

R1 41 01 06 Technical Directive

Pneumatics directive for suppliers, erection companies, managers and users
Part 6: Pressure measurement and accessories

Author: G. Elffers

Issue: March 1998

Version 1.1

Intended for the Location IJmuiden

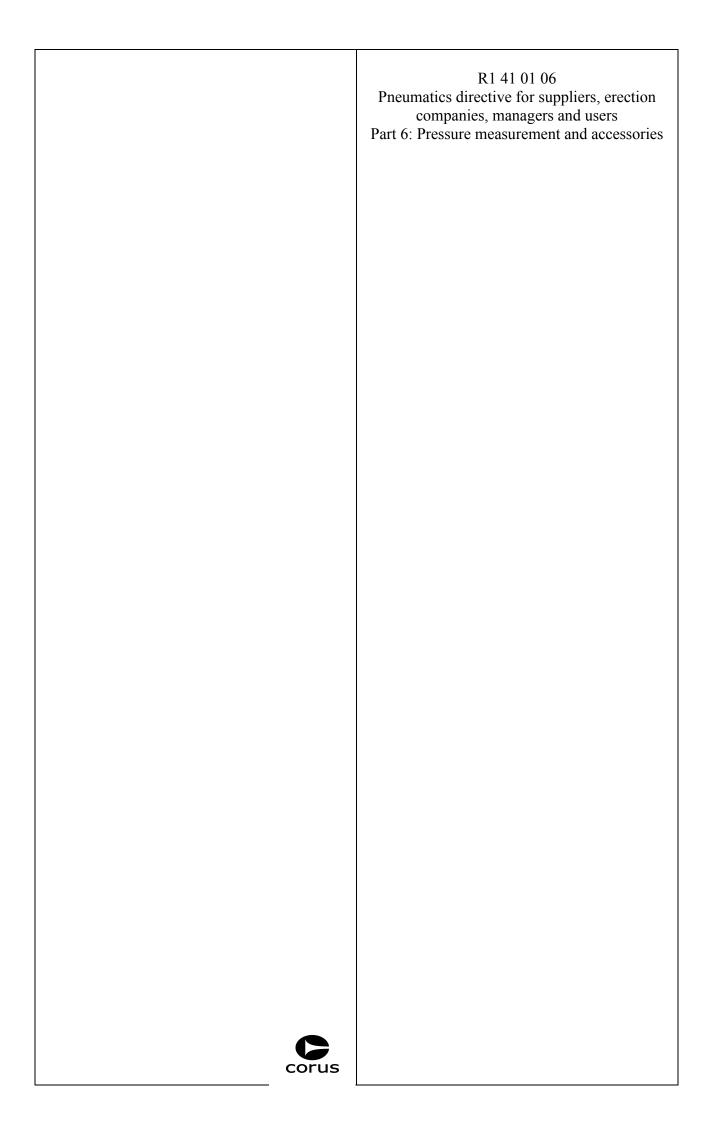
This is an unregistered document.

If this document is changed in the future, the amendments will not be sent to you. The latest version can be retrieved via Intranet http://teweb.hoogovens.com.

Information on

Subject of documentElfferstel. +31 (0)251-4 97927StandardisationStandardisation officetel. +31 (0)251-4 97693

Contents:		R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	corus	



6.1.	PRESSURE SWITCHES	21
•		R1 41 01 06
		Pneumatics directive for suppliers, erection companies, managers and users
		Part 6: Pressure measurement and accessories
		corus
		corus

6.1.1. Adjustable pressure switches	22
0.1.1. Adjustable pressure switches	R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
core	J.S.
COL	

6.1.1.art.a.	Electrical data	
0.1.1.a1t.a.	Discurred data	R1 41 01 06
		Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	
	corus	

6.1.2.	Electronic pressure switches		R1 41 01 06
			R1 41 01 06 Pneumatics directive for suppliers, erection
			companies, managers and users
			Part 6: Pressure measurement and accessories
		corus	
		COFUS	

6.1.2.art.a.	Types	48
		R1 41 01 06
		Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
	coru	_
	coru	S

6.1.2.art.b. General data	55
6.1.2.art.b. General data	R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
coru	
Coru	IS

6.1.2.art.c.	Pneumatic data	63
		R1 41 01 06 Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
	coru	y IS

6.1.2.art.d.	Electrical data		69
0.1.2.art.u.	Dicerreal data	••••••	R1 41 01 06
			Pneumatics directive for suppliers, erection
			companies, managers and users Part 6: Pressure measurement and accessories
			r art of ressure measurement and accessories
		corus	
		corus	

R1 41 01 06 Pneumatics directive for suppliers, erec companies, managers and users Part 6: Pressure measurement and access	ction
Pneumatics directive for suppliers, erec companies, managers and users	
companies, managers and users	
Part 6: Pressure measurement and access	sories
corus	
corus	

6.1.2.art.f.	Ordering specifications		97
			R1 41 01 06
			Pneumatics directive for suppliers, erection
			companies, managers and users Part 6: Pressure measurement and accessories
			Ture of Tressure measurement and accessories
		corus	
		55. 45	

