3 x p_{range} up to 350 bar; 2 x p_{range} up to 600 bar
Reverse polarity protection	Built in
Protection according to DIN EN 60 529	IP67 for M12x1 IP65 for DIN EN 175301-803 (DIN 43650)
Weight	M12x1 approx. 100g DIN EN 175301 approx. 120g
Vibration resistance	20g at 4 - 2000 Hz sine
Max. length of connection cable:	30m / 100ft
EMC Standards:	DIN EN 61000-6-2, DIN EN 61000-6-3

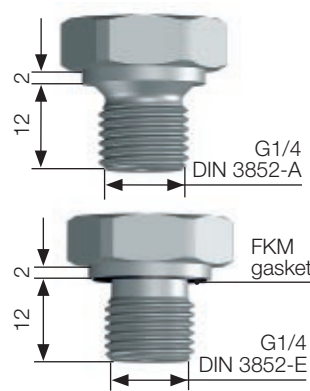
Dimensions



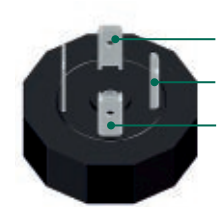
M12	
x	$\approx 72 \text{ mm}$
d	$\approx \text{Ø}22 \text{ mm}$
Ref. No.:	002

DIN	
x	$\approx 88 \text{ mm}^*$
d	$\approx \text{Ø}22 \text{ mm}$
Ref. No.:	001

* incl. connector plug (included in delivery)

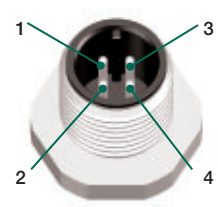


DIN EN 175301-803-A



0610	0620
1: U_{out}	1: nc
2: Gnd	2: I_{out}
3: $U_{\text{v+}}$	3: $U_{\text{v+}}$

M12



0610	0620
1: $U_{\text{v+}}$	1: $U_{\text{v+}}$
2: U_{out}	2: nc
3: Gnd	3: I_{out}
4: nc	4: nc

Options: Threads, electrical connections.

Ordering information

Part number	Type 06XX	Pressure range XXX	Pressure connector XX	Diaphragm 0	Electrical plug XXX
Type					
0 - 10 V 3-wire	0610				
4 - 20 mA 2-wire	0620				
Pressure range					
-1 - 0 bar vacuum		356			
0 - 10 bar		480			
0 - 100 bar		481			
0 - 250 bar		482			
0 - 600 bar		483			
0 - 1000 bar		484			
Pressure connector					
G 1/4 - DIN 3852-A			03		
G 1/4 - DIN 3852 - E			41		
Electrical plug					
DIN EN 175301-803-A (DIN 43 650-A)					001
M 12 x 1					002
Part number	06XX	XXX	XX	0	XXX

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.



Compact OEM sensor, G 1/4"

- 1% accuracy
- All stainless steel
- Pressure ranges from 0...1 bar to 0...600 bar
- 4-20mA and 0-10V output



Technical specification

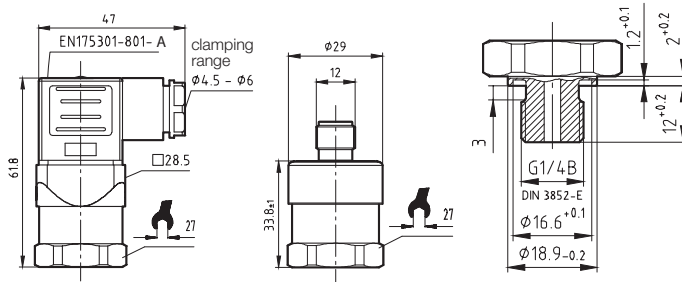
Pressure type	Positive gauge pressure
Output signal	4...20 mA - 2-wire 0...10 VDC - 3-wire other voltage outputs on request
Accuracy¹⁾	≤1.0% of F. S.; option: 0.5% of F. S. ³⁾
Non linearity²⁾	≤0.6% of F. S.; option: 0.3% of F. S.
Measuring ranges	0...1 bar to 0...600 bar
Sensor element	piezoresistive to 0.6 bar, thin film 0..10 bar
Non repeatability	≤0.1% of F. S.
Stability (annual)	≤0.2% of F. S. (in rated conditions)
Hysteresis	≤0.16% of F. S.
Case	Stainless steel 316L, PA
Wetted parts	Stainless steel 316L (1.4534)
Pressure connection	G 1/4 according to DIN 3852-E other pressure connections on request
Overrange limit [bar]	x 2
Burst pressure [bar]	x 6
Electrical connection	Connector DIN EN 175301-803 Form A with junction box (IP65) M12x1, 4-pin (IP67), cabled (IP67) and DIN EN 175301-803 Form C (IP65) on request
Power supply/load	
4...20 mA	$8...30 \text{ VDC} / \frac{\text{supply} - 10\text{V}}{0.02\text{A}}$
0...10 V	$14...30 \text{ VDC} / R_A > 10\text{k}\Omega$

Temperature influence	2% in range 0...80°C
Response time	≤4ms within 10% to 90% of F.S.
Electrical protection	Polarity, overvoltage and short-circuit protection
CE-conformance	89/336/EEG interference emission and interference resistance to EN 61 326 interference emission limit class A and B 97/23/EG pressure gauge code (Modul H)
Load capacity	
Shock (mechanical)	100g according to IEC 68-2-27
Vibration (under resonance)	10g according to IEC 68-2-6
Temperature ranges	
Compensated range	0...80°C
Ambient & storage	-20...80°C
Media	-30...85°C
Weight (Kg)	0.08

- 1) Including non linearity, hysteresis, non repeatability, variation of zero point and final value (is equal to error according to EC 61298-2).
2) According to IEC 61298-2
3) Option: accuracy 0.5% and signal 0...5V is accuracy 0.6%

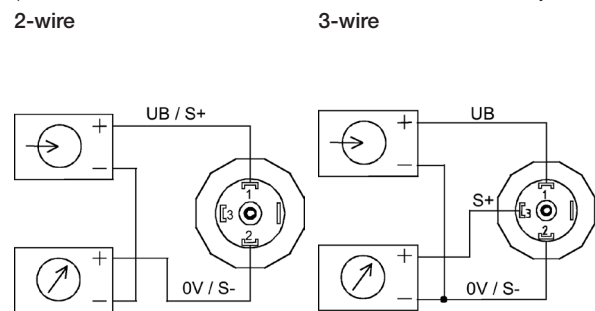
Dimensions

DIN EN 175301-803 M12x1 G 1/4 DIN 3852-E



Wiring connections

(For connector acc. to DIN EN 175301-803 Form A with junction box)



