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Pressure Transmitter JUMO dTRANS p30

Type 404366



Type 404366 with terminal box

General application

Pressure transmitters are used to measure the relative (gauge) and absolute pressures in liquids or gases. The measuring device for the transmitter is a piezo-resistive element or a thin-film strain gauge. The pressure is converted into an electrical signal.

Technical data

Reference conditions
as per DIN 16 086 and IEC 770/5.3

Ranges
see order details

Overload limit

ranges	
0 — 25 bar	3 x full scale
0 — 40 to 0 — 250 bar	2 x full scale
0 — 400 to 0 — 600 bar	1.5 full scale

Bursting pressure

ranges	
0 — 40 bar	≤ 4 x full scale
0 — 60 to 0 — 100 bar	8 x full scale
0 — 160 to 0 — 400 bar	5 x full scale
0 — 600 bar	3 x full scale

Parts in contact with medium
normally:
st. steel, Mat. Ref. 1.4571 / 1.4435
for range ≥ 60 bar:
Mat. Ref. 1.4571 / 1.4542

Output

0 — 20 mA	
3-wire	burden ≤ (U_B-12 V) / 0.02A
4 — 20 mA	
2-wire	burden ≤ (U_B-10 V) / 0.02A
4 — 20 mA	
3-wire	burden ≤ (U_B-12 V) / 0.02A
0.5 — 4.5 V	burden ≥ 50 kΩ
1 — 6 V	burden ≥ 10 kΩ
0 — 10 V	burden ≥ 10 kΩ

Burden error
0.5% max.

Zero offset
≤ 0.3% of full scale

Thermal hysteresis
± 0.5% max. of full scale
(within compensated temperature range)

± 1% max. for ranges	0 — 250 mbar
	0 — 400 mbar
	0 — 600 mbar

Ambient temperature error
within range 0 to +100°C
(compensated temperature range)
for ranges 250 and 400 mbar

zero:	≤ 0.03%/°C typical, ≤ 0.05%/°C max.
span:	≤ 0.02%/°C typical, ≤ 0.04%/°C max.

for ranges above 600 mbar

zero:	≤ 0.02%/°C typical, ≤ 0.04%/°C max.
span:	≤ 0.02%/°C typical, ≤ 0.04%/°C max.

with basic type extension 024:
zero: ≤ 0.01%/°C

Deviation from characteristic
≤ 0.5% of full scale
(limit point adjustment)
with basic type extension 023:
≤ 0.2% of full scale
(limit point setting)

Hysteresis
≤ 0.1% of full scale

Repeatability
≤ 0.05% of full scale

Response time
with current output (output 402, 405 or 406):
≤ 3 msec max.
with voltage output (output 412, 415, 418 or 420):
≤ 10 msec max.

Stability per year
≤ 0.5% of full scale

Supply

10 — 30 V DC	(output 4 — 20 mA and 1 — 6 V)
5 V DC	(output 0.5 — 4.5 V)
11.5 — 30 V DC	(output 0 — 10 V)
11.5 — 30 V DC	(output 0(4) — 20 mA)

Ripple: the voltage spikes must not go above or below the values specified for the supply
max. current drawn: approx. 25 mA

Supply voltage error
≤ 0.02% per V
(nominal supply voltage 24 V DC)
in proportion for supply 5 V DC (±0.5 V)

Permissible ambient temperature
-20 to +100°C

Storage temperature
-40 to +125°C

Permissible temperature of medium
-30 to +120°C

Electromagnetic compatibility
EN 61 326
interference emission: Class B
noise immunity: industrial requirements

Mechanical shock
(to IEC 68-2-27)
100 g/1 msec

Mechanical vibration
(to IEC 68-2-6)
20 g max. at 15 — 2000 Hz

Protection
with terminal box
IP65 to EN 60 529
(connecting cable diameter
5 mm min., 7 mm max.)