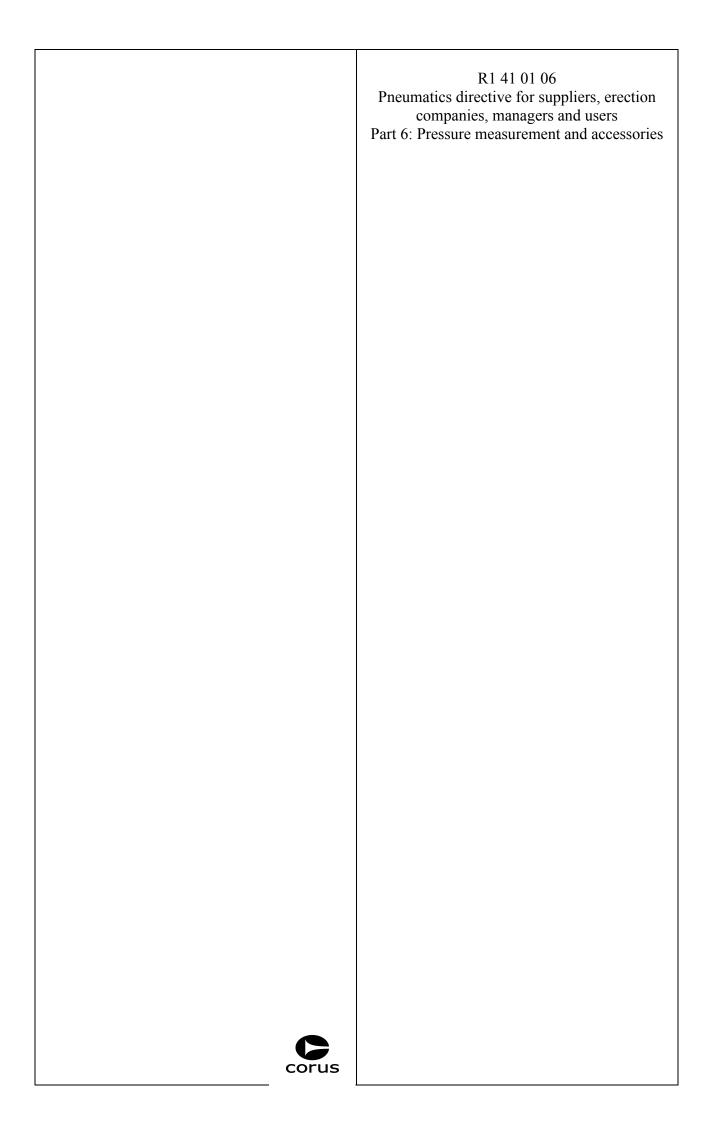
6.1.3.	Electrical circuit scheme	R1 41 01 06
		R1 41 01 06 Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
		corus

6.1.4.	Dimensions		
		Pneumatics directive for su	ppliers, erection
		companies, managers Part 6: Pressure measuremen	and users and accessories
		corus	

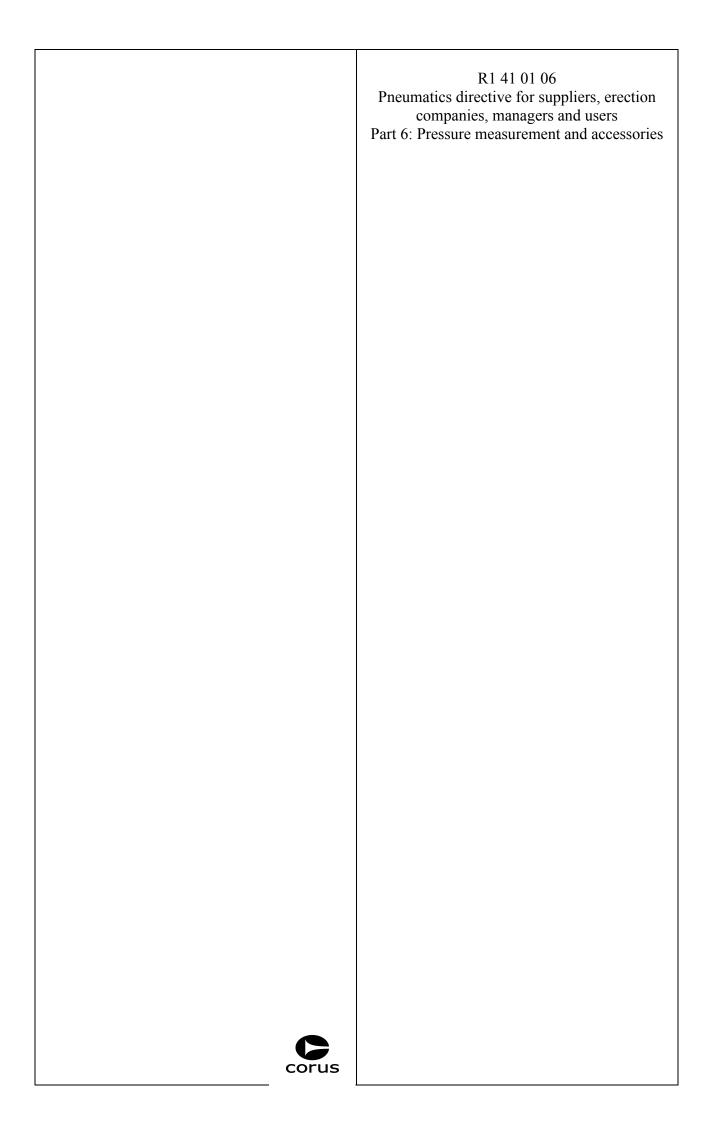
6.2.	REFERENCES	R1 41 01 06
		Draumatica directive for suppliers areation
		Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	
	corus	

6.2	EVDI ANIATIONI		112
6.3.	EXPLANATION		R1 41 01 06
			Pneumatics directive for suppliers, erection
			companies, managers and users
			Part 6: Pressure measurement and accessories
		corus	
		corus	

	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	



Blank page	
	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
corus	



6.1.	Pressure switches	
0.1.	Pressure switches	R1 41 01 06 Pneumatics directive for suppliers, erection
		companies, managers and users Part 6: Pressure measurement and accessories
	corus	

