Valve island with quick-connect fittings IM11 – Ø 4, 6, 8 mm

ORIGA – simply the first





IM11 – the modular valve island

The high-performance valve islands IM 11 are the ideal solution for all applications. The modular construction makes it possible to use very different types of valves with different nominal diameters.

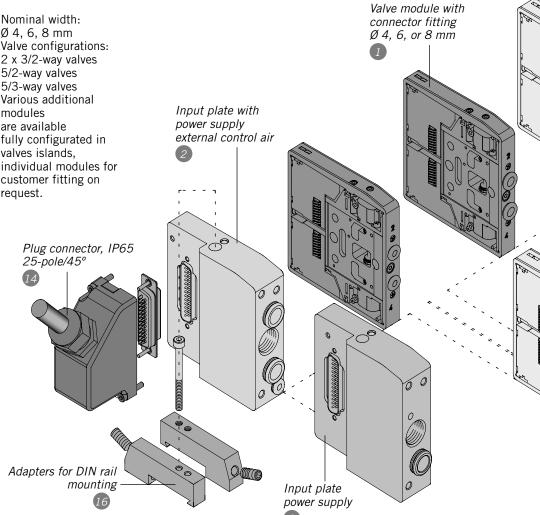
IM11 valve islands are characterised by

- rugged, aesthetically pleasing, dirt-repelling design
- compact dimensions
- time required for re-fitting is very short
- electric connection internal via contact plug
- 3 very different nominal sizes can be used in 1 valve island
- low power input
- protection rating IP65
- valve islands with from 2 - 16 valves
- quick-connect fittings Ø 4, 6, 8 mm accessible from one side
- all instructions regarding functions are together on one side
- many fitting options

Configurations

IM11 valve islands can be configured from any of 3 different nominal sizes and very different valve types.

- Nominal width: Ø 4, 6, 8 mm
- Valve configurations: 2 x 3/2-way valves 5/2-way valves
- Various additional modules
- are available fully configurated in valves islands, individual modules for customer fitting on request.



The position numbers on the elements allow fast identification of function and assembly position of the individual elements illustrated.

Standard Valve island **IM11**

Option Valve island IM11 with CM valve system

Fitting options



End plate



Adapters for DIN rail

intermediate plate

- through -

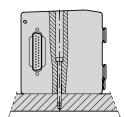
intermediate plate

- exhaust -

6

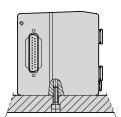
mounting

Fitting method A: Input plate 1 or 1-11 and end plate is used for fitting.



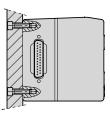
Fitting method B:

Input plate 1 or 1-11 and end plate is used for fitting via the M5 threaded hole in the base.



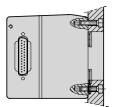
Fitting method C:

Input plate 1 or 1-11 and end plate is used for fitting via the M5 threaded hole on the side



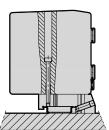
Fitting method D:

Input plate 1 or 1-11 and end plate is used for fitting via the threaded hole on the side. An opening for air supply hoses must be provided in the plate.



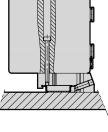
Fitting method E:

Input plate 1 or 1-11 and end plate is used for fitting on DIN rail, using the adapter PD 49586 (pos.-no. 16)

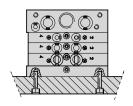


Fitting method F:

plate using the M4 threaded



Lateral fitting on the end holes on the side.



