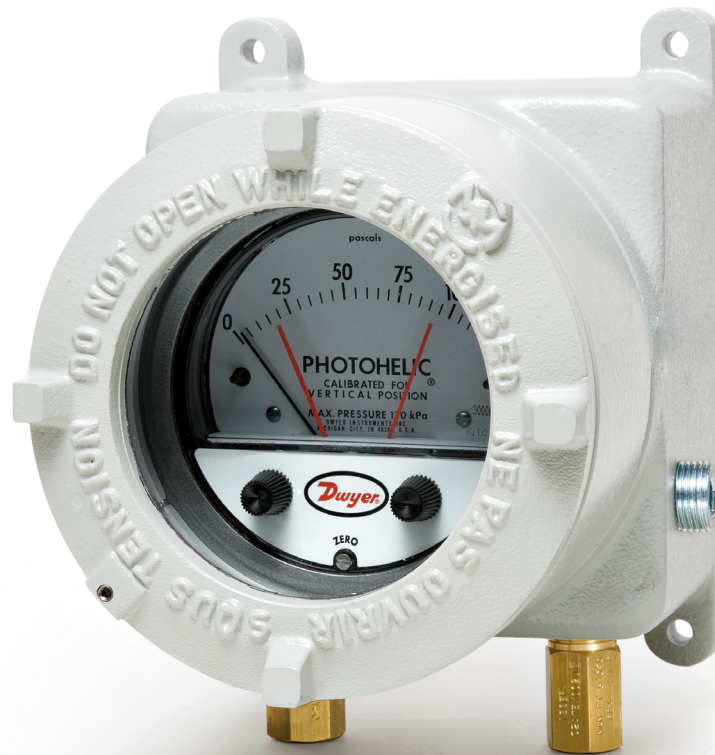


# AT2-3000MR/MRS

Explosion-proof ATEX/IECEX Exd  
Photohelic® pressure switch/gages



- ATEX/IECEX Exd Photohelic® pressure switch/gage now available from Comhas as single instrument ATEX approved
- 3 in 1, indicating gage, lo-limit and hi-limit control
- Repeatability  $\pm 2\%$

Photohelic® switch/gages series AT3-A3000 function as versatile, highly repeatable pressure switches combined with a precise pressure gage employing the time-proven Magnehelic® gage design. The Photohelic® switch/gage measures and controls positive, negative or differential pressures of air and compatible gases. Standard models are rated to 25 psig (1.7 bar) with options to 35 (2.4) or 80 (5.5 bar) psig. Single pressure 36000S models measure also available. Two phototransistor actuated, DPDT relays are included for low/high limit control. easy to adjust setpoint indicators are controlled by knobs located on the gage face (accessible opening case after de-energizing instrument). Individual setpoint deadband is one pointer width - less than 1% of full scale. Setpoints can be interlocked to provide variable deadband - ideal for control of fans, dampers, etc. Gage reading is continuous and unaffected by switch operation, even during loss of electrical power. Several ranges available (see standard ranges table).

<b>ATEX</b>	<p>CE 1370          II 2G Ex d IIC T6 Gb          II 2D Ex tb IIIC T85°C Db, -60°C ≤ T<sub>amb</sub> ≤ +60°C          Certificate: BVI 14 ATEX 0072</p>
<b>IECEX</b>	<p>Ex d IIC T6 Gb          Ex tb IIIC T85°C Db          Certificate: IECEX EPS 14.0082</p>
<b>ENCLOSURE RATING</b>	IP66 (IP65 with option OPV)



## AT2-3000MR/MRS SPECIFICATIONS

<b>Service:</b>	air and compatible clean and dry gases.
<b>Wetted parts:</b>	consult factory.
<b>Temperature limits*:</b>	Photohelic®: from -6.67 a 48.9°C (20 to 120°F). Option "LT" low temperature to -20°F (-28.8°C) see also case temperature limits. Case: from -60 to 60°C (see also above, Photohelic® temperature limits).
<b>Accuracy:</b>	±2% f.s. at 70°F (21.1°C); ±3% on -0; ±4% on -00 models
<b>Pressure limits:</b>	-20" Hg to 25 psig (-0.677 bar to 1.72 bar). MP option; 35 psig (2.41 bar) HP option; 80 psig (5.52 bar). A36003S – A36010S; 150 psig (10.34 bar).
<b>Dial size:</b>	4" (101.6 mm).
<b>Mounting orientation:</b>	diaphragm in vertical position.
<b>Housing material:</b>	alluminium (optional stainless steel).
<b>Finishing:</b>	texture epoxy coat RAL7038 (only aluminium housings).
<b>Process connections:</b>	1/8" female NPT brass (stainless steel optional). In case of acetylene presence it is compulsory to use stainless steel.
<b>Electrical wiring:</b>	screw terminals.
<b>Electrical connection:</b>	3 x 1/2" NPT F standard (supplied without cable gland).
<b>Set point adjustment:</b>	adjustable knobs on face of Photohelic® available behind cover (follow instructions and safety warnings to open cover).
<b>Dimensions:</b>	see drawing below.
<b>Weight:</b>	12,9 Kg ab.
<b>Response time**:</b>	from f.s. to 0 up to 120 sec. max (mainly for low ranges models 60, 100 e 125 Pa or equivalentes).