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with connecting cable
IP67 to EN 60 529
with circular connector M12 x 1
P67 to EN 60 529

Housing
stainless steel, Mat. Ref. 1.4301
polycarbonate GF

Pressure connection
see order details;
other connections on request

Electrical connection
see order details
terminal box to DIN 43 650,
Form A,
conductor cross-section up to 1.5 mm^2;
or
attached 4-core PVC cable, length 2 m
other lengths on request

Nominal position
unrestricted

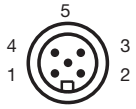
Weight
200 g

Electrical connection

Connection		Terminals		
		Plug	Cable	M12 x 1
Supply 10 — 30 V DC 11.5 — 30 V DC 5 V DC		1 L+ 2 L-	white grey	1+ 3-
Output 1 — 6 V 0 — 10 V 0.5 — 4.5 V		2 - 3 +	grey yellow	3- 4+
Output 4 — 20 mA, 2-wire		1 + 2 -	white grey proportional current 4 to 20 mA in supply	1+ 3-
Output 0(4) — 20 mA, 3-wire		2 - 3 +	grey yellow	3- 4+
Protective earth				
Screen			black	2

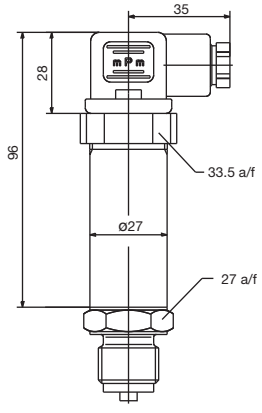
Caution
Earth instrument!
(pressure connection and / or ⏚ or screen

Pin assignment M12 x 1

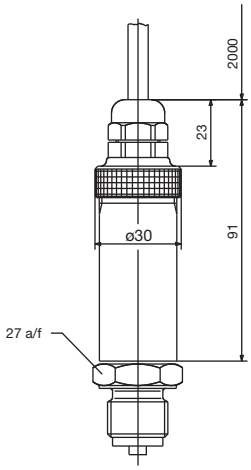


Dimensions

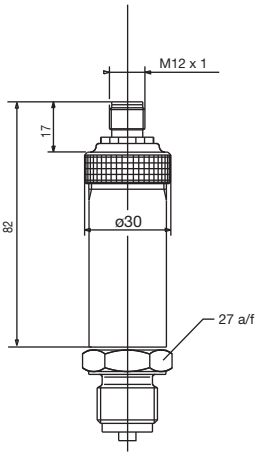
Electrical connection
with terminal box
(61)



Electrical connection
with attached cable
(12)



Electrical connection
with circular connector M12 x 1
(36)



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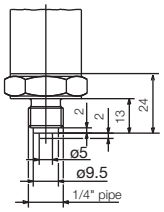
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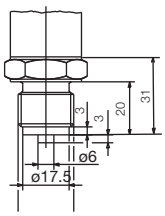
Connections (not front-flush)

Standard connection

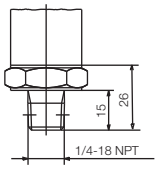
502



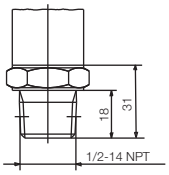
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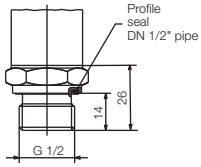
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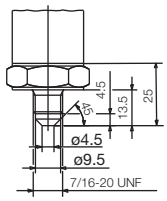
512



523

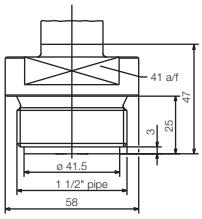


562

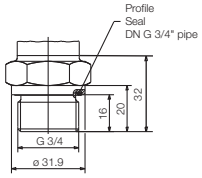


Front-flush connections

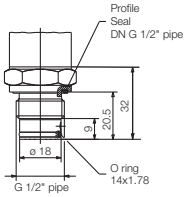
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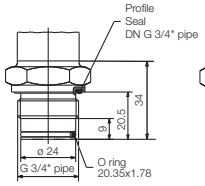
571



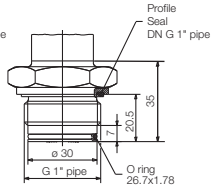
574



575

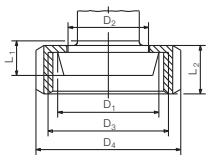


576



603-607

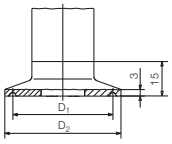
Cone nipple with slotted union nut to DIN 11 851



	DN	øD1	øD2	øD3	øD4	L1	L2
603	20	36.5	30	RD 44x1/6	54	13	21
604	25	44	35	RD 52x1/6	63	15	
605	32	50	41	RD 58x1/6	70		
606	40	56	48	RD 65x1/6	78		
607	50	68.5	61	RD 78x1/6	92	16	22

