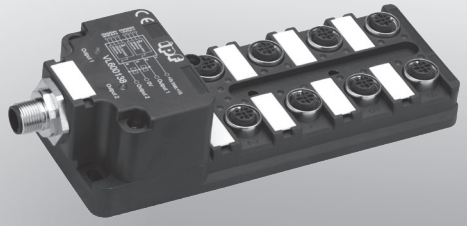
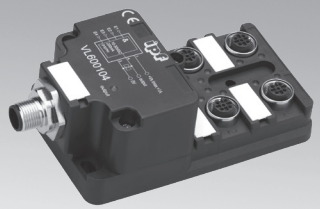
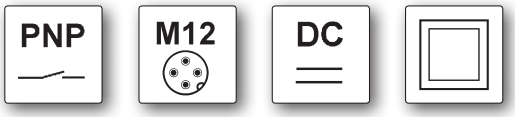
design	**60 x 122 x 41.5mm** **60 x 172 x 41.5mm**	
logic distributor	1 x 4-way	**AND / OR**
	2 x 2-way	**AND / OR**
	1 x 8-way	**AND / OR**
	2 x 4-way	**AND / OR**





- ✓ **flat robust design**
- ✓ **4-pin M12-connector for the connection cable to the control unit**
- ✓ **status displays by LED**
- ✓ **system of protection IP67**
- ✓ **simple vibration-proof connection of sensor leads**

AND / OR logic operation on location minimized wiring effort



14

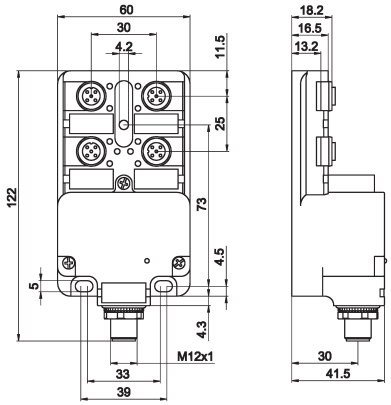
description

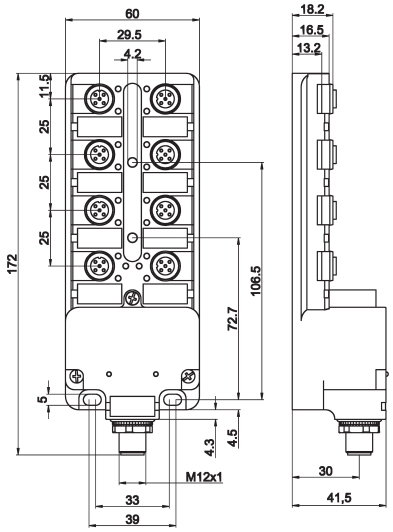
It is often the case that the signals of many sensors are linked in an application in order to provide a statement about an operational state.
If this linkage is adopted in the control unit, it is necessary to run the signals of each sensor up until there via leads, and process them in the control program.
In many cases, it would be sufficient to link the sensor signals to one another on-site and only transmit one linked end-signal to the control unit.
ipf electronic logic distribution terminals are used for this purpose. According to the module, up to 8 sensors can be connected and logically linked to one another.
AND and OR versions are available as logical variants. The user can directly see which signals are pending and/or which are missing (as the case may be) by means of LED status display of the logic modules. The status of the linked end signals is similarly shown via output LEDs.
The 2 x 2-way / 2 x 4-way types have two separated signal outputs. In these types the input signals of the right and left module halves are linked independent from each other.
If, in the case of an AND module, an input slot cannot be taken up by a sensor, a so-called “jumper plug“ can be supplied.

application examples

- ▶ signal linkage of multiple sensors

article-no.	**VL600104**	**VL600108**
output	**AND-linked, 4-way**	**AND-linked, 8-way**
article-no.	**VL600114**	**VL600118**
output	**AND-linked, 2 x 2-way**	**AND-linked, 2 x 4-way**
article-no.	**VL600124**	**VL600128**
output	**OR-linked, 4-way**	**OR-linked, 8-way**
article-no.	**VL600134**	**VL600138**
output	**OR-linked, 2 x 2-way**	**OR-linked, 2 x 4-way**





TECHNICAL DATA

input	pnp, (signal on pin 4)	pnp, (signal on pin 4)
output	see above	see above
operating voltage	10 ... 30V DC	10 ... 30V DC
current consumption (max. load)	1A	1A
output current (max. load)	200mA per output	200mA per output
insulation resistance	> $10^9\Omega$	> $10^9\Omega$
display (function)	operating voltage: 2 x green LED (both on)	operating voltage: 1 x green LED
display (signal)	1 x yellow LED per slot	1 x yellow LED per slot
housing material	plastic (PBT)	plastic (PBT)
contact meterial	CuZn, nickel underplating and gold plated plug-in and pull-out power ≥ 0.5N	CuZn, nickel underplating and gold plated plug-in and pull-out power ≥ 0.5N
design	60x122x41.5mm	60x172x41.5mm
operating temperature	-20 ... +70°C	-20 ... +70°C
plug-in cycles	≥ 50	≥ 50
soiling degree	3	3
inflammability class	UL 94 V-0	UL 94 V-0
system of protection (EN 60529)	IP67 - only when screwed with the corresponding counterparts or blank plugs	IP67 - only when screwed with the corresponding counterparts or blank plugs
connection	module: M12-connector, 4-pin	module: M12-connector, 4-pin
connection accessories	cable socket, e.g. **VK500325**, 5m, PUR, straight	cable socket, e.g. **VK500325**, 5m, PUR, straight
connection	sensors: 4 x M12-socket, 4-pin	sensors: 8 x M12-socket, 4-pin
connection accessories	connection cable, e.g. **VK200F25**, 2m, PUR, straight	connection cable, e.g. **VK200F25**, 2m, PUR, straight