M12x1 wiring connections available

Ordering information

Range (bar)	Part number			
	DIN - Form A		M12x1	
	4-20mA	0-10V	4-20mA	0-10V
0...1	3297069001	3297069101	3297069002	3297069102
0...1.6	3297070001	3297070101	3297070002	3297070102
0...2.5	3297072001	3297072101	3297072002	3297072102
0...4	3297073001	3297073101	3297073002	3297073102
0...6	3297074001	3297074101	3297074002	3297074102
0...10	3297075001	3297075101	3297075002	3297075102
0...16	3297076001	3297076101	3297076002	3297076102
0...25	3297078001	3297078101	3297078002	3297078102

Range (bar)	Part number			
	DIN - Form A		M12x1	
	4-20mA	0-10V	4-20mA	0-10V
0...40	3297079001	3297079101	3297079002	3297079102
0...60	3297080001	3297080101	3297080002	3297080102
0...100	3297081001	3297081101	3297081002	3297081102
0...160	3297082001	3297082101	3297082002	3297082102
0...250	3297084001	3297084101	3297084002	3297084102
0...400	3297086001	3297086101	3297086002	3297086102
0...600	3297087001	3297087101	3297087002	3297087102



OEM sensor, G 1/4" with DIN connector

- 1% accuracy
- All stainless steel
- Pressure ranges from 0...1 bar to 0...1000 bar
- 4-20mA and 0-10V output



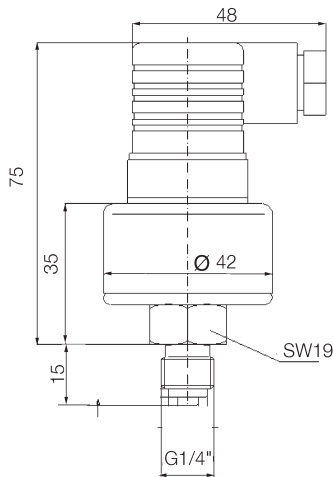
Technical specification

Pressure type	Positive gauge pressure
Output signal	4...20 mA, 2 wire system, 0-10V, 3 wire system
Accuracy class¹⁾	1% of full scale value
Measuring ranges	3296 - 0...1 bar to 0...10 bar 3396 - 0...16 bar to 0...1000 bar
Sensor element	3296 - piezoresistive 3396 - thin film
Repeatability	≤±0.1% of full scale value
Stability (annual)	≤0.3% of F. S. (in rated conditions)
Case	Stainless steel
Wetted parts	Stainless steel
Connection thread	G1/4 B according to EN837
Overload limit:	
≤10 bar	3.5 x full scale value
≤600 bar	2 x full scale value
1000 bar	1.5 x full scale value
	Vacuum resistant
Electrical connection	Connector to DIN EN175301-803 form A
Power supply	
4 - 20mA	10...30 VDC
0 - 10V	14...30 VDC
Power consumption	
4 - 20mA	Signal current
0 - 10V	8 mA

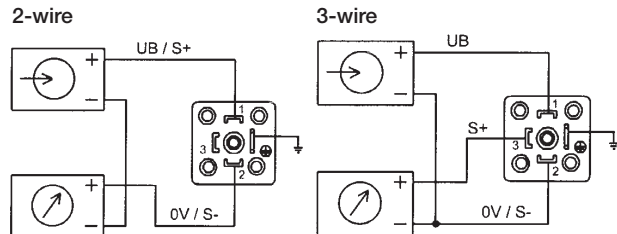
Load (Ω)	
4 - 20mA	≤supply - 10V 0.02 A
0 - 10V	≥ 10kΩ
Temperature	
Compensation range	0... +80°C
Temperature influence	
Zero	±0.4%/10K
Span	±0.3%/10K
Response time	≤5ms (within 10 to 90% of full scale)
Protection	IP65 to EN 60529/IEC 529
Electrical protection	Reverse polarity, overvoltage and short circuit
EMC	EN 61326
Temperature ranges	
Storage	-30... +100°C
Media	-40... +100°C
Ambient	-30... +80°C
Weight approx (Kg)	0.15
Options	Other outputs (Volts) Connection threads (1/4 NPT) M12x1, 4pin, IP67 Cable Outlet IP67 Absolute pressure

1) Terminal point adjustment including linearity, hysteresis and repeatability.

Dimensions



Wiring connections



	2-wire mA	3-wire V DC
Supply UB+	1	1
Supply 0V-	2	2
Signal S+		3
Signal S-		2

Ordering information

Range (bar)	Part number	
	4-20mA	0-10VDC
0...1	3296069001	3296069101
0...1.6	3296070001	3296070101
0...2.5	3296072001	3296072101
0...4	3296073001	3296073101
0...6	3296074001	3296074101
0...10	3296075001	3296075101

Range (bar)	Part number	
	4-20mA	0-10VDC
0...16	3396076001	3396076101
0...25	3396078001	3396078101
0...40	3396079001	3396079101
0...60	3396080001	3396080101
0...100	3396081001	3396081101
0...160	3396082001	3396082101
0...250	3396084001	3396084101
0...400	3396086001	3396086101
0...600	3396087001	3396087101
0...1000	3396088001	3396088101



Magtrans, G 1/4"

- Brass wetted parts
- Pressure ranges from -1...0 bar to 0...25 bar
- 0-10V and 0-5V output
- Low cost suitable for OEM applications



