

KU13.., KU14.., KU41.. Coupling Heads

Function

Coupling heads are used to connect the braking systems of the towing vehicle and trailer.

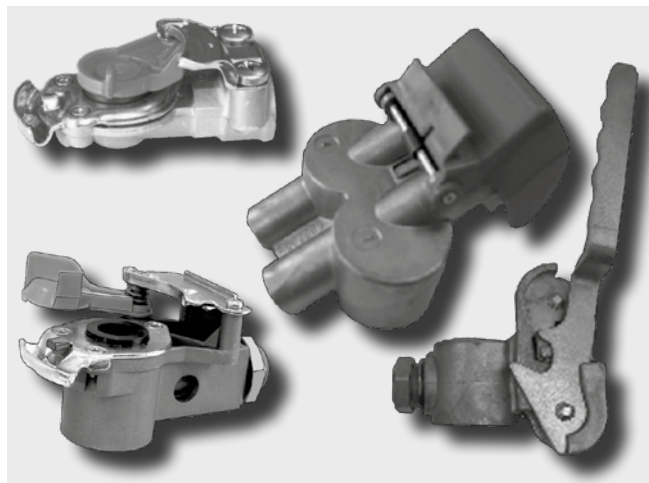
Coupling heads are generally colour coded to indicate the 'supply' (red) and 'control' (yellow) air line connections and are designed as defined in DIN ISO 1728 to prevent incorrect connection.

KU13 and KU14 Coupling Heads are designed for use on trailers and semi-trailers. KU41 Coupling Heads are designed for use on towing vehicles. See table on page 2 for details.

The KU14 Coupling Heads have an integral filter to protect the air braking and auxiliary systems of the trailer from contamination. To prevent a blocked filter element trapping air pressure in the 'supply' or 'control' line, a by-pass feature allows air to flow through unfiltered. Some of these versions are also fitted with an ISO test connector to facilitate measurement of the line pressure.

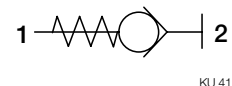
The KU14 Coupling Heads for semi-trailers have a mounting thread and are supplied with a lock nut to prevent the rotation of the coupling head when connecting or disconnecting the air line.

The KU1414/KU1415 Coupling Heads are known as 'Quattro-matic' Coupling Heads and they incorporate the connections for both 'supply' and 'control' lines. These couplings are normally compatible with similar design coupling heads from other manufacturers.



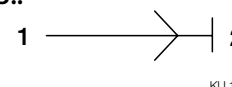
Standard Symbol as DIN ISO 1219

For towing vehicles: KU41..



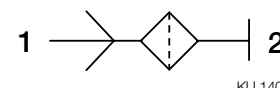
KU 41..

For trailers: KU13..



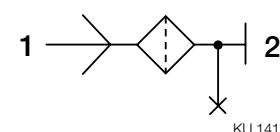
KU 13..

KU1400, KU1401, KU1410, KU1413



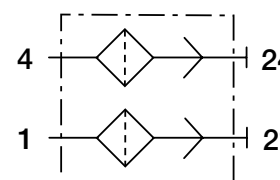
KU 1400

KU1411, KU1412



KU 1412

KU1414, KU1415



KU 1414

Technical Features

KU13.. and KU41..

Maximum operating pressure:	8.5 bar
Operating temperature range:	-40 °C to +80 °C
Filter:	not integrated
Weight:	0.2 kg approx.

KU1400 - KU1413

Maximum operating pressure:	8.5 bar
Operating temperature range:	-40 °C to +80 °C
Filter:	integrated
Weight:	0.3 kg approx.

KU1414 and KU1415

Maximum operating pressure:	10.0 bar
Operating temperature range:	-40 °C to +80 °C
Filter:	integrated
Weight:	KU1414 0.9 kg approx. KU1415 0.5 kg approx.

