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Melt Pressure Transducer

JUMO 4 ADM-35

Type 404450

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.



Type 404450

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: +/- 0.02%/°C

span: +/- 0.02%/°C

Ambient temperature effect

(on measuring head, deviation from +20°C)

zero point: +/- 0.04%/°C

Zero point deviation

+/- 3% of measuring range

Deviation from characteristic

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

Repeatability

< 0.2% of full scale

Supply

for output 432 or 433: 5 — 10V DC
for output 405 or 450: 11.5 — 30V 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: ≤ +100°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:
M12x1 / 5-pole

Insulation resistance

10 000 MΩ with 100 V test voltage

Enclosure protection

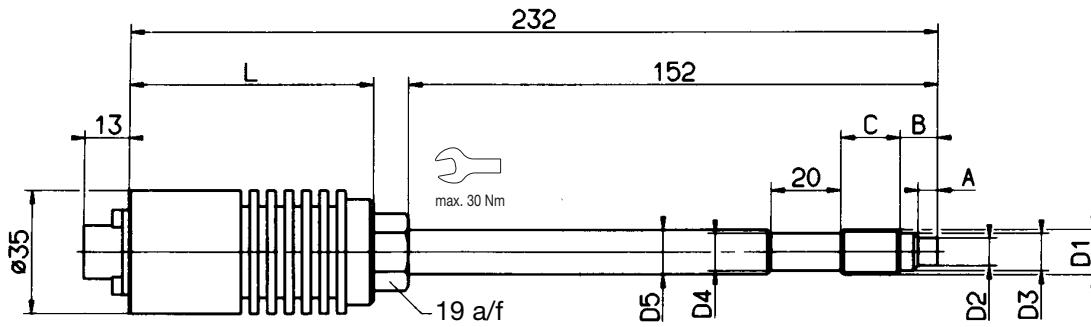