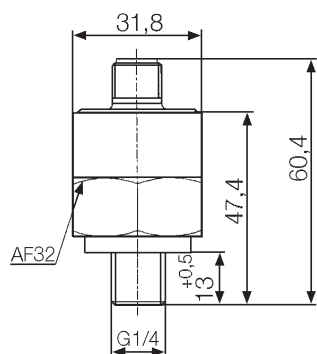
Technical specification

Pressure type	Negative and/or positive gauge pressure
Output signal	0...5 V, 3 wire 0...10 V, 3 wire
Accuracy class¹⁾	1.0% typ. of full scale value
Measuring ranges	-1...0 bar to 0... 25 bar
Sensor element	Hall effect
Repeatability	≤±0.6% of full scale
Hysteresis	<0.4% typ.
Stability (annual)	0.4% in rated conditions
Case	Brass
Upper housing	Plastic
Wetted parts	Ni- and Cu-alloy
Connection thread	G1/4
Overload limit	depending on pressure range
Electrical connection	M12x1 (4-pin)
Power supply	
0...5 V	8...30 VDC
0...10 V	12...30VDC
Power consumption	9 mA
Load	
0...5V	≤5kΩ
0...10V	≤10kΩ

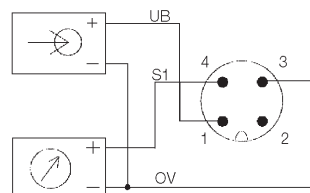
Temperature Compensation range	-20... +80°C
Temperature influence on zero and span	±0.4%/10K
Response time	≤10ms (within 10 to 90% of full scale)
Protection	IP65 to EN 60529
Electrical protection	Reverse polarity and overvoltage
EMC	EN 61 326
Temperature ranges:	
Storage	-40... +100°C
Media	-20... +80°C
Ambient	-20... +80°C
Weight approx (Kg)	0.09
Shock resistance	350g according to IEC 770 (mechanical shock)
Vibration resistance	10g according to IEC 770 (vibration under resonance)
Options	Ratiometric output Connection threads Cable Output IP 67

1) Start point adjustment according to DIN 16 086

Dimensions



Wiring connections



Ordering information

Range (bar)	Part number	
	0...10V	0...5V
-0.1...0	3301011101	3301011201
-0.16...0	3301012101	3301012201
-0.25...0	3301013101	3301013201
-0.4...0	3301014101	3301014201
-0.6...0	3301015101	3301015201
-1...0	3301016101	3301016201
0...0.1	3301063101	3301063201
0...0.16	3301064101	3301064201
0...0.25	3301065101	3301065201
0...0.4	3301066101	3301066201

Range (bar)	Part number	
	0...10V	0...5V
0...0.6	3301067101	3301067201
0...1	3301069101	3301069201
0...1.6	3301070101	3301070201
0...2.5	3301072101	3301072201
0...4	3301073101	3301073201
0...6	3301074101	3301074201
0...10	3301075101	3301075201
0...16	3301076101	3301076201
0...25	3301078101	3301078201



TecTrans/MobilTrans for volume applications, G 1/4"

- 1% accuracy
- All stainless steel
- Pressure ranges from 0...6 bar to 0...600 bar
- 4-20mA and voltage outputs
- High resistance to shock and vibrations
- Protection up to IP69K*



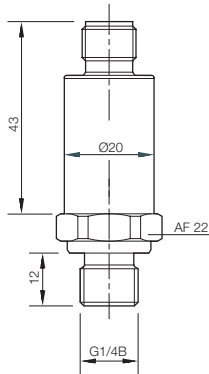
Technical specification

Pressure type	Positive gauge pressure
Output signal	4-20mA, 2 wire system, voltage 3 wire
Accuracy class¹⁾	1% of full scale value (0.5% BFSL) 2% of F.S. for range ≤ 16 bar (1%BFSL)
Measuring ranges	0... 6 bar to 0... 600 bar
Sensor element	Thin film
Non linearity²⁾	≤0.4% of F.S. BFSL)
Repeatability	≤±0.3% of full scale value
Stability (annual)	≤±0.3% of full scale value in rated conditions
Case	Fibre reinforced steel (PBT)
Wetted parts	Stainless steel 1.4435 and 1.4542
Connection thread	G1/4 to DIN 3852-E
Overload limit	depending on pressure range vacuum resistant
Electrical connection	M12x1 (4-pin)
Power supply	
4-20mA	10...36 VDC
1-5V	8...36 VDC
1-10V	14...36 VDC
0.5...4.5V	5 (±0.5) VDC
Power consumption	9 mA
Load (Ω)	
4-20mA	≤supply - 10V 0.02A
1-5V	> 2.5kΩ
1-10V	> 5kΩ
0.5 - 4.5V	> 4.5kΩ

Temperature Compensation range	0... +80°C
Temperature influence on zero and span	≤±0.15% / 10K
Response time	≤2ms (within 10 to 90% of full scale)
Protection	M12x1, Metripack 150, AMP superseal IP67 to EN 60529 *Cable outlet IP69K
Electrical protection	Reverse polarity, overvoltage and short circuit
EMC	EN 61 326
Shock	500g according to IEC 60068-2-27
Vibration	20g according to IEC 60068-2-6
Temperature ranges:	
Storage	-40... +120°C
Media	-40... +125°C
Ambient	-40... +100°C
Weight approx (Kg)	0.07
Options	Connection threads Electrical connections

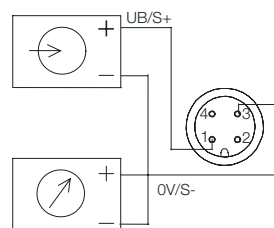
- 1) Including non-linearity, hysteresis, non repeatability, zero point and full scale error.
2) According to IEC 61298-2

Dimensions

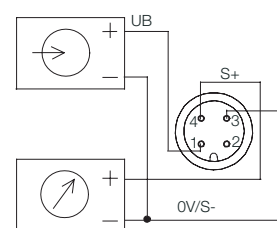


Wiring connections

2-wire



3-wire



Ordering information

Range (bar)	Part number (M12x1 and 4-20 mA)
0...6	3355074002
0...10	3355075002
0...16	3355076002
0...25	3355078002
0...40	3354079002
0...60	3354080002

Range (bar)	Part number (M12x1 and 4-20 mA)
0...100	3354081002
0...160	3354082002
0...250	3354084002
0...400	3354086002
0...600	3354087002



Compact range, G 1/4"

- 1% accuracy
- All stainless steel
- Pressure ranges from 0... 0.25 bar to 0... 1000 bar
- 4-20mA output