Range Overview

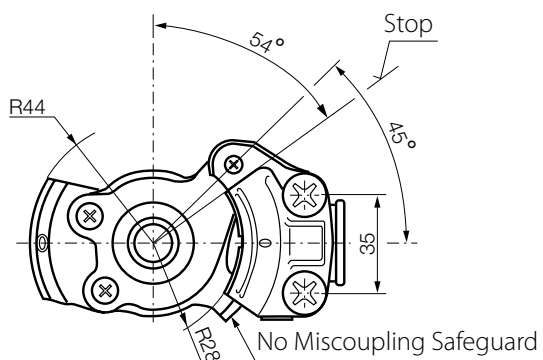
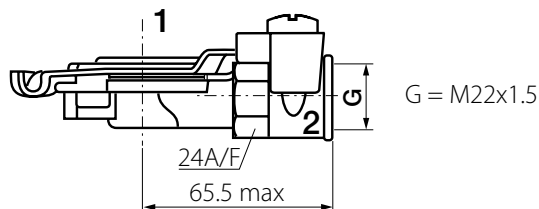
Part No. ¹⁾	Type No.	Port Thread (F)	Mounting Thread (M)	Filter	Test Point	Selfsealing	Application (Colour)	Vehicle Application	For further details see				
I59070	KU1303	M22x1.5	-	No	No	No	General/no cover	General No miscoupling safeguard					
II33262	KU1304						'Control' (yellow)	Semi-trailer and full trailer					
II33263	KU1305						'Supply' (red)						
II17354	KU1310	M16x1.5	M24x1.5		No	No	'Control' (yellow)	Semi-trailer	-				
II17355	KU1311						'Supply' (red)						
K162828	KU1400						'Control' (yellow)						
K162831	KU1401		-	Yes	Yes	'Control' (yellow)	'Supply' (red)	Semi-trailer					
K162829	KU1410		M24x1.5				Centre-axle and drawbar trailer						
K162832	KU1411		-				Semi-trailer						
K162830	KU1412		M24x1.5	Yes	Yes	'Control' (yellow)	Centre-axle and drawbar trailer						
K162833	KU1413		-				Semi-trailer						
K002640	KU1414		M22x1.5				Centre-axle and drawbar trailer						
K002641	KU1415						'Supply' and 'Control'	Semi-trailer	Y010964				
								Centre-axle and drawbar trailer	Y011011				
K154215	KU4124		-	No	No	Yes		'Supply' (red)	Towing vehicle	For further details please contact your local Knorr-Bremse representative or the relevant vehicle manufacturer			
K154216											'Control' (yellow)		
K154218													
K154213	KU4128							No			Yes		'Control' (yellow)
K154214													
K154217													

¹⁾ All part numbers starting with "K" will carry a suffix "N00" which defines that it is supplied without packaging. Example K162828N00.

Dimensions

Trailer Coupling Heads (without Filters)

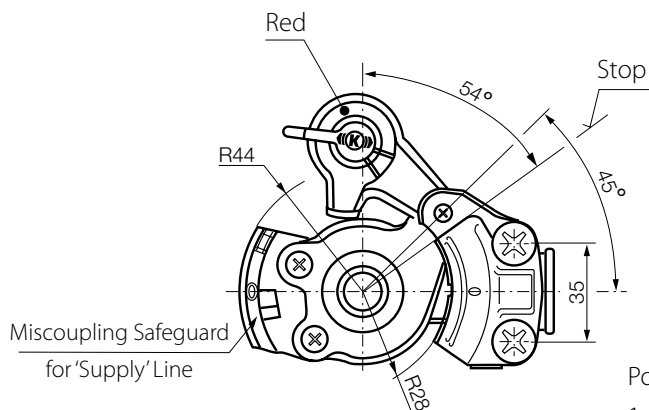
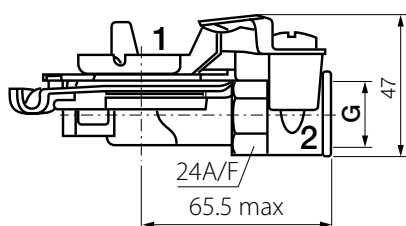
KU1303



