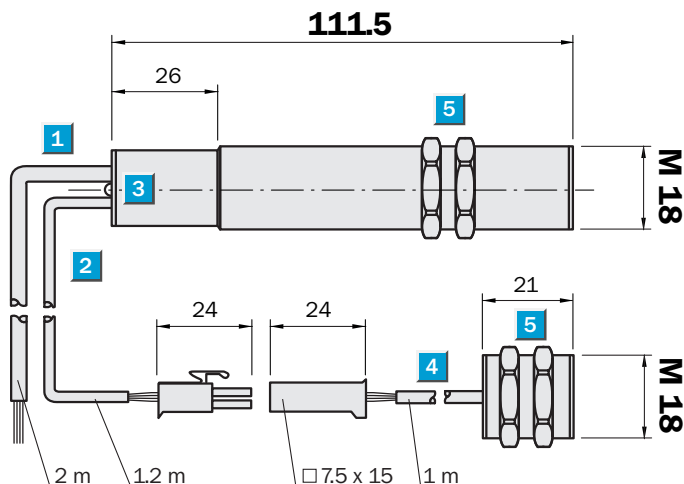


Operational area
40 mm ± 3 mm

Ultrasonic double-sheet detector

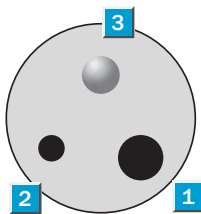
- Double-sheet detection of foils, metal sheets and ultra-fine corrugated cardboards
- Automatic adjustment, no Teach-in necessary
- Color-independent
- Plug & Play
- 2 PNP outputs for double- and mis-fed-sheets

Dimensional drawing



Adjustments possible
UM 18-20012

- 1 Connection cable 2 m (receiver)
- 2 Connection cable 1.2 m, 2-pin sender and receiver
- 3 2-color LED indicator, receiver
- 4 Connection cable 1 m, 2-pin sender and receiver
- 5 Fastening nuts, width across 24 mm



Connection types

UM 18-20012*)
Receiver

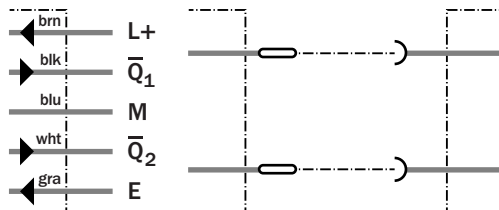
Sender



5 x 0,25 mm²

2-pin

2-pin



*) Sender/receiver pair:
Individual components on request



Accessories
Mounting systems

Technical data	UM 18-	20012											
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Installation distance

sender – receiver	40 mm ± 3 mm	
Blind zone	7 mm, each time before sender and receiver	
Permissible angle deviation	± 45° perpendicular to sheet	
Ultrasonic frequency	400 kHz	
Resolution	Double-sheets not completely glued together	

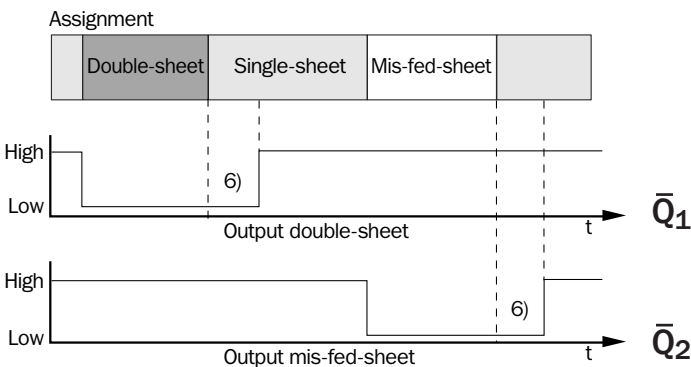
Operational area

Paper grams per square meter	20 ... 1200 g/m ²	
Metal-laminated sheets and films	≤ 0.4 mm thickness	
Self-adhesive films, metal sheets	≤ 0.3 mm	
Ultra-fine corrugated cardboard		

Supply voltage V_S	12 ... 30 V DC ¹⁾	
Ripple	± 10 %	
Current consumption ²⁾	≤ 45 mA	
Double-sheet switching/Q₁³⁾	PNP, V _S –2 V, I _{max} = 500 mA	
Mis-fed-sheet switching output/Q₂³⁾	PNP, V _S –2 V, I _{max} = 500 mA	
Response time ⁴⁾	2.5 ms or 6.5 ms	
Off delay	10 ms	
V _S at control unit ⁴⁾	Response time 6.5 ms: V _S > 9 V DC Response time 2.5 ms: V _S < 5 V DC	
Standby delay	300 ms	
Connection type	Cable PVC, 2 m; 5 x 0.25 mm ²	
Sender cable ⁵⁾	PVC, 1.2 m with 2-pin plug	
Receiver cable ⁵⁾	PVC, 1 m with 2-pin plug	
Enclosure rating	IP 65	
Ambient temperature	Operation +5 °C ... +60 °C Storage –40 °C ... +85 °C	
Weight	280 g	
Housing material	Nickel-plated brass	

