

2 x connectors for profile cable

Periphery connection

- M12 cable sockets

To connect Leuze safety light curtain MLC530SPG operation mode 5 for Smart Process Gating to ASi



(Figure similar)



Figure	Inputs Safety, SIL 3, Cat. 4	Safety signal inputs	Outputs digital	Input voltage (sensor supply) (1)	Output voltage (actuator supply) (2)	Connection (3)	ASi address (4)	Special function	Art. no.
	1 x 2-channels	OSSDs	2 x electronic	out of AUX	out of AUX	1 x M12 cable socket, straight, 8 poles	1 single address	to connect Leuze MLC530SPG (operation mode 5) to ASi	BWU3724

- (1) **Input voltage (sensor supply):** inputs are supplied by ASi or by AUX (auxiliary 24 V power). If supplied by ASi, inputs shall not be connected to earth or to external potential.
- (2) **Output voltage (actuator supply):** outputs are supplied by ASi or by AUX (auxiliary 24 V power). If supplied by ASi, outputs shall not be connected to earth or to external potential
- (3) **Connection:** further connection options are available on request.

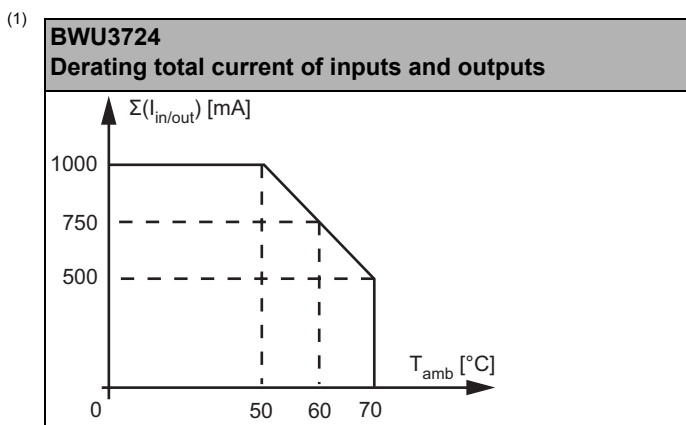
M12 cable socket, angled	M12 cable socket, straight	M8 cable socket, straight	round cable / connecting wires	Push in terminals
PUR line: oil resistant				

- (4) **ASi address:** 1 AB address (max. 62 AB addresses/ASi network), 2 AB addresses (max. 31 modules with 2 AB addresses), Single addresses (max. 31 Single addresses/ASi network), mixed use allowed.
For modules with two nodes the second node is turned off as long as the first node is addressed to address "0".
Upon request, nodes are available with specific ASi address profiles.

Article No.	BWU3724
General data	
Device type	safe input
Connection	
ASi/AUX connection	profile cable and piercing technology
Periphery connection	1 x M12 cable socket, straight, 8 poles
Round cable	0.25 m
	max. allowed tensile strain 10 N
ASi	
Profile	S-7.B.1, ID1=F
Address	1 single address
Required Master profile	≥M3
As of ASi specification	2.1
Operating voltage	30 V (21,6 ... 31.6 V)
Max. current consumption	60 mA
Max. current consumption without sensor/ actuator supply	60 mA

Article No.		BWU3724
AUX		
Operating voltage		24 V (20 ... 30 V _{DC}) (PELV)
Max. current consumption		max. 1 A ⁽¹⁾
Input		
Number		1 x 2-channels safe input
Safety signal		OSSDs
Power supply		out of AUX
Sensor supply		short-circuit and overload protected according to EN 61131-2
Power supply of attached sensors	up to +50 °C	750 mA, $\Sigma(\text{In/Out})$ 1 A ⁽¹⁾
	at +60 °C	750 mA, $\Sigma(\text{In/Out})$ 750 mA ⁽¹⁾
	at +70 °C	500 mA, $\Sigma(\text{In/Out})$ 500 mA ⁽¹⁾
Switching threshold safe input		V _{in} >11 V for High-Level, V _{in} <5 V for Low-Level, input current>2,5 mA at 15 V
Switching threshold standard input		–
OSSD test pulses		0 ... 50 Hz
OSSD test pulse width		U _{aux} ≥21,5 V= 0 ... 1 ms test pulses possible U _{aux} ≥17 V= 0 ... 0,8 ms test pulses possible U _{aux} <17 V= 0 ... 0,6 ms
Start delay		<22 ms
Output		
Number		2
Power supply		out of AUX
Output		short-circuit and overload protected according to EN 61131-2
Max. output current	up to +50 °C	750 mA, $\Sigma(\text{In/Out})$ 1 A ⁽¹⁾
	at +60 °C	750 mA, $\Sigma(\text{In/Out})$ 750 mA ⁽¹⁾
	at +70 °C	500 mA, $\Sigma(\text{In/Out})$ 500 mA ⁽¹⁾
Display		
LED ASI/FLT (red/green)		green: ASi voltage on, ASi node online green/red: ASi voltage on, but ASi node offline green flashing/red: address 0 red/green flashing: peripheral fault ⁽²⁾ off: no ASi voltage
LED AUX (green)		on: 24 V _{DC} AUX off: no 24 V _{DC} AUX
LEDs S1, S2 (yellow)		state of inputs S1, S2
LED O1, O2 (yellow)		state of outputs O1, O2