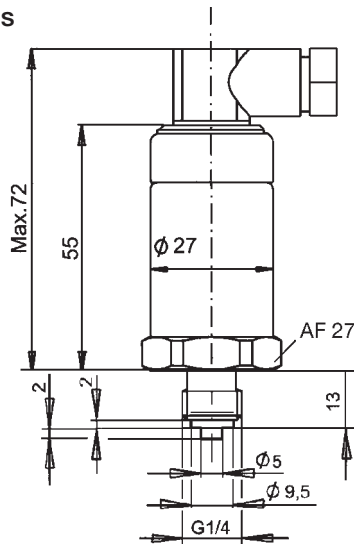
Technical specification

Pressure type	Positive gauge pressure
Output type	4-20 mA, 2 wire system
Accuracy class¹⁾	1% of full scale
Measuring ranges to Din	3272 - 0...0.25 bar to 0...25 bar 3373 - 0...40 bar to 0...1000 bar
Sensor element	3272 - Piezoresistive 3373 - Thin film
Repeatability	≤±0.05% of full scale
Stability (annual)	≤±0.2% of full scale in rated conditions
Case	Stainless steel
Wetted parts	Stainless steel
Connection thread	G1/4 B according to EN837
Overload limit	
≤16 bar	3.5 x full scale value
≤600 bar	2 x full scale value
>600 bar	1.5 x full scale value
	Vacuum resistant
Electrical connection	Mini Hirschmann 94a1MMT
Power supply	10... 30VDC
Power consumption	Signal current
Load (Ω)	≤supply - 10V 0.020A

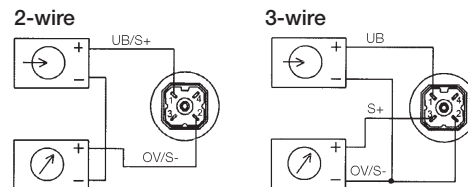
Temperature Compensation range	0... +80°C
Temperature influence on Zero	±0.3% / 10K
Span	±0.2% / 10K
Response time	≤1ms (within 10 to 90% of full scale value)
Protection	IP65 to EN 60529/IEC529
Electrical protection	Reverse polarity, overvoltage and short circuit protection
EMC	EN 61326
Temperature ranges	
Storage	-40... +100°C
Media	-30... +100°C
Ambient	-30... +85°C
Weight approx (Kg)	0.10
Options	Other outputs Connection thread (1/4 NPT) M12 x 1 electrical connection IP67 Cable outlet IP67 Media temp -40 to +125°C

1) Terminal point adjustment including linearity, hysteresis and repeatability.

Dimensions



Wiring connections



	2-wire mA	3-wire V DC
Supply UB+	1	1
Supply OV-	2	2
Signal S+		3
Signal S-		2

Ordering information

Range (bar)	Part number
0...0.25	3272065001
0...0.4	3272066001
0...0.6	3272067001
0...1	3272069001
0...1.6	3272070001
0...2.5	3272072001
0...4	3272073001
0...6	3272074001
0...10	3272075001
0...16	3272076001
0...25	3272078001

Range (bar)	Part number
0...40	3373079001
0...60	3373080001
0...100	3373081001
0...160	3373082001
0...250	3373084001
0...400	3373086001
0...600	3373087001
0...1000	3373088001



Compact range, G 1/4"

- 0.5% accuracy
- All stainless steel
- Pressure ranges from -1...0 bar to 0...1000 bar
- 4-20mA and 0-10V output



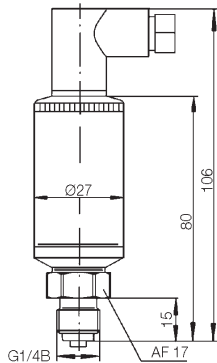
Technical specification

Pressure type	Negative or positive gauge pressure
Output type	4-20 mA, 2 wire/0-10VDC, 3 wire
Accuracy class¹⁾	0.5% of full scale
Measuring ranges	3249 -1...0 bar to 0...25 bar 3349 0...40 bar to 0...1000 bar
Sensor element	3249 - Piezoresistive 3349 - Thin film
Repeatability	≤±0.05% of full scale
Stability (annual)	≤±0.2% of full scale in rated conditions
Case	Stainless steel
Wetted parts	Stainless steel
Connection thread	G1/4 B (1/4" BSP) to Din 16288
Overload limit	≤16 bar 3.5 x full scale value ≤600 bar 2 x full scale value >600 bar 1.5 x full scale value Vacuum resistant
Electrical connection	Connector to DIN EN175301-803 form C
Power supply	4-20 mA 10... 30VDC 0-10V 14... 30VDC
Power consumption	4-20 mA Signal current 0-10V 8 mA

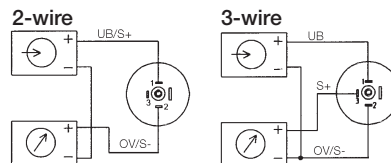
Load (Ω)	4-20 mA ≤supply - 10V 0.020A 0-10V ≥10kΩ
Temperature Compensation range	0... +80°C
Temperature influence on zero and span	±0.3%/10K
Adjustability	Zero point and full scale up to ±10%
Response time	≤1ms (within 10 to 90% of full scale value)
Protection	IP65 to EN 60 529/IEC529
Electrical protection	Reverse polarity, overvoltage and short circuit protection EN 61 326
EMC	
Temperature ranges	
Storage	-40... +100°C
Media	-30... +100°C
Ambient	-30... +80°C
Weight approx (Kg)	0.10
Options	Other outputs Connection thread (1/4 NPT) M12x1 4 pin IP67 Cable outlet IP67 Absolute pressure

1) Terminal point adjustment according to DIN 16 086 including linearity and hysteresis.