- 1) Limit values
- 2) Without load
- 3) Outputs short-circuit protected, Opener; no switching hysteresis
- 4) If the control line is laid against a ground, the response time is 2.5 ms. If the control line is laid against L+, the response time is 6.5 ms.
- 5) Not reverse-polarity protected

Measurement ranges



6) Off delay

Order information

Type	Part no.
UM 18-20012	6 025 670

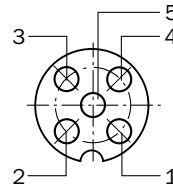
Dimensional drawings and order informations

SENSICK screw-in system M 12, 5-pin, enclosure rating IP 67

- Contact assignment according to EN 50 044
- DC coding

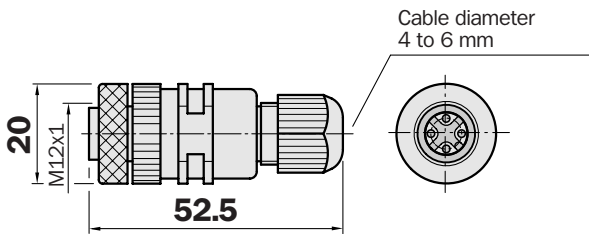
Pin assignment

- Pin 1 = brown
- Pin 2 = white
- Pin 3 = blue
- Pin 4 = black
- Pin 5 = grey



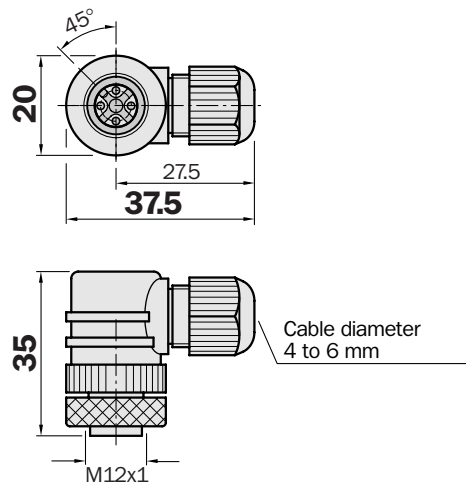
Female connector M 12, 5-pin, straight

Type	Part no.	Contacts
DOS-1205-G	6 009 719	5



Female connector M 12, 5-pin, right angle

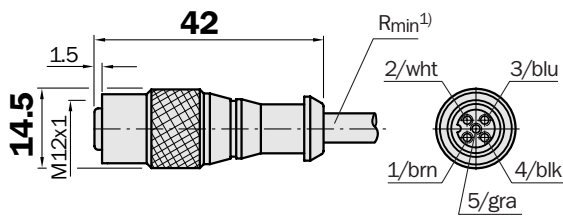
Type	Part no.	Contacts
DOS-1205-W	6 009 720	5



Female connector M 12, 5-pin, straight

Cable diameter 6 mm, 5 x 0.25 mm², sheath PVC

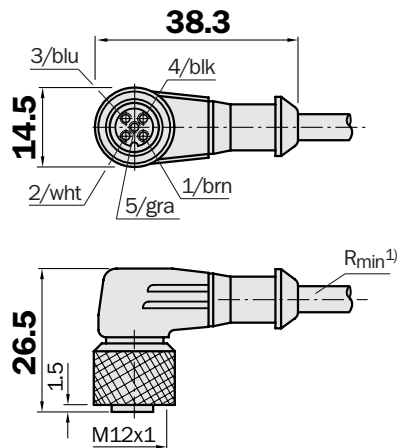
Type	Part no.	Contacts	Cable length
DOL-1205-G02M	6 008 899	5	2 m
DOL-1205-G05M	6 009 868	5	5 m
DOL-1205-G10M	6 010 544	5	10 m



Female connector M 12, 5-pin, right angle

Cable diameter 6 mm, 5 x 0.25 mm², sheath PVC

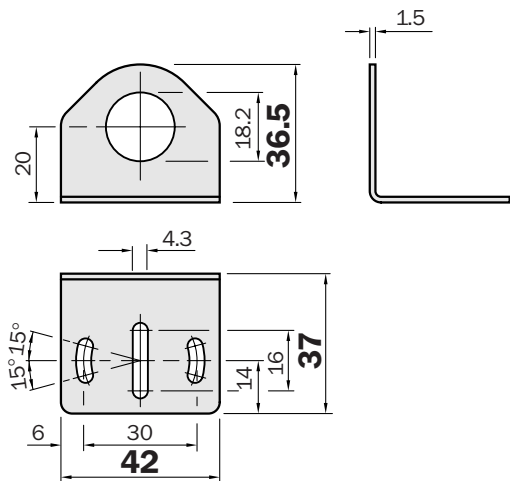
Type	Part no.	Contacts	Cable length
DOL-1205-W02M	6 008 900	5	2 m
DOL-1205-W05M	6 009 869	5	5 m
DOL-1205-W10M	6 010 542	5	10 m