5.1.1.	Adjustable pressure switches	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	corus	

		1
Manufacture	: Herion	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	corus	

		1
General name	: Pressure switch	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	corus	

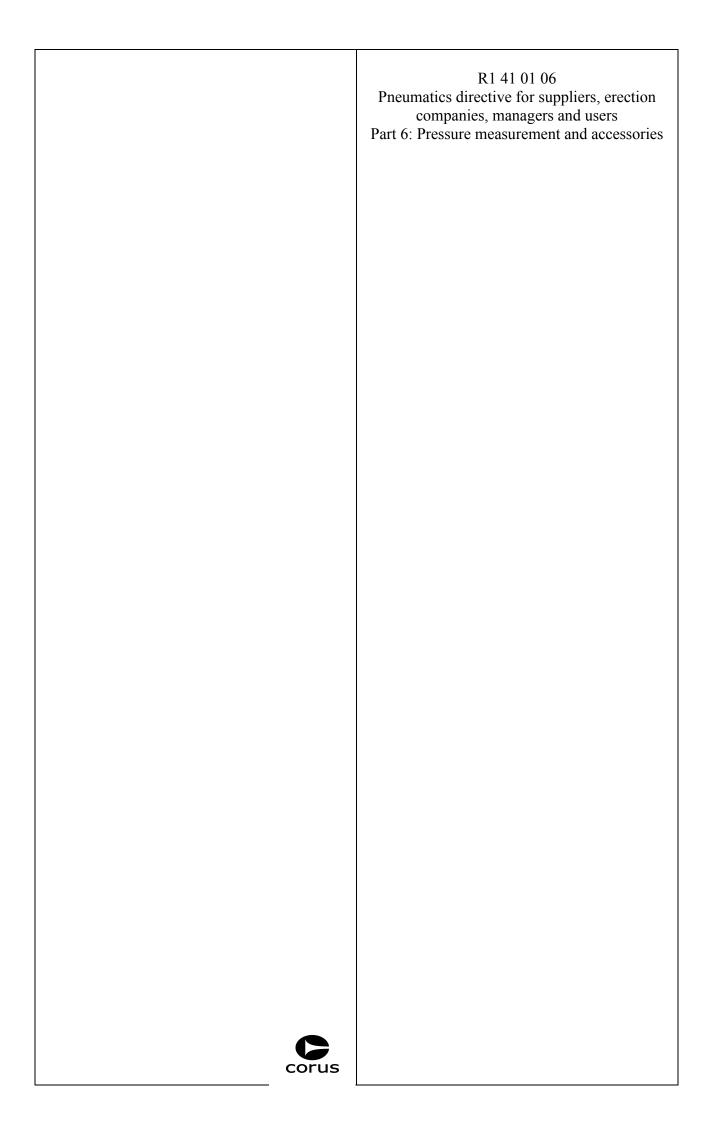
Design	: D 502-7D	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	corus	

D	
Pressure connection : G 1/4"	R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
corus	5
•	

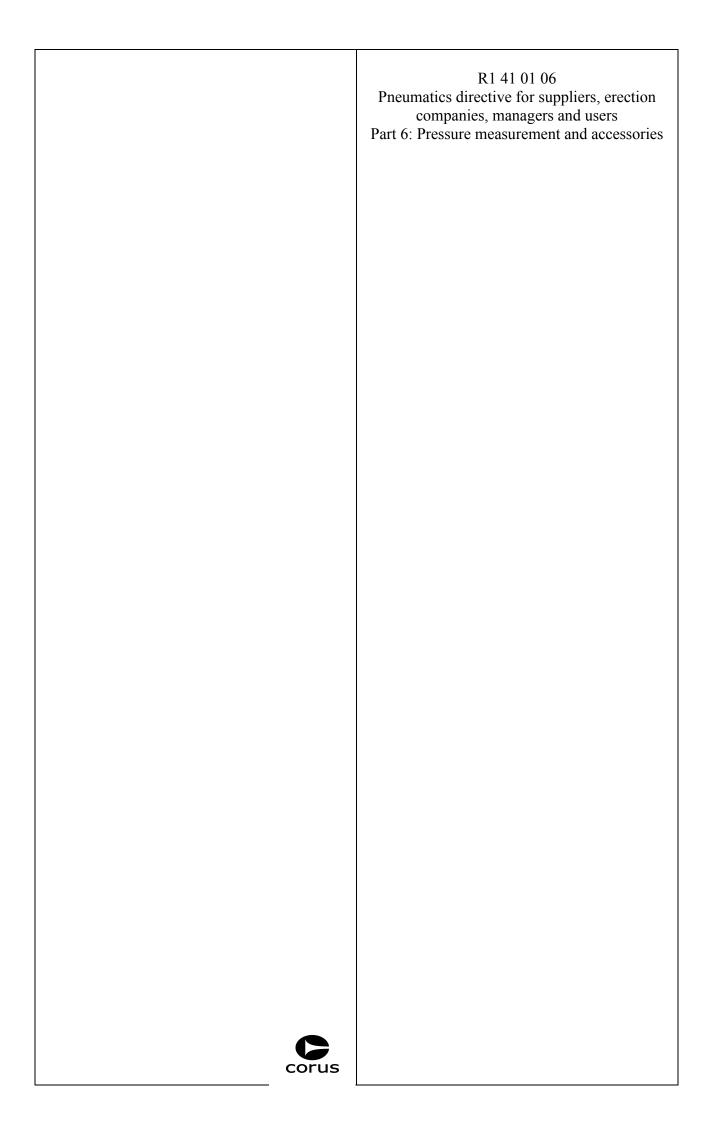
Mounting	: 4 M4 thread holes in	backside of housing R1 41 01 06
		Pneumatics directive for suppliers, erection companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	
	corus	

		7
Mass	: 900 grams	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	

Mounting position : Preferred vertical v	with readable inscription.
	Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
corus	