IP64 to EN 60 529

Nominal position

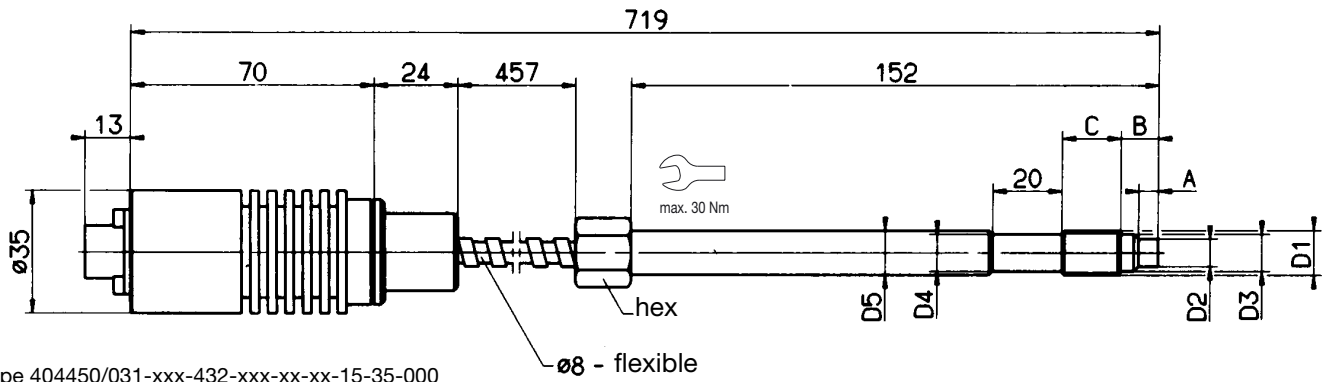
unrestricted

Weight

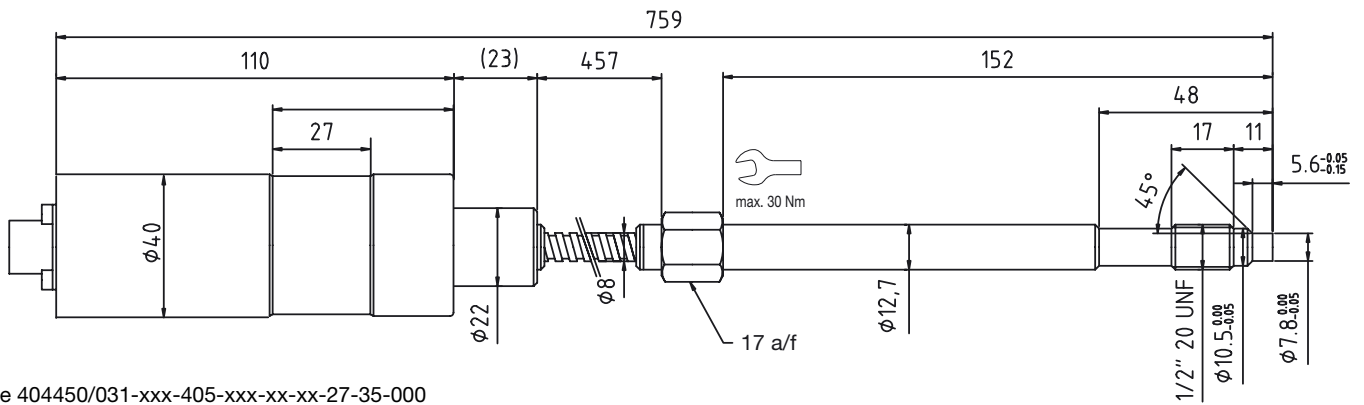
approx. 0.5 kg



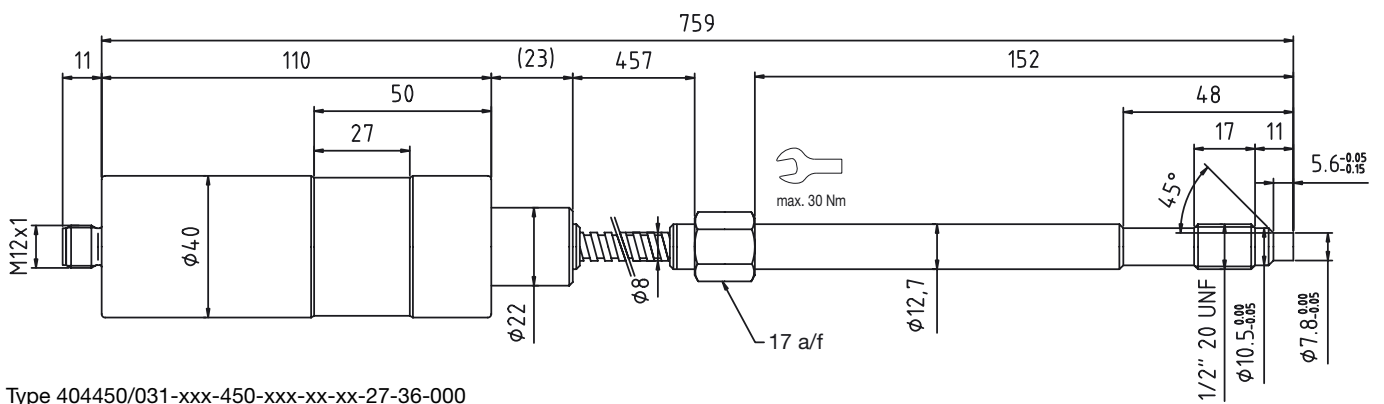
Type 404450/000-xxx-405-xxx-xx-xx-15-35-000



Type 404450/031-xxx-432-xxx-xx-xx-15-35-000



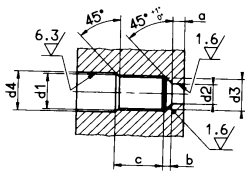
Type 404450/031-xxx-405-xxx-xx-xx-27-35-000



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

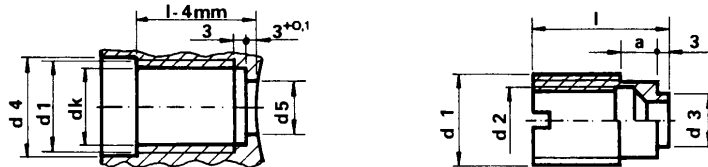
D ₁	D ₂	D ₃	D ₄	D ₅	A	B	C	a/f
1/2" 20 UNF 2A	ø7.8 ^{+0/-0.05}	ø10.5 ^{+0/-0.05}	ø10.5 ^{+0/-0.5}	ø12.7	5.6 ^{+0/-0.1}	10.8	17	17
M18x1.5	ø10 ^{+0/-0.05}	ø16 ^{+0/-0.1}	ø16 ^{+0/-0.5}	ø18	18 ^{+0/-0.25}	14	20	19

Bore for transducer



d ₁	d ₂	d ₃	d ₄	a	b	c
1/2" 20 UNF 2A	ø7.92 +0.05/-0.0	ø10.69 +0.1/-0.0	ø13	5.7	3.2 max.	19
M18x1.5	ø10.1 +0.05/-0.0	ø16.1 +0.1/-0.0	ø20	6.15	4 max.	25

