

## **SERVICE EQUIPMENT**

FOR SERVICING REFRIGERATION AND AIR CONDITIONING SYSTEMS

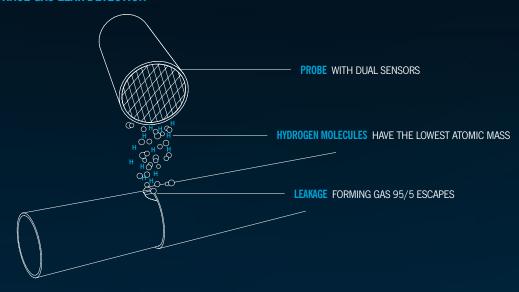


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# LEAK DETECTION

## TRACE GAS LEAK DETECTION



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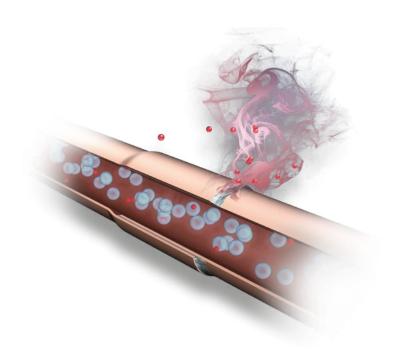
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## FIND THE LEAK!

## THE LEAK DETECTION TECHNOLOGY DEVELOPED FOR THE INDUSTRY IS PERFECTLY TAILORED TO SERVICING APPLICATIONS, AND THEREFORE GUARANTEES LEGALLY COMPLIANT, FAST, RELIABLE AND SIMPLE LEAK DETECTION.

FOR LEAK DETECTION, the empty air conditioning system is charged with forming gas 95/5 consisting of 95 percent nitrogen and 5 percent hydrogen. Forming gas 95/5 is non-flammable, non-toxic, non-corrosive and not harmful to the environment. Hydrogen molecules have the smallest atomic mass of all the elements and can escape due to even the smallest leak. With the aid of hydrogen leak detectors LOKTRACER TLD.500 and LOKTRACER TLD.1000, very small leakages can therefore be detected. The leak detectors react almost exclusively to hydrogen. There are therefore hardly any cross sensitivities.



## LOKTRACE IN COMPARISON TO CONVENTIONAL LEAK DETECTION METHODS

	LOKTRACE	UV dye	Electronic refrigerant leak detectors	Nitrogen and leak detection spray
Compliance with legal requirements	✓	X	X	✓
Direct operability	✓	X	<b>√</b>	✓
Detects the smallest leakages	✓	X	<b>√</b>	X
Reliability	<b>√</b>		X	

## **MULTI GAS LEAK DETECTOR**

## MULTI GAS LEAK DETECTOR FOR INDUSTRIAL LEAK DETECTION (HFC, HFO, R32, R600a, R290, H2 TRACER GAS)





Mobile, industrial leak detector. The high flexibility of the LOKATOR VL20 allows for use with different refrigerants and for  $\rm H_2$  tracer gas with the same probe. The unit is the perfect tool for quick and accurate leak location whatever the gas to be detected.

The simple and easy to use LOKATOR VL20 is designed for small or medium size production lines of refrigeration and A/C units. Its main advantage is to very quickly find even fine leaks. The operator can set two alarm levels or select one manually. The unit gives a clear visual and audible alarm indication as soon as the leak level is exceeded. Maintenance can be done easily on-site within a few seconds.

- Shock-proof housing.
- Intuitive interface on a 4 line LCD.
- Easy maintenance and calibration.
- Visual indication of leaks, degassing, saturation and ambient contamination.
- Permanent self-checking of power supply, probes and connections.
- Automatic zeroing with compensation of ambient contamination.
- Audible indication of leaks.

NOTE: The base unit comes without probe and without probe cable. Please select those articles from the following tables.

Article no.	Article name	Description
L14004337	LOKATOR VL20-BU	Base unit
Technical data	a	
Warm-up time	:	180 sec.
Reaction time:		1 sec.
Operating tem	perature:	10 °C - 40 °C
Power supply:		Rechargeable battery (9 V - 1.5 A max.)
Battery life:		4 hours
		220 x 220 x 80
LxHxDinm		

## **PROBE**





Red LED indicates a leak.

Probe consists of detection block with universal sensor and sniffing pipe.

Article no.	Article name	Description
L14004341	LOKATOR VL20-CSU-U	Universal probe
Technical data	a	
Sensitivity:		0.5 g/yr for HFC and HFC
		0.5 g /yr for R600a and R290
	1x10-5 c	cc/s for H2/N2 or 1 g/yr R134a equivalen
Sniffing pipe:		Flexible (130 mm
Also available	separately	
Article no.	Article name	Description
I 14004343	LOKATOR VI 20-DB-U	Detection block with universal senso

Sniffing pipe

L14004344

LOKATOR VL20-SP13



## **PROBE CABLE**



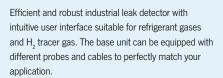
Cable for connecting the base unit to the probe.

Article no.	Article name	Description
L14004342	LOKATOR VL20-C2P6B-2.5M	Probe cable (2.5 m)

## **MULTI GAS LEAK DETECTOR**

## MULTI GAS LEAK DETECTOR FOR INDUSTRIAL LEAK DETECTION (HFC, HFO, R32, R600a, R290, H2 TRACER GAS)





The LOKATOR VL30 is designed for quick and highly accurate leak detection on high-productivity production lines, such as manufacturing of domestic refrigerators, heat pumps or A/C split units. The unit gives a clear indication of the leak size and it allows an easy maintenance on-site within a few seconds.

- Shock-proof housing.
- Easy maintenance and calibration.
- Visual indication of leaks, degassing, saturation and ambient contamination.
- Permanent self-checking of power supply, probes and connections.
- Automatic zeroing with compensation of ambient contamination.
- Audible indication of leaks with adjustable volume.

NOTE: The base unit comes without probe and without probe cable. Please select those articles from the tables below.