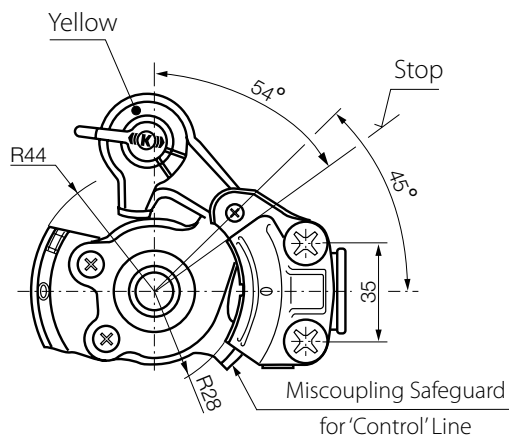
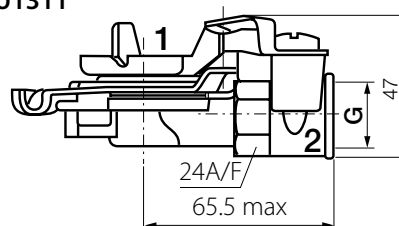
PD109_001

KU1305 KU1310

KU1305 - G = M22x1,5
KU1310 - G = M16x1,5



KU1304 KU1311



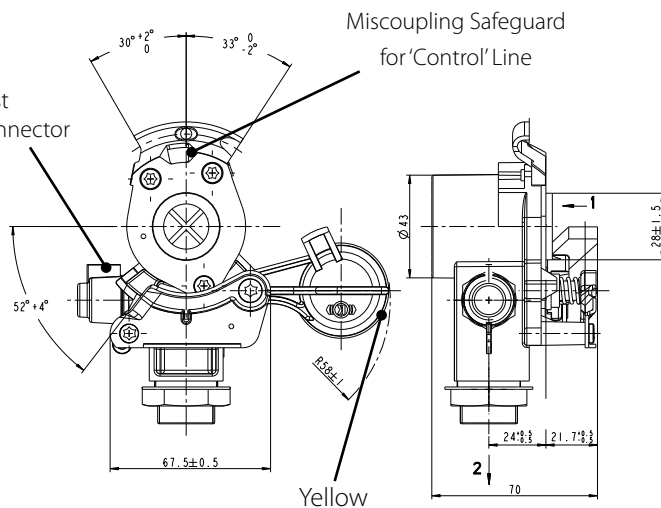
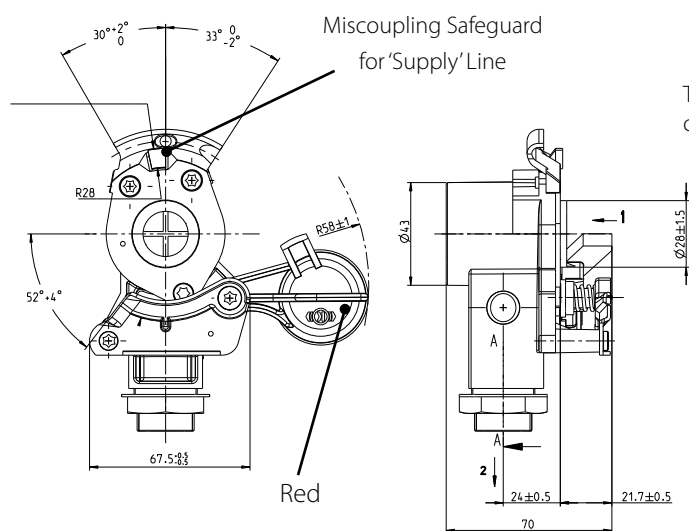
KU13.., KU14.., KU41..

Coupling Heads

Trailer Coupling Heads (with Filters)