Dimensions



Wiring connections



	2-wire mA	3-wire V DC
Supply UB+	1	1
Supply OV-	2	2
Signal S+		3
Signal S-		2

Ordering information

Range (bar)	Part number	
	4...20mA	0...10V
-0.25...0	3249013001	3249013101
-0.4...0	3249014001	3249014101
-0.6...0	3249015001	3249015101
-1...0	3249016001	3249016101
0...0.25	3249065001	3249065101
0...0.4	3249066001	3249066101
0...0.6	3249067001	3249067101
0...1	3249069001	3249069101
0...1.6	3249070001	3249070101
0...2.5	3249072001	3249072101
0...4	3249073001	3249073101
0...6	3249074001	3249074101
0...10	3249075001	3249075101
0...16	3249076001	3249076101
0...25	3249078001	3249078101

Range (bar)	Part number	
	4...20mA	0...10V
0...40	3349079001	3349079101
0...60	3349080001	3349080101
0...100	3349081001	3349081101
0...160	3349082001	3349082101
0...250	3349084001	3349084101
0...400	3349086001	3349086101
0...600	3349087001	3349087101
0...1000	3349088001	3349088101



Heavy duty range

- 0.5% accuracy
- All stainless steel
- Pressure ranges from -1...5 bar to 0...1000 bar
- 4-20mA and 0-10V output



Technical specification

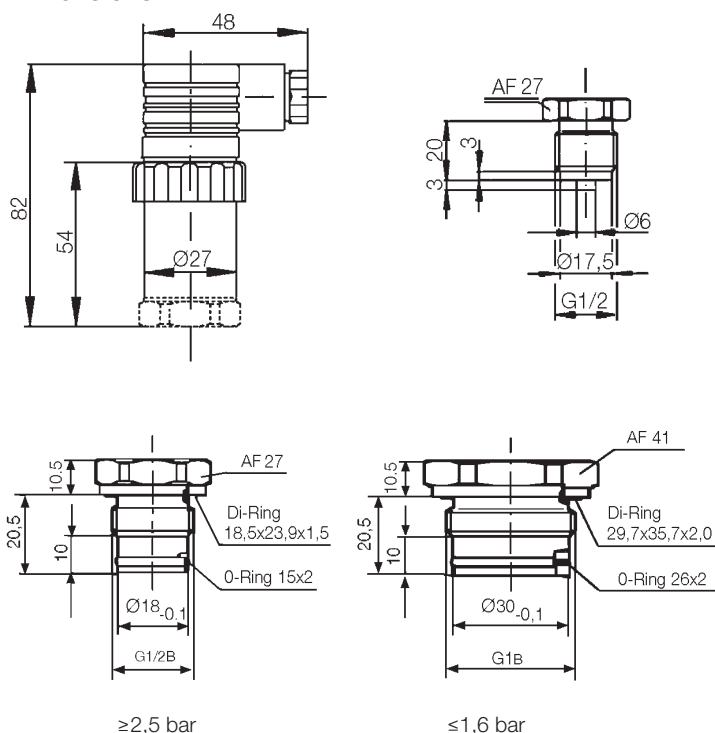
Pressure type	Negative or positive gauge pressure
Output signal	4...20mA, 2 wire / 0-10VDC, 3 wire
Accuracy class¹⁾	0.5% of full scale value
Measuring ranges	3276 & 3251 -1...0 bar to 0...25 bar 3376 & 3386 0...40 bar to 0...1000 bar
Sensor element	3276 & 3251 - Piezoresistive 3376 & 3386 - Thin film
Repeatability	≤±0.05% of full scale value
Stability (annual)	≤±0.2% of full scale value in rated conditions
Case	Stainless steel
Wetted parts	Stainless steel
Connection thread	-(flush) ≤1.6 bar G1B (1" BSP) -(flush) ≥2.5bar G1/2B (1/2" BSP) -(internal) -1000 bar G1/2B (1/2" BSP)
Overload limit	
≤16 bar	3.5 x full scale value
≤600 bar	2 x full scale value
>600 bar	1.5 x full scale value
≥1000 bar	1.2 x full scale value
	Vacuum resistant
Electrical connection	Connector to DIN EN 175301-803 Form A
Power supply	
4-20mA	10...30 VDC
0-10V	14...30VDC
Power consumption	
4-20mA	Signal
0-10V	8mA
Load (Ω)	
4-20mA	≤supply - 10V (12V flush diaphragm) 0.02A
0-10V	≥10kΩ

Temperature Compensation range	0...+80°C
Temperature influence	
Zero	±0.2% /10K ²⁾
Span	±0.2%/10K
Adjustability	Zero point and full scale up to ±10%
Response time	≤1ms (within 10 to 90% of full scale)
Protection	IP65 to EN 60529/IEC 529
Electrical protection	Reverse polarity, overvoltage and short circuit
EMC	EN61326
Temperature ranges	
Storage	-40...+100°C
Media	-30...+100°C
Ambient	-20...+80°C
Weight approx (Kg)	0.20
Options	Other outputs Connection threads Cable outlet IP67 M12x1, 4 pin, IP67 Wetted parts Absolute pressures low pressure 0...25mbar for dry inert gases (3275) 0.25% accuracy (3277/3377) Media temp -40°C... +125°C

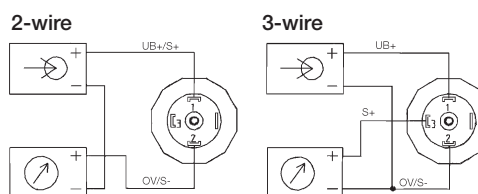
1) Terminal point adjustment according to DIN 16 086 including linearity and hysteresis

2) ≤+0.4% / 10K for ranges < 0.25 bar

Dimensions



Wiring connections



	2-wire mA	3-wire V DC
Supply UB+	1	1
Supply OV-	2	2
Signal S+		3
Signal S-		2

Ordering information

Range (bar)	Part number							
	Internal diaphragm				Flush diaphragm			
	4...20mA	0...10VDC	4...20mA	0...10VDC	4...20mA	0...10VDC	4...20mA	0...10VDC
-0.1...1	3276011001	3276011101						
-0.16...0	3276012001	3276012101						
-0.25...0	3276013001	3276013101			3251013001	3251013101		
-0.4...0	3276014001	3276014101			3251014001	3251014101		
-0.6...0	3276015001	3276015101			3251015001	3251015101		
-1...0	3276016001	3276016101			3251016001	3251016101		
-1...+1.5	3276043001	3276043101			3251043001	3251043101		
-1...+5	3276045001	3276045101			3251045001	3251045101		
0...0.1	3276063001	3276063101			3251063001	3251063101		
0...0.16	3276064001	3276064101			3251064001	3251064101		
0...0.25	3276065001	3276065101			3251065001	3251065101		
0...0.4	3276066001	3276066101			3251066001	3251066101		
0...0.6	3276067001	3276067101			3251067001	3251067101		
0...1	3276069001	3276069101			3251069001	3251069101		
0...1.6	3276070001	3276070101			3251070001	3251070101		
0...2.5	3276072001	3276072101			3251072001	3251072101		
0...4	3276073001	3276073101			3251073001	3251073101		
0...6	3276074001	3276074101			3251074001	3251074101		
0...10	3276075001	3276075101			3251075001	3251075101		
0...16	3276076001	3276076101			3251076001	3251076101		
0...25	3276078001	3276078101			3251078001	3251078101		
0...40			3376079001	3376079101			3386079001	3386079101
0...60			3376080001	3376080101			3386080001	3386080101
0...100			3376081001	3376081101			3386081001	3386081101
0...160			3376082001	3376082101			3386082001	3386082101
0...250			3376084001	3376084101			3386084001	3386084101
0...315			3376085001	3376085101				
0...400			3376086001	3376086101			3386086001	3386086101
0...600			3376087001	3376087101			3386087001	3386087101
0...1000			3376088001	3376088101				