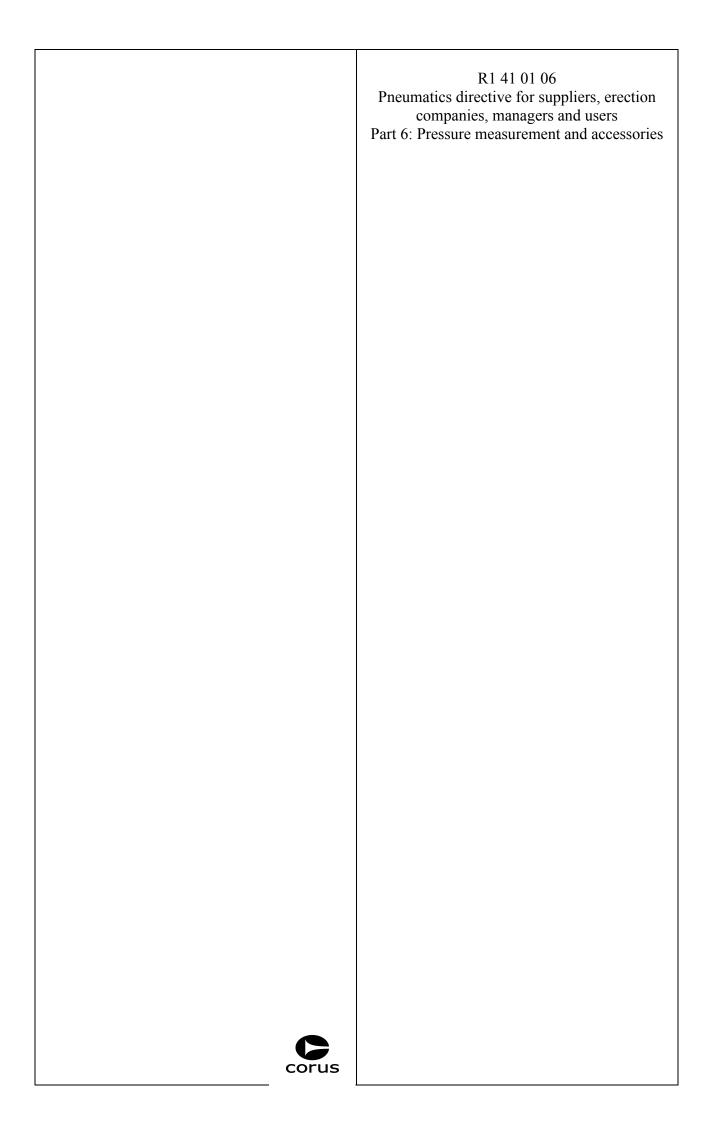
Pneumatic characteristics, adjustable value	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	Tart 6. Tressure measurement and accessories
corus	



Туре	Falling	Rising Diff. R1 41 01 06	Max.			
	Pneuma	Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories				
	co					
	Part 6: Pi					
	rus					
COI	us					

	m	in.	max.	min.	Rmax.0	1 06	oper. press.
	1	F	neuma	tics dire	ective fo	r supplie	ers, erection
		Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories					
corus	5						

Pneumatics directive for suppliers, erectio companies, managers and users Part 6: Pressure measurement and accessor	0811300 + Hirschmann plug GDM 2011	0,1 2,4 0,2 2,5 0,1 10 R1 41 01 06
companies, managers and users Part 6: Pressure measurement and accessor		Pneumatics directive for suppliers, erection
		Part 6: Pressure measurement and accessorie
corus		



- Ambient temperature: -40 °C - +50 °C	R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
corus	

- Temperature of medium: 0/20 °C.	R1 41 01 06
	Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
Corus	

6.1.1.art.a. Electrical data	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	5

Protection class	: I P65	R1 41 01 06
		Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	

Kind of switch	: micro switch	R1 41 01 06 Pneumatics directive for suppliers, erection
		companies, managers and users Part 6: Pressure measurement and accessories
	corus	
	corus	

Number	: 1	
rumoei	. 1	R1 41 01 06 Programatics directive for suppliers, erection
		Pneumatics directive for suppliers, erection companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	

Contact type	: make and break contact R1 41 01 06 Pneumatics directive for supp companies, managers ar	nd users
	Part 6: Pressure measurement a	and accessories
	corus	

Contact load	: AC up to 220) V-15 A
	•	R1 41 01 06 Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	

DC up to 220	V-0,2A R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
corus	

	<u> </u>	
D	C up to 24 V	V-2A R1 41 01 06
		Pneumatics directive for suppliers, erection
		companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	
	corus	
	<u>. </u>	

6.1.2. E	lectronic pressure switches	D 1 41 01 06
		R1 41 01 06 Pneumatics directive for suppliers, erection
		companies, managers and users Part 6: Pressure measurement and accessories
		Part 6: Pressure measurement and accessories
	cor	

6.1.2.art.a. Types	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

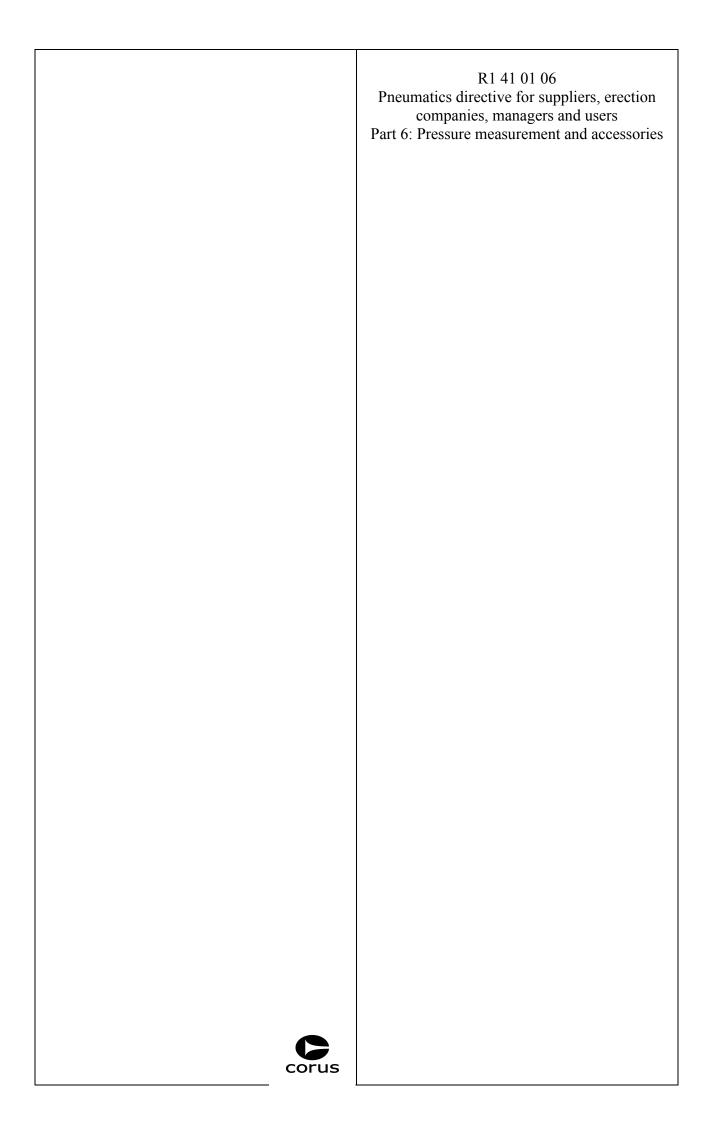
T. FDG 1700	
Type EDS 1600 is manufacturer Hydac.	R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
Corus	