KU1400
KU1401¹⁾

KU1410²⁾ KU1411¹
KU1412 KU1413^{1), 2)}



¹⁾ No mounting thread

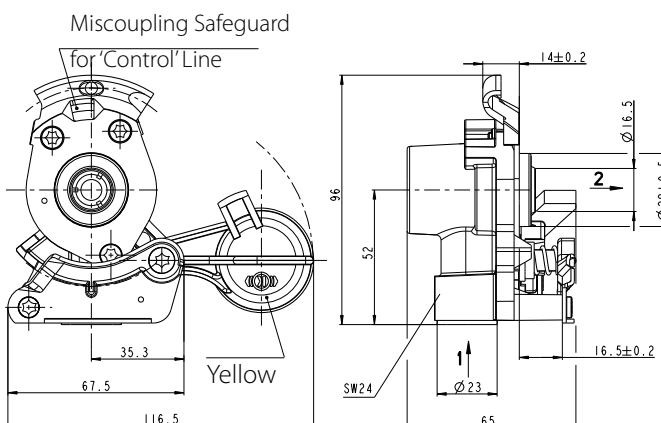
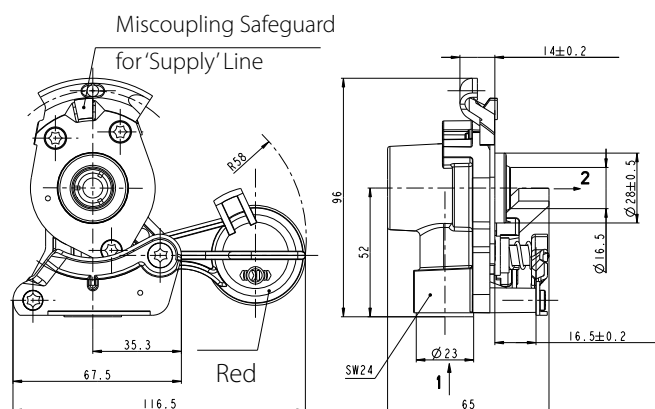
²⁾ No test connector

Ports:
1 = Supply
2 = Delivery

Towing Vehicle Coupling Heads (Self-sealing)

KU4124

KU4128

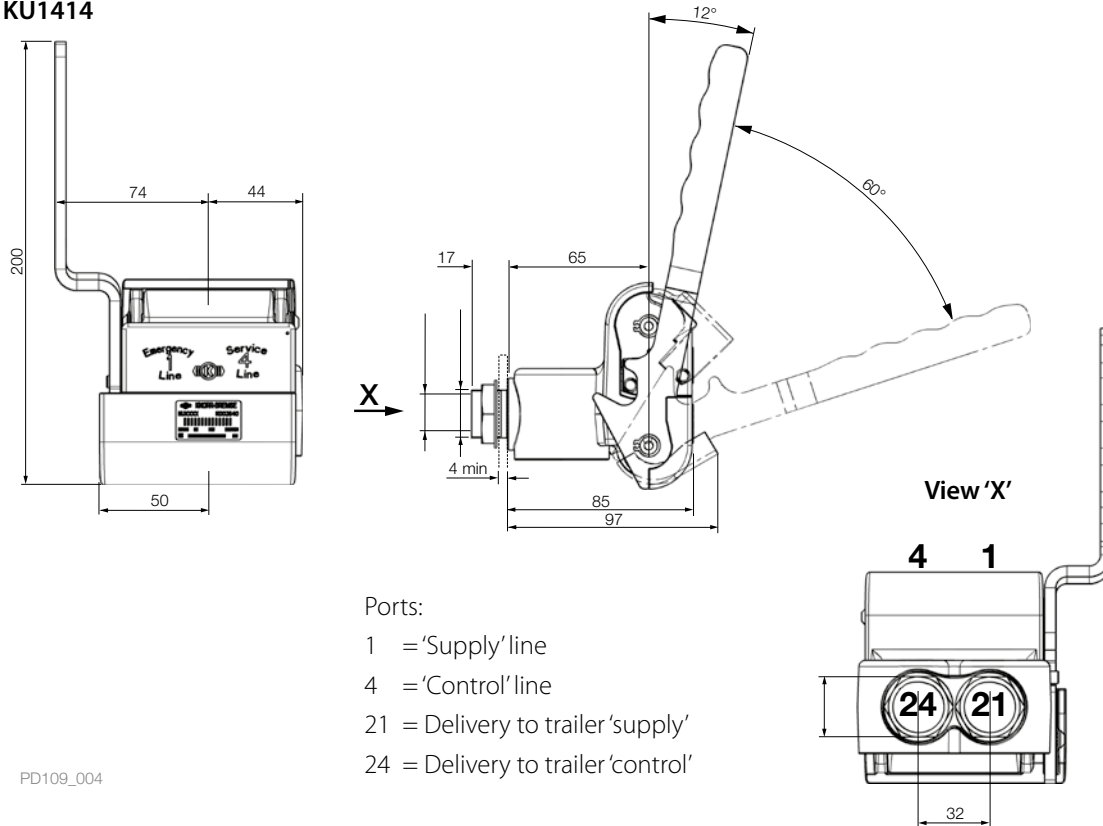


Ports:
1 = Supply
2 = Delivery

KU13.., KU14.., KU41..

