

JUMO GmbH & Co. KG
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JUMO Instrument Co. Ltd.
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JUMO Process Control, Inc.
6733 Myers Road
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Melt Pressure Transducer

General application

Type 4 ADM-35 pressure transducers are used in plastics processing, process engineering and chemical plant.

The pressure transmitter operates on the strain gauge measurement principle.

Technical data

Reference conditions

as per DIN 16 086 and IEC 770/5.3

Measuring ranges

see order details

Overload limit

up to 1000 bar: 1.5 x full scale
above 1000 bar: 1.2 x full scale

Parts in contact with medium

standard:
stainless steel, mat. ref. 1.4545/1.4541
optionally:
Inconel® 2.4668 or Hastelloy® 2.4610

Measuring head

aluminium, anodized blue

Output

see order details

Ambient temperature effect

(on diaphragm, deviation from +200 °C
calibration temperature)
zero point: $\pm 0.02 \text{ }^{\circ}\text{C}$
span: $\pm 0.02 \text{ }^{\circ}\text{C}$

Ambient temperature effect

(on measuring head, deviation from +20 °C)
zero point: $\pm 0.04 \text{ }^{\circ}\text{C}$

Zero point deviation

$\pm 3 \text{ }^{\circ}\text{C}$ of measuring range

Deviation from characteristic

(with tolerance band setting)
1 % from 10 % of measuring range

Repeatability

< 0.15 % of full scale

Supply

for output 432 or 433: 5 — 10 V DC
for output 405 or 450: 11.5 — 30 V DC

Calibration resistance

built-in for 80 % of full-scale value

Permissible temperature of medium

on diaphragm: +20 to +400 °C
with filling medium 18: +20 to +480 °C
on measuring head: $\leq 100 \text{ }^{\circ}\text{C}$

Permissible ambient temperature

100 °C max.

Housing

aluminium

Process connection

see order details

Tightening torque

30 Nm max.

Electrical connection

for output 405, 432 or 433:
Bendix round plug connector
for output 450:
M12 x 1/5-pole

Insulation resistance

10 000 M Ω with 100 V test voltage

Enclosure protection

IP64 to EN 60529

Nominal position

unrestricted

Weight

approx. 0.5 kg



Type 404450 - 4 ADM-35

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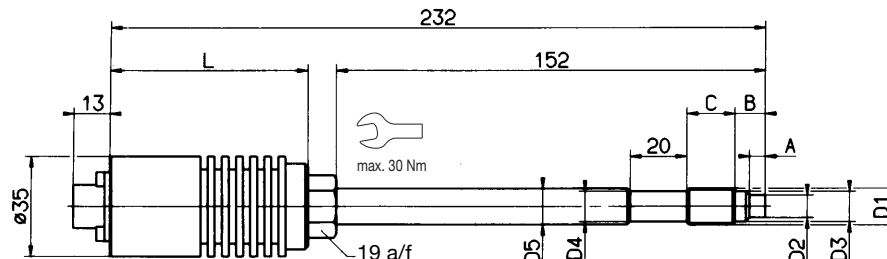
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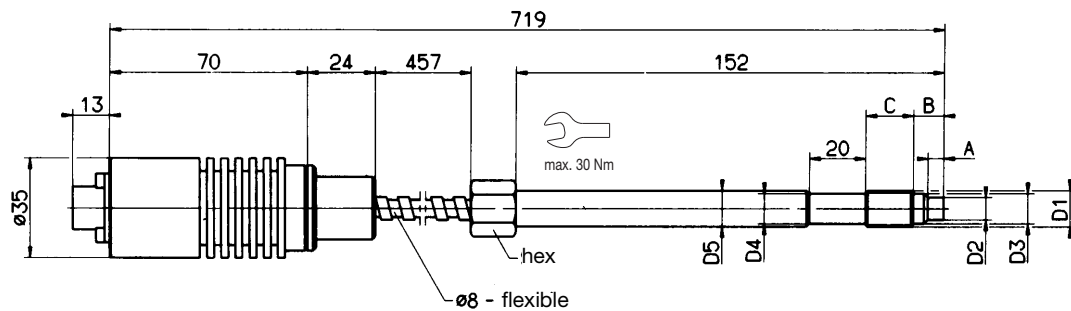