intermediate plate

- blind -



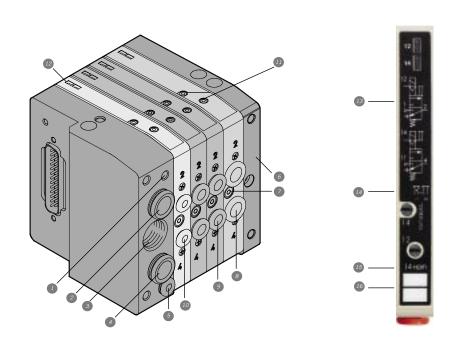
Series IM11

Connection size can be configured: with valves NW Ø 4 NW Ø 6 NW Ø 8

Characteristics					
Characteristics	Symbol	Unit	Description		
General					
Connection size					
- Connection 2, 4		mm	quick-connect fitting Ø 4, 6, 8		
- Connection 1, 11		mm	quick-connect fitting Ø 10		
- Connection 3, 5			G3/8		
Connection X		mm	quick-connect fitting Ø 4		
Maximum number of control items			16		
Maximum number of valves			16 (identical with the max. number of control items)		
Range of ambient and medium temperature	T _{min} T _{max}	°C °C	-10 Note: +60 Before using below freezing point (°C) customers are requested to consult with us.		
Medium			filtered and un-oiled compressed air; if oiled, then continuous		
Pneumatic characteristic	S				
Nominal pressure	p _n	bar	6		
Operating pressure range					
-input plate 1	p _{min/max}	bar	2 to 7 valve connections 1+11		
- input plate1-11	$\boldsymbol{p}_{\text{min/max}}$	bar	2 to 7 control connections X valve connections 1+11		
	$\boldsymbol{p}_{\text{min/max}}$	bar	-0.9 to 10 valve connections 1+11		
Throughput rating	Q_N	l/min	Ø 4: 200 Ø 6: 500 Ø 8: 800		
Electric characteristics					
Voltage range		VDC	24 ± 10%		
Power consumption		W	0.6		
Drive control			PNP or NPN		
Insulation class			F155		
Protection rating		IP65	with exhaust air connected		
Duty cycle	ED	%	100		

Technical overview

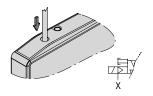
- Exhaust drive control 82/84
- Valve connection 1
- 3 Exhaust
 - threaded connection 3/5
- Valve connection 11
- **6** Control air connection X
- 6 End plate
- Screw for valve connection
- Working connection for hose Ø 8 mm
- Working connection for hose Ø 6 mm
- Working connection fior hose Ø 4 mm
- Manual override
- LED (LED = ON, valve is activated)
- pneumatic switch symbol
- Identification for pushbutton override or locking override
- Type designation of valve
- free area for labelling



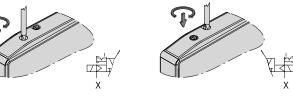


Description of manual override function

Manual pushbutton override



Manual locking override



for connection 2

- Press the pushbutton fully down.. Keep the manual device in the pushed-down position (not required with the bi-stable valve of type K) Let go the manual device:
- On the valve types I, W, L, V, F the manual device returns to the home position and the valve resets itself.
- On the valve type K the manual device remains in position and the valve remains switched over.
- On the valve type 0 the manual device does not fully return to the home position but the valve resets itself

for connection 4

- Press the pushbutton fully down Keep the manual device in the pushed-down position (not required with the bi-stable valve of type K) Let go the manual device:
- The manual device returns to the home position.
 - The valves of type I, W, L, O reset themselves
 - The valve of type K remains switched

The valves of type V and F do not have this

for connection 2

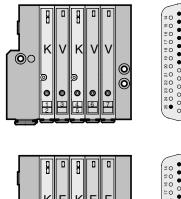
- Press the pushbutton fully down and then turn clockwise up to the stop.
 Leave the manual device in that position.
 Turn the manual device anti-clockwise up
- to the stop and then let go. On the valve types I, W, L, V, F the manual device returns to the home position and the valve resets itself.
- On the valve type K the manual device remains in position and the valve remains switched over.
- On the valve type 0 the manual device does not fully return to the home position but the valve resets itself.