Range: 0-10 bar.	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
С	orus

	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

For accuracy's see electrical data.	
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
Cords	

	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	



6.1.2.art.b. General data	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

The device is on a pressure transducer wit	h electronics and a number of relais.
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
corus	
corus	

	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

Temperature compensation is included.	
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	

	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

Digital display with 3 numbers shows pressure <u>or</u> setpoints of switches. R1 41 01 06	
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
corus	

	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

Hysteresis is adjustable (one adjustment for	or all switches). R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
corus	

3.1.2.art.c. Pneumatic data	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
coru	

Span	: 0-10 bar R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus

Connecting port	: G 1/4" int.; DIN 3852, form X R1 41 01 06
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
	corus

Pressure connection	: stainless steel 1.4301 R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
	corus
	COLUS

Volume	: 1000 mm ³
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	Ture of tressure measurement and accessories
	corus

Mass	: 0,8 kg.
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus

Supply voltage	: 20-32 VDC
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus
	corus

Power consumption	: 220 mA
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
	corus
	corus

Linearity	: 0,5% of end pressure (at 25 °C) R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus

Medium temperature compensation	: 20-70 °C R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
corus	

Temperature compensation electronics	: 0-50 °C R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

Townseature Life in a	. on 0 munt 0 015 0 029/
Temperature drift in compensated area	: on 0-punt 0,015-0,03% R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	1 art 0. 1 ressure measurement and accessories
corus	

on accuracy max 0.05% K. R. 141 01 06 Pheumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories		
Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories		on accuracy max. 0.05%/K R1 41 01 06
		Pneumatics directive for suppliers, erection
COTUS		
Corus		
COFUS		
COTUS		
corus		
	co	orus

Load margin : 100% R1 41 01 06 Pneumatics directive for suppliers, erect companies, managers and users Part 6: Pressure measurement and accessor	
companies, managers and users	ion
Part 6: Pressure measurement and accessor	
	ries
corus	

Hysteresis	: 0,5-20% of max. adjustment for all R1 41 01 06
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
	corus
	corus

	relais P1 41 01 00
	K1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	1 art 0. 1 ressure measurement and accessories
corus	
corus	

Analogue output	: 4-20 mA R1 41 01 06
	Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
Co	Drus Crus

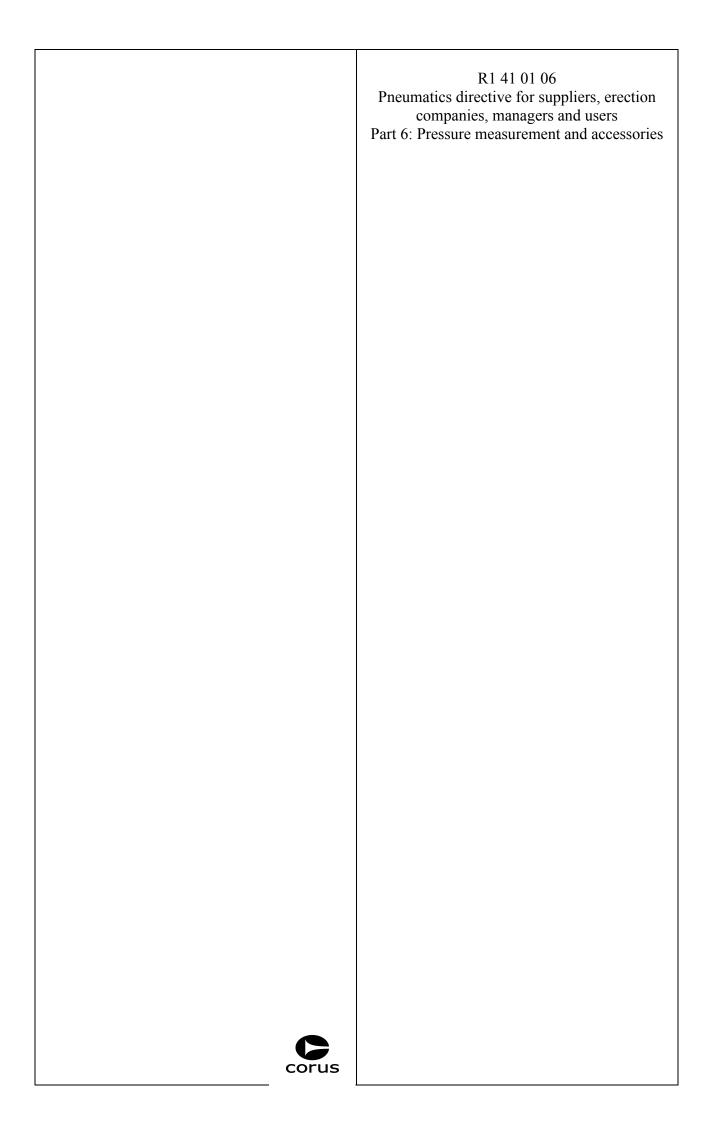
Electrical connection	· 14-nole terminal strin
Electrical connection	: 14-pole terminal strip R1 41 01 06
	Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
C	orus

Cord connection	: 2 x PG11
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus

Conductors	: 1,5 mm ²
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus
	corus

Protection class	: IP 65
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
C	corus

	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	



6.1.2.art.e. Relais data	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

Number	: 4 (relais 1+2 <u>and</u> 3+4 with common R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	Turt of Tressure measurement and decessories
	corus
	corus

make and break contact) R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessorie	
Pneumatics directive for suppliers, erection companies, managers and users	
companies, managers and users	
Part 6: Pressure measurement and accessorie	
	S
corus	
corus	

Contact	: make and break contact R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus
	55.45

Voltage	: max. 250 VAC
	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users
	Part 6: Pressure measurement and accessories
	corus
	corus

