



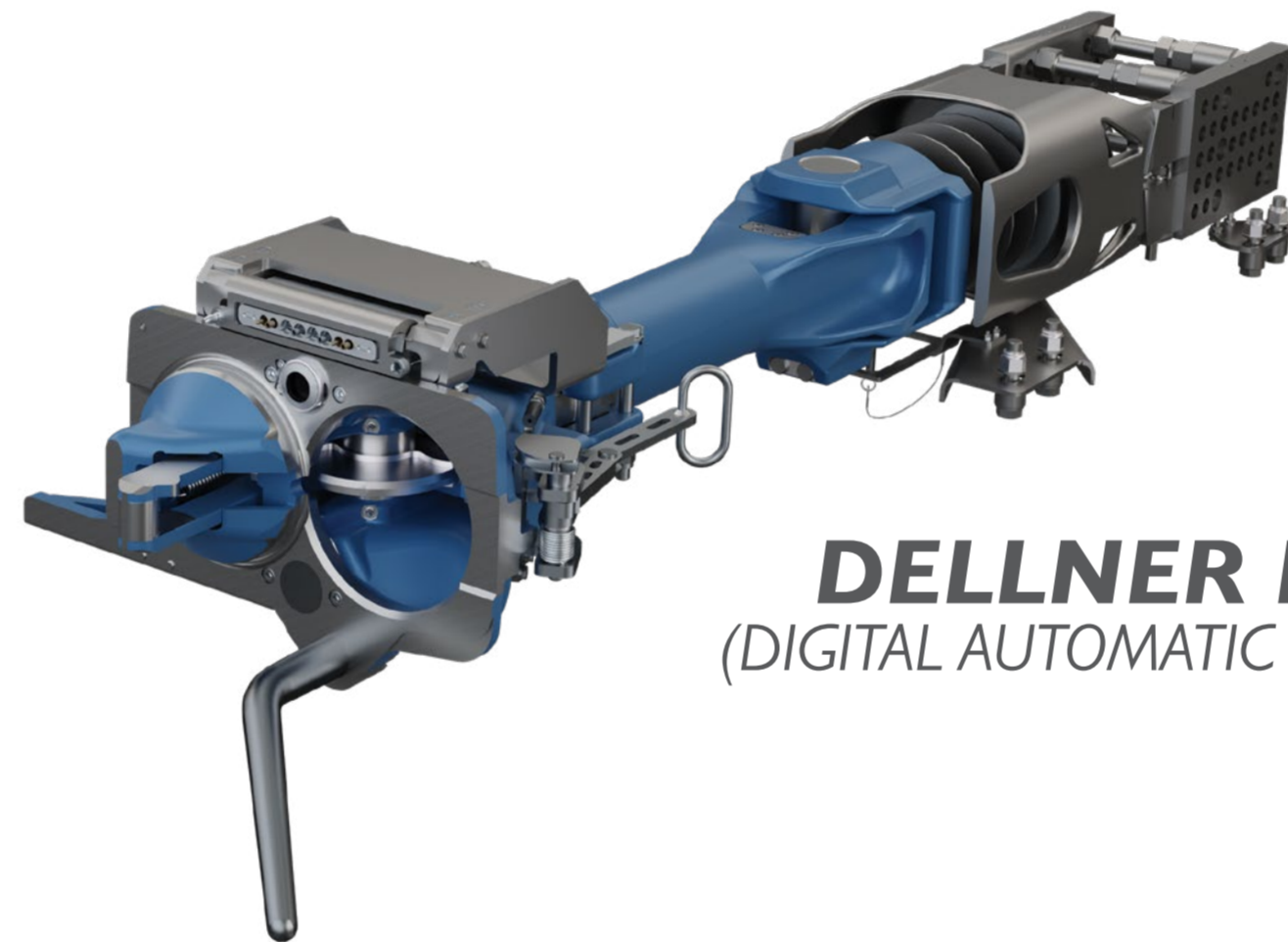
TRAIN
CONNECTION
SYSTEMS

LET'S STAY **CONNECTED**
IN THE **FREIGHT JOURNEY**
OF THE **FUTURE**



FP5TRAN S4M-R
Transforming
Europe's Rail Freight

INCREASE THE EFFICIENCY AND TRANSPARENCY
OF YOUR **RAIL FREIGHT VEHICLES**
WITH DELLNER **DAC COUPLERS**



DELLNER DAC
(DIGITAL AUTOMATIC COUPLER)

MAIN BENEFITS OF THE DIGITAL AUTOMATIC COUPLERS:

COUPLER TYPE 10 PROVEN
IN PASSANGER TRANSPORT

CUSTOMISABLE

UIC530-1 COMPATIBLE

RELIABLE AND ROBUST

LOW LCC

EASY MAINTENANCE

INCREASED SAFETY IN COUPLING
AND UNCOUPLING

EASY AND FAST INSTALLATION

DIGITAL FUNCTIONALITIES

THE DELLNER DAC - TECHNICAL DATA

CHARACTERISTICS	VALUE	IN COMPLIANCE WITH	REMARKS
Strength, draft	1000 kN (Yield strength) / ≥1500 kN (Ultimate strength)	EN12663, UIC530-1, UIC522	
Strength, buff	2000 kN (Yield strength)	EN12663, UIC530-1, UIC522	
Horizontal angle	±17° at -50 mm stroke, ±12° from -50 mm to -110 mm stroke	UIC530-1	
Vertical angle	±9° at -50 mm stroke, ±4° from -50 mm to -110 mm stroke	UIC530-1	
Min. coupling speed	0,5 km/h		
Max. coupling speed	Up to 12 km/h		Recommended < 6 km/h
Draft gear interface	Acc. To UIC530-1	UIC530-1	
Pivot to coupler face	Min. 1025 mm	UIC530-1	
Gathering range, horizontal	-275 mm / +370 mm	EN16019/TSI HGV, UIC522	
Gathering range, vertical	±140 mm	EN16019/TSI HGV, UIC522	
Coupling on / movement through curved tracks, humps	Acc. To UIC522 chapter 3	UIC522	
Coupler head	Latch type 10 modified	EN16019/TSI HGV, UIC522	Visual indication of coupler locking mechanism acc. to UIC522
Uncoupling device	Manual (Automatic level 5)		
Stroke on draft	55 mm / 110 mm	UIC530-1, UIC524	55 mm acc. to UIC530-1, possible to increase to 110 mm
Stroke on buff	110 mm	UIC530-1	
Energy absorption for 110 mm stroke	Approx. 50 kJ	UIC530-1, UIC522	
Number of air connections	Up to 2		
Diameter of brake pipe	1 1/4"		
Pressure in brake pipe	Max 12 bar		
Interface of brake pipe	G 1 1/4"		
Environmental conditions	-25°C to +70°C		
Fire protection class	HL2	EN45545	

Options: Electrical coupler, automatic uncoupling, locking of manual uncoupling to prevent vandalism, MRP, front covers, condition-based monitoring, wagon-mounted manual uncoupling device.

MIGRATION OF THE DAC WITH HYBRID COUPLERS

DELLNER WILL SUPPORT MIGRATION, FROM PLANNING THROUGH EXECUTION,
FOR A HIGHLY RELIABLE DAC COUPLER EQUIPPED FLEET.



HYBRID DAC
FOR LOCOMOTIVES
DAC MODE



HYBRID DAC
FOR LOCOMOTIVES
SCREW COUPLER MODE

MAIN BENEFITS OF THE HYBRID COUPLERS:

FULLY COMPATIBLE WITH SCREW COUPLER INTERFACES AND NEW
DAC INTERFACES / CONNECTING THE OLD AND NEW FLEETS

DESIGNED TO FIT EXISTING
LOCOMOTIVE INTERFACES

AVAILABLE WITH ALL DAC FEATURES

MANUAL OR AUTOMATIC LIFTING DEVICE

THE HYBRID DAC - EXAMPLE TECHNICAL DATA

CHARACTERISTICS	STANDARD	OPTION: SMALL INSTALLATION POCKET	OPTION: WITH ONLY REVERSIBLE ENERGY ABSORPTION*
Strength, draft	1000 kN (Yield strength) / ≥ 1500 kN (Ultimate strength)	1000 kN (Yield strength) / ≥ 1500 kN (Ultimate strength)	1000 kN (Yield strength) / 1500 kN (Ultimate strength)
Strength, buff	1500 kN (Yield strength)	1500 kN (Yield strength)	1500 kN (Yield strength)
Horizontal angle	± 17°	± 17°	± 17°
Vertical angle	± 6°	± 6°	± 6°
Min. coupling speed	0,6 km/h	0,6 km/h	0,6 km/h
Normal operation coupling speed	0,6 - 3 km/h	0,6 - 3 km/h	0,6 - 3 km/h
Max. coupling speed	5 km/h	5 km/h	5 km/h
Draft gear interface	Customer specific	Customer specific	Customer specific
Pivot to coupler face	Customer specific	1160 mm	Customer specific
Gathering range, horizontal	± 220 mm	± 220 mm	± 220 mm
Gathering range, vertical	± 125 mm	± 125 mm	± 125 mm
Folding angle on coupler head in UIC mode	Customer specific (45°- 90°)	Customer specific (45°- 90°)	Customer specific (45°- 90°)
Coupler head	DAC compatible and UIC screw coupler	DAC compatible and UIC screw coupler	DAC compatible and UIC screw coupler
Uncoupling device	Manual (level 2) to fully automatic (level 5)	Manual (level 2) to fully automatic (level 5)	Manual (level 2) to fully automatic (level 5)
Stroke on draft	50 - 70 mm	55 mm	50 - 70 mm
Stroke on buff	110 mm	80 mm	110 mm
Reversible energy absorption	75 kJ	45 kJ	75 kJ
Non reversible energy absorption	600 kJ	455 kJ	N.A
Activation force level of non-reversible energy absorption	Up to 2400 kN (Customer specific)	2340 kN	N.A
Number of air connections	Up to 2	Up to 2	Up to 2
Diameter of brake pipe	1 1/4"	1 1/4"	1 1/4"
Pressure in brake pipe	Max 10 bar	Max 10 bar	Max 10 bar
Interface of brake pipe	G 1 1/4"	G 1 1/4"	G 1 1/4"
Environmental conditions	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C
Fire protection class	HL2	HL2	HL2
Draft gear type			

*e.g. shunting locos



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