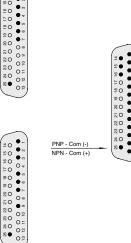
for connection 4

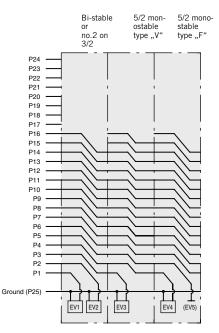
- Press the pushbutton fully down and then turn clockwise up to the stop.
 Leave the manual device in that position.
 Turn the manual device anti-clockwise up
- to the stop and then let go.
 - The manual device returns to the home position.
 - The valves of type I, W, L, O reset themselves
 - The valve of type K remains switched

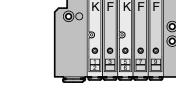
The valves of type V and F do not have this manual device.

Assignment of terminals









Note: Type F of the mono-stable valves uses one pin only (as does V) but occupies 2 signals

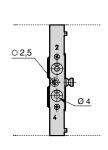
Dimensions of valve modules see pages 6 - 9, order data see pages 13 - 14, accessories see pages 11 - 12

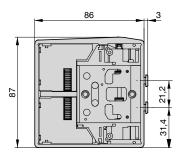


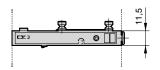
Series IM11

Valve module with quick-connect fitting Ø 4 mm

Dimensions - Valve modules IM11 Ø 4 Pos. No. 1







Weight (mass)

Valve version	Weight (kg)
I4T/I4R	0.130
W4T/W4R	0.130
L4T/L4R	0.130
V4T/V4R	0.115
F4T/F4R	0.115
K4T/K4R	0.130
04T/04R	0.130

Type overview - Valve modules IM11 Ø 4

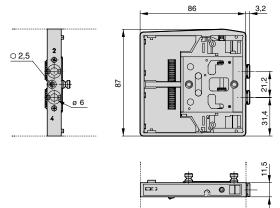
Valve code no.	Description	Manual override	Symbol
I4T	2x3/2-way valve, NG* mono-stable	pushbutton override	82/84 2 4
I4R	2x3/2-way valve, NG* mono-stable	locking override	12 [2] 14 [2] 14 [2] 14 [2] 14 [2] 15 16 16 16 16 16 16 16
W4T	2x3/2-way valve, NO* mono-stable	pushbutton override	82/84 2 4 12/05 \ W 14/05 \ W
W4R	2x3/2-way valve, NO* mono-stable	locking override	X+ 3/5 11
L4T	2x3/2-way valve, NO*+NG* mono-stable	pushbutton override	82/84 2 4 12/20 W 14/20 W
L4R	2x3/2-way valve, NO*+NG* mono-stable	locking override	X+ 1 3/5 1 11
V4T	5/2-way valve mono-stable (1PIN)	pushbutton override	82/84 2 4 14/ 2 1\\\ \ \ \ \ \ \ \
V4R	5/2-way valve mono-stable (1PIN)	locking override	X, 1, 3/2, 11
F4T**	5/2-way valve mono-stable (2PIN)	pushbutton override	82/84 2 4 14/2 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
F4R**	5/2-way valve mono-stable (2PIN)	locking override	X 1 3/5 11
K4T	5/2-way valve bi-stable	pushbutton override	82/84 2 4 14/25 VIII
K4R	5/2-way valve bi-stable	locking override	X 1 3/5 11
O4T	5/3-way valve centre position blocked, spring return to middle position	pushbutton override	82/84 2114
04R	5/3-way valve centre position blocked, spring return to middle position	locking override	X ^r 1 ⁻³ 3/5 ⁻ 11

- NG = normally closed
- * NO = normally open
 ** uses one PIN only (as type V) and occupies 2 signals