Article no.	Article name	Description
L14004338	LOKATOR VL30-BU	Base unit
Technical data	ı	
Warm-up time:		180 sec
Reaction time:		1 sec
Operating tem	perature:	10 °C - 40 °C
Interface DB9:		Logical signal output 0 V – 5 V
Power supply:		110 V-250 V, 50/60 Hz
Power consum	ption:	50 W
L x H x D in m	m:	300 x 150 x 200
Weight:		Approx. 3.5 kg



## REFRIGERANT PROBE / HYDROGEN PROBE





- Selective (only hydrogen probe).
- Plug and play.
- Red LED indicates a leak.
- Probe consists of suction block, sniffing pipe and sensor cell.

Article no.	Article name	Description
L14004346	LOKATOR VL30-CSU-REF ①	Refrigerant probe
L14004311	LOKATOR VL30-CSU-H2 ②	Hydrogen probe

### Technical data

0.5 g/yr for R290, HFC, HFO Sensitivity (refrigerant probe): and 0.05 g/yr for R600a 3x10-6 cc/s or 0.3 g/yr R134a equivalent Sensitivity (hydrogen probe): Sniffing pipe: Semi rigid (150 mm)

### Also available separately

Description	Article name	Article no.
Suction block	LOKATOR VL30-SB	L14004332
Sniffing pipe	LOKATOR VL30-SRSP13	L14004348
Refrigerant sensor cell	LOKATOR VL30-C-REF	L14004334
Hydrogen sensor cell	LOKATOR VL30-C-H2	L14004333

## **PROBE CABLE**



Cable for connecting the base unit to the probe.

Article no.	Article name	Description
L14004336	LOKATOR VL30-C2P6B-2.5M	Probe cable (2.5 m)
L14004347	LOKATOR VL30-C2P6B-5M	Probe cable (5 m)

## HYDROGEN LEAK DETECTOR

### **HYDROGEN LEAK DETECTOR**





- Developed especially for refrigeration and air conditioning technology.
- Made in Germany.
- → Effective hydrogen leak detector thanks to unique dual sensors.
- Very low cross sensitivity to external gases.
- Incremental approximation of major leaks (zero tracking).
- Automatic sensor cleaning.
- No pump or filter due to diffusion technology.
- → Integrated LED light.
- Acoustic and optical alarm.

Article no.	Article name	
L13005099	LOKTRACER TLD.500	
Technical data		
Time to operabili	ity:	< 60 :
Reaction time:		1 to 2 s
Operating time:		Approx. 5 h
Power supply:		Rechargeable batteries
	eparately	
Also available se		
Also available se Article no.	Article name	Description

## HYDROGEN LEAK DETECTOR WITH LEAKAGE RATE DISPLAY





Additional performance features compared to LOKTRACER TLD.500:

- Robust aluminium housing.
- Lit LCD display.
- Recovery pump enables leak detection even through floor screed and foam.
- → ppm measurement of leak rate through "Analysis Mode".

Article no.	Article name	
L13005244	LOKTRACER TLD.1000	
Technical data		
Time to operabili	y:	< 60 s
Reaction time:		1 to 2 s
Operating time:		Approx. 5 h
Power supply:		Batteries
Also available se	parately	
Article no.	Article name	Description
L14004385	PA-TLD.1000	Mains charger

## TRACE GAS LEAK DETECTION KITS

### CARRY CASE KIT FOR TRACE GAS LEAK DETECTION IN VEHICLE AIR CONDITIONING SYSTEMS



- ⊕ Complete kit for trace gas leak detection in vehicle air conditioning systems, in a robust carry case.
- Pressure reducer connection: W21,8-14 with left-handed thread.

Description	Article name	Article no.
With LOKTRACER TLD.500	LOKBOX TG-AUTO-500	L13005139
	eparately	Also available se
Description	Article name	Article no.
10 bar (150 psi) pressure reducer	PR-TG.10 W21,8-14	L14003951
10 bar (100 por) procedio readoor		
Manifold gauge 10 bar (150 psi)	PA-1/LT.10	L13005015
		L13005015 L13004971
Manifold gauge 10 bar (150 psi	PA-1/LT.10	
Manifold gauge 10 bar (150 psi Charging hose	PA-1/LT.10 HDS-A-G+G-3000-Y	L13004971

## CYLINDER TROLLEY KIT FOR TRACE GAS LEAK DETECTION IN VEHICLE AIR CONDITIONING SYSTEMS

Article no

Article name



- Omplete kit for trace gas leak detection in vehicle air conditioning systems.
- The cylinder trolley is suitable for standard 10 l or 20 l gas cylinders.
- The gas cylinder pictured is not included.
- Pressure reducer connection: W21,8-14 with left-handed thread.

L13005004	LOKTRACE KA-500 W21,8-14	With LOKTRACER TLD.500	
L13005184	LOKTRACE KA-1000 W21,8-14	With LOKTRACER TLD.1000	
Also available se	eparately		
Article no.	Article name	Description	
L14003939	CT.10/20	Cylinder trolley	
L14003951	PR-TG.10 W21,8-14	10 bar (150 psi) pressure reduce	
L13005015	PA-1/LT.10	Manifold gauge 10 bar (150 psi	
L13004971	HDS-A-G+G-3000-Y	Charging hose	
L13002909	HDS-J-G+G-3000-Y	Charging hose	
L14002502	QC-134a-BM	Low pressure quick-coupler	
L14002503	QC-134a-RM	High pressure quick-coupler	
I 14003969	LOKTRACE KA.DC	Dust cover	

Description

## QUICK-COUPLER FOR HFO-1234YF



- ⊕ Enables the connection of LOKTRACE leak detection kits in vehicle air conditioning systems with the refrigerant HFO-1234yf.
- An A-1234 fitting is also required to connect to the charging hose of the LOKTRACE leak detection kit.
- → Tested according to SAE J2888 (1234yf).
- → Connection: M12 x 1,5.

Article no.	Article name	Description
L14004188	QC-1234YF-BF	Low pressure quick-coupler
L14004187	QC-1234YF-RF	High pressure quick-coupler

## FITTING M12X1,5 M - 1/4" SAE M



To connect LOKTRACE leak detection kit charging hoses with quick-couplers for HFO-1234yf.