Dimensions

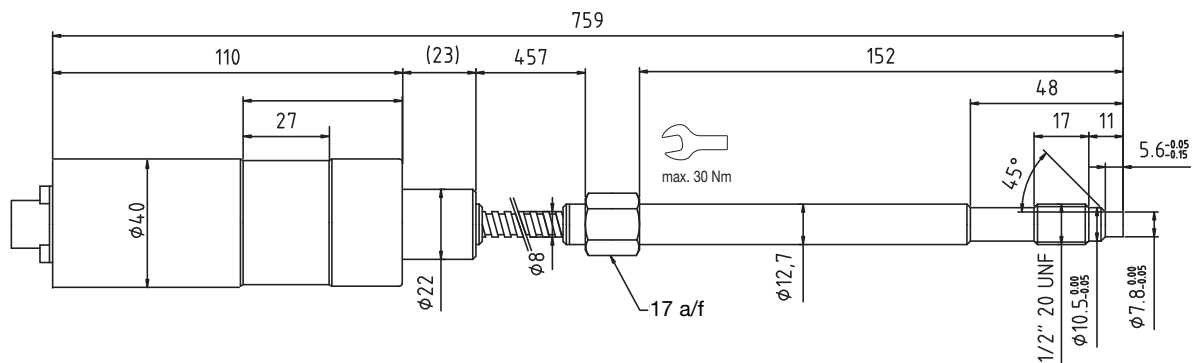
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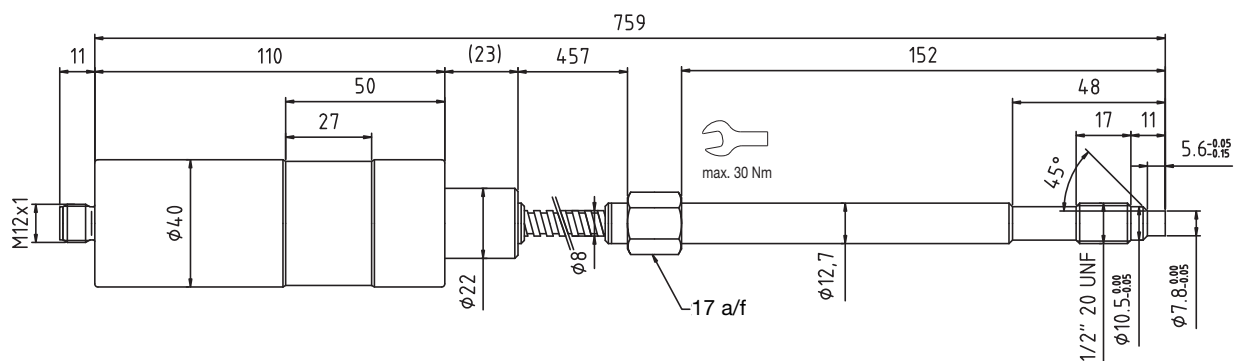
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Type 404450/031-xxx-405-xxx-xx-xx-27-35-000



Type 404450/031-xxx-450-xxx-xx-xx-27-36-000



D ₁	D ₂	D ₃	D ₄	D ₅	A	B	C	a/f
1/2" 20 UNF 2A	Ø 7.8 +0/-0.05	Ø 10.5 +0/-0.05	Ø 10.5 +0/-0.5	Ø 12.7	5.6 +0/-0.1	10.8	17	17
M18 x 1.5	Ø 10 +0/-0.05	Ø 16 +0/-0.1	Ø 16 +0/-0.5	Ø 18	6 +0/-0.25	14	20	19

