

//PURGING

Precise purging is essential for controlling weld quality, particularly when welding high-alloy, corrosion-resistant materials that are highly sensitive to oxygen in the welding process.

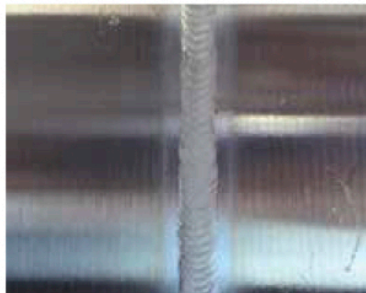
Our oxygen analysers can be connected to our controllers for monitoring ID purge quality as part of the programmed weld schedule parameters (except Oxy Smart).

Values measured during welding will also be recorded as part of the weld data recording facility. The maximum oxygen value (in ppm) is entered in the controller (typically < 20ppm). Welding will not commence until the measured value drops below the programmed threshold.

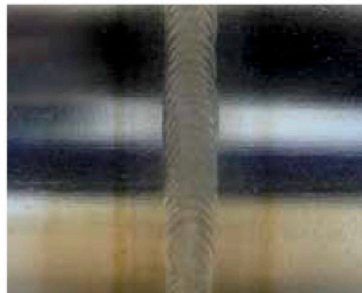
The analysers are calibrated to measure in the for welding relevant range below 30ppm up to +/- 2ppm precise.

Since oxidation starts at around 30ppm analysers with values displayed as a percentage are not recommended → 0.1% = 1,000ppm!

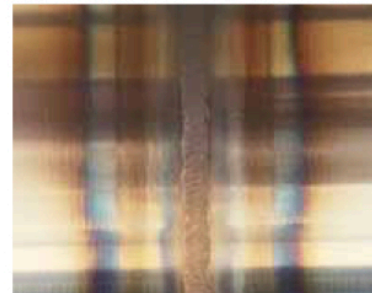
Examples of ppm vs oxidation levels:



7ppm
0.0007 %



27ppm
0.0027 %



500ppm
0.05 %

Oxy-2



OXY 2 OXYGEN ANALYSER incl. accessories

- For inert gases
- For mixed gases containing hydrogen
- Measuring cell made of zirconium oxide (maintenance-free)
- Interface for communication with our orbital controllers

Technical Data:

Measuring range	5 – 999ppm O ₂
Operating temperature	0 – 45° Celsius
Measuring accuracy	+/- 0.3mV (EMK Sensor)
Stabilisation time	10 – 15min.
Response time	approx. 2 seconds for changes
Dimensions (H x W x L)	140mm x 210mm x 225mm without handle
Mains voltage	230V AC / 110VAC adjustable
Heating cycle load	approx. 200VA
Standard load	approx. 40VA

Package includes:

- Oxygen analyser
- Power cable
- Hors set, 3m incl. filter and stainless steel probe
- Calibration certificate
- Simple plastic case

Optional:

SPECIAL TRANSPORTATION CASE FOR OXY 2

with inlet for OXY 2 and accessories
Dust- and moisture-proof



COM-CABLE OXY 2 FOR COMMUNICATION AND DOCUMENTATION

COM-CABLE for connection to controllers TIGTRONIC BASIC 2-4

COM-CABLE OXY 2 for connection to controllers TIGTRONIC ORBITAL 4 and COMPACT



1.2.5001

1.2.5043

1.3.5009

1.3.5011

Oxy-SMART



OXY SMART OXYGEN ANALYSER incl. accessories and box

- Battery powered device
- For inert gases
- For mixed gases with hydrogen (max. 10%)
- Measuring cell made of zirconium oxide (maintenance free), long lifetime through intelligent software
- Robust for use at site (protective frame out of rubber)
- Dust- and moisture-proof, also for use around high humidity
- Intuitive operator guidance through symbols
- Coloured enlighten display
- Battery indicator
- Fault indication in case of error

1.2.5004

Technical Data – Analyser:

Measuring range	5 – 999ppm O ₂
Dimensions (L x W x H)	160mm x 80mm x 35mm
Weight	0.35kg
Supply voltage	12V
Charging cable	100-240V with various adapter plugs
Battery life	9h using lithium ion technology

Package includes:

- Oxygen analyser
- Charging cable with various adapter plugs for worldwide use
- Hose set, 1m, incl. filter and stainless steel probe
- Calibration certificate
- Plastic case with inlay



Oxy-3



RESIDUAL OXYGEN ANALYZER OXY 3, incl. accessories

- Simple menu navigation
- For inert gases and mixed gases containing hydrogen
- Measuring cell made of zirconium oxide (maintenance-free)
- Large high resolution touch screen panel
- Graphic display of measured values
- SD card interface for storing documentation
- Interface for communication with our controllers
- User adjustable alarm limits and thresholds
- Audible key tones and alarms
- Colour display for figures outside setpoint values
- Interface for communication with our orbital controllers
- Software updates possible
- Multi language
- Bluetooth compatible
- Multirange 90 – 260V

Technical Data:

Measuring range	5ppm -21% O ₂
Ambient temperature	0 – 45° Celsius
Measuring accuracy	+/- 0.3mV (EMK sensor)
Stabilisation time	10 – 14min
Response time	approx. 2 seconds for changer
Dimensions (L x W x H)	190mm x 270mm x 55mm
Mains voltage	Multirange 90 – 260V AC
Heating cycle load	approx. 40VA
Standard load	approx. 20VA