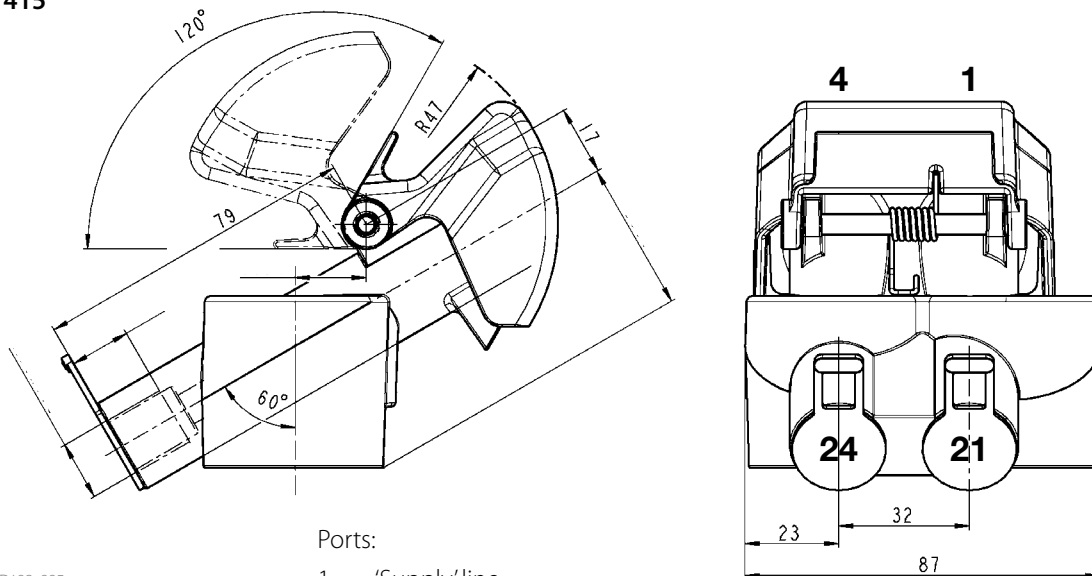
Coupling Heads

KU1414



PD109_004

KU1415



PD109_005

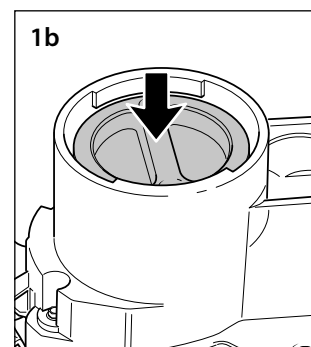
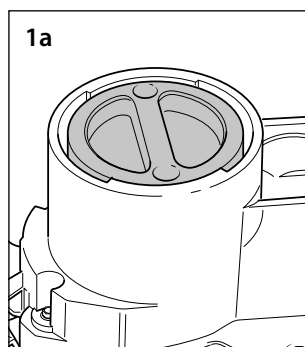
Installation Instructions

Max. Tightening torques:	M16x1.5: 45 Nm
	M22x1.5: 60 Nm
	M24x1.5: 70 Nm

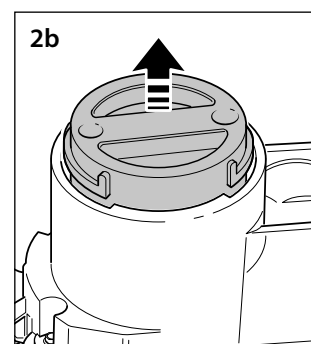
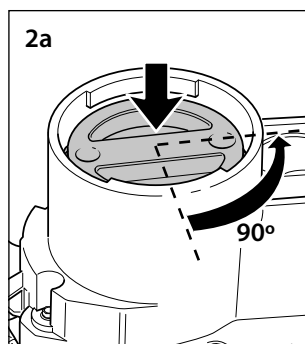
Service Instructions