Current	: 2A R1 41 01 06 Pneumatics directive for suppliers, erection
	Pricumatics directive for subdifers, election
	companies, managers and users
	Part 6: Pressure measurement and accessories
	orus

Power	: 400 VA, 50 W
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	Part of Pressure measurement and accessories
	corus

Resistance	: < 50 mOhm R1 41 01 06
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	corus

Switch time : ca. 6 ms R1 41 01 06 Pneumatics directive for suppliers, companies, managers and use Part 6: Pressure measurement and ac	
companies, managers and use	erection
	ers
corus	

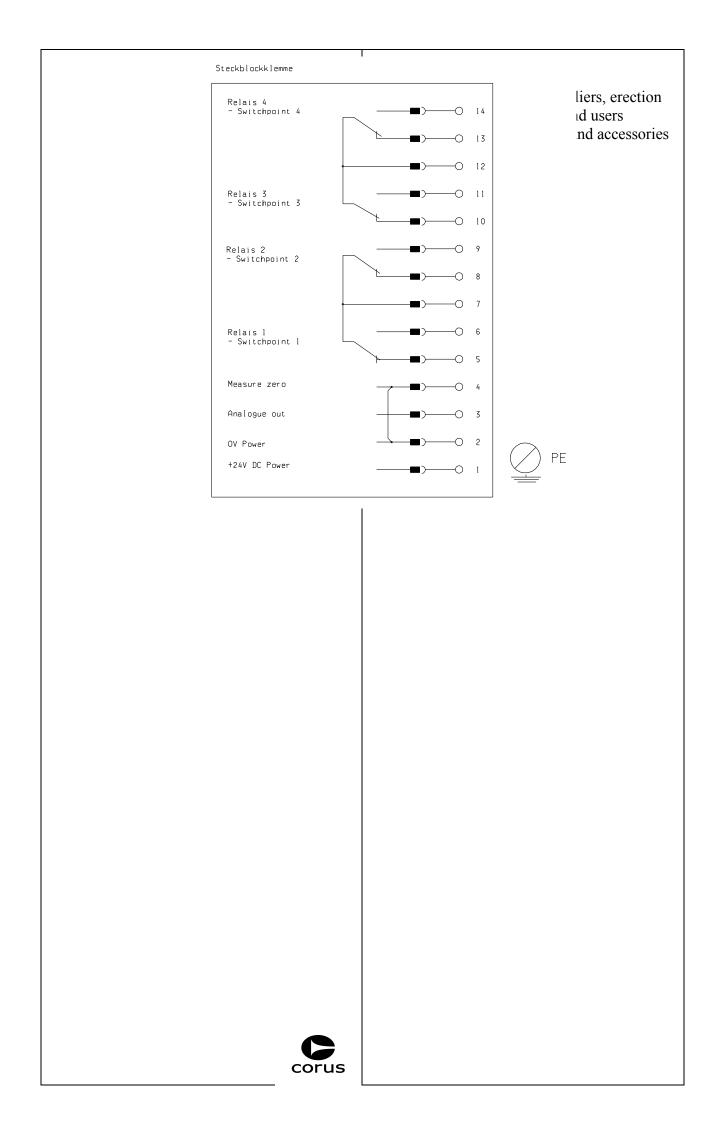
Mechanical life time	: 5.10 7 shifts
	Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
CO	orus

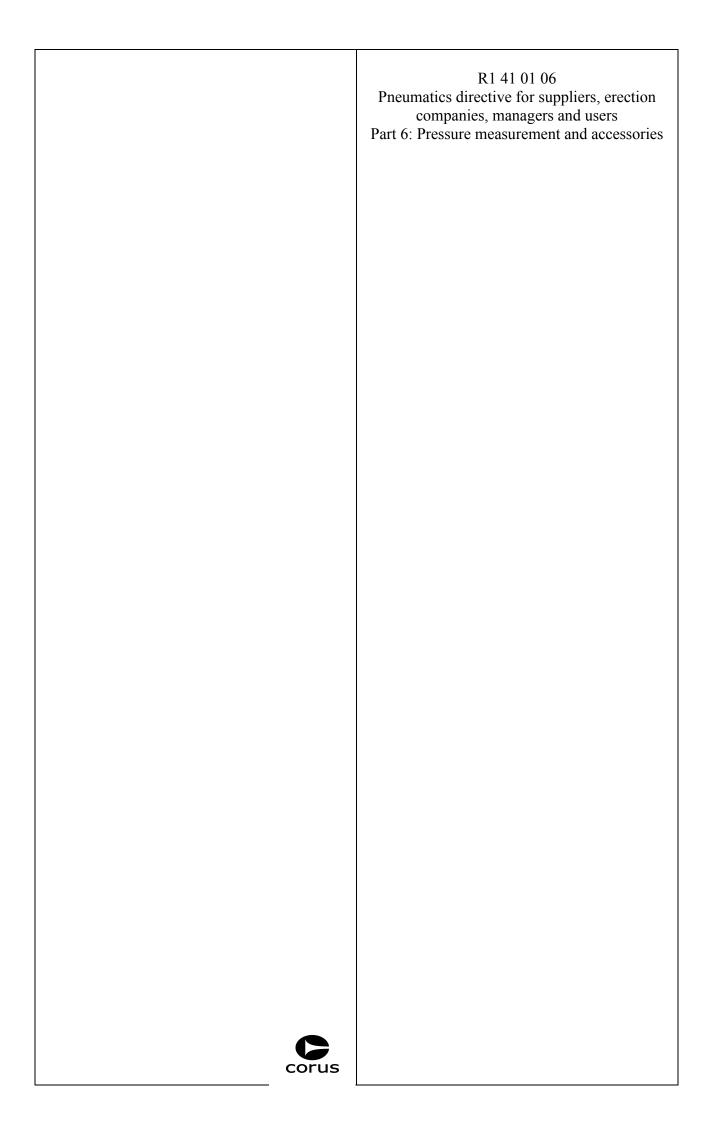
5.1.2.art.f.	Ordering specifications	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	corus	

EDS 1691-P-C-010-000.	
	R1 41 01 06
	Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
corus	
corus	