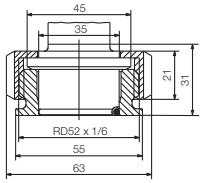
612-616

Clamp connection to DIN 32676



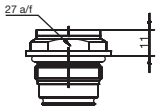
	DN DIN 32676	DN (Zoll)	Nominal Size ISO 2852	øD1	øD2
612	20 15		12 12.7 17.2 21.3	27.5	34
613	25 32 40	1" 1,5"	25 33.7 38	43.5	50.5
616	50	2"	40 51	56.5	64

652



997

Suitable for the JUMO PEKA adapter system, see data sheet 40.9711



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Order details

	(1) Basic type
404366	Pressure transmitter JUMO dTRANS p30
	(2) Basic type extension
/000	none
/023	reduced deviation from characteristic[1]
/024	reduced ambient temperature error[2]
/999	special version
	(3) Input gauge pressure
451	0 to 0.25 bar
452	0 to 0.4 bar
453	0 to 0.6 bar
454	0 to 1.0 bar
455	0 to 1.6 bar
456	0 to 2.5 bar
457	0 to 4 bar
458	0 to 6 bar
459	0 to 10 bar
460	0 to 16 bar
461	0 to 25 bar
462	0 to 40 bar
463	0 to 60 bar
464	0 to 100 bar
465	0 to 160 bar
466	0 to 250 bar
467	0 to 400 bar
468	0 to 600 bar
478	-1 to 0 bar
479	-1 to 0.6 bar
480	-1 to 1.5 bar
481	-1 to 3 bar
482	-1 to 5 bar
483	-1 to 9 bar
484	-1 to 15 bar
485	-1 to 24 bar
999	special range gauge pressure
	(3) Input absolute pressure
487	0 to 0.6 bar
488	0 to 1.0 bar
489	0 to 1.6 bar
490	0 to 2.5 bar
491	0 to 4 bar
492	0 to 6 bar
493	0 to 10 bar
494	0 to 16 bar
495	0 to 25 bar
998	special range
999	special range absolute pressure
	(4) Output
402	0 to 20 mA 3-wire
405	4 to 20 mA 2-wire
406	4 to 20 mA 3-wire
412	0.5 to 4.5 V 3-wire
415	0 to 10 V 3-wire
418	1 to 5 V 3-wire
420	1 to 6 V 3-wire

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	(5) Process connection (not front-flush)
502	1/4" pipe to EN 837
504	1/2" pipe to EN 837 (standard connection)
511	1/4"-18 NPT to DIN 837
512	1/2"-14 NPT to DIN 837
523	1/2" pipe to DIN 3852 T11
562	7/16"-20 UNF
998	suitable for connecting to pressure separator
	(5) Process connection (front-flush)
570	1 1/2" pipe[4]
571	3/4" pipe[4]
574	1/2" pipe with front seal[3]
575	3/4" pipe with front seal[4]
576	1" pipe with front seal[4]
603	taper pressure connection with slotted nut to DIN11 851, DN20[4]
604	taper pressure connection with slotted nut to DIN 11 851, DN25[4]
605	taper pressure connection with slotted nut to DIN 11 851, DN32[4]
606	taper pressure connection with slotted nut to DIN 11 851, DN40[4]
607	taper pressure connection with slotted nut to DIN 11 851, DN50[4]
612	clamp pressure connection to DIN 32 676, DN20[4]
613	clamp pressure connection to DIN 32 676, DN25[4], DN32[4] and DN40[4]
616	clamp pressure connection to DIN 32 676, DN50[4]
652	tank connection with slotted union nut[4]
997	JUMO PEKA[6]
	(6) Material of process connection
20	stainless steel
	(7) Electrical connection
12	with attached cable (cable length in plain text)
36	with circular connector M12 x 1
61	with terminal box
	(8) Extra code
000	none
591	throttle in pressure duct[5]
630	enlarged pressure duct[5]

404366 / [ ] - [ ] - [ ] - [ ] - [ ] - [ ] / [ ] **Order code**

1 only for 4 to 20 mA 2-wire output
only for ranges between 0.6 and 40 bar
not with process connection 574.

2 only for spans between 4 and 25 bar
only for output 0 to10 V or 4 to 20 mA 2-wire or 0(4) to 20 mA 3-wire
not with process connection 574

3 only for ranges from 1 to 400 bar

4 only for ranges up to 25 bar

5 only with process connections that are not front-flush

6 suitable process connection adapter, see data sheet 40.9711