L14004189 A-1234	Article no.	Article name
	L14004189	A-1234

## CARRY CASE KIT FOR TRACE GAS LEAK DETECTION IN REFRIGERATION AND AIR CONDITIONING SYSTEMS



- → Complete kit for trace gas leak detection in refrigeration and air conditioning systems, in a robust carry case.
- Pressure reducer connection: W21,8-14 LH with left-handed thread.

Article no.	Article name	Description
L13005038	LOKBOX TG-HVAC-500	With LOKTRACER TLD.500
L13004643	LOKBOX TG-HVAC-1000	With LOKTRACER TLD.1000

#### Also available separately Article no. Article name Description L14003411 PR-H2.50 50 bar (750 psi) pressure reducer L13005037 PA-1/LT.50 Manifold gauge 50 bar (750 psi) L13004971 HDS-A-G+G-3000-Y Charging hose L13002909 HDS-J-G+G-3000-Y Charging hose

## REFRIGERANT LEAK DETECTOR

### **ELECTRONIC REFIGERANT LEAK DETECTOR**



### **LOKATOR RLD5**



- Suitable for HC, PFC and HFC refrigerants.
- Made in Germany.
- Sensitivity <= 1 g/year</p> (in accordance with EN14624, SAEJ1627 and E85-22).
- (zero tracking).
- Automatic sensor cleaning.
- No pump or filter due to diffusion technology.
- Integrated LED light.
- Acoustic and optical alarm.
- → Conforms to EC regulations 1516/2007 and DIN 378.

Article no.	Article name	
L13005243	LOKATOR RLD5	
Technical data		
Time to operabilit	ty:	< 60 :
Reaction time:		1 to 2
Operating time:		Approx. 5 l
Power supply:		Rechargeable batteries
Also available se	parately	
	Article name	Description
Article no.		

## NITROGEN PRESSURE TESTING

## NITROGEN PRESSURE REDUCER KIT 50 bar (750 psi)



Complete kit for carrying out pressure testing up to 50 bar (750 psi) in refrigeration and air conditioning systems.

	Article name	Article no.
Nitrogen pressure reducer ki	N2-DMS	L13004645
including quick connector and hose		
	eparately	Also available se
Description	eparately Article name	Also available se Article no.
Description ogen pressure reducer 50 bar (750 psi		
	Article name	Article no.
ogen pressure reducer 50 bar (750 psi	Article name PR-N2.50	Article no. L14003405

## NITROGEN PRESSURE REDUCER 10 bar (150 psi)



Pressure reducer for carrying out pressure testing up to 10 bar (150 psi) in refrigeration and air conditioning systems.

Article no.	Article name	Description
L14000039	PR-N2.10	Nitrogen pressure reducer 10 bar (150 psi)

## **LEAK DETECTION SPRAY**



- For the detection of leaks in tube lines under pressure.
- Non-flammable, anti-corrosive, tolerated by the skin.
- DIN-DVGW tested.

Article no.	Article name	Contents
L14000823	LS-400	400 ml

# RECOVERY, EVACUATION, CHARGING

### **VACUUM METER**



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## **RECOVERY UNITS**

### **COMPACT RECOVERY UNIT**



- → World's smallest, fully adequate recovery unit for all common, non-flammable refrigerants (excluding NH<sub>3</sub>).
- Safety pressure limiter with automatic reset function.
- Simple 2-valve control.
- Oil-free compressor for the disposal of liquid and gaseous refrigerants.
- Integrated dirt filter.

Article no.	Article name	
L14004102	RG3000E	
Technical data		
Recovery capac	city (gaseous):	7 kg/h (15.4 lbs/h)
Recovery capac	city (liquid):	40 kg/h (88.2 lbs/h)
Connections:		1/4" SAE
Safety pressure	limiter:	38 bar (550 psi)
Pressures in:		bar and ps
Power supply::		220/240 V - 50/60 Hz
L x H x D in mi	m (inch):	310 x 235 x 175 (12.2 x 9.25 x 6.9)
Weight:		8 kg (17.64 lbs)

## **RECOVERY UNITS**



- Compact recovery unit for all common, non-flammable refrigerants (excluding NH<sub>3</sub>).
- → Made in USA.
- Oil-free 1/2 PS compressor.
- Switches off automatically after process ends.
- → With "Technical Inspection Association-type" test.

Article no.	Article name	
L14003138	RG-69000-220 TÜV	
Technical data		
Recovery capaci	ty (gaseous):	30 kg/h (66.14 lbs/h)
Recovery capaci	ty (liquid):	84 kg/h (185.2 lbs/h
Connections:		1/4" SAE
Safety pressure	limiter:	38 bar (550 psi)
Pressures in:		bar and ps
Power supply:		220/240 V - 50/60 Hz
L x H x D in mm	i (inch):	432 x 254 x 305 (17 x 10 x 12)
Weight:		16 kg (2.2 lbs)

## **VACUUM PUMP STATIONS**

### **VACUUM PUMP STATION WITH VACUUM PUMP RD.2D**



- → For the evacuation and charging of refrigerant circuits.
- 2-stage vacuum pump RD.2D (35 I/min).
- Gauge with 80 mm (3.15") diameter.
- Compartment for refrigerant scales.
- 2 charging hoses 1.5 m (39.4").

Article no.	Article name	Low pressure gauge	High pressure gauge
L13001863	VPS-RD.2D/MN-01/MH-01/V80	R600a	R600a
L13005316	VPS-RD.2D/MN-11/MH-11/V80	R290, R600a	R290, R600a
Article no.	Article name	Low pressure gauge	High pressure gauge
L13001851	VPS-RD.2D/MN-01/MN-07/V80	R600a	R134a
Technical data			
Power supply:			220/240 V - 50/60 Hz
L x H x D in mn	ı (inch):	345 x 265 x 3	360 (13.6 x 10.4 x 14.2)
Weight:			12.2 kg (26.9 lbs)

### **VACUUM PUMP STATION WITH VACUUM PUMP DIP-402**



- → For the evacuation and charging of refrigerant circuits.
- 2-stage vacuum pump DIP-402 (80 I/min).
- Gauge with 80 mm (3.15") diameter.
- Compartment for refrigerant scales.
- 2 charging hoses 1.5 m (39.4").