6.1.3. Electrical circuit scheme	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessorie
Coru	

Figure 6.1	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

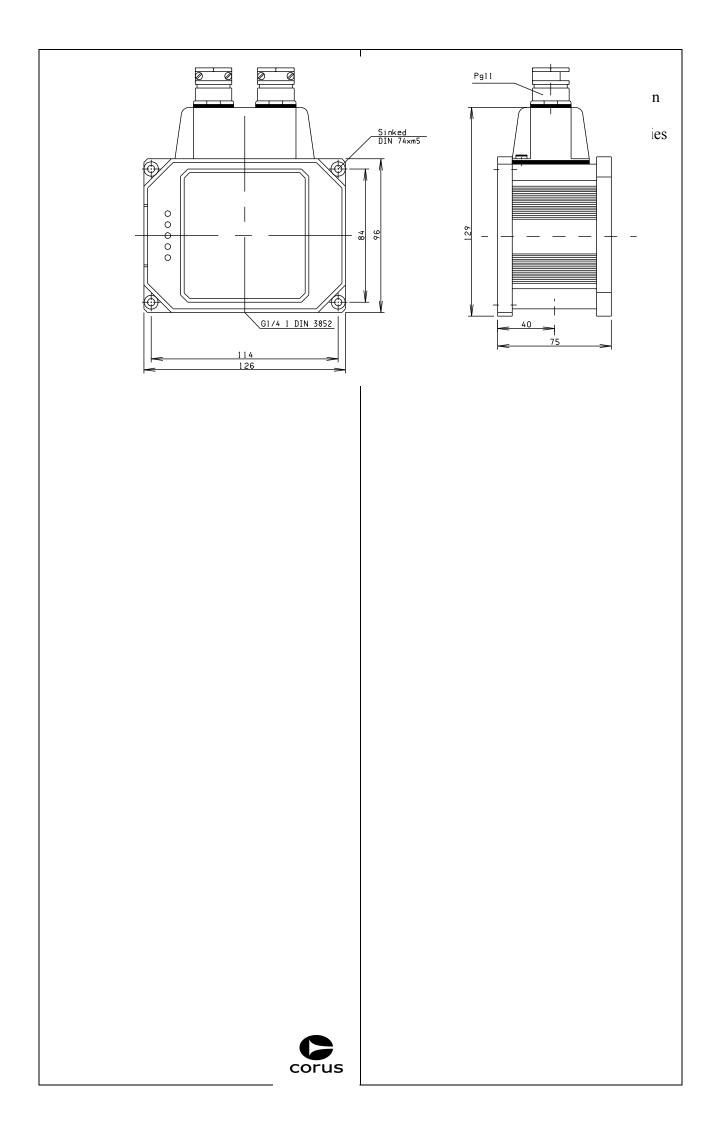




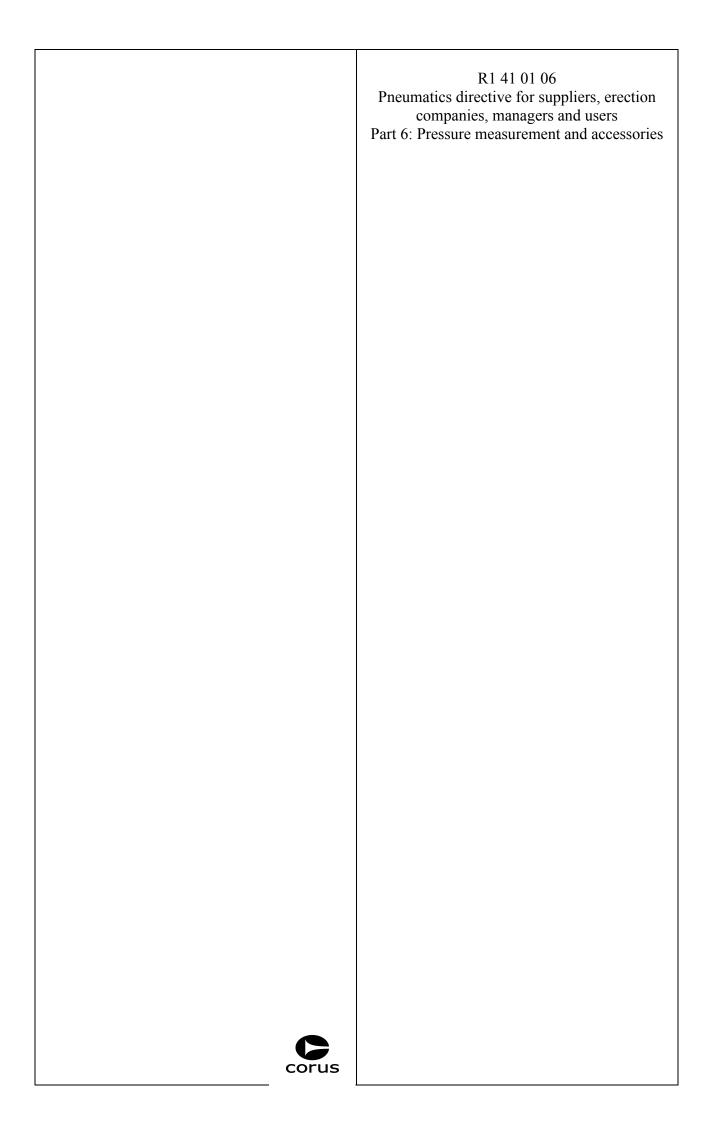
	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	

Pneumatics directive for suppliers, crection companies, managers and users Part 6: Pressure measurement and accessories	6.1.4.	Dimensions	
			Pneumatics directive for suppliers, erection
corus		cor	us