In service, the filter can be easily inspected for contamination without having to disassemble the body of the air filter. The following is a step-by-step guide:

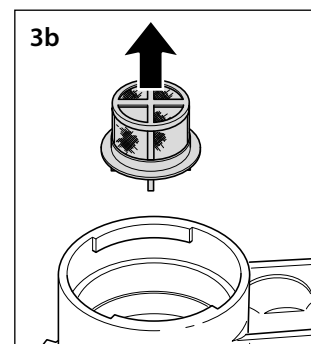
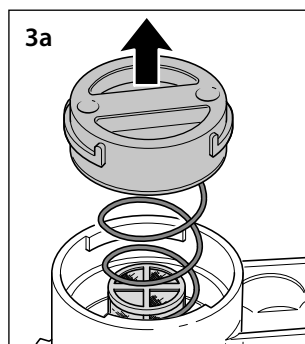
- 1) Push down the bayonet type lock cap on the underside of the coupling head.



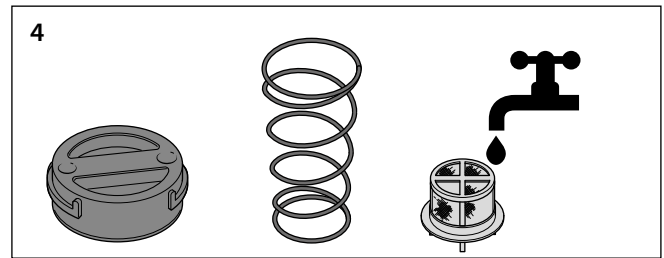
- 2) Continue pushing and turn **90° anti-clockwise** to release the bayonet lock cap from the housing lugs.



- 3) The bayonet lock cap, spring and filter can now be removed.



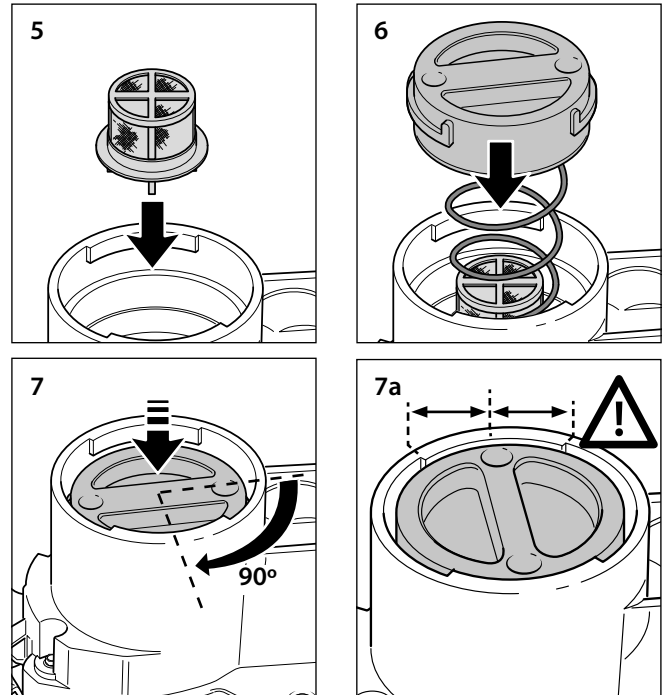
- 4) If the filter is found to be contaminated, it can be washed out as necessary.



Re-assembly of the filter is carried out in reverse order:

- 5) Replace the clean filter.
6) Replace the spring and bayonet lock cap.
7) Push the bayonet lock cap down and turn **90° clockwise**, then release so it locks underneath the housing lugs.

Note: Make sure the cap sits equidistant on the housing lug (see Fig. 7a).



Revision Details

Rev. 003	April 2019	New Layout
Rev. 004	July 2021	Additional Service Instructions and layout updated



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