Article no.	Article name	Low pressure gauge	High pressure gauge	
L13005289	VPS-DIP-402/MN-11/MH-11/V80	R290, R600a	R290, R600a	
Technical data				
Power supply:			220/240 V - 50/60 Hz	
L x H x D in mm (inch):		430 x 270 x 360 (16.93 x 10.6 x 14.17		
EXTIND III IIIII				

## **VACUUM PUMPS**

## **VACUUM PUMP RD.2D**



Has a gas ballast valve and thermal overload protection.

Article no.	Article name	
L14002963	RD.2D	
Technical data		
Capacity:		35 l/min
Final partial pre		0.01 mbar (0.15 psi
Connection pow	ver:	120 Wati
Power supply:		220/240 V - 50/60 Hz
L x H x D in mr	m (inch):	247 x 110 x 210 (9.72 x 4.33 x 8.27)
Weight:		6 kg (13.23 lbs)

## **VACUUM PUMP DIP-402**



Has a gas ballast valve and thermal overload protection.

L14001731 DIP-402	
Technical data	
Capacity:	80 I/mir
Final partial pressure:	0.01 mbar (0.15 psi
Connection power:	300 Wat
Power supply:	220/240 V - 50/60 H;
L x H x D in mm (inch):	285 x 150 x 260 (11.22 x 5.9 x 10.24
Weight:	10 kg (22.05 lbs

Article no.

Article name

## MINERAL VACUUM PUMP OIL



1 litre mineral vacuum pump oil.

Article no.	Article name	For vacuum pumps
L13003161	M032	RD.2D
L14000010	M068	DIP-402

## **MANIFOLD GAUGES**

## 1-VALVE MANIFOLD GAUGES



Gauge with 80 mm (3.15") diameter.

1600a
-

## 2-VALVE MANIFOLD GAUGES



Gauges with 80 mm (3.15") diameter.

Article no.	Article name	For refrigeran
13001562	PA-2/MN-01/MH-01	R600a
13001302	FA-2/ WIN-01/ WIII-01	NOU

## **BASIC BODY FOR 1-VALVE MANIFOLD GAUGE**



Basic body for a manifold gauge.

Article name	Article no.
PA-1/N/GK	L14000832
L14000837 PA-1/H/GK Ba	
K	PA-1/N/GI

## **BASIC BODY FOR 2-VALVE MANIFOLD GAUGE**



Basic body for manifold gauges.

Article no.	Article name	Description
L14000833	PA-2/GK	Basic body for 2-valve manifold gauge

## **BASIC BODY FOR 5-VALVE MANIFOLD GAUGE**



Basic body for manifold gauges.

Article no.	Article name	Description
L14000835	PA-5/GK	Basic body for 5-valve manifold gauge

## **COMPLETE DIAPHRAGM SET FOR MANIFOLD GAUGES**



Consists of:

- $\begin{tabular}{ll} \begin{tabular}{ll} \beg$
- Spring.
- Brass head.
- $\begin{tabular}{ll} \Theta & Brass\ ring. \end{tabular}$

Article no. Article name L14000137 WK-G03

## **DIAPHRAGM SET FOR MANIFOLD GAUGES**



Article no.	Article name
L14000274	WK-G04

## **VALVE SET FOR MANIFOLD GAUGES**



L14000493	WK-07H	HIGH
L14000494	WK-07L	LOW
L14000272	WK-07R	REF
L14000492	WK-07V	VAC

## **GAUGES & VACUUM METERS**

### **LOW PRESSURE GAUGE**



- → Adjustable and vibration-free.
- → Diameter 80 mm (3.15").
- ⊕ Connection thread 1/8" NPT.

Article no.	Article name	For refrigerant	Scale [ bar ]	Scale [ psi ]
L14000690	MN-01	R600a	-1 to 3	-14.5 to 42
L14000696	MN-07	R134a	-1 to 10	-14.5 to 140
L14000779	MN-08	R410A	-1 to 30	-14.5 to 450
L14002928	MN-11	R290, R600a	-1 to 10	-14.5 to 140

## **HIGH PRESSURE GAUGE**



- Adjustable and vibration-free.
- → Diameter 80 mm (3.15").
- ⊕ Connection thread 1/8" NPT.

Article no.	Article name	For refrigerant	Scale [ bar ]	Scale [ psi ]
L14000697	MH-01	R600a	-1 to 10	-14.5 to 140
L14000703	MH-07	R134a	-1 to 30	-14.5 to 450
L14002929	MH-11	R290, R600a	-1 to 30	-14.5 to 430

## **VACUUM METER**



- → Precision scale from 0 to 1000 mbar.
- → Diameter 80 mm (3.15").
- Onnection thread 1/8" NPT.

Article no.	Article name
L14000704	V80

## **DIGITAL VACUUM METER**



- ⊕ For simple and precise vacuum metering between 0 mbar and 16 mbar.
- igoplus Trend display (rising or sinking pressure) where there is more than 16 mbar.
- $\ensuremath{\ensuremath}\amb}\amb}\amb}}}}}}}}}}}}}}$ the measurement value is greater than 16 mbar.
- Delivered in a robust plastic case.

Article no.	Article name	
L14001096	VG64	
Technical data		
Measuring rang	e:	0 to 16 mbar (0 to 12000 Microns
Resolution:		0.001 mbar (where measurement value < 0.260 mbar
		1 micron (where measurement value < 200 microns
Accuracy:		± 10 % (where measurement value < 1000 microns
Display updates		2 x per second
Units:		[micron], [psi], [inHg], [mbar] [Pascal], [torr], [mTorr
Overpressure pr	otection:	Up to 20 bar (290 psi
Connections:		1/4" SAI
Working temper	ature:	2 °C to 52 °C (35 °F to 125 °F
Power supply:		1 x 9 V alkaline battery (not included
Operation time:		Approx. 35 I
Dimensions, va	cuum meter (L x	W x H): 140 x 76 x 32 mn
		(5.51" x 2.99" x 1.26"
Weight, vacuum	meter:	190 g (6.7 oz

## **CHARGING DEVICE**

## **CHARGING DEVICE**





Portable charging device for precise charging of refrigerant circuits.