Order details see pages13 - 14 Accessories see pages 11 – 12



Dimensions - Valve modules IM11 Ø 6 Pos. No. 1



Valve island

Series IM11

Valve module with quick-connect fitting Ø 6 mm

Type overview - Vales modules IM11 Ø 6

Valve code no.	Description	Manual override	Symbol
I6T	2x3/2-way valve, NG* mono-stable	pushbutton override	82/84 2 4
I6R	2x3/2-way valve, NG* mono-stable	locking override	12 12 14 14 14 14 14 14 14 14 14 14 14 14 14
W6T	2x3/2-way valve, NO* mono-stable	pushbutton override	82/84 2 4 12/20 \ W 14/20 \ W
W6R	2x3/2-way valve, NO* mono-stable	locking override	X+ 1 3/5 11
L6T	2x3/2-way valve, NO*+NG* mono-stable	pushbutton override	82/84 2 4 12/20 \ W 14/20 \ H W
L6R	2x3/2-way valve, NO*+NG* mono-stable	locking override	X 1 3/5 11
V6T	5/2-way valve mono-stable (1PIN)	pushbutton override	82/84 2 4 14/25 \
V6R	5/2-way valve mono-stable (1PIN)	locking override	X; 1, 3/2, 11
F6T**	5/2-way valve mono-stable (2PIN)	pushbutton override	82/84 2 4 14/22 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \
F6R**	5/2-way valve mono-stable (2PIN)	locking override	X 1 3/5 11
K6T	5/2-way valve bi-stable	pushbutton override	82/84 2 4 14/25 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
K6R	5/2-way valve bi-stable	locking overrid	X 1 3/5 11
06T	5/3-way valve centre position blocked, spring return to middle position	pushbutton override	82/84 2114
06R	5/3-way valve centre position blocked, spring return to middle position	locking override	X ^{F1} 3/5 - 11

NG = normally closed

Order details see pages 13 - 14 Accessories se pages 11 – 12

Dimensions in mm

Weight (mass)

Valve version	Weight (kg)
16T/16R	0.130
W6T/W6R	0.130
L6T/L6R	0.130
V6T/V6R	0.115
F6T/F6R	0.115
K6T/K6R	0.130
06T/06R	0.130

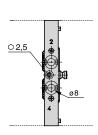
^{*} NO = normally open ** uses one PIN only (as type V) and occupies 2 signals

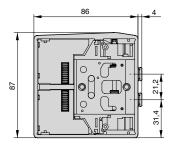


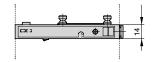
Series IM11

Valve module with quick-connect fitting Ø8 mm

Dimensions - Valve modules IM11 Ø 8 Pos. No. 1







Weight (mass)

Valve version	Weight (kg)
18T/18R	0.130
W8T/W8R	0.130
L8T/L8R	0.130
V8T/V8R	0.115
F8T/F8R	0.115
K8T/K8R	0.130
08T/08R	0.130

Type overview - Valve modules IM11 Ø 8

.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Valve code no.	Description	Manual override	Symbol			
I8T	2x3/2-way valve, NG* mono-stable	pushbutton override	82/84 12 14			
I8R	2x3/2-way valve, NG* mono-stable	locking override	12 [] M 14 [] M X			
W8T	2x3/2-way valve, NO* mono-stable	pushbutton override	82/84 2 14 12/25 1 W 14/25 1 W			
W8R	2x3/2-way valve, NO* mono-stable	locking override	X 1 3/5 - 11			
L8T	2x3/2-way valve, NO*+NG* mono-stable	pushbutton override	82/84 2 4 12/25 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
L8R	2x3/2-way valve, NO*+NG* mono-stable	locking override	Xt 1 - 3/5 - 11			
V8T	5/2-way valve mono-stable (1PIN)	pushbutton override	82/84 2 4 14/25 \\ / w			
V8R	5/2-way valve mono-stable (1PIN)	locking override	X; 123/2-11			
F8T**	5/2-way valve mono-stable (2PIN)	pushbutton override	82/84 2 4 14/22 11/1/W			
F8R**	5/2-way valve mono-stable (2PIN)	locking override	X 1 3/5 11			
K8T	5/2-way valve bi-stable	pushbutton override	82/84 2 14 14/25 VIII / 180 12			
K8R	5/2-way valve bi-stable	locking override	X 1 3/5 - 11			
O8T	5/3-way valve centre position blocked, spring return to middle position	pushbutton override	82/84 2 14 			
O8R	5/3-way valve centre position blocked, spring return to middle position	locking override	14 <i>V</i> P 1-11-14-14-12 X ^F 1-1-3/5-1-1			
+ NO	amerallic alacad					