Heavy duty range for applications

- 0.5% accuracy
- All stainless steel
- Pressure ranges from -1...0 bar to 0...4000 bar
- 4-20mA output
- EEx ia IIC T4-T6 to ATEX 100a



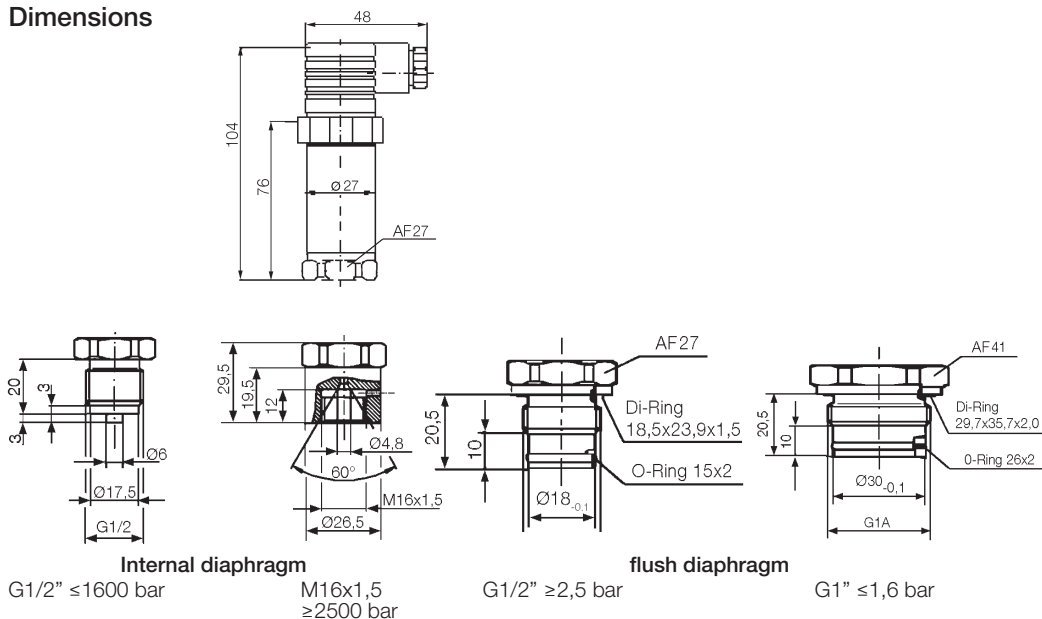
Technical specification

Explosion proof protection type	EEx ia 11C T4 - T6
Pressure type	Negative or positive gauge pressure
Output signal	4...20 mA, 2 wire system
Accuracy class¹⁾	0.5% of full scale
Measuring ranges	-1... 0 bar, to 0... 4000 bar
Sensor element	≤16 bar - Piezoresistive, ≥25 bar - thin film
Repeatability	≤±0.05% of full scale
Case	Stainless steel
Stability (annual)	≤±0.2% of full scale in rated conditions
Wetted parts	Stainless steel
Connection thread	-(flush) ≤1.6 bar G1B (1" BSP) -(flush) ≥2.5bar G1/2B (1/2" BSP) -(internal) -1000 bar G1/2B (1/2" BSP)
Overload limit	
≤16 bar	3.5 x full scale value
≤600 bar	2 x full scale value
1000 bar	1.5 x full scale value
>1000 bar	1.2 x full scale value
	Vacuum resistant
Electrical connection	Connector to DIN EN 175301-803 Form A
Power supply	10... 30VDC
Power consumption	Signal current
Load	≤supply - 10V 0.020A
Temperature	
Compensation range	0... +60°C/T6

Temperature influence	
Zero and span	≤0.2%/10K (≤0.4%/10K, for ranges <0.25 bar)
Adjustability	Zero and span up to ±10%
Response time	≤1ms (within 10% to 90% of full scale)
Protection	IP65 to EN 60529/IEC 529
Electrical protection	Reverse polarity
EMC	EN 61326
HF immunity	10V/m (option: 30V/m)
Burst	4kv
Temperature ranges	
Storage	-30...+105°C
Media and Ambient	Class T4 -20...+105°C Class T5 -20...+80°C Class T6 -20...+60°C
Weight approx (Kg)	0.2
Options	Other outputs Connection threads Absolute pressures Wetted parts 0.25% accuracy Cable Output IP 67 MIL-plug, 6 pin, IP67 Submersible version

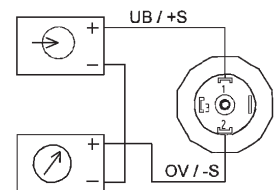
1) Terminal point adjustment according to DIN 16 086

Dimensions



Wiring connections

2-wire



	2-wire mA
Supply UB+	1
Supply OV-	2

Ordering information

Range (bar)	Part number	
	Internal diaphragm	Flush diaphragm
-0.1...0	E110011001	E120011001
-0.16...0	E110012001	E120012001
-0.25...0	E110013001	E120013001
-0.4...0	E110014001	E120014001
-0.6...0	E110015001	E120015001
-1...0	E110016001	E120016001
0...0.1	E110063001	E120063001
0...0.16	E110064001	E120064001
0...0.25	E110065001	E120065001
0...0.4	E110066001	E120066001
0...0.6	E110067001	E120067001
0...1	E110069001	E120069001
0...1.6	E110070001	E120070001
0...2.5	E110072001	E120072001
0...4	E110073001	E120073001
0...6	E110074001	E120074001
0...10	E110075001	E120075001
0...16	E110076001	E120076001
0...25	E110078001	E120078001
0...40	E110079001	E120079001
0...60	E110080001	E120080001
0...100	E110081001	E120081001
0...160	E110082001	E120082001
0...250	E110084001	E120084001
0...400	E110086001	E120086001
0...600	E110087001	E120087001
0...1000	E110088001	E120088001
0...1600	E110089001	E120089001
0...2500	E110090001	E120090001
0...4000		E120091001