Figure 6.2	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	5



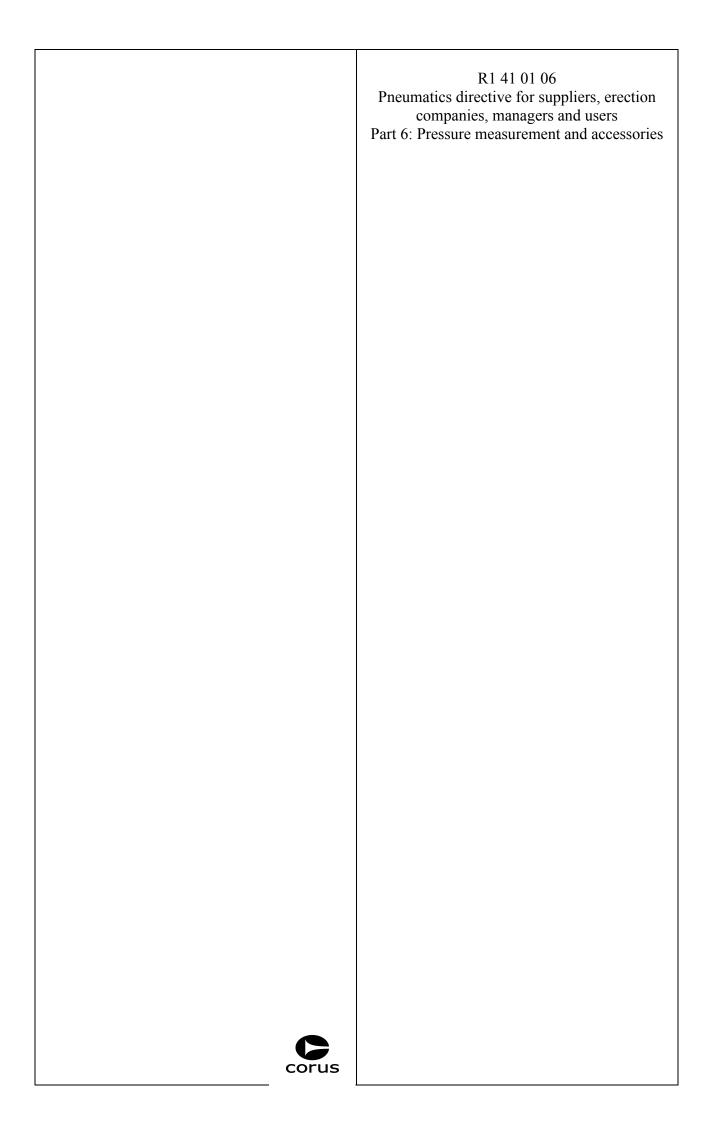
	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	



6.2.	References	R1 41 01 06 Pneumatics directive for suppliers, erection
		companies, managers and users Part 6: Pressure measurement and accessories
		Ture of 11855 are incus are inclusive and accessories
	corus	
	corus	

In this Technical Directive reference is ma	ide to DIN 3852, Form X.
	Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
corus	

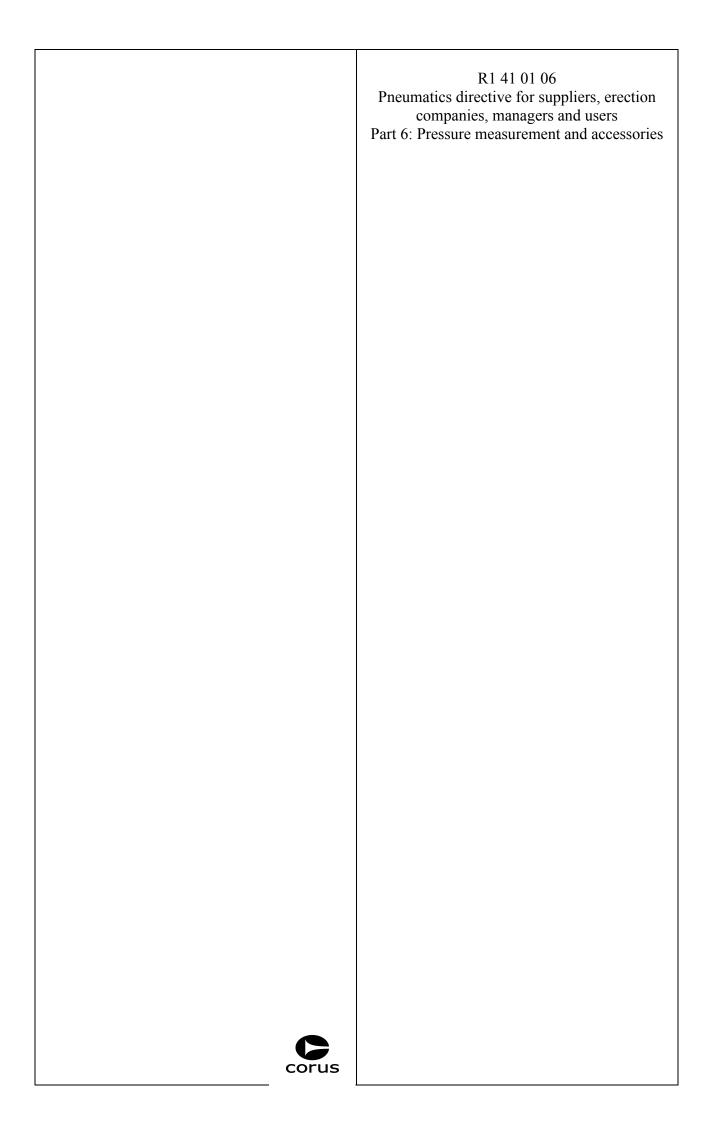
	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
corus	



6.3.	Explanation	R1 41 01 06
		Pneumatics directive for suppliers, erection companies, managers and users
		Part 6: Pressure measurement and accessories
	corus	
	corus	

Version 1.0:	
V CISION 1.0.	R1 41 01 06 Pneumatics directive for suppliers, erection
	companies, managers and users Part 6: Pressure measurement and accessories
	1 art 0. 1 ressure measurement and accessories
Co	orus (

none.	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	Part 6: Pressure measurement and accessories
corus	,



Version 1.1:	
	R1 41 01 06 Pneumatics directive for suppliers, erection companies, managers and users
	Part 6: Pressure measurement and accessories
corus	

logo has changed.	R1 41 01 06
	Pneumatics directive for suppliers, erection companies, managers and users Part 6: Pressure measurement and accessories
	Fait 6. Fressure measurement and accessories
corus	
corus	