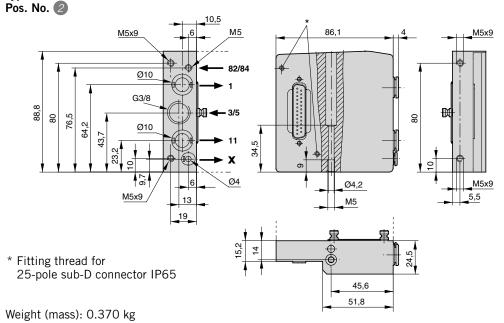
- NG = normally closed
- * NO = normally open ** uses one PIN only (as type V) and occupies 2 signals

Order details see pages 13 – 14 Accessories see pages 11 – 12



Dimensions – input plate for separate air supply

Type: 1-11-25D



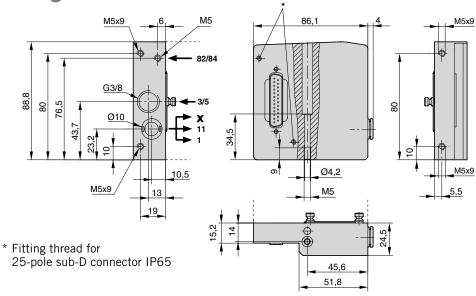
Valve island

Series IM11

- Input plate for separate air supply
- Input plate for combined air supply

Dimensions – input plate for combined air supply Type: 1-25D

Pos. No.



Weight (mass): 0.370 kg

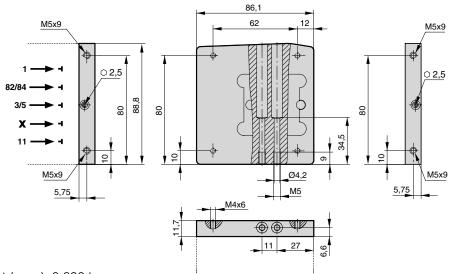
Order details see pages 13 - 14 Accessories see pages 11 - 12



Series IM11

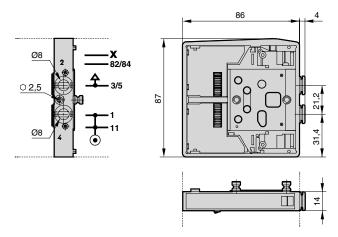
- End plate (without connection)
- Intermediate platethrough -

Dimensions – End plate (without connection) Pos. No. 5



Weight (mass): 0.230 kg

Dimensions – Intermediate plate - through - Pos. No. 6

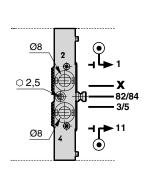


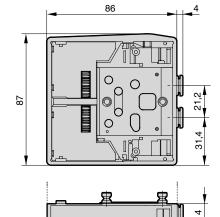
Weight (mass): 0.120 kg

Order details see pages 13 - 14 Accessories see pages 11 - 12



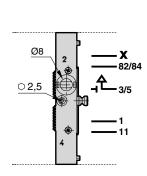
Dimensions – intermediate plate - blind - Pos. No.