Package includes:

- Oxygen analyser
- Power cable
- Hors set, 3m incl. filter and stainless steel probe
- Calibration certificate
- Simple plastic case

Optional:

SPECIAL TRANSPORTATION BOX FOR OXY 3

with inlet for OXY 3 and accessories
Dust- and moisture-proof

COM-CABLE OXY 3 for communication and documentation

COM-CABLE OXY 3 for connection to controllers TIGTRONIC BASIC 2-4

COM-CABLE OXY 3 for connection OXY 3 to controllers TIGTRONIC ORBITAL 4 and COMPACT

SPARE PLASTIC HOSE for OXY 2 / OXY 3, 3m, with particle filter and stainless steel probe

SPARE PLASTIC HOSE for OXY SMART, 1m, particle filter and stainless steel probe

SPARE FILTER

1.2.5050

1.2.5051

1.3.5007

1.3.5052

1.3.5014

1.3.5016

1.3.5015





PURGE HOSE with ball valve, 8m

1.3.0126



ALUMINIUM ADHESIVE TAPE ROLL 50 x 0.09mm, roll 55m

1.1.4129



PURGE BUNGS

- Conical
- Hole: Ø 6mm | 0.236"
- Material: silicon, clear
- Heat resistant up to 250°C

Purge bungs for ID	
mm	inch
10.5 - 14.5	0.413 - 0.571
12.5 - 16.5	0.492 - 0.650
14.0 - 18.0	0.551 - 0.709
18.0 - 24.0	0.709 - 0.945
23.0 - 29.0	0.906 - 1.142
26.0 - 32.0	1.024 - 1.260
29.0 - 35.0	1.142 - 1.378
31.0 - 38.0	1.220 - 1.496
36.0 - 44.0	1.417 - 1.732
41.0 - 49.0	1.614 - 1.929
47.0 - 55.0	1.850 - 2.165
50.5 - 59.5	1.988 - 2.343
56.0 - 65.0	2.205 - 2.559
60.0 - 70.0	2.362 - 2.756
64.5 - 75.5	2.539 - 2.972
71.0 - 83.0	2.795 - 3.268
79.0 - 92.0	3.110 - 3.622
87.0 - 100.0	3.425 - 3.937
94.0 - 107.0	3.701 - 4.213

1.3.5510

1.3.5512

1.3.5514

1.3.5518

1.3.5523

1.3.5526

1.3.5529

1.3.5531

1.3.5536

1.3.5541

1.3.5547

1.3.5550

1.3.5556

1.3.5560

1.3.5564

1.3.5571

1.3.5579

1.3.5587

1.3.5594

Purging caps with outside screwing available on request.

PURGE ACCESSORIES

FLEXIBLE PURGE DAM



Item number



FLEXIBLE PURGE DAM

- Gas and time saving
- Heat resistant up to 340°C
- Applicable in all positions
- Simple pull through elbows possible

SC PROFI SUPPLIED WITH 2 DISCS (340°C), FLEXIBLE CONNECTION WITH RECTUS NIPPLE TYPE 21

Type	Connection	ID (mm)	ID (inch)	
SC Profi Ø 17mm	80mm spring connection	13 – 16	0.512" - 0.630"	1.1.6017
SC Profi Ø 21mm		16 – 20	0.630" - 0.787"	1.1.6021
SC Profi Ø 24mm		18 – 23	0.709" - 0.906"	1.1.6024
SC Profi Ø 30mm		23 – 29	0.906" - 1.141"	1.1.6030
SC Profi Ø 39mm		29 – 38	1.141" - 1.496"	1.1.6039
SC Profi Ø 45mm		36 – 43	1.417" - 1.693"	1.1.6045
SC Profi Ø 57mm	120mm flex connection	42 – 53	1.654" - 2.087"	1.1.6057
SC Profi Ø 60mm		45 – 58	1.772" - 2.283"	1.1.6060
SC Profi Ø 70mm		55 – 67	2.165" - 2.638"	1.1.6070
SC Profi Ø 82mm	150mm flex connection	68 – 80	2.677" - 3.150"	1.1.6082
SC Profi Ø 95mm		79 – 92	3.110" - 3.622"	1.1.6095
SC Profi Ø 117mm		98 – 114	3.858" - 4.488"	1.1.6117
SC Profi Ø 145mm		120 – 136	4.724" - 5.354"	1.1.6145
SC Profi Ø 176mm		150 – 168	5.905" - 6.614"	1.1.6176
SC Profi Ø 182mm		155 – 170	6.102" - 6.693"	1.1.6182
SC Profi Ø 220mm	250mm flex connection	190 – 205	7.480" - 8.070"	1.1.6220
SC Profi Ø 231mm		195 – 215	7.677" - 8.464"	1.1.6231

Other purge dams are available on request.



PULL ROPE, 10m, (insulated) with carabiner

1.1.6232



CONNECTION FOR FLEXIBLE PURGE DAM / PURGE HOSE OD 6mm

1.1.6234

Measurement connection for purge dam to Oxy
(from SC Profi Ø 57mm) available upon request.