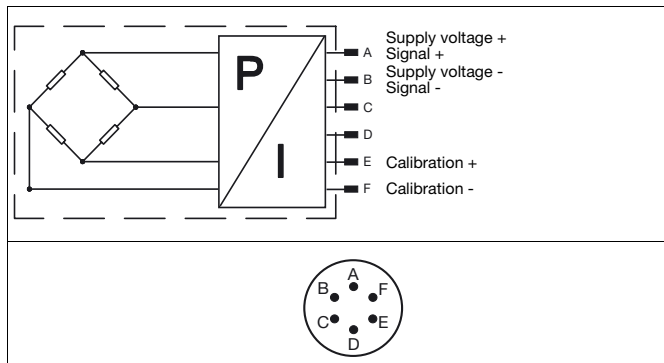
Insert socket



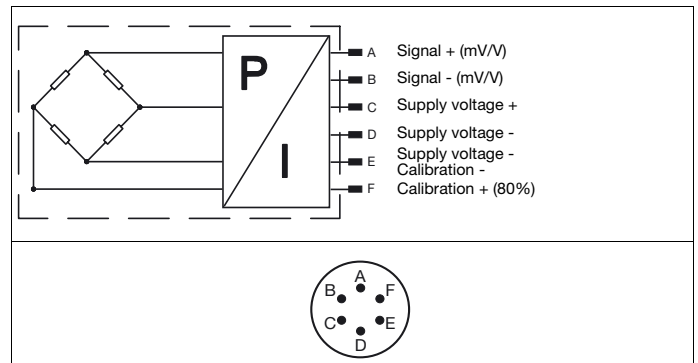
d ₁	d ₂	Sales No.	d ₃	d ₄	d ₅	d _K	a	l
M16	1/2" 20 UNF 2A	40/00310280	ø10 +0.05/-0.1	ø18	ø10	ø18	6	25
M24	M18x1.5	40/00310281	ø14 +0.05/-0.1	ø26	ø14	ø26	10	35

Electrical connection

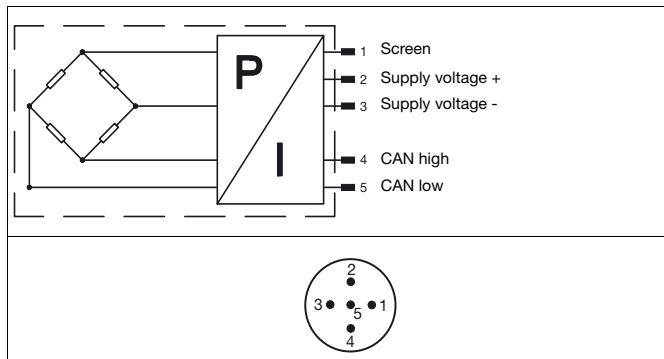
Pressure transducer with output 405 (4 – 20 mA, 2-wire)



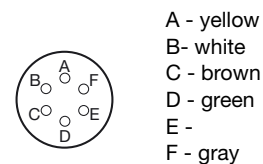
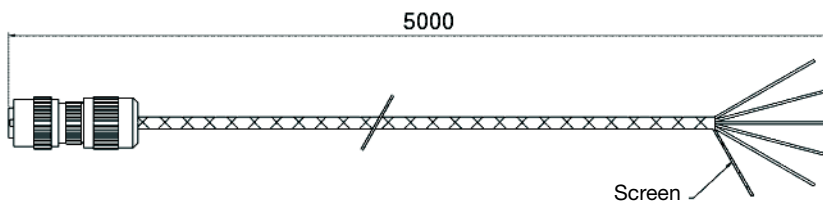
Pressure transducer with output 432 or 433 (2 mV/V or 3.3 mV/V)



Pressure transducer with output 450 (CANopen)



Connection cable



Order details

- (1) **Basic type**
404450 Melt pressure transducer JUMO 4 ADM-35
- (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 bar¹
469 0 – 1000 bar¹
471 0 – 2000 bar¹
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 M18x1.5
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)²
- (8) **Supply**
15 10V DC
27 11.5 – 30 V DC³
- (9) **Electrical connection**
35 Bendix round plug connector
36 M12x1 / 5-pole⁴
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

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

Accessories

Designation	Sales No.
Instrument amplifier with LED indication and contacts	40/00456229
Cleaning tool for locating bore, 1/2" thread, 20 UNF 2A	40/00307891
Cleaning tool for locating bore, M18x1.5 thread	40/00307887
5 m connection cable, fabricated with plug connector	

¹ not with filling medium 18
² only with diaphragm material 81
³ only for output 405 or 450
⁴ only for output 450
 03.07 / 00073155