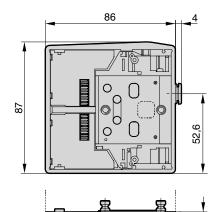




Weight (mass): 0.117 kg

 $\begin{array}{ll} \mbox{Dimensions} - \mbox{intermediate plate - exhaust -} \\ \mbox{Pos. No. } \mbox{20} \end{array}$





Weight (mass): 0.125 kg

Stud bolts (set)



Packaging unit: 1 piece each

Tool for detaching the hose type: RL17



Length: 140 mm

Valve island

Series IM11

- Intermediate plate
 - blind -
- Intermediate plate
 - exhaust -

Accessories

- stud bolts
- tools

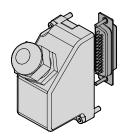


Series IM11

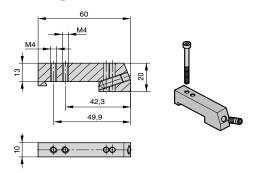
Accessories

- Sub-D connector25-pole
- Adapter for DIN rail mounting
- Connecting cable with plug
- Silencer for quick-connect fitting

Sub-D connector, IP65 25-pole / 45° pos. no. 14



Adapter for DIN rail mounting pos. no. 16



The adapters should be ordered in pairs.

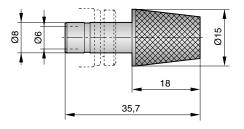
Connecting cable with Sub-D connector, IP65 25-pole / 45°



Cable length: $1\ \text{m},\ 2.5\ \text{m},\ 5.0\ \text{m},\ 10\ \text{m}$

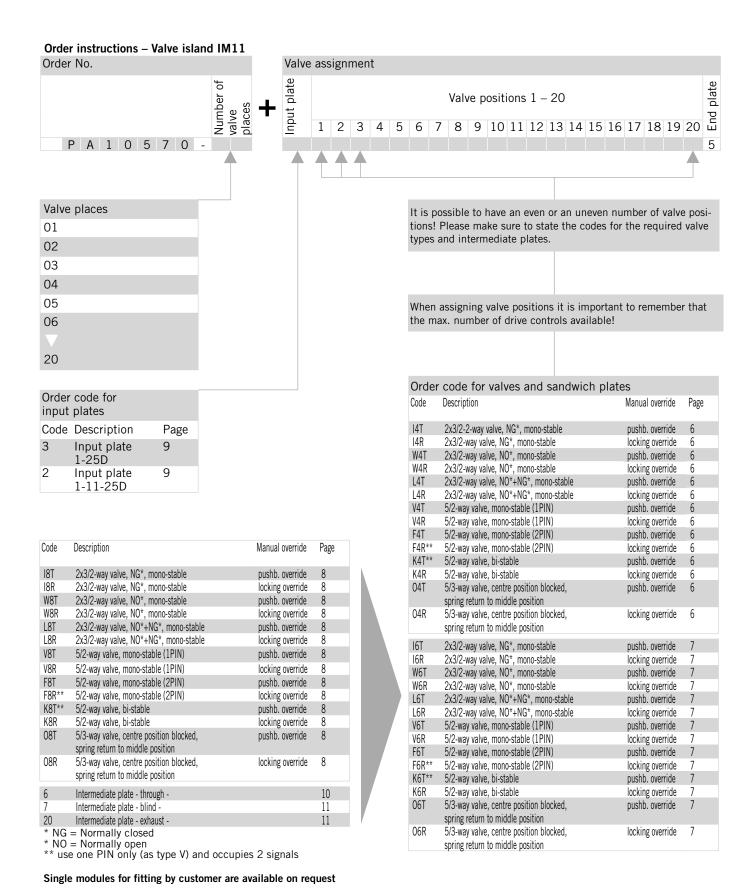
Assignn	nent of term	cables with Si	s with Sub-D connectors		
No. of electrical contact	Colour of associated conductor	No. of elec- trical contact	Colour of associated conductor	No. of elec- trical contact	Colour of asso- ciated conductor
1	blue/black	10	brown/white	19	yellow/ black
2	red/brown	11	red/orange	20	white
3	white/black	12	light blue	21	blue/white
4	red/blue	13	yellow/white	22	brown
5	black/ orange	14	yellow	23	green/ white
6	yellow/red	15	red/green	24	red
7	black/ brown	16	orange	25	green/ black
8	white/red	17	orange/white	26	
9	red/black	18	green	27	