Dimensional drawings and order informations

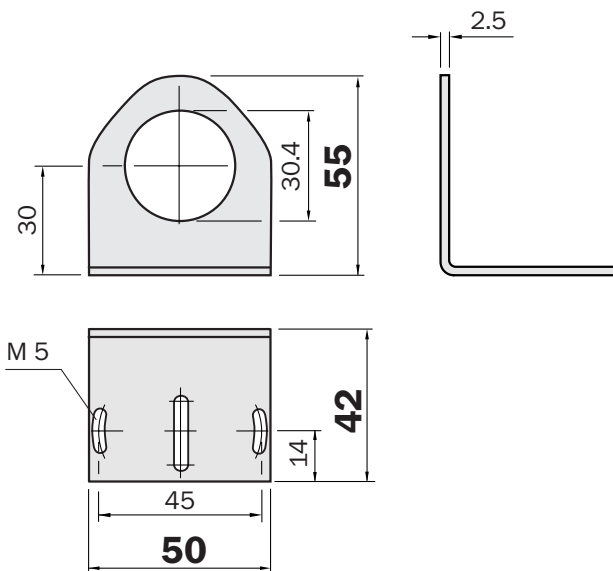
Mounting bracket for UM 18

Type	Part no.
BEF-WN-M18	5 308 446



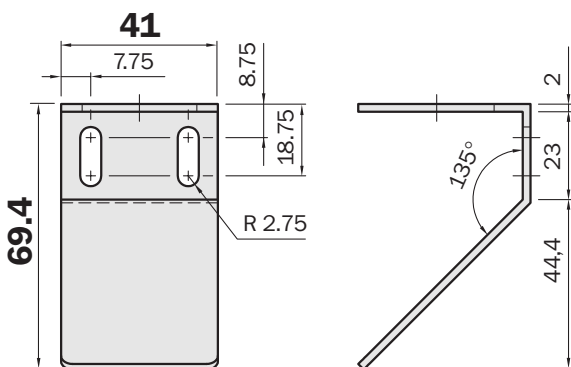
Mounting bracket for UM 30

Type	Part no.
BEF-WN-M30	5 308 445



Diverter plate for UM 30 to 1300 mm operating scanning range

Type	Part no.
USP-UM30	5 312 916



Your contacts:

Australia

Phone +61 3 94 97 41 00
008 33 48 02 – toll free
Fax +61 3 94 97 11 87

Austria

Phone +43 2 23 66 22 88-0
Fax +43 2 23 66 22 88-5

Belgium/Luxembourg

Phone +32 24 66 55 66
Fax +32 24 63 31 04

Brazil

Phone +55 11 55 61 26 83
Fax +55 11 55 35 41 53

China

Phone +8 52 27 63 69 66
Fax +8 52 27 63 63 11

Czech Republik

Phone +42 02 578 10 561
Fax +42 02 578 10 559

Denmark

Phone +45 45 82 64 00
Fax +45 45 82 64 01

Finland

Phone +3 58 9-7288500
Fax +3 58 9-72 88 50 55

France

Phone +33 1 64 62 35 00
Fax +33 1 64 62 35 77

Germany

Phone +49 2 11 53 01 0
Fax +49 2 11 53 01 100

Great Britain

Phone +44 17 27-83 11 21
Fax +44 17 27-85 67 67

Italy

Phone +39 02 92 14 20 62
Fax +39 02 92 14 20 67

Japan

Phone +813 33 58 13 41
Fax +813 33 58 90 48

Korea

Phone +82 2 786 63 21/4
Fax +82 2 786 63 25

Netherlands

Phone +31 30 229 25 44
Fax +31 30 229 39 94

Norway

Phone +47 67 56 75 00
Fax +47 67 56 66 10

Poland

Phone +48 22 8 37 40 50
Fax +48 22 8 37 43 88

Singapore

Phone +65 67 44 37 32
Fax +65 68 41 77 47

Spain

Phone +34 93 4 80 31 00
Fax +34 93 4 73 44 69

Sweden

Phone +46 8 6 80 64 50
Fax +46 8 7 10 18 75

Switzerland

Phone +41 4 16 19 29 39
Fax +41 4 16 19 29 21

Taiwan

Phone +88 62 23 65 62 92
Fax +88 62 23 68 73 97

USA/Canada/Mexico

Phone +1(952) 9 41-67 80
Fax +1(952) 9 41-92 87

Representatives and agencies
in all major industrial nations.

SICK