## SWITCH SPECIFICATIONS

<b>Switch Type:</b>	each setpoint has 1 form C relay (SPDT).
<b>Repeatability:</b>	±1% of full scale.
<b>Electrical rating:</b>	10A @ 28 Vcc; 10A @ 120, 240 Vca.
<b>Power requirements:</b>	120 VAC, 50/60 Hz;

\* The operating ambient temperature it is always defined by the limits of measuring elements or options selected.

\*\* For applications with high cycle rate within gage total pressure rating, next higher rating is recommended. See medium and high options.

**CAUTION FOR USE ONLY WITH AIR OR COMPATIBLE GASES!  
CONTACT FACTORY FOR USE WITH GASES, OTHER THAN AIR AND NITROGEN.**

### IMPORTANT NOTES FOR INSTALLATION:

Open cover only after de-energising instrument.

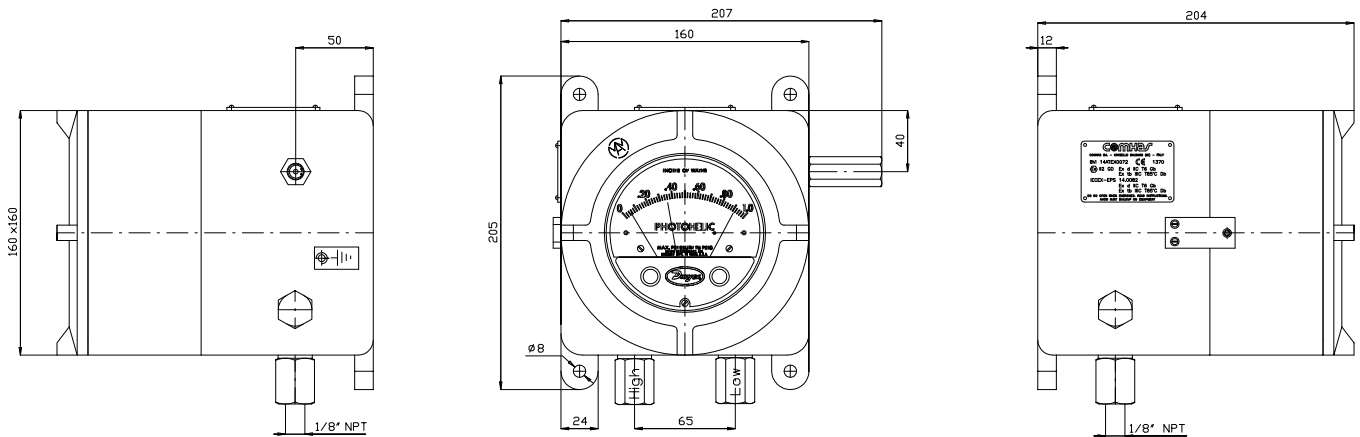
Attention: check local safety rules and warnings on unit and manual for a correct use of the instrument in hazardous area.



