MCT/RAM
Providing Engineered Solutions Since 1984
2 West Main Street
Victor, NY 14564
585-461-2110
sales@mctram.com

17.600 G

OEM Pressure Transmitter Heavy Duty

Applications:

- mobile hydraulic
- presses
- general mechanical engineering
- oxygen application

Characteristics:

- stainless steel sensor, welded
- accuracy 0.5 % FSO according to IEC 60770
- nominal pressure ranges from 0 … 6 bar up to 0 … 600 bar

Technical Data

Input pressure range												
Nominal pressure gauge	[bar]	6	10	16	25	40	60	100	160	250	400	600
Overpressure (static)	[bar]	12	20	32	50	80	120	200	320	500	800	1 200
Burst pressure ≥	[bar]	28	70	70	140	280	280	700	700	1 400	1 500	1 800
Vacuum resistance		unlimited										

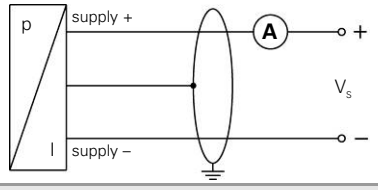
Output signal / Supply			
Standard	2-wire:	4 ... 20 mA	/ V_S = 8 ... 32 V_{DC}
Options	3-wire:	0 ... 10 V	/ V_S = 14 ... 30 V_{DC}
	3-wire ratiometric:	10 … 90% of V_S	/ V_S = 2.7 … 5 V_{DC}
Performance			
Accuracy [1]	≤ ± 0.5 % FSO		
Permissible load	2-wire:	$R_{max} = [(V_S - V_S\ min) / 0.02\ A]\ \Omega$	
	3-wire:	$R_{min} = 10\ k\Omega$	
Influence effects	supply:	0.05 % FSO / 10 V	
	load:	0.05 % FSO / kΩ	
Response time	2-wire: ≤ 10 msec		3-wire: ≤ 3 msec
Long term stability	≤ ± 0.3 % FSO / year at reference conditions		
Measuring rate	1 kHz		
[1] accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)			
Thermal effects (Offset and Span) / Permissible temperatures			
Thermal error	≤ ± 0.3 % FSO / 10 K	in compensated range	0 ... 70 °C
Permissible temperatures	medium: -40 ... 125 °C	electronics / environment:	-40 ... 85 °C storage: -40 ... 85 °C
Electrical protection			
Short-circuit protection	permanent	3-wire ratiometric: none	
Reverse polarity protection	no damage, but also no function		
Electromagnetic protection	emission and immunity according to EN 61326		
Mechanical stability			
Vibration	20 g, 25 Hz … 2 kHz	according to DIN EN 60068-2-6	
Shock	500 g / 1 msec	according to DIN EN 60068-2-27	

Materials	
Pressure port	stainless steel 1.4571 (316Ti)
Housing	stainless steel 1.4301 (304)
Seal of pressure port	FKM: G 1/4“ DIN 3852 others on request
Seal of sensor	none (welded)
Diaphragm	stainless steel 1.4542 (630)
Media wetted parts	pressure port, seal of pressure port, diaphragm
Miscellaneous	
Weight	approx. 120 g
Current consumption	2-wire: max. 25 mA 3-wire ratiometric: typ. 3 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)
Operational life	> 100 x 10^6 pressure cycles
CE-conformity	EMC Directive: 2004/108/EC Pressure Equipment Directive: 97/23/EC (module A) [2]

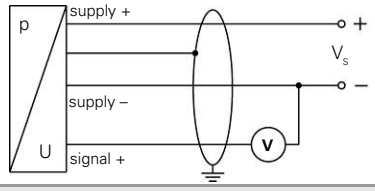
[2] *This directive is only valid for devices with maximum permissible overpressure > 200 bar*

Wiring diagrams

2-wire-system (current)