For food industry

- 0.5% accuracy
- All stainless steel
- Ranges from -1...+3 bar to 0...25 bar
- Media temperature up to 150°C
- 4-20mA and 0-10V output

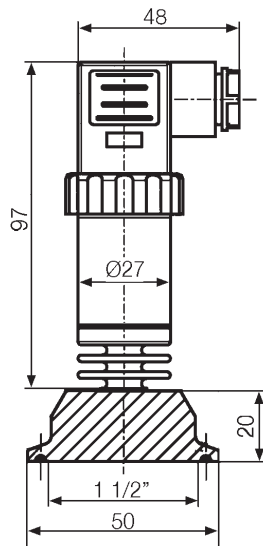
Technical specification

Pressure type	Positive gauge pressure absolute pressure
Output signal	4...20 mA - 2-wire system 0...20 mA - 3-wire system (option) 0...10 VDC - 3-wire system
Accuracy¹⁾	0.5% of F.S.
Pressure ranges²⁾	0.25, 0.4, 0.6, 1.0, 2.5, 4, 6, 10, 16, 25
Overload limit	2, 2, 4, 5, 10, 17, 35, 35, 80, 80
Sensor element	Piezoresistive
Repeatability	≤±0.05 % of F.S.
Stability (annual)	≤± 0.2 % of F.S. in rated conditions
Case	Stainless steel 1.4571
Wetted parts	Stainless steel 1.4435
Pressure connection	Tri-Clamp 1 1/2"
(Installation position vertical)	Option: Tri-Clamp 2" Others on request
Electrical connection	Connector to DIN EN 175301-803 A Form A with junction box. M12x1, 4-pin and cable outlet with 10 m cable on request
Power supply/Load	
4...20 mA	10...30 VDC / $\frac{\leq \text{supply} - 10V}{0.02A}$
0...10V	14...30 VDC / > 10kΩ
Power consumption	
4...20 mA	Signal current
0...10V	8 mA

Temp. comp. Range	0...80°C
Temperature influence	
Zero³⁾	≤±0.2 % /10 K
Span	≤±0.2 % /10 K
Adjustability⁴⁾	Zero point and full scale up to ± 10 %
Response time	<10 ms (from 10 % to 90 % of F.S.)
Protection	IP 65 to EN 60529/IEC 529 IP 67 for M12x1 connector IP 68 for cable outlet 4)
Electrical protection	Polarity, overvoltage and short-circuit protection Acc. to EN 61326
Emission Interference	Acc. to EN 61326
Temperature ranges	
Storage	-40 100 °C
Medium	-20 150 °C
Ambient	-20 80 °C
Weight (Kg)	Approx 0.2 kg

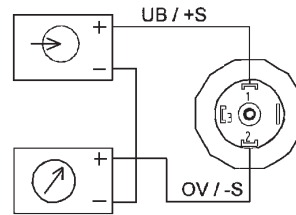
- 1) Terminal point adjustment according to DIN 16086 incl. linearity and hysteresis.
- 2) Absolute pressure 0...2.5 bar to 0...16 bar
- 3) < 0.4 % /10K for pressure range 0...0.25 bar
< 0.25 % /10K for pressure ranges 0...0.4 bar
- 4) no adjustability possible for cable outlet

Dimensions

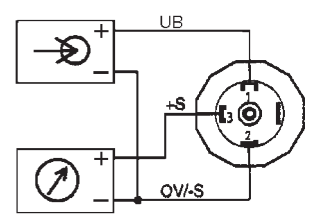


Wiring connections

4-20 mA 2-wire



0-10 V 3-wire



	2-wire 4-20 mA	3-wire 0-10 V DC
Supply +UB	1	1
Supply 0V	2	2
Signal +S		3
Signal -S		2

Ordering information

Range (bar)	Part number	
	4-20 mA	0-10 V
-1...0	3269016001	3269016101
-1...+3	3269044001	3269044101
0...0.25	3269065001	3269065101
0...0.4	3269066001	3269066101
0...0.6	3269067001	3269067101
0...1	3269069001	3269069101
0...1.6	3269070001	3269070101

Range (bar)	Part number	
	4-20 mA	0-10 V
0...2.5	3269072001	3269072101
0...4	3269073001	3269073101
0...6	3269074001	3269074101
0...10	3269075001	3269075101
0...16	3269076001	3269076101
0...25	3269078001	3269078101



For high pressure

- 0.5% accuracy
- All stainless steel
- Pressure ranges 0...1600 bar to 0...8000 bar
- 4-20mA and 0-10V output

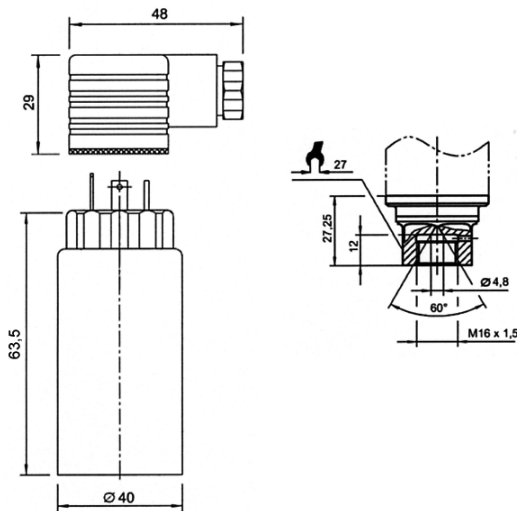
Technical specification

Pressure type	positive gauge pressure
Output signal	4...20 mA - 2-wire 0...10 VDC - 3-wire Other outputs on request
Accuracy¹⁾	0.5 % of F.S.
Measuring ranges	0 ... 1600 bar to 0 ... 8000 bar >8000 bar on request
Sensor element	thin film
Repeatability	≤±0.05 % of F.S.
Stability (annual)	≤±0.2 % of F.S. in rated conditions
Case	stainless steel
Wetted parts	stainless steel
Pressure connection	M16x1.5 internal thread, others on request
Overload limit	≤5000 bar 1.2-fold; > 5000 bar 1.1-fold
Pressure load	≤5000 bar - static 200.000 load changes Dynamic 100.000 load changes >5000 bar on request
Electrical connection	Connection acc. to DIN EN 175301-803 Form A with junction box. (Option) M12x1 (4-pin) and cable outlet with 1.5m
Power supply	
4...20 mA	10...30 VDC
0...10 V	14...30 VDC