## STANDARD RANGES (OTHER RANGES AVAILABLE)

MODEL	INCH W.C.	MODEL	PSI	MODEL	MM W.C.	MODEL	PA
A3000-00	0-.25	A3201	0-1	A3000-6MM	0-6	A3000-60PA	0-60
A3000-0	0-.50	A3202	0-2	A3000-10MM	0-10	A3000-125PA	0-125
A3001	0-1.0	A3203	0-3	A3000-25MM	0-25	A3000-250PA	0-250
A3002	0-2.0	A3204	0-4	A3000-50MM	0-50	A3000-500PA	0-500
A3003	0-3.0	A3205	0-5	A3000-80MM	0-80	A3000-750PA	0-780
A3004	0-4.0	A3210 **	0-10	A3000-100MM	0-100	A3300-250PA	125-0-125
A3005	0-5.0	A3215 **	0-15	<b>MODEL</b>	<b>MM W.C.</b>	A3300-500PA	250-0-250
A3006	0-6.0	A3220 ***	0-20	A3300-20MM	10-0-10	<b>MODEL</b>	<b>KPA</b>
A3008	0-8.0	A3230 ***	0-30	A3300-30MM	15-0-15	A3000-1KPA	0-1
A3010	0-10	<b>PHOTOHELIC® - SINGLE PRESSURE</b>		<b>MODEL</b>	<b>CM W.C.</b>	A3000-1.5KPA	0-1.5
A3015	0-15	A36003S	0-30	A3000-15CM	0-15	A3000-2KPA	0-2
A3020	0-20	A36006S	0-60	A3000 20CM	0-20	A3000-3KPA	0-3
A3025	0-25	A36010S	0-100	A3000-25CM	0-25	A3000-4KPA	0-4
A3030	0-30	<b>MODEL</b>	<b>INCH W.C. AIR VELOCITY F.P.M.</b>	A3000-50CM	0-50	A3000-5KPA	0-5
A3040	0-40	A3000-00AV	0-.25/300-2000	A3000-80CM	0-80	A3000-8KPA	0-8
A3050	0-50	A3000-0AV	0-.50/500-2800	A3000-100CM	0-100	A3000-10KPA	0-10
A3060	0-60	A3001AV	0-1.0/500-4000	A3000-150CM	<b>0-150</b>	A3000-15KPA	0-15
A3080	0-80	A3002AV	0-2.0/1000-5600	A3000-200CM	0-200	A3000-20KPA	0-20
A3100	0-100	A3010AV	0-10/2000-12500	A3000-250CM	0-250	A3000-25KPA	0-25
A3150	0-150	Con tubo di Pitot		A3000-300CM	0-300	A3000-30KPA	0-30
<b>BI-DIRECTIONAL RANGES</b>				<b>MODEL</b>	<b>CM W.C.</b>	A3300-1KPA	.5-0-.5
A3000-00N	.05-.20			A3300-4CM	2-0-2	A3300-3KPA	1.5-0-1.5
<b>MODEL</b>	<b>INCH W.C.</b>			A3300-10CM	5-0-5		
A3300-0	.25-0-.25			A3300-30CM	15-0-15		
A3301	.5-0-.5						
A3302	1-0-1						
A3304	2-0-2						
A3310	5-0-5						
A3320	10-0-10						
A3330	15-0-15						

## DIMENSIONS



Consult factory for different holes layout.



MODEL CONFIGURATION AT2-1800

<b>CODE</b>	<b>AT2</b>	-		-		-														
<b>Range</b>	Standard range catalog		A3XXX																	
	Not standard range		Special P/N																	
<b>Power requirements</b>	Power requirements 120 Vac																			
	Power requirements 240 Vac																			
	Power requirements 24 Vac																			
<b>Option</b>	Standard -0.677 to 1.72 bar (-20" Hg to 25 psig) static pres.																			
	Medium pressure (max static pressure 35 psig - 2.41 bar)																			
	High pressure (max static pressure 80 psig - 5.52 bar)																			
	Standard construction																			
	Silicon free																			
	Standard temperature limit -6.67 to 48.9 (20 to -120°F)																			
	Low temperature to -28.8°C (-20°F)																			
<b>Case material</b>	Alluminium																			
	Stainless steel (s.s. connection included)																			
<b>Case options</b>	Blind top cover																			
	Glass transparent cover																			
	1/8" NPT F brass pressure port																			
	1/8" NPT F stainless steel (only for aluminium housing)																			
	Standard - without overpressure relief valve																			
	Overpressure relief valve* (material: same as presure ports)																			
	Stainless steel tag																			
<b>Other options</b>	See "other options" - Possible more than one option																			...

\*IP65 in case of relief valve installation (OPV). Relief valve is used to keep atmospheric pressure inside the case.  
Suggested in case of risk of having static pressure ≥19 Bar (static pressure admitted is indicated on tag and it will be anyway always <19 bar).

**OTHER OPTIONS**

- B: diaphragm buna-n.
- TAMP: tamper proof knobs, require spanner type key (supplied). To change setpoints.
- G: green scale overlay.
- R: red scale overlay.
- Y: yellow scale overlay.

ACCESSORIES: Atex cable gland.