Article No.	BWU3724
Environment	
Applied standards	EN ISO 13849-1 PLe Kat4 EN ISO13 849-2 EN 62061 SIL 3 EN 62026-2 EN 61000-6-2 EN 61000-6-4 EN 60529
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +60 °C (up to max. +70 °C) ⁽¹⁾ ⁽³⁾ (no condensation permitted)
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for screw mounting, suitable for cable ducts (installation depth ≥19 mm)
Pollution Degree	2
Protection category	IP67 ⁽⁴⁾
Tolerable loading referring to humidity	according to EN 61131-2
Maximum tolerable shock and vibration stress	≤15g, T≤11 ms 10 ... 55 Hz, 0,5 mm amplitude
Insulation voltage	≥500 V
Weight	100 g
Dimensions (W / H / D) in mm	60 / 45 / 19



(2) see table "Peripheral fault indication"

(3) Down to -25 °C with flexibly mounted cable, -30 °C only with fixed mounted cable.

(4) Protection category IP67 can only be achieved if the wire end connector used also fulfills IP67.

Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU3724	•	•	•

UL-specifications (UL61010)	
BWU3724	
External protection	An isolated source with a secondary open circuit voltage of ≤30 V _{DC} with a 3 A maximum over current protection. Over current protection is not required when a Class 2 source is employed.
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices.

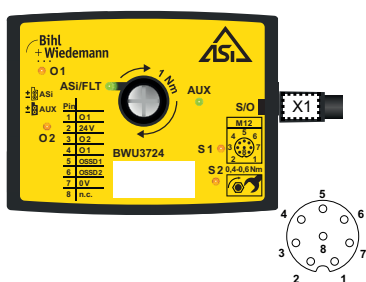
Programming	ASi bit assignment			
	D3	D2	D1	D0
	safe input			
BWU3724	OSSD2	OSSD2	OSSD1	OSSD1
	output			
BWU3724	–	–	O2	O1
	parameter bit			
	P3	P2	P1	P0
BWU3724	not used	not used	not used	0= off / 1= on (Watchdog)

Pin assignment

Signal name	Explanation
Sx +, Sx -	safe input x
Ox	digital output x
24V _{ext out}	power supply, out of external voltage, positive pole (AUX, actuator supply)
0V _{ext out}	power supply, out of external voltage, negative pole (AUX, actuator supply)
ASi +, ASi -	connection to ASi bus
n.c. (not connected)	not connected

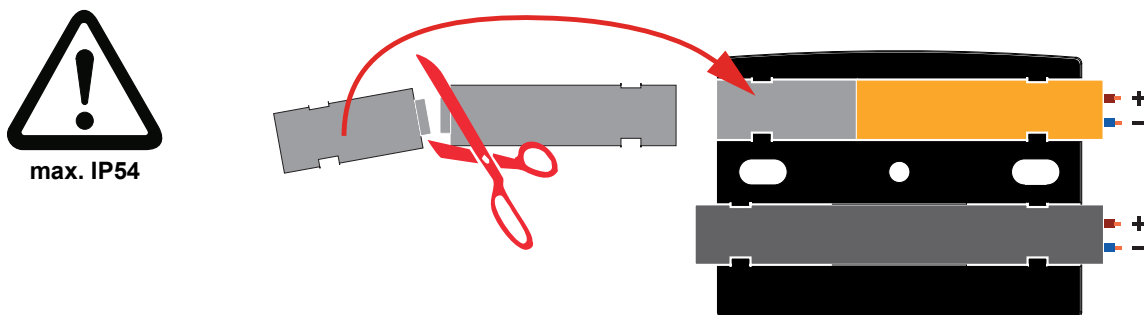
Connections: M12 cable socket, straight, 8 poles

Article no.	connec	Pin1 (WH)	Pin2 (BN)	Pin3 (GN)	Pin4 (YE)	Pin5 (GY)	Pin6 (PK)	Pin7 (BU)	Pin8 (RD)
BWU3724	X1	O1 ⁽¹⁾	24 V ext out	O2	O1 ⁽¹⁾	OSSD 1	OSSD 2	0 V ext out	n.c.



⁽¹⁾ Pin1/Pin4 are internally bridged.

Line termination with sealing profile



Accessories:

- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)
- Bihl+Wiedemann Safety Suite License - Safety Software for Configuration, Diagnostics and Commissioning (art. no. BW2916)