Silencer for quick-connect fitting \emptyset 8



Order details see page 14







Series IM11

Accessories Order instructions

Order instructions - Accessories

Description	Pos. No.	Order instruction	
		Type	Order No.
Sub-D connector, 25-pole, 45°	14		PD 49585
Adapter for DIN rail mounting	16		PD 49586
Connecting cable with plug, IP65, 25-pole, 45°, cable length 1 m			PD 49581
Connecting cable with plug, IP65, 25-polig, 45°, Kabellänge 2.5 m			PD 49582
Connecting cable with plug, IP65, 25-pole, 45°, cable length 5.0 m			PD 49583
Connecting cable with plug, IP65, 25-pole, 45°, cable length 10 m			PD 49584
Silencer for quick-connect fittings			PD 49587
Stud bolts (set)			PD 49588
Hose detaching tool Ø 3 to Ø 10 mm		RL17	PD 49589



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Importance of EU Directives

Various Directives have been issued by the EU Commission in the course of the unification of the single European market; the following Directives are in part of significance for ORIGA products:

- Simple pressure vessels (87/404/EWG, amended by 90/488/EWG and 93/68/FWG)
- Low-voltage electrical equipment (73/23/EWG, amended by 93/68/EWG) Machinery Directive (89/392/EWG, amended by 91/368/EWG, 93/44/
- EWG and 98/37/EG)
- Pressure Equipment Directive (97/23/EWG) Equipment and protective systems intended for use in potentially explosive atmospheres (ATEX Directive, 94/9/EG)
- Electromagnetic Compatibility Directive (EMV Directive, 89/336/EWG, amended by 92/31/EWG)

If a product comes within the scope of application of one of these Guide-lines, then an EU Declaration of Conformity with CE mark (CE for Commu-nauté Européenne) is required. This CE marking does not represent a quality feature but verifies that the conformity assessment procedure specified has been concluded successfully and the protective requirements of the relevant EU Directives have been observed.

Products which do not come under any of the above mentioned Directives may not bear the CE mark nor may any manufacturer's declaration according to the EU Machinery Directive or Declaration of Conformity be issued for these products.

If a product may not be CE marked according to the Machinery Directive, it must however be marked if it comes within the scope of application of any other Directive.

The following harmonized standards are applied in the design of ORIGA components and systems:

- DIN EN ISO 12100 Safety of machineryDIN EN 60204.1 Electrical equipment of machines
- DIN EN 983 Safety requirements for fluid power systems and their components

The following Directives are of particular significance to HOERBIGER:

- ORIGA products in potentially explosive atmospheres, to which the above mentioned ATEX Directive applies, are treated according to the Directive and CE and EX marked.
- According to the Machinery Directive, ORIGA products are mainly components for installation in machines and therefore do not require an EU Declaration of Conformity with CE mark. HOERBIGER Origa issues a manufacturer's declaration according to the Machinery Directive for these components. This declaration corresponds to a great extent to the Declaration of Conformity with the comment that commissioning is only permitted if the machine or system conforms to the Directives. This manufacturer's declaration impacts neither our product liability based on the product liability law nor warranty assurances according to our General Terms of Sale and Delivery. Neither does the manufacturer's declaration affect our quality assurance measures according to our Quality
- Management Manual nor our quality certification according to ISO 9001. According to the Pressure Equipment Directive, ORIGA products are components of low hazard potential, thus most of the products do not come under this Directive. The exceptions to this are maintenance equipment from a certain pressure/volume level onwards. These components are treated according to the Directive if required and bear the

ORIGA products are excluded from the following EU Guidelines:

- End-of-life vehicles (2000/53/EG).
- Waste Electronic and Electrical equipment (WEEE, 2002/96/EG) and Restriction on Hazardous Substances (RoHS, 2002/95/EG).
 Pressure Equipment Directive (97/23/EWG) with the above mentioned
- exceptions.

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