Article no.	Article name
L13005734*	LOKBOX FE charging device

#### Also available separately Article name Description L14003840 DSL 5000 Compact digital scales L14000009 Quick-coupler L13005321 EV-600a Extraction valve L13000953 FE-600a-SK PVC hose - 1.1 m (3.61") FE-600a-ESK L13000950 Discharge hose - 5 m (16.4") 121/T-VK L14000244 Ball valve L13001971 HDS-A-G+G-260 Charging hose L14000131 NRV-6 Non-return valve HFFB-1 L13001521 Holder for liquid charging

\*Suitable refrigerant cartridges can be found on page 31.

## **DIGITAL SCALES**

### **COMPACT DIGITAL SCALES**



- For precise removal of refrigerant from cartridges or aluminium compressed gas cylinders.
- Developed especially for **VULKAN Lokring by SOEHNLE** PROFESSIONAL, the leading company in measurement and weighing technology.
- → Straightforward operation with three buttons.
- Easily readable LCD display: Digit height 15 mm (0.59").
- Without zero-tracking.
- Without automatic switch off.
- Unit toggle switch kg/lb.
- ⊕ Easy-care ABS plastic housing.
- → Battery operated 2 x 1.5V AA batteries\*.
- Working temperature: 0 °C to 40 °C (32 °F to 104 °F).

Article name Article no. L14003840 DSL 5000 Technical data Weighing range: 5,000 g (176.37 oz) 0.5 g (0.02 oz) Platform size: ø120 mm (4.72") Dimensions (L x W x H): 140 x 190 x 45 mm (5.51" x 7.48" x 1.77") Weight: 500 g (17.64 oz)

### **DIGITAL SCALES**



- For the exact determination of refrigerant removal amounts or refrigerant charging amounts.
- Robust weighing platform with overload protection.
- Separate operating and display unit with large display.
- Saves last weight display.
- Easy adjustment through integrated spirit level.
- USB connection.
- Delivered in a robust plastic case.

Article no.	Article name	
L14001836	SC 98210	
Technical data		
Weighing range	):	110 kg (242.51 lbs)
Resolution:		0.01 kg (0.02 lbs)
Weight units:		[kg], [lbs], [oz]
Accuracy:		± 0.01 kg, ± 0.01 lbs, ± 0.16 oz
Working tempe	rature range:	0 °C to 49 °C (32 °F to 120 °F)
Platform size:		220 x 220 mm (8.66" x 8.66")
Power supply:		9 V alkaline battery

## **CHARGING HOSES**

## **CHARGING HOSE: 1/4" SAE CONNECTIONS (STRAIGHT)**



- → 1/4" SAE F straight with valve opener.

Article no.	Article name	Description
L13002285	HDS-A-G+G-600-B	600 mm, blue
L13002286	HDS-A-G+G-600-R	600 mm, red

## CHARGING HOSE: 1/4" SAE CONNECTIONS (1 X STRAIGHT, 1 X 45°)



#### Connections

- $\bigcirc$  1/4" SAE F with 45° elbow and valve opener.

Article no.	Article name	Description
L13002306	HDS-A-G+W-600-Y	600 mm, yellow
L13002111	HDS-A-G+W-900-B	900 mm, blue
L13002018	HDS-A-G+W-900-R	900 mm, red
L13002023	HDS-A-G+W-1500-B	1500 mm, blue
L13002024	HDS-A-G+W-1500-R	1500 mm, red
L13002154	HDS-A-G+W-1500-Y	1500 mm, yellow
L13002114	HDS-A-G+W-1800-B	1800 mm, blue
L13002115	HDS-A-G+W-1800-R	1800 mm, red
L13002116	HDS-A-G+W-1800-Y	1800 mm, yellow

## **CHARGING HOSE ACCESSORIES**

### **BALL VALVE**



	Article no.	Article name	Thread
1/4" SAE	L14000447	121-RG-4	1/4" SAE M >
			1/4" SAE F

## REPLACEMENT SEALS MADE OF PLASTIC



## **VALVE OPENER**





## **VALVE CORE**



iicle name 5200a
5200a

### **VALVE CORE REMOVER WITH 3 VALVE CORES**





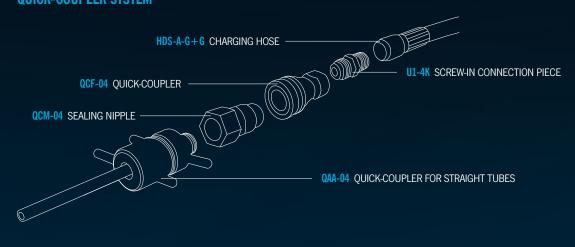
### **HOSE ADAPTER FOR R410A**



Article no.	Article name	Thread
L14001083	HA-R410A	1/4" SAE M x
		5/16" SAE F

# **QUICK-COUPLERS**

### **QUICK-COUPLER SYSTEM**



PAGE 27 QUICK-COUPLERS

## **QUICK-COUPLERS**

## 1234YF QUICK-COUPLER, CONNECTION M12 X 1.5



- detection kits in vehicle air conditioning systems with the refrigerant HFO-1234yf.
- An A-1234 fitting is also required to connect to the charging hose of the LOKTRACE leak detection kit.
- → Tested according to SAE J2888 (1234yf).
- → Connection: M12 x 1,5.

Article no.	Article name	Description
L14004188	QC-1234YF-BF	Low pressure quick-coupler
L14004187	QC-1234yf-RF	High pressure quick-coupler

### R134a QUICK-COUPLERS



- Onnection 1/4" SAE M.
- → Tested according to SAE J497 (R134a).