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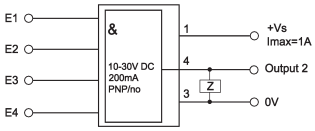
connection

M12-connector pin assignment		4-way logic module	2 x 2-way logic module	8-way logic module	2 x 4-way logic module
1	(brown)	+ 24V DC	+ 24V DC	+ 24V DC	+ 24V DC
2	(white)	-	output 1	-	output 1
3	(blue)	0V DC	0V DC	0V DC	0V DC
4	(black)	output 2	output 2	output 2	output 2

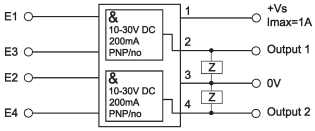
wire colors of the cable socket (module) in brackets

wiring diagrams logic module 4-way respectively 2 x 2-way

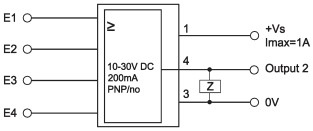
VL600104 4-way



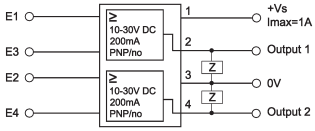
VL600114 2 x 2-way



VL600124 4-way

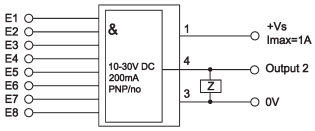


VL600134 2 x 2-way

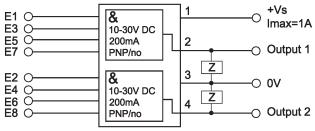


wiring diagrams logic module 8-way respectively 2 x 4-way

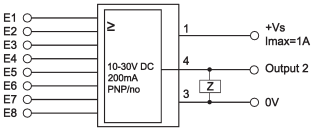
VL600108 8-way



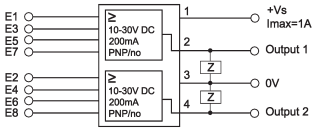
VL600118 2 x 4-way



VL600128 8-way



VL600138 2 x 4-ways



E1 to E8 are the inputs of the connected sensors (connections for M12-connectors).
1 to 4 are the pin configurations of the module (connections for M12-cable sockets).

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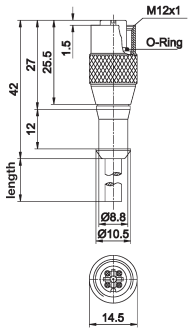
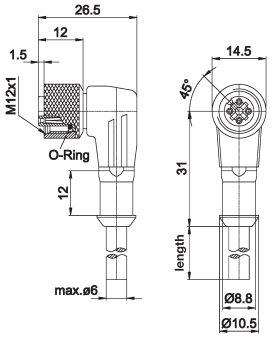
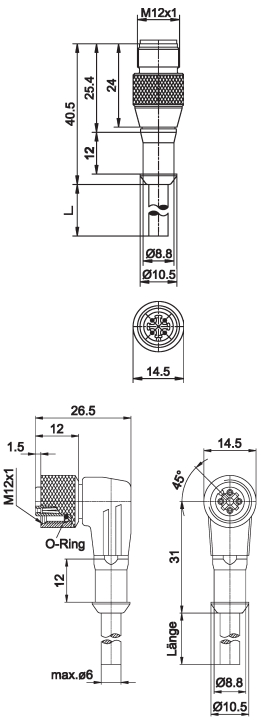
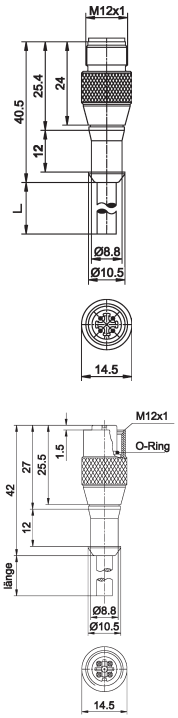
ACCESSORIES

article-no.	description	material
VK000004	blank plug M12, 2 x included in the scope of delivery	plastic
VK000035	bridging connector simulation “switching output on”	

cable socket	**M12, straight**	**M12, angular**
number of pins	**4-pin**	**4-pin**
article-no.	**VK200325**	**VK200321**
length	**2.0m**	**2.0m**
article-no.	**VK500325**	**VK500321**
length	**5.0m**	**5.0m**
article-no.	**VKA00325**	**VKA00321**
length	**10.0m**	**10.0m**
		
connection cable / connector	**M12, straight**	**M12, straight**
connection cable / socket	**M12, angular**	**M12, straight**
number of pins	**4-pin**	**4-pin**
article-no.	**VK100F21**	**VK100F25**
length	**1.0m**	**1.0m**
article-no.	**VK200F21**	**VK200F25**
length	**2.0m**	**2.0m**
article-no.	**VK500F21**	**VK500F25**
length	**5.0m**	**5.0m**
		

Warning: Never use these devices in applications where the safety of a person depends on their functionality.

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