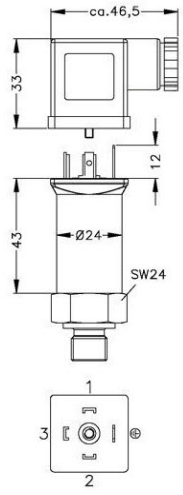
3-wire-system (voltage)



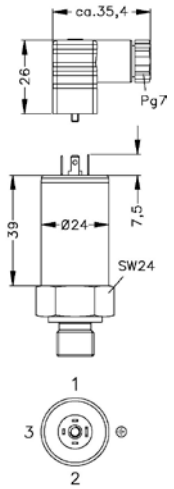
Pin configuration

Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), plastic	cable colour (DIN 47100)
Supply +	1	1	1	wh (white)
Supply –	2	2	2	bn (brown)
Signal + (for 3-wire)	3	3	3	gn (green)
Shield	ground pin	ground pin	4	ye/gn (yellow / green)

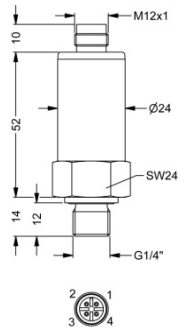
Electrical connections (dimensions in mm)



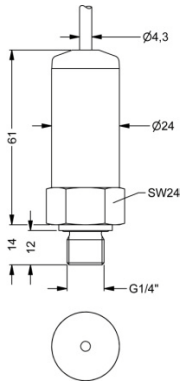
ISO 4400
(IP 65)



Micro, contact
distance 9.4 mm (IP 65)



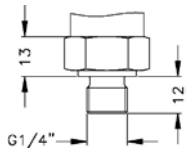
M12x1, 4-pin
(IP 67)



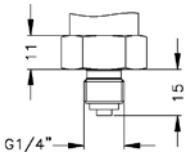
cable outlet with
2 m PVC-cable (IP 67) [3,4]

[3] *standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)*
[4] *different cable types and lengths available, permissible temperature depends on kind of cable*

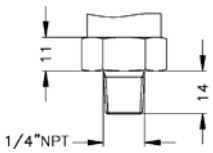
Mechanical connection (dimensions in mm)



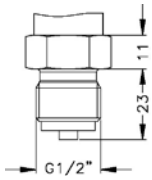
G1/4" DIN 3852
(not for oxygen)



G1/4" EN 837



1/4" NPT



G1/2" EN 837

Ordering code 17.600 G

17.600 G -□□□□-□-□-□-□□□-□□□-□-□□□

Input	**[bar]**																	
6	6	0	0	1														
10	1	0	0	2														
16	1	6	0	2														
25	2	5	0	2														
40	4	0	0	2														
60	6	0	0	2														
100	1	0	0	3														
160	1	6	0	3														
250	2	5	0	3														
400	4	0	0	3														
600	6	0	0	3														
customer	9	9	9	9														consult
Pressure																		
gauge					R													
Output																		
4 … 20 mA / 2-wire						1												
0 … 10 V / 3-wire						3												
10 …90% of Vs / 3-wire ratiometric						R												
Accuracy																		
0.5 % FSO							5											
customer							9											consult
Electrical connection																		
Male and female plug ISO 4400								1	0	0								
Male and female plug Micro								C	1	0								
Male plug M12x1 (4-pin), plastic								M	0	0								
Cable outlet with PVC-cable [1]								T	A	0								
customer								9	9	9								consult
Mechanical connection / Seal																		
G1/4" DIN 3852 / on pressure port: FKM											3	0	0	P				
G1/4" EN 837 / without											4	0	0	2				
1/4" NPT / without											N	4	0	2				
G1/2" EN 837 / without											2	0	0	2				
customer											9	9	9	9				consult
Special version																		
standard															0	0	0	
oxygen application [2]															0	0	7	
oil and grease free															0	0	8	
customer															9	9	9	consult

[1] standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 … 70 °C)
[2] not possible with G1/4" DIN 3852

01.01.2014

Please visit our website: www.mctram.com

2 West Main St, Victor NY 14564 Phone: 585-461-2110