Description	Article name	Article no.
Low pressure quick-couple	QC-134A-BM	L14002502
High pressure quick-couple	QC-134a-RM	L14002503

## R134a QUICK-COUPLERS



- Onnection M14 x 1,5.
- → Tested according to SAE J497 (R134a).

Description	Article name	Article no.
Low pressure quick-coupler	QC-134A-BF	L14002485
High pressure quick-coupler	QC-134a-RF	L14002484

## **EXTENSION FOR R134a HIGH PRESSURE SERVICE PORT**



To extend high pressure service ports that are difficult to access e.g. for BMW E60 (5 Series), Volvo S80 and some Ford models.

Article no.	Article name
L14002876	QC-134A

## **QUICK-COUPLERS**

### QUICK-COUPLER FOR SCHRADER VALVES



- To open Schrader valves without a loss of refrigerant.
- When the quick-coupler is removed, the hose is sealed by the valve.
- igoplus No valve opener is required in the end of the hose.
- Quick-coupler 27-C is suitable for R410A.

Article no.	Article name	Description
L14000009	16-C	1/4" SAE M, straight
L14000053	17-C	1/4" SAE M, 90° angle
L14002678	27-C	5/16" SAE M, 90° angle

Available separate	ely	
L14000264	OR-16C	O-Ring for 16-C and 17-C
L14000265	16-C/D	Seal for 16-C and 17-C
L14002926	OR-26C	O-Ring for 26-C and 27-C
L14002927	26-C/D	Seal for 26-C and 27-C
L14002925	26-C/RM	Knurled nut for 26-C and 27-C

## **QUICK-COUPLER FOR STRAIGHT TUBES**



- → For clamping straight tubes.
- Seals at tube intersection and around entire tube circumference.
- Suitable for pressure tests and evacuation as well as refrigerant charging.

Article no.	Article name	For ø
L14001655	PCV-600-2-HNBR	6 mm
L14001849	PCV-630-2-HNBR	6,35 mm (1/4'')
Technical data		
roommour aata		
Vacuum-tight		Up to 0.013 mbar (10 micron)
		Up to 0.013 mbar (10 micron) Up to 45 bar (650 psi)
Vacuum-tight		

## QUICK-COUPLER FOR STRAIGHT TUBES



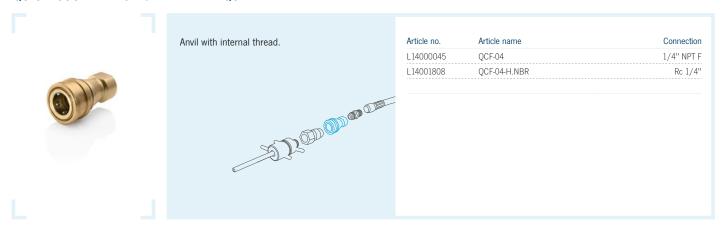
- → For clamping straight tubes.
- Seals around entire tube circumference.
- Ensures maximum flow when flushing air conditioning systems.
- Suitable for pressure tests and evacuation as well as refrigerant charging.

Article no.	Article name	For ø
L13002869	SK-40-2	2 mm
L13001369	SK-40-5	5 mm
L13001368	SK-40-6	6 mm
L13001406	SK-40-6,35	6.35 mm (1/4")
L13001431	SK-40-8	8 mm (5/16")
L13001312	SK-40-10	10 mm
Technical data		
Vacuum-tight		Up to 0.013 mbar (10 micron)

Up to 52 bar (754 psi)

Pressure resistant

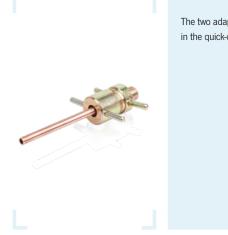
## QUICK-COUPLER FOR SEAL NIPPLE QCM



## **SEAL NIPPLE FOR QUICK-COUPLER QCF**



## QUICK-COUPLER FOR STRAIGHT TUBES



The two adapters have the same structure, but differ in the quick-coupler inserts and seals used.

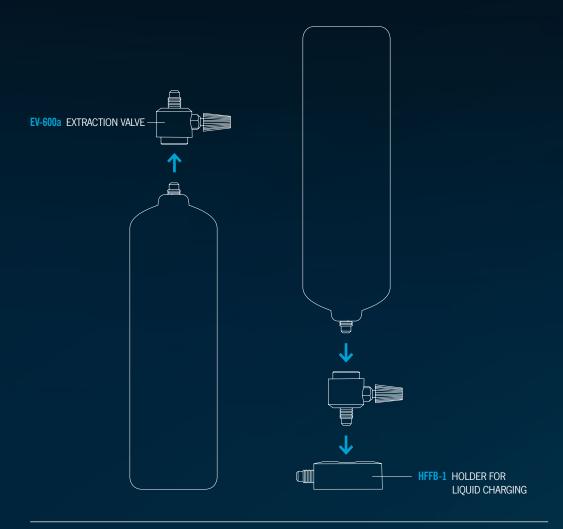


Article no.	Article name	For ø
L14000030	QAA-04	6 mm
L14000142	OAA-05	8 mm (5/16")

QAI-04	Quick-coupler insert
QAI-05	Quick-coupler insert
QAG-04	Seal
QAG-05	Seal
	QAI-05 QAG-04

# REFRIGERANTS

## **RECOVERY**



PAGE 31 REFRIGERANTS

## **REFRIGERANTS**

### **R290 REFRIGERANT CARTRIDGE**



## **R600a REFRIGERANT CARTRIDGE**



## **EXTRACTION VALVE FOR R290 CARTRIDGES**



## **EXTRACTION VALVE FOR R600a CARTRIDGES**



## HOLDER FOR LIQUID CHARGING





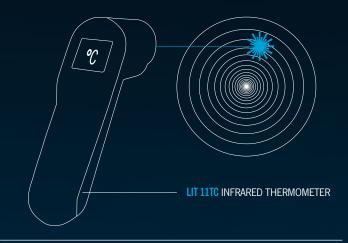
## ADAPTER FOR NON-FLAMMABLE REFRIGERANT



Article no.	Article name	e Connections
L14000689	W21,8-14	W21,8-14 x 1/4" SAE M

# **MEASUREMENT** AND DIAGNOSTIC DEVICES

### INFRARED THERMOMETER



PAGE 33 INFRARED THERMOMETER

PAGE 34 DIGITAL QUICK RESPONSE THERMOMETER

PAGE 35 PROBE

PAGE 35 TEMPERATURE LOGGER

## **INFRARED THERMOMETER**

## **INFRARED THERMOMETER**





- → For precise, non-contact temperature measurement on non-reflective surfaces.
- With additional K-type thermocouple.