Power consumption	
4...20 mA	Signal current
0...10 V	25 mA
Load	
4...20 mA	$\leq \frac{\text{supply} - 10V}{0.02A}$
0...10 V	>10 kΩ
Temperature comp. Range	0... 80°C
Temperature influence on zero and span	±0.2 %/10 K
Response time	≤1 ms (within 10 % to 90 % of F.S.)
Protection type	IP 65 for DIN EN 175301-803-A IP 67 for M 12 x 1 and cable outlet
Electrical protection	Polarity, overvoltage and short circuit
Emission	acc. EN 61326
Interference	acc. EN 61326
Temperature ranges	
Storage	-40... 85°C
Media	-20... 80°C
Ambient	-20... 80°C
Weight (Kg)	0.3

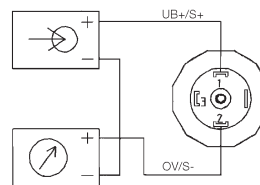
1) Terminal point adjustment, including linearity, hysteresis and repeatability

Dimensions

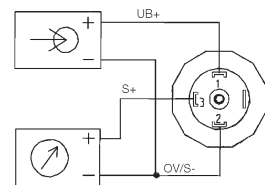


Wiring connections

2-wire



3-wire



	2-wire 4-20 mA	3-wire 0-10 V
Supply +UB	1	1
Supply 0V-	2	2
Signal +S		3
Signal -S		2

Ordering information

Range (bar)	Part number	
	4-20 mA	0-10 V
0...1600	3399089001	3399089101
0...2500	3399090001	3399090101
0...4000	3399091001	3399091101
0...5000	3399056001	3399056101
0...6000	3399092001	3399092101
0...7000	3399093001	3399093101
0...8000	3399510001	3399510101

Attachable or panel mount

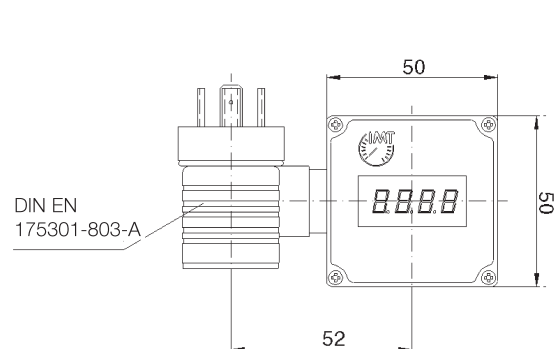


- 4 or 5 digits
- Range set on site
- Transistor switched outputs
- Relay output option, analogue output

Technical specification

	1999100001/1999200001	1999500001	192930001
Attachment type	Attachable	Panel mount	Panel mount
Display	7 segment LED	7 segment LED	7 segment LED
Height	10mm / 7mm	10mm	18.5mm
Range	-1999...9999 (4 digits)	-1999...9999 (4 digits)	-19999...99999 (5 digits)
Accuracy	0.2% F.S./-1 digit	0.2% F.S./-1 digit	0.1% F.S./-1 dig
Conversion rate	5/sec / 50/sec	100/sec	10/sec
Measuring range Input	Program controlled (adjustable) 4-20mA, 2 wire (1999200001 - 0-10VDC on request)	Program controlled (adjustable) Selectable 4-20mA, 0-20mA, 0-10VDC, 0-5 VDC	Free scaling Selectable 4-20mA, 0-20mA, 0-10VDC, 0-5 VDC
Channels	-	-	1
Input resistance	-	Current input = 50Ω Voltage input 0-10v = 300kΩ	Current input = 10Ω Voltage input 0-10v = 950kΩ
Temperature influence	≤0.1% F.S./10K	≤0.25% F.S./10K	≤0.25% F.S./10K
Limit contacts	None / 1 transistorised outputs - n switching	2 transistorised outputs - n switching	2 transistorised outputs, plus 1 relay output
Function	None / limit switch, high or low programmable by selecting hysteresis	limit switch, high or low programmable by selecting hysteresis	limit switch, high or low programmable by selecting hysteresis
Switching point	None / program controlled within adjusted display	Program controlled within adjusted display	Programmable over whole range
Hysteresis	None / program controlled within whole display range	Program controlled within whole display range	- 1 display digit
Response time	-	Adjustable 0-99 sec	Relay = approx 8ms trans. = <75μs
Load	-	Low 28VDC/1A High supply/200mA Max 30mA	Relay 240VAC = 3A or 110VAC = 5A Trans = 30VDC/100mA 90-264VAC < 4 watt
Power supply	Supplied by 4-20mA loop	9-28VDC	90-264VAC
Power consumption	Max 40mA	Max 30mA	< 4 watt
Voltage drop	3V/<5.5V	-	-
Electrical connection	Connector to DIN EN 175301-803 Form A	Screw terminals max 1.5mm ²	Screw terminals max 1.5mm ²
Temperature ranges			
Operation	0...50°C / -20...50°C	-20...50°C	0...55°C
Storage	-	-	-20...60°C
Relative humidity	-	-	0-90% non condensing
Protection Type	IP65	Front panel IP54 (clamp IP20)	Front panel IP66
Case			
Material	ABS	Glass fibre reinforced noryl	GE Lexan 940
Window	Polycarbonate	Polycarbonate	
Mounting	-	Spring clamp	Frame clamp
Weight (Kg)	0.08	0.05	0.25
Options	None	Front panel IP65	Mains supply 20-50Vac 2nd relay output Analogue output RS 485 interface Red or green display

Dimensions



Wiring connections