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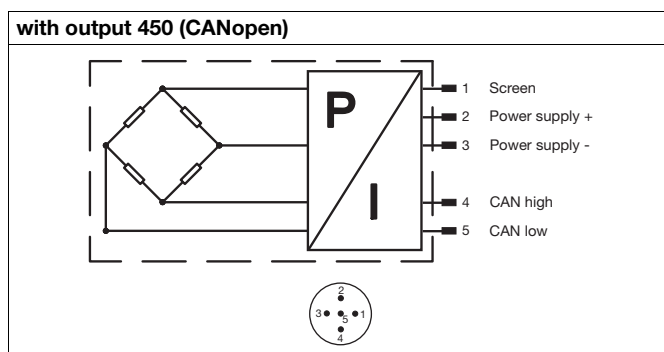
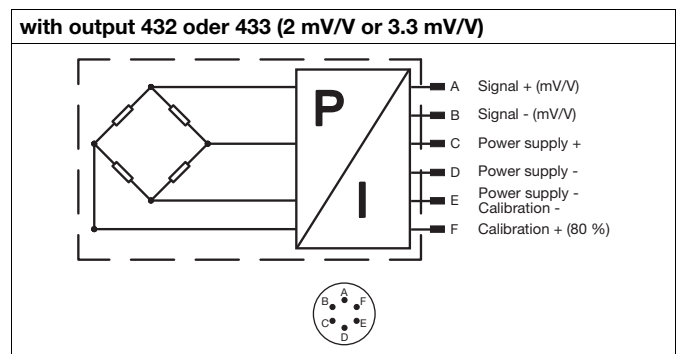
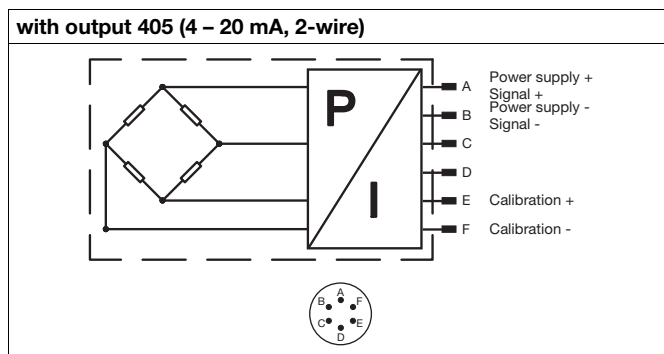
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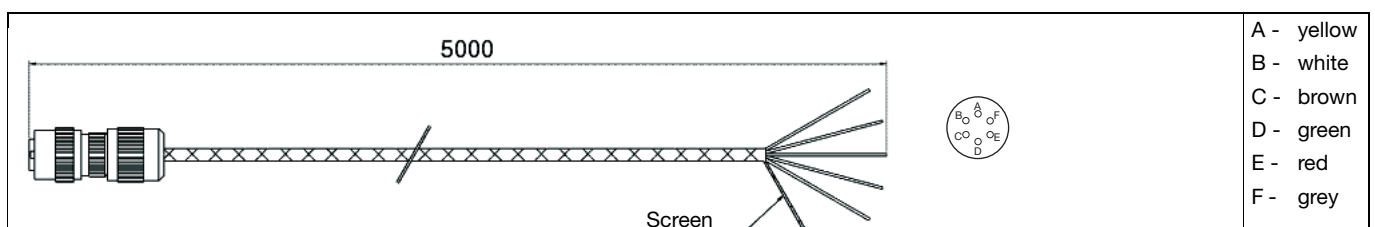
Bore for transducer							
	d ₁	d ₂	d ₃	d ₄	a	b	c
	1/2" 20 UNF 2A	Ø 7.92 +0.05/-0.0	Ø 10.69 +0.1/-0.0	Ø 13	5.7	3.2 max.	19
	M18 x 1.5	Ø 10.1 +0.05/-0.0	Ø 16.1 +0.1/-0.0	Ø 20	6.15	4 max.	25

Insert socket								
d ₁	d ₂	Part no.	d ₃	d ₄	d ₅	d _K	a	l
M16	1/2" 20 UNF 2A	00310280	Ø 10 +0.05/-0.1	Ø 18	Ø 10	Ø 18	6	25
M24	M18 x 1.5	00310281	Ø 14 +0.05/-0.1	Ø 26	Ø 14	Ø 26	10	35

Electrical connection - Pressure transducer



Connection cable



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**Order details**

(1) Basic type	
404450	Melt pressure transducer
(2) Basic type extensions	
000	with rigid stem
031	with capillary
999	special version
(3) Input	
510	0 – 50 bar
464	0 – 100 bar
511	0 – 200 bar
467	0 – 400 bar
468	0 – 600 bar
512	0 – 800 bar ^a
469	0 – 1000 bar ^a
471	0 – 2000 bar ^a
999	special measuring range
(4) Output	
432	2 mV/V
433	3.3 mV/V
405	4 to 20 mA, 2-wire
450	CANopen
(5) Process connection	
535	M18 × 1.5
592	1/2" 20 UNF 2A
(6) Material of diaphragm	
20	stainless steel 1.4545
81	Inconel [®] 2.4668
82	Hastelloy [®] 2.4610
(7) Filling medium	
17	mercury Hg (standard)
18	NAK (mercury-free filling) ^b
(8) Power supply	
15	10 V DC
27	11.5 to 30 V DC ^c
(9) Electrical connection	
35	Bendix round plug connector
36	M12 × 1/5-pole ^d
69	Bendix round plug connector with coupling socket
70	Bendix round plug connector with coupling socket, including 5 m cable
(10) Extra codes	
000	none
620	deviation from characteristic: 0.5 % of measuring range

^a Not with filling medium 18^b Only with diaphragm material 81^c Only for output 405 or 450^d Only for output 450

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Order code										
Order example	404450	/ 000	- 465	- 432	- 592	- 20	- 17	- 15	35	/ 000

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Accessories

Designation	Sales No.
Instrument amplifier with LED indication and contacts	00456229
Cleaning tool for locating bore, 1/2" thread, 20 UNF 2A	00307891
Cleaning tool for locating bore, M18 × 1.5 thread	00307887
5 m connection cable, fabricated with plug connector	