L14002969	LIT 11TC	
Technical data		
Optical resolution:		11:1
Temperature range:		-60 °C to 500 °C (-76 °F to 932 °F)
Resolution:		0.1 °C (0.1 °F
Accuracy:		± 1 °C (1.8 °F)
Emission coefficient		0.95 adjustable
K-type thermocouple	e:	Yes (probe included
Probes included in t	he temperature range:	14 °C to 250 °C (57 °F to 482 °F)
Total temperature ra	nge:	-64 °C to 1400 °C (-83 °F to 2552 °F
Temperature accura	cy:	± 1% or 2 °C (3.6 °F)
Display:		LCD, li
Automatic switch of	f:	Yes
Power supply:		2 x AA batteries (included
Weight:		179 g (6.31 oz
Dimensions:		175 x 39 x 71 mm (6.89" x 1.54" x 2.80")

## **DIGITAL QUICK RESPONSE THERMOMETER**

### **DIGITAL QUICK RESPONSE THERMOMETER**



Digital quick response thermometer, freely combinable with the probes shown on the right.

- Digital quick response thermometer.
- Alkaline battery 9 V.

Article no.	L14000527	L14000817
Article name	GTH-1150	GTH-1160
Technical data		
Probe (not included):	1	1
Number of measuring ranges:	1	2
Measuring range 1:	-50 °C to 1150 °C	-50 °C to 1150 °C
Measuring range 2:	=	-50 °C to 199.9 °C
Accuracy of measuring range 1:	$\pm$ 1.0%: 20 °C to 550 °C; 920 °C to 1150 °C $\pm$ 1.5%: 550 °C to 920 °C	920 °C to 1150 °C
Accuracy of measuring range 2:	-	± 1.0%: 20 °C to 199 °C
Resolution of measuring range 1:	1 °C	1 °C
Resolution of measuring range 2:	-	0,1 °C
Temperature difference measurement:	No	No
	0 °C to 45 °C	0 °C to 45 °C
Working temperature:	(32 °F to 113 °F)	(32 °F to 113 °F)
Power supply:	1 x 9 V alkaline battery	1 x 9 V alkaline battery
Dimensions (L x W x H):	106 x 67 x 30 mm (4.17" x 2.64" x 1.18")	106 x 67 x 30 mm (4.17" x 2.64" x 1.18")
Weight (including battery):	150 g (5.29 oz)	150 g (5.29 oz)

## **CARRY CASE KIT INCLUDES PROBE**



- Digital quick response thermometer.
- Probe GTF-300 GS.
- Alkaline battery 9 V.
- Plastic carry case.

### PROBE AND **TEMPERATURE LOGGER**

#### PROBE FOR DIGITAL QUICK RESPONSE THERMOMETER

#### PROBE FOR DIGITAL QUICK RESPONSE THERMOMETER



L14001898	GOF 500
Technical data	
Measuring range:	-265 °C to 500 °C
	(-445 °F to 932 °F)
Area of application:	Gases, liquids and
	solid surfaces



L14000889	GTF-300 G
Technical data	
Measuring range:	-65 °C to 400 °C
	(-85 °F to 752 °F
Area of application:	Gases, solid surface
Area of application:	Gases, solid surface (not just liquids

#### **TEMPERATURE LOGGER**



Standalone USB-based mini-data logger for measurements in critical climatic conditions.

#### Performance features

- → Delayed start or recording review via a push button.
- Temperature alarm with optical display on request.
- User can select stop when memory is full, or memory roll-over for continuous recording.
- Real-time monitoring.
- USB connection.
- Windows compatible software.

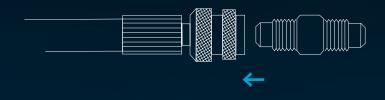
#### Scope of supply

- SL 300 T temperature logger.
- → Windows-based software compatible with 98SE, ME, 2000, XP, VISTA 32-bit Version (not compatible with Windows 95, NT, VISTA 64-bit Version, Windows 7 and Windows 10).
- USB connection cable.
- 3 V alkaline batteries.

Article no.	Article name	Description
L14003035	SL 300 T	Temperature logger
Technical data		
Measuring point	ts:	44,344
Sampling rate:		1 second to 18 hours
Alarm:		Over and under-range alarn
Temperature measuring range:		-40 °C to 85 °C (-40 °F to 185 °F
Temperature ac	curacy:	± 0.5 °C (1 °F
Temperature res	solution:	0.01 °C (0.02 °F
Calibration:		One-point offset calibration through software
Time Accuracy:		± 100 ppm at 24 °C (75.2 °F
Dimensions (L x W x H):		76 x 40 x 15 mm (2.99" x 1.57" x 0.59"
Power supply:		3 V lithium battery (CR 2035
Battery lifespan		Approx. 6 years

## **FITTINGS**

#### **FITTINGS**



PAGE 37 FITTINGS

### **FITTINGS**

#### **SCREW-IN CONNECTION PIECE**





#### **SCREW-ON CONNECTION PIECE**



L12002418 U1-7K Rc 1/4" - 1/4 L14000116 U3-4A 1/8" NPT F - 1/4 L14000092 U3-4B 1/4" NPT F - 1/4	
L14000092 U3-4B 1/4" NPT F - 1/4	
	F - 1/4'' SAE N

#### **ELBOW CONNECTORS**





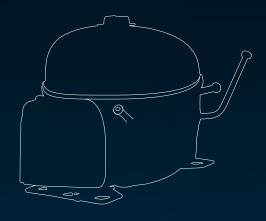
#### **SLEEVES**



Article no. Article name Connections L14000445 U4-4 1/4" SAE F - 1/4" SAE F

## COMPRESSORS

#### **COMPRESSOR**



PAGE 39 R600a COMPRESSORS

PAGE 39 COMPRESSOR PRESSURE TESTING DEVICE

# COMPRESSORS AND COMPRESSOR PRESSURE TESTING DEVICE

#### R600a COMPRESSORS



- For refrigeration and freezer devices.
- Complete with all electrical parts as well as rubber feet and humidifier tray.
- The compressors are compatible with other types of compressors (see compatibility chart).
- Power supply: 220/240 V, 50 Hz.
- The compatibility list was created based on the manufacturer information. We therefore recommend that only the compressors specified are used; and exclude all liability for consequential damages where any other compressors are used.

article no.	L14000485	L14000483	L14000482
Article name	C-R600a-1/4	C-R600a-1/6	C-R600a-1/8
Technical data			
PS:	1/4	1/6	1/8
Refrigeration capacity kcal/h:	100	116	104
Refrigeration capacity watts:	233	135	121
Volumetric delivery cm <sup>3</sup> :	14.28	7.96	7.23
Nom. power consumption watts:	175.0	102.0	91.0
Dimensions L x W x D mm (inch):	220 x 250 x 180 (8.66 x 9.84 x 7.09)	180 x 220 x 150 (7.09 x 8.66 x 5.91)	170 x 230 x 150 (6.69 x 9.06 x 5.91)
Weight kg (lbs):	10.7 (23.6)	7.7 (17.0)	7.1 (15.7)
Compatible with			
Aspera	NBM1118Y	BPK1111Y	BPK1084Y
Danfoss	NLE15K/NL15K	TLES9K/TLS9K	TLES7K/TLS7K
Elektrolux	HP16AH	HL99AH/HL99AA/	HL70AH/HL70AA/HL67AH
		HL90AH/HL90AA	
Matsushita			SD65E
Embraco		EMI40CEP/EMI40CSC	EMI30CEP/EMI30CSC

#### COMPRESSOR PRESSURE TESTING DEVICE



To check the performance of compressors.

#### Scope of supply

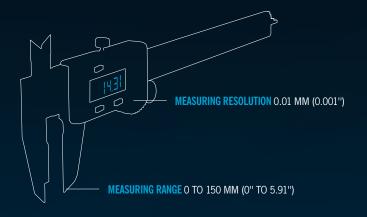
- Pressure vessel with gauge (16 bar, filled with glycerine).
- adjustable safety valve.
- → Charging hose NFS-A-G+W-1500-B.
- Case

 Article no.
 Article name

 L13002291
 KP-DG

## **USEFUL ACCESSORIES**

#### **DIGITAL CALIPER**



PAGE 41 USEFUL ACCESSORIES

### **USEFUL ACCESSORIES**

#### TUBE CUTTER: 3 TO 28 MM (5/32" TO 1 1/8")



- → With roller bearing technology, which allows easy and fast cutting of tubes.
- Diameter range: 3 to 28 mm (5/32" to 1 1/8").

Article no.	Article name	Description
L14003600	TC3-28	Tube cutter
L14003603	CW3-28	Cutting blade

#### **FLARING TOOL**



- $\ensuremath{\ens$ aluminium or brass tubes with metric or imperial diameters.
- Suitable for tube outer diameters of 5 to 16 mm (3/16" to 5/8").

Article no.	Article name
L14002017	VRC2.D

#### **COLD RATCHET**



Cold ratchet with usable spanners on both sides for 9/16" and 1/2" hexagon heads and 1/4" and 3/16" squares.

Article no.	Article name
L14001251	KN-70081

### **USEFUL ACCESSORIES**

#### **COOLING SPRAY**



In spray cans, for testing thermostats up to -50 °C (-58 °F).

Article no. Article name L14000311 BR-400

#### **DIGITAL CALIPER**



Measuring range: 0 to 150 mm (0" to 5.91") Measurement units: Metric/imperial.

Article no. Article name L14003948 DGMS 150

#### **REPAIR KIT**



For sealing aluminium evaporators. Temperature resistant from -35 °C to 120 °C (-31 °F to 248 °F) and pressure resistant up to 84 N/mm<sup>2</sup>.

Article no. Article name Contents L14000688 AL-115 57 g (2 oz)

#### **FIN COMB SET**



For smoothing and cleaning of evaporator and condenser fins.

Article no. Article name L14001031 FCR6

### **NOTES**

### **ONLINE-SERVICE**

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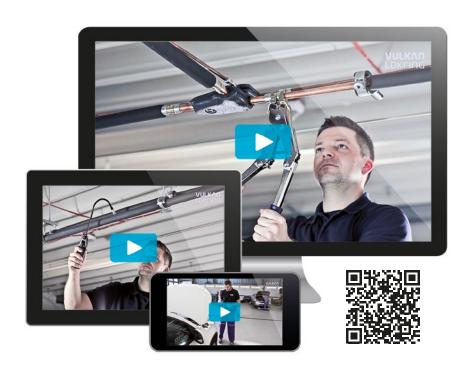
The LOKRING® tube connection technology represents a proven method of producing hermetically sealed metal-to-metal tube connections. The LOKRING® tube connections are mainly used in the refrigeration and air conditioning industries. The use of LOKRING® tube connection technology in other fields is to be discussed with VULKAN Lokring. VULKAN Lokring as the supplier is responsible for the qualitative delivery of the tube connections and tools which are ordered from this catalogue.

The purchaser is responsible for the use of the LOKRING® tube connections and tools as directed. The assembly has to be done accordingly to the instructions and exclusively with original LOKRING® parts. The present Vehicle Air Conditioning catalogue shall replace all previous editions, any previous printings shall no longer be valid. The data contained in this catalogue refers to the valid state of affairs in time of the copy deadline. Any changes due to technical progress are reserved.

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